DRAFT
SCOPING REPORT

For the development of a 75MW photovoltaic solar plant and associated infrastructure on the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West




NEAS Reference: DEA/EIA/0001359/2012
DEA Reference: 14/12/16/3/3/2/390

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PROJECT DETAIL

NEAS Reference No.	:	DEA/EIA/0001359/2012
DEA Reference No.	:	14/12/16/3/3/2/390
Project Title	:	The construction of a 75MW photovoltaic solar facility and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West situated within the Naledi Local Municipality area of jurisdiction.
Authors	:	Ms. Carli Steenkamp Prof. Francois Retief
Client	:	Sediba Solar Power Plant (Pty) Ltd.
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GLOSSARY OF TERMS AND ACRONYMS

BA	Basic Assessment
BAR	Basic Assessment Report
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
EMPr	Environmental Management Programme
EP	Equator Principles
EPFI	Equator Principles Financial Institutions
Environmental impact	Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization's environmental aspects.
GNR	Government Notice Regulation.
I&AP	Interested and affected party.
IDP	Integrated Development Plan
IFC	International Finance Corporation
IPP	Independent Power Producer
kV	Kilo Volt
Mitigate	Activities designed to compensate for unavoidable environmental damage.
MW	Megawatt
NEMA	National Environmental Management Act No.
NERSA	National Energy Regulator of South Africa
NWA	National Water Act no 36 of 1998.
PPP	Public Participation Process

PV	Photovoltaic
REFIT	Renewable Energy Feed-In Tariff
SAHRA	South African Heritage Resources Act
SDF	Spatial Development Framework

CONTEXT FOR THE PROPOSED PROJECT

According to Eskom, the demand for electricity in South Africa has been growing at approximately 3% per annum. This growing demand, fueled by increasing economic growth and social development, is placing increasing pressure on South Africa's existing power generation capacity. Coupled with this, is the growing awareness of environmental responsible development, the impacts of climate change and the need for sustainable development. The use of renewable energy technologies, as one of a mix of technologies needed to meet future energy consumption requirements is being investigated as part of Eskom's long-term strategic planning and research process.

The primary rationale for the proposed photovoltaic solar facility is to add new generation capacity from renewable energy to the national electricity mix and to aid in achieving the goal of 42% share of all new installed generating capacity being derived from renewable energy forms, as targeted by the Department of Energy (DoE) (Integrated Resource Plan 2010-2030). In terms of the Integrated Resource Plan (IRP), approximately 8.4GW of the renewable energy mix is planned to be the new installed capacity generated from solar photovoltaic (PV) technologies over the next thirty years.

To contribute towards this target and to stimulate the renewable energy industry in South Africa, the need to establish an appropriate market mechanism was identified, and Feed-in Tariffs (FIT) for renewable energy was set. FITs are, in essence, guaranteed prices for electricity supply rather than conventional consumer tariffs. The basic economic principle underpinning the FITs is the establishment of a tariff (price) that covers the cost of generation plus a “reasonable profit” to induce developers to invest. The establishment of the Renewable Energy Feed-in Tariff (REFIT) in South Africa provides the opportunity for an increased contribution towards the sustained growth of the renewable energy sector in the country, the region and internationally, and promote competitiveness for renewable energy with conventional energies in the medium- and long-term (NERSA, 2009).

In response to the above, Sediba Solar Power Plant (Pty) Ltd. is proposing the development of a photovoltaic solar facility and associated infrastructure for the purpose of commercial electricity generation on an identified site located near Vryburg in the North West Province (refer to Figure 1 for the locality map). From a regional site selection perspective, this region is preferred for solar energy development due to its annual direct irradiation values.

EXECUTIVE SUMMARY

Like many other small and developing municipalities in the country, the Naledi Local Municipality faces a number of challenges in addressing the needs of the community while planning for a sustainable future (IDP, 2012-17). The Naledi Local Municipality's Integrated Development Plan (IDP, 2012-17) reveals the following key weaknesses for the municipality: municipal financial viability; growing unemployment; generally declining economy; lack of industrial development in Vryburg; infrastructural neglect and service backlogs; and lack of a proper Land Use Management System. The following key threats are also identified: increasing urbanization of rural part of NLM population; environmental degradation; high unemployment and poverty levels; large housing backlogs; lack of capital to provide and maintain services infrastructure. The IDP does not explicitly deal with renewable energy development, but the Naledi LED however identifies carbon-footprint reduction, including supporting alternative energies, as LED programmes for the NLM.

In response to the above Sediba Solar Power Plant intends to develop a 75MW photovoltaic solar facility and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West situated within the Naledi Local Municipality area of jurisdiction. The proposed development is located approximately 2 kilometres south of Vryburg (refer to Figure 1 and 2 for the locality and regional map). The total footprint of the project will approximately be 150 hectares (including supporting infrastructure on site). The site was identified as being highly desirable due to its suitable climatic conditions, topography (i.e. in terms of slope), environmental conditions (i.e. agricultural potential, geology and archaeology), proximity to a grid connection point (i.e. for the purpose of electricity evacuation), as well as site access (i.e. to facilitate the movement of machinery, equipment, infrastructure and people during the construction phase).

The Environmental Impact Assessment (EIA) Regulations, 2010 (Regulation 543) determine that an environmental authorization is required for certain listed activities, which might have detrimental effects on the environment. The following activities have been identified with special reference to the proposed development and are listed in the EIA Regulations:

- Activity 10(i) (Regulation 544): *"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 kilovolts."*
- Activity 1 (Regulation 545): *"The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
- Activity 15 (Regulation 545): *"Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*
- Activity 14(a)(i) (Regulation 546): *"The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation- (a) North West Province (i) All areas outside urban areas."*

Being listed under Listing Notice 1, 2, and 3 (Regulation 544, 545, and 546) implies that the development is considered as potentially having a significant impact on the environment. Subsequently a 'thorough assessment process' is required as described in Regulations 26-35.

Environamics has been appointed as independent consultants to undertake the EIA on Sediba Solar Power Plant's behalf.

Regulation 28 of the EIA Regulations requires that a scoping report must contain all the information that is necessary for a proper understanding of the nature of issues identified during scoping. The potential positive and negative impacts associated with the proposed development have been identified. The potentially most significant environmental impacts associated with the development are briefly summarized below:

Impacts during the construction phase:
During the construction phase minor negative impacts are foreseen over the short term. The latter refers to a period of months. The potentially most significant impacts relate to the provision of temporary employment and other economic benefits for the duration of the construction phase.

Impacts during the operational phase:
During the operational phase the study area will serve as an electricity generation facility and the negative impacts are generally associated with the potential increase in storm water runoff, the increased consumption of water, visual intrusion, and security risks. The operational phase will have direct positive impacts through the provision of employment opportunities for its duration, the generation of additional electricity and the generation of income to the local community.

Impacts during the decommissioning phase:
The physical environment will benefit from the closure of the solar facility since the site will be restored to its natural state. However, the decommissioning phase will result in the loss of employment and the generation of waste that will require management measures.

Cumulative impacts:
Two other solar plants have been proposed in relative close proximity to the proposed development, namely the 19.5MW solar plant on a northern portion of the farm Waterloo 992 (NEAS Reference No.: DEA/EIA/0001105/2012; DEA Reference No.: 14/12/16/3/3/1/506) and the 75MW solar plant on a southern portion of the farm Waterloo 992 (NEAS Ref: DEA/EIA/0001090/2012; DEA Ref: 14/12/16/3/3/2/308). Due to their proximity the potential for cumulative impacts associated with combined visibility (whether two or more solar facilities will be visible from one location) and sequential visibility (e.g. the effect of seeing two or more solar facilities along a single journey, e.g. road or walking trail) does exist. The Environmental Impact Assessment (EIA) Report will include a detailed assessment of the cumulative impacts associated with the proposed developments.

Regulation 31 of the EIA Regulations determine that an EIA report be prepared and submitted for the proposed activity after the competent authority approves the final scoping report. The EIA report will evaluate and rate each identified impact, and identify mitigation measures which may be required. The EIA report will contain information that is necessary for the competent authority to consider the application and to reach a decision contemplated in Regulation 35.

1. INTRODUCTION

This section aims to introduce the Scoping Report and specifically to address the following requirements of the regulations:

28. (1) 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 –
(a) details of –
(i) the EAP who prepared the report; and
(ii) the expertise of the EAP to carry out scoping procedures.

1.1 Legal mandate and purpose of the report

Regulations No. 543, 544 and 545 (of 18 June 2010) promulgated in terms of Section 24(5), 24(M) and 44 of the National Environmental Management Act, (107 of 1998) determine that an Environmental Impact Assessment (EIA) process should be followed for certain listed activities, which might have a detrimental effect on the environment. According to the DEAT 2006 general guidelines the main objectives of the Regulations are: *"… to establish the procedures that must be followed in consideration, investigation, assessment and reporting of the activities that have been identified. The purpose of these procedures is to provide the competent authority with adequate information to make decisions which ensure that activities which may impact negatively on the environment to an acceptable degree are not authorized, and that activities which are authorized are undertaken in such a manner that the environmental impacts are managed to acceptable levels."*

The EIA Regulations No. 544, 545 and 546 outline the activities for which EIA should apply. The following activities with special reference to the proposed development are listed in the EIA Regulations:

- Regulation 544 under Activity 10(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 kilovolts."*
- Regulation 545 under Activity 1: *"The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
- Regulation 545 under Activity 15: *"Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*
- Regulation 546 under Activity 14(a)(i): *"The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation- (a) North West Province (i) All areas outside urban areas."*

Being listed under Listing Notice 1, 2, and 3 (Regulation 544, 545, and 546) implies that the proposed development is considered as potentially having a significant impact on the environment. Subsequently a 'thorough assessment process' is required as described in Regulations 26-35.

According to the DEAT 2006 'General Guide to the EIA Regulations' the purpose of scoping is defined as, *"… to determine the 'scope' of the EIA that will be conducted in respect of the activity for which authorization is being applied for."* The main outcomes of the scoping report will be to highlight key issues, potential environmental impacts and reasonable alternatives. The Scoping phase is also meant to define the nature and extent of specialist studies required in the EIA stage. The objectives of the Scoping study are summarized as follows:

- Identify potential environmental impacts of the proposed development;
- Examine the sustainability of the proposed development in terms of the biophysical, ecological, socio-economic environment;
- Identify environmental issues that require further investigation;
- Identify Interested and Affected Parties (I&APs), inform them of the proposed development and identify any key concerns to be considered in decision making;
- Provide relevant governmental and non-governmental authorities and agencies with the necessary information to make informed decisions regarding the proposed development at the scoping level;
- Consider alternatives, which could be in terms of: site selection, layout, construction materials, processes, engineering solutions and designs and sustainability best practice; and
- Outline the methodology employed to date and proposed activities to be undertaken during the Environmental Impact Assessment (EIA) stage.

This report is the Draft Scoping Report to be submitted to the Department of Environmental Affairs. According to Regulation 543 all registered I&APs and relevant State Departments must be allowed the opportunity to review the draft and final scoping reports. The draft scoping report will be made available to registered I&APs and all relevant State Departments. They will be requested to provide written comments on the final scoping report within 40 days of receiving the report. All issued identified during this review period will be documented and compiled into a Comments and Response Report as part of the final scoping report.

1.2 Details of the environmental assessment practitioner (EAP)

Environamics was appointed by the applicant as the independent EAP to conduct the EIA and prepare all required reports. All correspondence to the EAP can be directed to:

Contact person: Carli Steenkamp
Postal Address: P O Box 6484, Baillie Park, 2526
Telephone: 018 –299 1523 (w) 018 – 299 1580 (f)
Electronic Mail: Carli.Steenkamp@nwu.ac.za

Regulation 17 determines that an independent and suitably qualified EAP should conduct the EIA. In terms of the independent status of the EAP a declaration was submitted as part of the application form. The expertise of the EAP responsible for conducting the EIA is summarized in a curriculum vitae included as Appendix A to this report.

1.3 Status of the EIA process

The EIA process is conducted strictly in accordance with the stipulations set out in Regulations 26 to 35 of Regulation 543. Table 1.1 provides a summary of the status of the EIA process and future steps to be taken. It can be confirmed that to date:

- Pre-application site visits was held on 7 March 2012 and 12 September 2012 to discuss the proposed development and assess the site.
- A fully completed application form was submitted to the National Department of Environmental Affairs (DEA) on 16 July 2012 and the Department registered the applications on the 3 August 2012.
- The public participation process has been conducted in strict accordance with Regulations 54 to 57 of GN.R. 543. The public participation process was initiated on 8 August 2012 and concluded on 17 September 2012.

The draft scoping report will be circulated to registered I&APs and relevant State Departments during the month of October and November 2012 and they will be requested to provide their comments on the report within 40 days. It is envisaged that the Final Scoping report will be submitted to the Department during November 2012 and the final EIA Report during February 2013. The EIA process should be completed within approximately nine months of submission of this report, i.e. by June 2013 – see Table 1.1.

Table 1.1: Project schedule

Tasks to be performed	July 2012				Aug. 2012				Sept. 2012				Oct. 2012				Nov. 2012				Dec. 2012				Jan. 2013				Feb. 2013			
	1	2	3	4	1	2	3	1	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
REGISTRATION PHASE																																
Submit application form		X																														
Pre application meeting	X																															
Site visits	X									X																						
SCOPING PHASE																																
Public participation																																
- Press advertisement						X																										
- On site advertisement						X																										
- Complete PP report										X																						
Consultation																																
- As required by Regs						X																										
- Local authority						X																										
Draft Scoping report													X																			
Final Scoping report																																
- Circulate																																
- Submission																			X													
- Approval																																
POS for EIA report																																
- Submission																			X													
- Approval																																
EIA PHASE																																
Specialist inputs and reports																																
- Draft terms of reference																																
- Receive specialist studies																																
Draft EIA Report																								X								
Final EIA Report & EMP																																
- Circulate																																
- Submission																														X		

Environmental authority accept Final EIA report within 60 days after submission according to Regulation 34
Decision and/or indicate specialist review – within 45 days after acceptance of EIA report according to Regulation 35
Appeal period – expires 20 days after IAPs have been informed of the decision according to Regulation 60

1.4 Structure of the report

This report is structured in accordance with the prescribed contents stipulated in Regulation 28 of R543. It consists of nine sections demonstrating compliance to the specifications of the regulations as illustrated in Table 1.2.

Table 1.2: Structure of the report

Requirements for the contents of a scoping report as specified in the Regulations		Section in report	Pages
29(1) 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 –			
(a)	details of -	1	1-5
	(i) the EAP who prepared the report; and		
	ii) the expertise of the EAP to carry out scoping procedures.		
(b)	a description of the proposed activity;	2	7-14
(c)	a description of any feasible and reasonable alternatives that have been identified;		
(d)	a description of the property on which the activity is to be undertaken and the location of the activity on the property;		
(e)	a description of the environment that may be affected by the activity and the manner in which the activity may be affected by the environment.	3	15-17
(f)	an identification of all legislation and guidelines that have been considered in the preparation of the scoping report;	4	18-27
(g)	a description of environmental issues and potential impacts, including cumulative impacts, that have been identified;	5	28-35
(h)	details of the public participation process conducted in terms of regulation 27(a), including –	6	36-39
	(i) the steps that were taken to notify potentially interested and affected parties of the application;		
	(ii) proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the application have been displayed, placed or given;		
	(iii) a list of all persons or organisations that were identified and registered in terms of regulation 55 as interested and affected parties in relation to the application; and		
	(iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues;		
(k)	Copies of any representations, and comments received in connection with the application or the scoping report from interested and affected parties;		
(l)	Copies of minutes of any meetings held by the EAP with interested and affected parties and other role players which record the view of the participants;		
(m)	Any response by the EAP to those representations and comments and views;		

(i)	a description of the need and desirability of the proposed activity;	7	40-41
(j)	A description of the identified potential alternatives to the proposed activity, including advantages and disadvantages that the proposed activity or alternatives may have on the environment and the community that may be affected by the activity;	N.A.	-
(n)	a plan of study for environmental impact assessment which sets out the proposed approach to the environmental impact assessment of the application, which must include –	8	42-49
	(i) a description of the tasks that will be undertaken as part of the environmental impact assessment process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken;		
	(ii) an indication of the stages at which the competent authority will be consulted;		
	(iii) a description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity; and		
	(iv) particulars of the public participation process that will be conducted during the environmental impact assessment process;		
(o)	any specific information required by the competent authority; and	N.A.	-
(p)	Any other matters required in terms of sections 24(4)(a) and (b) of the Act.	N.A.	-
(2) In addition, a scoping report must take into account any guidelines applicable to the kind of activity which is the subject of the application.		N.A.	-
(3) The EAP managing the application must provide the competent authority with detailed, written proof of an investigation as required by section 24(4)(b)(i) of the Act.		N.A.	-

2. ACTIVITY DESCRIPTION AND ALTERNATIVES

This section aims to address the following requirements of the regulations:

28. (1) 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 –
(b) a description of the proposed activity;
(c) a description of any feasible and reasonable alternatives that have been identified; and
(c) a description of the property on which the activity is to be undertaken and the location of the activity on the property.

2.1 Project location and description

The activity entails the development of a photovoltaic solar facility and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West situated within the Naledi Local Municipality area of jurisdiction. The proposed development is located in the North West Province, in the northern central interior of South Africa, in an important agricultural region traditionally known as Bophirima, South Africa's leading beef producing area (refer to Appendix A, Figure 2 for the regional map). The town of Vryburg, including the extensive Huhudi township, is located approximately 2 km north of the proposed development (refer to Appendix A, Figure 1 for the locality map).

The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be less than 150 hectares (including supporting infrastructure on site) – refer to table 2.1 for general site information. The property on which the facility is to be constructed will be leased by Sediba Solar Power Plant (Pty) Ltd. from the property owner, which is the Naledi Local Municipality, for the life span of the project (minimum of 20 years) – refer to Appendix F for the Council Resolution).

Table 2.1: General site information

Description of affected farm portion	The Remaining Extent of the farm Rosendal 673, Registration Division IN, North West
21 Digit Surveyor General code	T0IN00000000067300000
Title Deed	T1321/2001
Photographs of the site	Refer to the Plates
Type of technology	Photovoltaic solar facility with crystalline silicon panels
Structure Height	Approximately 3.5 meters
Surface area to be covered	Less than 150 hectares
Structure orientation	The PV panels will be tilted at a fixed northern angle in order to capture the most sun
Laydown area dimensions	Less than 150 hectares
Generation capacity	75MW
Expected production	150 GWh per annum

2.2 Photovoltaic technology

The term photovoltaic describes a solid-state electronic cell that produces direct current electrical energy from the radiant energy of the sun through a process known as the Photovoltaic affect. This refers to light energy placing electrons into a higher state of energy to create electricity. Each PV cell is made of silicon (i.e. semiconductors) which is positively and negatively charged on either side, with electrical conductors attached to both sides to form a circuit. This circuit captures the released electrons in the form of an electric current (direct current). The key components of the proposed project are described below:

- PV Panel Array - To produce 75MW, the proposed facility will require numerous linked cells placed behind a protective glass sheet to form a panel. Multiple panels will be required to form the solar PV arrays which will comprise the PV facility. The PV panels will be tilted at a fixed northern angle in order to capture the most sun.

- Wiring to Central Inverters - Sections of the PV array would be wired to central inverters sized from 500kW to 1MW. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

- Connection to the grid - Connecting the array to the electrical grid requires transformation of the voltage from 480V to 33,000V to 132,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers to 132kV (via 33kV). A new substation will be required on the site to step the voltage up to 132kV, after which the power will be evacuated via the new 80MVA Mookodi substation approximately 400m north of the site.

  The electricity generated from the solar panels will be transmitted via a 132kV overhead line of up to 1km in length to the Mookodi substation. The power line will be constructed within a 32m wide servitude, which will traverse the property of the Local Municipality (the Remaining Extent of the farm Rosendal 673).

- Supporting Infrastructure - A control facility with basic services such as water and electricity will be constructed on the site and will have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry.

- Roads - An access road with a gravel surface from the national road (N18) onto the site will be required. An internal site road network to provide access to the solar field and associated infrastructure will also be required. A private farm road, which currently provides direct access off the N18 would need to be widened to accommodate construction traffic, but no additional road footprint would be required. All site roads will require a width of approximately 4m. Drainage trenches along the side of the internal road network will be installed.

- Fencing - For health, safety and security reasons, the facility will be required to be fenced off from the surrounding farm.

2.3 Layout description

The layout plan will follow the limitations of the site and aspects such as roads, fencing and servitudes will be considered. The total surface area proposed for layout options include the PV panel arrays spaced to avoid shadowing, access and maintenance roads and associated infrastructure (buildings, power inverters, transmission lines and perimeter fences).

Due to the nature of the site being used for grazing (refer to the Plates attached as an appendix to this report), limited features of conservation significance exist. However features to be considered are the pans located on the western portion of the site (refer to figure 3 for the location of the water areas). Figure 3 illustrates the location of the pans with 500m buffer zones. However it is envisaged that the applicant will apply for a water use license in order to develop within the 500m buffer zones. This will increase the area of the site from 91 hectares to approximately 150 hectares. In this regard the site should still be located a sufficient distance away from the water features to ensure that the proposed development does not impact negatively on these features in any way. The layout plan will be submitted as part of the EIA Report.

2.4 Services provision

Adequate provision of water will be a prerequisite for the development. The Department of Water Affairs has been asked to confirm the water resource availability in the relevant catchment management area in order to ensure sustainable water supply. A full assessment of the application for water use authorisation will only be undertaken in the event that the project proponent has been appointed as a preferred bidder by the Department of Energy.

The estimated maximum amount of water required during construction is 200m³ per month during the 12 months of construction. The estimated maximum amount of water required during the facility's 20 years of production is 3 000m³ per annum. The majority of this usage is for the cleaning of the solar panels. Since each panel requires approximately 2 liters of water for cleaning, the total amount of 350 000 panels will require 700 000 liters per wash. It is estimated that the panels may only need to be washed twice per annum, but provision is made for quaternary cleaning (March, May, July, and September). This totals approximately 2,800,000 liters per annum for washing, and allows 200,000 liters per annum (or 548 liter per day) for toilet use, drinking water, etc.

Water saving devices and technologies such as the use of dual flush toilets and low-flow taps, the management of storm water, the capture and use of rainwater from gutters and roofs would be considered by the developer. Furthermore indigenous vegetation will be used during landscaping and the staff will be trained to implement good housekeeping techniques.

2.5 Consideration of alternatives

The DEAT 2006 guidelines on 'assessment of alternatives and impacts' proposes the consideration of four types of alternatives namely, the no-go, location, activity, and design alternatives. It is however, important to note that the regulation and guidelines specifically state that only 'feasible' and 'reasonable' alternatives should be explored. It also recognizes that the consideration of alternatives is an iterative process of feedback between the developer and EAP, which in some instances culminates in a single preferred project proposal. The following sections explore each type of alternative in relation to the proposed activity.

2.5.1 No-go alternative

This alternative considers the option of 'do nothing' and maintaining the status quo. The description provided in section 3 of this report could be considered the baseline conditions (status quo) to persist should the no-go alternative be preferred. The site is currently zoned for agricultural land uses. Should the proposed development not proceed, the site will remain unchanged and will continue to be used for low density cattle grazing (refer to plates for photographs of the site). However, the potential opportunity costs in terms of the supporting social and economic development in the area would be lost.

2.5.2 Location alternatives

This alternative asks the question, if there is not, from an environmental perspective, a more suitable location for the proposed activity. No other properties have at this stage been legally secured by Sediba Solar Power Plant in the Vryburg area to potentially establish solar facilities. From a local perspective, the Remaining Extent of the farm Rosendal 673 is preferred due to its suitable climatic conditions, topography (i.e. in terms of slope), environmental conditions (i.e. agricultural potential, geology and archaeology), proximity to a grid connection point (i.e. for the purpose of electricity evacuation), as well as site access (i.e. to facilitate the movement of machinery, equipment, infrastructure and people during the construction phase). Alternative locations on the Remaining Extent of the farm Rosendal 673, may be considered should it be required as a result of specialist studies. The environmental characteristics of the site are described in more detail below:

- Climatic conditions: The economic viability of a photovoltaic facility is directly dependent on the annual direct solar irradiation values. A study of available radiation data shows that the proposed site is uniformly irradiated by the sun. In addition the site also experiences temperatures which are suitable for PV technology. The site is located in a region with summer and autumn rainfall with very dry winters. The Mean Annual Precipitation is approximately 500mm. Mean monthly maximum and minimum temperatures are 36.6º and -5.5º for December and July, respectively.

- Topography: The topography of the area proposed for the PV facility is predominantly flat, and therefore no shading will be caused by the surrounding topography or vegetation on and around the site.

- Power transmission considerations: The electricity generated from the solar panels will be transmitted via a 132kV overhead line of up to 1km in length to the new Mookodi substation.

- Environmental suitability: The development of the proposed PV facility will be constructed within an area of approximately 150 hectares. The proposed development falls within an area used for grazing and the site is therefore considered to have limited environmental sensitivity as a result. The National Department of Agriculture (2006) classified land capability into two broad categories, namely land suited to cultivation (Classes I – IV) and land with limited use, generally not suited to cultivation (Classes V – VIII). Figure 4 illustrates that the site falls within Class V, indicated by the blue shade covering the south

eastern parts of the map. The agricultural potential of the site is therefore limited and it is unlikely that the change in land use will impact significantly on agricultural production.

Figure 4: Land capability classification (The National Department of Agriculture, 2006)

2.5.3 Activity alternatives

The scoping process also needs to consider if the development of a photovoltaic solar facility would be the most appropriate land use for the particular site.

Photovoltaic solar facility - Sediba Solar Power Plant (Pty) Ltd. is a South African project development company that is focused on developing renewable energy power projects that will produce electricity from clean renewable energy sources, whilst advancing environmental, social and economic upliftment. Sediba Solar Power Plant (Pty) Ltd. is of the opinion that solar PV technology is perfectly suited to the site, given the high irradiation values for the Vryburg area. The technology furthermore entails low visual impacts, have relatively low water requirements, is a simple and reliable type of technology and all of the components can be recycled.

Wind energy facility - Due to the local climatic conditions a wind energy facility is not considered suitable as the area does not have the required wind resource. Furthermore the applicant has opted for the generation of electricity via solar power rather than the use of wind turbines. This alternative is therefore regarded as not feasible and will not be evaluated further in this report.

Concentrated Solar Power (CSP) technology - CSP technology requires large volumes of water and this is a major constraint for this type of technology in the proposed project area. While the irradiation values are high enough to generate sufficient solar power, the water constraints render this alternative not feasible. Therefore, this alternative will not be considered further in this report.

2.5.4 Technical alternatives

The electricity generated from the solar panels will be transmitted via 132kV an overhead line to the Mookodi substation north of the site. The transmission line will be constructed within 32m wide servitude and will traverse the property of the Naledi Local Municipality (the Remaining Extent of the farm Rosendal 673). The 132kV overhead transmission line is the only preferred alternative for the applicant due to the following reasons:

Overhead Transmission Lines - Overhead lines are less costly to construct than underground lines. Therefore, the preference with overhead lines is mainly on the grounds of cost. Overhead lines allow high voltage operations and the surrounding air provides the necessary electrical insulation to earth. Further, the surrounding air cools the conductors that produce heat due to lost energy (Swingler et al, 2006).

The overall weather conditions in the North West Province are less likely to cause damage and faults on the proposed overhead transmission power line. Nonetheless, if a fault occurs, it can be found quickly by visual means using a manual line patrol. Repair to overhead lines is relatively simple in most cases and the line can usually be put back into service within a few days. In terms of potential impacts caused by overhead transmission lines include visual intrusion and threats to sensitive habitat (where applicable).

Underground Transmission Lines - Underground cables have generally been used where it is impossible to use overhead lines for example because of space constraints. Underground cables are oil cooled and are also at risk of groundwater contamination. Maintenance is also very difficult on underground lines compared to overhead lines. When a fault occurs in an underground cable circuit, it is almost exclusively a permanent fault due to poor visibility. Underground lines are also more expensive to construct than overhead lines.

2.5.5 Design and layout alternatives

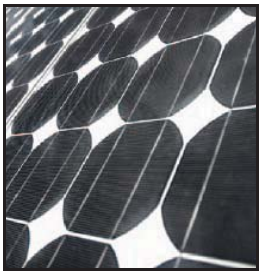
Design alternatives were considered throughout the planning and design phase (i.e. what would be the best design option for the development?). In this regard discussions on the design were held between the EAP and the developer. The final layout plan will have to consider the water features in the form of pans, located on the western portion of the site – refer to figure 3 for the location of the water areas. Figure 3 illustrates the location of the pans with 500m buffer zones. However it is envisaged that the applicant will apply for a water use license in order to develop within the 500m buffer zones. This will increase the area of the site from 91 hectares to approximately 150 hectares. Discussions are currently being held with the Department of Water Affairs. The layout plan will be submitted as part of the EIA Report.

2.5.6 Technology alternatives

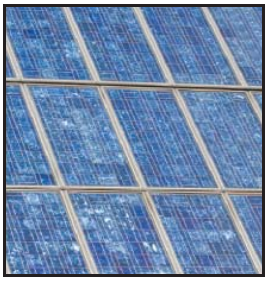
There are several types of semiconductor technologies currently available and in use for PV solar panels. Two, however, have become the most widely adopted, namely crystalline silicon and thin film. These technologies are discussed in more detail below:

Crystalline (high efficiency technology at higher cost):
Crystalline silicon panels are constructed by first putting a single slice of silicon through a series of processing steps, creating one solar cell. These cells are then assembled together in multiples to

make a solar panel. Crystalline silicon, also called wafer silicon, is the oldest and the most widely used material in commercial solar panels. Crystalline silicon modules represent 85-90% of the global annual market today. There are two main types of crystalline silicon panels that can be considered for the solar facility:



- Monocrystalline Silicon - Monocrystalline (also called single crystal) panels use solar cells that are cut from a piece of silicon grown from a single, uniform crystal. Monocrystalline panels are among the most efficient yet most expensive on the market. They require the highest purity silicon and have the most involved manufacturing process.



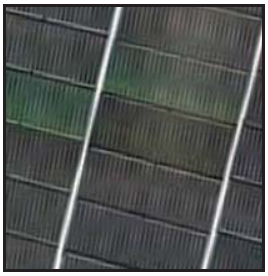
- Multicrystalline Silicon - Multicrystalline (also called polycrystalline) panels use solar cells that are cut from multifaceted silicon crystals. They are less uniform in appearance than monocrystalline cells, resembling pieces of shattered glass. These are the most common solar panels on the market, being less expensive than monocrystalline silicon. They are also less efficient, though the performance gap has begun to close in recent years (First Solar, 2011).

Thin film (low-cost technology with lower efficiency):

Thin film solar panels are made by placing thin layers of semiconductor material onto various surfaces, usually on glass. The term *thin film* refers to the amount of semiconductor material used. It is applied in a thin film to a surface structure, such as a sheet of glass. Contrary to popular belief, most thin film panels are not flexible. Overall, thin film solar panels offer the lowest manufacturing costs, and are becoming more prevalent in the industry. Thin films currently account for 10-15% of global PV module sales. There are three main types of thin film used:

- Cadmium Telluride (CdTe) - CdTe is a semiconductor compound formed from cadmium and tellurium. CdTe solar panels are manufactured on glass. They are the most common type of thin film solar panel on the market and the most cost-effective to manufacture. CdTe panels perform significantly better in high temperatures and in low-light conditions.

- Amorphous Silicon - Amorphous silicon is the non-crystalline form of silicon and was the first thin film material to yield a commercial product, first used in consumer items such as calculators. It can be deposited in thin layers onto a variety of surfaces and offers lower costs than traditional crystalline silicon, though it is less efficient at converting sunlight into electricity.



- Copper, Indium, Gallium,Selenide (CIGS) - CIGS is a compound semiconductor that can be deposited onto many different materials. CIGS has only recently become available for small commercial applications, and is considered a developing PV technology (First Solar, 2011).

The technology that proved most feasible and reasonable with respect to the proposed solar facility is crystalline silicon panels. Although it is more expensive than thin films it is approximately 10 times more efficient, is non-reflective and has a higher durability than thin-film systems. The active material in thin films tends to be less stable than crystalline causing degradation over time and the lower cost to manufacture some of the module technologies is partially offset by the higher area-related system costs (costs for mounting and the land required) due to their lower conversion efficiency. Furthermore thin film modules have higher visibility and reflections.

3. DESCRIPTION OF THE ENVIRONMENT

This section aims to address the following requirements of the regulations:

28. (1) 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 –
(e) a description of the environment that may be affected by the activity and the manner in which the activity may be affected by the environment.

3.1 Site description

The site description deals with land uses on site as well as land uses adjacent the development area (see Plates).

3.1.1 Land uses on and adjacent the site

The site survey revealed that land uses in the immediate vicinity of the proposed development are essentially comprised of grazing (cattle), rural residential, and institutional. A number of service infrastructure elements are currently present in the vicinity of the site, including the N18, and the Kimberley-Mahikeng railway line. A new municipal landfill site and Eskom's new Mookodi substation are currently being constructed on the Rosendal Farm to the north of the site. Two photovoltaic solar facilities are currently being proposed on an adjacent farm (Waterloo 992). The dominant land uses in the area essentially consist of grazing (cattle) and rural residential – refer to plates 1-20 for photographs of the development area.

3.2 Description of the biophysical environment

The biophysical environment is described with specific reference to geotechnical aspects, topography, soils and general biodiversity. However, due to the fact that the area proposed for development exclusively consists of land used for grazing, nothing of note was identified from an ecological or conservation perspective apart from the existing water features (in the form of two pans) that will have to be considered in the final layout plan.

3.2.1 Geotechnical conditions

A detailed Geotechnical Report has already been conducted for the Remaining Extent of the farm Rosendal 673. The geological environment south of Vryburg is fairly complicated and contains materials of numerous geological origins. Geological lithologies encountered can be summarised in chronological order as follows:

- *Dwyka Formation (C-Pd)*: The Dwyka Formation belongs to the Karoo Supergroup and is mainly concentrated south, east and south east of Vryburg. The Dwyka Formation consists mainly of diamictite and shale in this region.
- *Vryburg Formation (Vv)*: The Vryburg Formation forms part of the Griqualand West Supergroup and comprises quartzite, flagstone, dolomite, conglomerate, shale and andesitic lava.

- *Clearwater Formation (Vc)*: The Clearwater Formation (Schmidtsdrif Subgroup, Ghaap Group, Griqualand West Supergroup) is a dolomitic lithology. The Formation consists of shale and siltstone with interbedded dolomite.

The area investigated on this farm is therefore most likely located on dolomitic land. Hence, further site investigation must comprise geotechnical soil and dolomite stability investigations. The feasibility of the site for the proposed development of a solar facility will be determined by the results of a dolomite stability investigation.

3.2.2 Vegetation and landscape features

In terms of vegetation type the site falls within the Ghaap Plateau Vaalbosveld vegetation type (Mucina and Rutherford, 2006). Ghaap Plateau Vaalbosveld vegetation covers areas of the Northern Cape and North West Provinces. The region is characterised by fairly flat plains with very elongated undulating landscape. Site drainage in all instances takes place by means of sheet wash and infiltration. Flood lines are not applicable to the study area. The conservation status of this vegetation type is described by Mucina and Rutherford (2006) as 'least threatened'.

The vegetation consists of a well-developed shrub layer with *Tarchonanthus camphorates* and *Acacia karroo*. It is indicated that *Acacia erioloba* may be present in this vegetation type. In terms of the National Forests Act of 1998, *A. erioloba* has protected status due to concerns over the large volumes of *A. erioloba* wood being removed for commercial sale of firewood. Many trees are also killed as a result of bush encroachment control through pesticides. In terms of the National Forests Act of 1998 protected tree species may not be cut, disturbed, damaged or destroyed except under license granted by the Department of Forestry (or a delegated authority). Although no Acacia erioloba were observed during the site visit, a limited number of *Acacia erioloba* (commonly known as camel thorn) may be present on site. Due to the extent of the proposed development (150 hectares) a fauna and flora ecological study will be conducted to determine the sensitivity of the habitat and whether *Acacia erioloba* are present onsite.

3.2.3 Soils and climate

The Vryburg area is situated in an area with a Weinert N-value of 8,2 and a Thornthwaite Moisture Index between -20 and -40. Climatically the area may thus be described as semi-arid. The mean monthly maximum and minimum temperatures is 36.6ºC and -5.5ºC for December and July respectively. Sediba Solar Power Plant (Pty) Ltd. is of the opinion that solar PV technology is perfectly suited, given the region's high irradiation values.

3.2.4 Visual landscape

The visual impact of photovoltaic facility depends on the complex relationship between the visual environment (landscape), the development (object), and the observer/receptor (e.g. farmer). The establishment of a solar facility on the site is not expected to have a significant visual effect, given that the number of sensitive receptors is very low, electrical infrastructure such as power lines are already located in close proximity to the site and the polycrystalline panels considered for this development are non-reflective. However due to the extent of the proposed development (150 hectares) a visual impact study will be conducted to determine to what extent the proposed

development will be visible to observers and whether the landscape provides any significant visual absorption capacity.

3.3 Description of the socio-economic environment

3.3.1 Socio-economic conditions

Like many other small and developing municipalities in the country, the Naledi Local Municipality faces a number of challenges in addressing the needs of the community and planning for a sustainable future. The Naledi Local Municipality's Integrated Development Plan (IDP, 2012-17) reveals the following key weaknesses for the municipality: municipal financial viability; growing unemployment; generally declining economy; lack of industrial development in Vryburg; infrastructural neglect and service backlogs; and lack of a proper Land Use Management System. The following key threats are also identified: increasing urbanization of rural part of NLM population; environmental degradation; high unemployment and poverty levels; large housing backlogs; lack of capital to provide and maintain services infrastructure. A summary of the 9 NLM Ward Plans indicates that key identified community needs are mainly linked to roads (1), housing (2), municipal services (3), security, and employment/ LED.

The IDP does not explicitly deal with renewable energy development, but the Naledi LED however identifies carbon-footprint reduction, including supporting alternative energies, as LED programmes for the NLM.

3.3.2 Cultural and heritage aspects

Special attention was given to the identification of possible cultural or heritage resources on site. The initial site investigation concluded that there are no obvious heritage resources located on the site earmarked for development. However a Heritage Impact Assessment will be conducted to ensure that there would be no impact on cultural or historical features as a result of the proposed development. From a heritage point of view the following condition will apply:

- To address any subsurface cultural or heritage resources it needs to be clearly stated in the construction environmental management plan, submitted with the EIA report, that SAHRA will be informed immediately should any artefacts be exposed during construction. Training of contractors on heritage issues will also form part of the contractors brief.

4. LEGISLATIVE AND POLICY CONTEXT

This section aims to address the following requirements of the regulations:

28. (1) 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 –
(f) an identification of all legislation and guidelines that have been considered in the preparation of the scoping report.

4.1 Introduction

Environmental decision making with regards to photovoltaic solar plants is based on numerous policy and legislative documents. These documents inform decisions on project level environmental authorisations issued by the National Department of Environmental Affairs (DEA) as well as comments from local and district authorities. Moreover it is significant to note that they also inform strategic decision making reflected in IDPs and SDFs. Therefore to ensure streamlining of environmental authorisations it is imperative for the proposed development to align with the principles and objectives of key national, provincial and local development policies and legislation. The following acts and policies are briefly summarised:

- The Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996)
- National Environmental Management Act, 1998 (Act No. 107 of 1998) [NEMA]
- The National Energy Act, 2008 (Act 34 of 2008)
- National Water Act, 1998 (Act No. 36 of 1998)
- National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)
- National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)
- The National Heritage Resources Act, 1999 (Act No. 25 of 1999)
- Conservation of Agricultural Resources Act, 1983 (Act No. 85 of 1983)
- The White Paper on the Energy Policy of the Republic of South Africa (1998)
- The White Paper on Renewable Energy (2003)
- Integrated Resource Plan (IRP) for South Africa (2010-2030)
- North West Province Growth and Development Strategy (2004-2014)
- Dr Ruth S Mompati District Municipality Integrated Development Plan (IDP) 2012-2017
- Naledi Local Municipality Integrated Development Plan (IDP) 2012-2017
- Naledi Spatial Development Framework (SDF) 2007

The key principles and objectives of each of the legislative and policy documents are briefly summarised in Table 4.1 to provide a reference framework for the implications for the proposed development.

4.2 Legislative context

Table 4.1: Legislative context for the construction of photovoltaic solar plants

LEGISLATION	ADMINISTERING AUTHORITY	DATE	SUMMARY / IMPLICATIONS FOR PROPOSED DEVELOPMENT
The Constitution of South Africa (Act No. 108 of 1996)	National Government	1996	The Constitution is the supreme law of the Republic and all law and conduct must be consistent with the Constitution. The Chapter on the Bill of Rights contains a number of provisions, which are relevant to securing the protection of the environment. Section 24 states that "everyone has the right to (a) an environment that is not harmful to their health or well-being and (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that – (i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. The Constitution therefore, compels government to give effect to the people's environmental right and places government under a legal duty to act as a responsible custodian of the countries environment. It compels government to pass legislation and use other measures to protect the environment, to prevent pollution and ecological degradation, promote conservation and secure sustainable development.
The National Environmental Management Act (Act No. 107 of 1998)	National and Provincial Department of Environmental Affairs	1998	NEMA provides for co-operative governance by establishing principles and procedures for decision-makers on matters affecting the environment. An important function of the Act is to serve as an enabling Act for the promulgation of legislation to effectively address integrated environmental management. Some of the principles in the Act are accountability; affordability; cradle to grave management; equity; integration; open information; polluter pays; subsidiary; waste avoidance and minimisation; co-operative governance; sustainable development; and environmental protection and justice. The mandate for EIA lays with the National Environmental Management Act (107 of 1998) and the EIA Regulations No. 543, 544, 545, and 546 promulgated in terms of Section 24 of NEMA. The EIA Regulations determine that an Environmental Authorisation is required for certain listed activities, which might have a detrimental effect on the environment. This EIA was triggered by activity 10 listed in Regulation R544, activities 1 and 15 listed in Regulation R545, and Activity 14(a)(i) listed in Regulation R546, which requires a 'scoping and environmental impact assessment process.'

The National Energy Act (Act No. 34 of 2008)	Department of Minerals and Energy	2008	One of the objectives of the National Energy Act was to promote diversity of supply of energy and its sources. In this regard, the preamble makes direct reference to renewable resources, including solar: "To ensure that diverse energy resources are available, in sustainable quantities, and at affordable prices, to the South African economy, in support of economic growth and poverty alleviation, taking into account environmental management requirements (…); to provide for (…) increased generation and consumption of renewable energies…" (Preamble).
The National Water Act (Act No. 36 of 1998)	Department of Water Affairs (DWA)	1998	Sustainability and equity are identified as central guiding principles in the protection, use, development, conservation, management and control of water resources. The intention of the Act is to promote the equitable access to water and the sustainable use of water, redress past racial and gender discrimination, and facilitate economic and social development. The Act provides the rights of access to basic water supply and sanitation, and environmentally, it provides for the protection of aquatic and associated ecosystems, the reduction and prevention of pollution and degradation of water resources. As this Act is founded on the principle that National Government has overall responsibility for and authority over water resource management, including the equitable allocation and beneficial use of water in the public interest, a person can only be entitled to use water if the use is permissible under the Act. Chapter 4 of the Act lays the basis for regulating water use.
National Environmental Management: Waste Act (Act No. 59 of 2008)	Department of Environmental Affairs (DEA)	2008	NEMWA has been developed as part of the law reform process enacted through the White Paper on Integrated Pollution and Waste Management and the National Waste Management Strategy (NWMS). The objectives of the Act relate to the provision of measures to protect health, well-being and the environment, to ensure that people are aware of the impact of waste on their health, well-being and the environment, to provide for compliance with the measures, and to give effect to section 24 of the Constitution in order to secure an environment that is not harmful to health and well-being. Regulations No. R718 (of 3 July 2009) promulgated in terms of Section 19(1) of the National Environmental Management: Waste Act (59 of 2008) determine that no person may commence, undertake or conduct a waste management activity listed in this schedule unless a license is issued in respect of that activity.

National Environment Management: Air Quality Act (Act No. 39 of 2004)	Department of Environmental Affairs (DEA)	2004	The object of this Act is to protect the environment by providing reasonable measures for the protection and enhancement of the quality of air in the Republic; the prevention of air pollution and ecological degradation; and securing ecologically sustainable development while promoting justifiable economic and social development. Regulations No. R248 (of 31 March 2010) promulgated in terms of Section 21(1)(a) of the National Environmental Management Act: Air Quality Act (39 of 2004) determine that an Atmospheric Emission License (AEL) is required for certain listed activities, which result in atmospheric emissions which have or may have a detrimental effect on the environment. The Regulation also sets out the minimum emission standards for the listed activities.
The National Heritage Resources Act (Act No. 25 of 1999)	South African Heritage Resources Agency (SAHRA)	1999	The Act aims to introduce an integrated and interactive system for the management of the heritage resources, to promote good government at all levels, and empower civil society to nurture and conserve heritage resources so that they may be bequeathed to future generations and to lay down principles for governing heritage resources management throughout the Republic. It also aims to establish the South African Heritage Resources Agency together with its Council to co-ordinate and promote the management of heritage resources, to set norms and maintain essential national standards and to protect heritage resources, to provide for the protection and management of conservation-worthy places and areas by local authorities, and to provide for matters connected therewith. The Act protects and manages certain categories of heritage resources in South Africa. For the purposes of the Heritage Resources Act, a "heritage resource" includes any place or object of cultural significance. In this regard the Act makes provision for a person undertaking an activity listed in Section 28 of the Act to notify the resources authority. The resources authority may request that a heritage impact assessment be conducted if there is reason to believe that heritage resources will be affected.
Conservation of Agricultural Resources Act (Act No. 85 of 1983)	National and Provincial Government	1983	The objective of the Act is to provide for control over the utilization of the natural agricultural resources of the Republic in order to promote the conservation of the soil, the water sources and the vegetation and the combating of weeds and invader plants; and for matters connected therewith.

4.3 Policy context

Table 4.2: Policy context for the construction of photovoltaic solar plants

POLICY	ADMINISTERING AUTHORITY	DATE	SUMMARY / IMPLICATIONS FOR PROPOSED DEVELOPMENT
The White Paper on the Energy Policy of the Republic of South Africa	Department of Minerals and Energy	1998	The White Paper on the Energy Policy of the Republic of South Africa establishes the international and national policy context for the energy sector, and identifies the following energy policy objectives: • Increasing access to affordable energy services • Improving energy governance • Stimulating economic development • Managing energy-related environmental and health impacts • Securing supply through diversity • Energy policy priorities The White Paper sets out the advantages of renewable energy and states that Government believes that renewables can in many cases provide the least cost energy service, particularly when social and environmental costs are included. The White Paper acknowledges that South Africa has neglected the development and implementation of renewable energy applications, despite the fact that the country's renewable energy resource base is extensive and many appropriate applications exist. The White Paper notes that renewable energy applications have specific characteristics that need to be considered. Advantages include: • Minimal environmental impacts in operation in comparison with traditional supply technologies; and • Generally lower running costs, and high labour intensities. Disadvantages include: • Higher capital costs in some cases; • Lower energy densities; and • Lower levels of availability, depending on specific conditions, especially with sun and wind based systems.

The White Paper on Renewable Energy	Department of Minerals and Energy	2003	This White Paper on Renewable Energy supplements the *White Paper on Energy Policy*, which recognizes that the medium and long-term potential of renewable energy is significant. This Paper sets out Government's vision, policy principles, strategic goals and objectives for promoting and implementing renewable energy in South Africa. The White Paper notes that while South Africa is well-endowed with renewable energy resources that have the potential to become sustainable alternatives to fossil fuels, these have thus far remained largely untapped. Government's long-term goal is the establishment of a renewable energy industry producing modern energy carriers that will offer in future years a sustainable, fully non-subsidised alternative to fossil fuels. The medium-term (10-year) target set in the White Paper is: *10 000 GWh (0.8 Mtoe) renewable energy contribution to final energy consumption by 2013, to be produced mainly from biomass, wind, solar and small-scale hydro. The renewable energy is to be utilised for power generation and non-electric technologies such as solar water heating and bio-fuels. This is approximately 4% (1667 MW) of the projected electricity demand for 2013 (41539 MW)* (Executive Summary, ix).
Integrated Resource Plan (IRP) for South Africa	Department of Minerals and Energy	2010-2030	The current iteration of the Integrated Resource Plan (IRP) for South Africa, after a first round of public participation in June 2010, led to the Revised Balanced Scenario (RBS) that was published in October 2010. The document outlines the proposed generation new build fleet for South Africa for the period 2010 to 2030. This scenario was derived based on the cost-optimal solution for new build options, which was then "balanced" in accordance with qualitative measures such as local job creation. In addition to all existing and committed power plants, the RBS included a nuclear fleet of 9,6GW; 6,3GW of coal; 11,4GW of renewables; and 11,0GW of other generation sources. A second round of public participation was conducted in November/December 2010, which led to several changes to the IRP model assumptions. The main changes were the disaggregation of renewable energy technologies to explicitly display solar photovoltaic (PV), concentrated solar power (CSP) and wind options; the inclusion of learning rates, which mainly affected renewables; and the adjustment of investment costs for nuclear units (a possible increase of 40%). Additional cost-optimal scenarios were generated based on the changes. The outcomes of these scenarios, in conjunction with the following policy considerations, led to the Policy-Adjusted IRP:

			• The installation of renewables were brought forward in order to accelerate a local industry; • To account for the uncertainties associated with the costs of renewables and fuels, a nuclear fleet of 9,6GW was included in the IRP; • The emission constraint of the RBS (275 million tons of carbon dioxide per year after 2024) was maintained; and • Energy efficiency demand-side management (EEDSM) measures were maintained at the level of the RBS. The Policy-Adjusted IRP includes the same amount of coal and nuclear new builds as the RBS, while reflecting recent developments with respect to prices for renewables. In addition to all existing and committed power plants (including 10GW committed coal), the plan includes 9,6GW of nuclear; 6,3GW of coal; 17,8GW of renewables; and 8,9GW of other generation sources. The Policy-Adjusted IRP has therefore resulted in an increase in the contribution from renewables from 11,4 GW to 17,8 GW.
North West Province Growth and Development Strategy		2004 - 2014	The Strategy (PGDS) provides a framework for integrated and sustainable growth and economic development for the province and its people over the next ten years. It addresses the formulation of a common vision, goals and objectives of what should be achieved and how the provincial government and its social partners should achieve its objectives. The PGDS notes that the NWP is a medium-size province, covering ~10% of the total national surface area, accounting for ~8% of the national population, and contributing ~7% to the national economy. With the exception of the mining sector (~23.5% of provincial GDP in 2002), private sector activity in the NWP is very modest. Other development challenges include low population densities; inadequate infrastructure, and enormous service delivery backlogs; a predominantly poor population with high levels of illiteracy and dependency; great inequalities between rich and poor, and disparities between urban and rural; and the HIV/Aids pandemic. Both the primary immediate and long term objectives of the PGDS are therefore to address poverty and unemployment, while simultaneously improving the low level of expertise and skills. Additional objectives include promoting equal and fair access to opportunities and assets; enhancing competitiveness, profitability and SMME development; and ensuring sustainable development.

Dr Ruth S Mompati District Municipality Integrated Development Plan (IDP)	Dr Ruth S Mompati District Municipality	2012 - 2017	The IDP serves as the basic developmental framework and the basis for annual reviews of municipal performance for the period up to 2017. The IDP is explicitly aligned with the requirements of the Municipal Systems Act (2000) and the developmental objectives outlined in the National Priority Outcomes, and the National Medium Term Strategic Framework (2009). Identified key intervention priority areas include: • More inclusive economic growth, decent work and sustainable livelihoods; • Developing economic and social infrastructure; • Rural development, food security and land reform; • Improving access to quality education; • Improved health care; • Fighting crime and corruption; • Sustainable resource management and use. A situation analysis of the DM indicates, amongst others, the following key developmental challenges: • The DM's largely African population generally suffers from low education, low income and high unemployment levels, and many have minimal access to water and sanitation; • A mainly youthful African population, with a correspondingly small labour force cohort, and hence high levels of youthful dependency; • High functional illiteracy amongst the African population group; • Great dependency upon government as employer in the DM, and therefore the crucial need to develop the private sector (mainly in agriculture and mining), and develop the Small Medium Micro Enterprise (SMME) sector both in the formal and informal sectors; Renewable energy is not directly addressed, but the IDP does indicate the transition to a low carbon economy as a DM goal, and recommends that the DM speeds up and expands renewable energy (generation) (DRSMDM, 2012: 114).
Naledi Local Municipality Integrated Development	Naledi Local Municipality	2012-2017	The Naledi IDP includes a municipal turnaround strategy ("Municipal Plan") in response to the NLM's current financial unviability, and consequent inability to fully meet its developmental and service delivery obligations. The IDP is aligned with key national and provincial developmental policy, including the National Priority Outcomes and the NWP PGDS.

Plan (IDP)			The IDP is informed by a SWOT analysis of the Naledi LM. Key identified NLM Strengths include: a strong agricultural sector in a high capacity beef grazing area; the most diverse and dominant economy in the DRSMDM; strategic location with regard to the N14 transport corridor; identification of the NLM as Priority Two investment area in the NWP Spatial Development Framework. Key Weaknesses include: municipal financial viability; growing unemployment; generally declining economy; lack of industrial development in Vryburg; infrastructural neglect and service backlogs; and lack of a proper Land Use Management System. Key Opportunities include: capitalizing on Vryburg's status as Secondary Regional Centre and the NLM's strategic location; local economic development (LED) opportunities linked to establishing Vryburg as regional beef beneficiation centre, tourism, and game farming. Key Threats include: increasing urbanization of rural part of NLM population; environmental degradation; high unemployment and poverty levels; large housing backlogs; lack of capital to provide and maintain services infrastructure. A summary of the 9 NLM Ward Plans indicates that key identified community needs are mainly linked to roads (1), housing (2), municipal services (3), security, and employment/ LED. The IDP notes that the NLM has been suffering from chronic water shortages since 2009; that the waste water treatment plant exceeds capacity by 40%, that many municipal roads are in a bad state; and that illegal dumping is a serious and widespread issue in the NLM. The IDP does not explicitly deal with renewable energy development, but identifies carbon-footprint reduction, including supporting alternative energies, as LED programmes for the NLM. The Local Economic Development (LED) Strategy is specifically aligned with National Priority Outcomes 4 ("decent employment through inclusive economic growth); 5 (a skilled and capable economic work force to support an inclusive growth path") and 7 (vibrant, equitable rural communities and food security for all).
Naledi Spatial Development Framework (SDF)	Naledi Local Municipality	2007	As noted in the 2012-2007 IDP, the most recent approved 2007 SDF is outdated, and lacks spatial guidance in the form of maps and spatial development plans. The SDF is currently under review, and in early Draft stage. The NLM planner has indicated that the Vryburg urban edge is currently in the process of being demarcated, but that no urban-edge or land use related maps were available for the Vryburg area. The development of a municipal landfill site on the northern portion of Rosendal Farm west of the N18 was confirmed, but the planner was unable to provide specific details with regard to location.

4.4 Other legislation

Other legislation mainly refers to the following:

- Planning legislation governing the rezoning process and approval of the layout plan.
- Design standards and legislation for services provision such as water, sewerage, electricity, etc.
- Municipal bylaws related to building plans, building regulations, etc.

4.5 Relevant guidance

The following guidance was considered in conducting the EIA:

- The Equator principles (2006)[1]
- World Bank Group Environmental, Health and Safety General Guidelines (EHS Guidelines)(2007)
- Environmental, Health, and Safety Guidelines for Electric Power Transmission and Distribution (2007)
- International Finance Corporation's Policy on Environmental and Social Sustainability (2012)
- DEA, (2012), Guideline 5 – Draft companion to the National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations of 2010
- DEA, (2012), Guideline 7 – Public participation in the Environmental Impact Assessment process
- DEAT, (2006), Guideline 3 – General guide to the Environmental Impact Assessment Regulations
- DEAT, (2006), Guideline 4 – Public participation in support of the Environmental Impact Assessment Regulations
- DEAT, (2006), Guideline 5 – Assessment of alternatives and impacts in support of the Environmental Impact Assessment Regulations

4.6 Conclusion

The Environmental Impact Assessment was undertaken in accordance with the Environmental Impact Assessment Regulations (2010) published in GNR 543, in terms of Section 24(5), 24(M) and 44 of the National Environmental Management Act, 1998 (Act No 107 of 1998) as amended; all relevant National legislation, policy document, national guidelines, the World Bank EHS Guidelines, the IFC Performance Standards, and the Equator Principles.

[1] Although this report is not written in terms of the Equator Principles (EPs), it fully acknowledges that the EPs will need to be complied with should funding for the project be required.

5. DESCRIPTION OF ENVIRONMENTAL ISSUES

This section aims to address the following requirements of the regulations:

28. (1) 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 –
(g) a description of environmental issues and potential impacts, including cumulative impacts, that have been identified.

5.1 Scoping methodology

The contents and methodology of the scoping report aims, as far as possible, to provide a user-friendly analysis of information to allow for easy interpretation.

- Checklist (see section 5.2): The checklist consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts.
- Matrix (see section 5.3): The matrix analysis provides a holistic indication of the relationship and interaction between the various development phases and the impact thereof on the environment. The method aims at providing a first order cause and effect relationship between the environment and the proposed development.
- Conceptual model (see section 5.4): The model is designed to indicate the relationship between the different stressors and receptors which leads to specific impacts and related mitigation measures. The environmental management plan as part of the EIA report should aim to formalise the proposed mitigation measures.

5.2 Checklist analysis

The independent consultant together with the developer conducted site visits on 7 March 2012 and 12 September 2012. The site visits were conducted to ensure a proper analysis of the site specific characteristics of the study area. Table 5.1 provides a checklist, which is designed to stimulate thought regarding possible consequences of specific actions and so assist scoping of key issues. It consists of a list of structured questions related to the environmental parameters and specific human actions. They assist in ordering thinking, data collection, presentation and alert against the omission of possible impacts. The table highlights certain issues, which are further analysed in matrix format in section 5.3.

Table 5.1: Environmental checklist

QUESTION	YES	NO	Un-sure	Description
1. Are any of the following located on the site earmarked for the development?				
I. A river, stream, dam or wetland	✕			Pans are located on the western portion of the Remaining Extent of the farm Rosendal 673 – refer to Figure 3.
II. A conservation or open space area		✕		None.

III. An area that is of cultural importance		✕		The initial site investigation concluded that there are no obvious heritage resources located on the site earmarked for development. However a Heritage Impact Assessment will be conducted to ensure that there would be no impact on cultural or historical features as a result of the proposed development.
IV. Site of geological significance	✕			The site is subject to the presence of dolomite. The geotechnical study recommends that a dolomitic stability investigation be conducted to determine the feasibility of the site.
V. Areas of outstanding natural beauty		✕		None.
VI. Highly productive agricultural land		✕		None.
VII. Floodplain		✕		None.
VIII. Indigenous forest		✕		None.
IX. Grass land		✕		None.
X. Bird nesting sites		✕		None.
XI. Red data species		✕		None.
XII. Tourist resort		✕		None.
2. Will the project potentially result in potential?				
I. Removal of people		✕		None.
II. Visual Impacts	✕			The visual impact of a low-lying PV facility is not expected to be significant as the number of sensitive receptors in the area is very low and the polycrystalline modules are non-reflective. However a visual impact study will be conducted.
III. Noise pollution		✕		Construction activities will result in the generation of noise over a period of months. The noise impact is unlikely to be significant.
IV. Construction of an access road		✕		None.
V. Risk to human or valuable ecosystems due to explosion/fire/ discharge of waste into water or air.		✕		None.
VI. Accumulation of large workforce (>50 manual workers) into the site.	✕			Approximately 300 employment opportunities will be created during the construction phase of the project.

VII. Utilisation of significant volumes of local raw materials such as water, wood etc.	✕			The estimated maximum amount of water required during the facility's 20 years of production is 2 800m³ per annum. A water use licence will therefore be required.
VIII. Job creation	✕			Approximately 350 employment opportunities will be created during the construction and operational phases.
IX. Traffic generation		✕		None.
X. Soil erosion		✕		The site will need to be cleared or graded to a limited extent, which may potentially result in a degree of dust being created, increased runoff and potentially soil erosion. The time that these areas are left bare will be limited to the construction phase, since vegetation will be allowed to grow back after construction.
XI. Installation of additional bulk telecommunication transmission lines or facilities		✕		None.
3. Is the proposed project located near the following?				
I. A river, stream, dam or wetland	✕			Pans are located on the western portion of the Remaining Extent of the farm Rosendal 673 – refer to Figure 3. The site is also located approximately 1 kilometres west of the Dry Harts river.
II. A conservation or open space area		✕		None.
III. An area that is of cultural importance		✕		None.
IV. A site of geological significance		✕		None.
V. An area of outstanding natural beauty		✕		None.
VI. Highly productive agricultural land		✕		None.
VII. A tourist resort		✕		None.
VIII. A formal or informal settlement		✕		None.

5.3 Matrix analysis

The matrix highlights areas of particular concern (see Table 5.2). Each cell is evaluated individually in terms of the nature of the impact, duration and its significance – should no mitigation measures be applied. This is important since many impacts would not be considered insignificant if proper mitigation measures were implemented. The matrix also provides an indication if mitigation measures are available.

Table 5.2: Matrix Analysis

Elements		Significance and magnitude of potential impacts									
		Construction Phase			Operational Phase			Decommissioning Phase			Possible Mitigation
		Minor	Major	Duration	Minor	Major	Duration	Minor	Major	Duration	
PHYSICAL ENVIRONMENT	Flora	-		S	-		L	+		L	✓
	Fauna	-		S	-		L	+		L	✓
	Air Quality	-		S	*		NA	*		NA	✓
	Soil	-		S	-		L	+		L	✓
	Geology	-		S	*		NA	*		NA	✓
	Waste Disposal	-		S	-		L		-	S	✓
	Ground Water	-		S	-		L	+		L	✓
	Surface Water	-		S		-	L		+	L	✓
SOCIAL / ECONOMIC ENVIRONMENT	Employment		+	S		+	L		-	S	✓
	Visual Impacts	-		S		-	L	+		L	✓
	Security	-		S	-		L	+		L	✓
	Traffic Volumes		-	S	-		L	+		L	✓
	Health Hazard	-		S	*		NA	*		NA	✓
	Noise Pollution		-	S	*		NA	*		NA	✓
	Tourism	*		NA	*		NA	*		NA	NA
	Aesthetics	-		S	-		L	+		L	✓
	Archaeology	*		NA	*		NA	*		NA	NA

(*) No impact (+) Positive Impact (-) Negative Impact (✓) Mitigation Measures Available
(S) Short Term (M) Medium Term (L) Long Term

From the above it is evident that mitigation measures should be available for potential impacts associated with the development.

5.3.1 Physical environment

During the construction phase various minor negative impacts are foreseen over the short term. The latter refers to a period of months. The installation of services will inevitably result in the removal of top soil with a degree of dust being created in the process. The disposal of waste during construction will additionally require certain management measures.

During the operational phase the study area will serve as an electricity generation facility and the negative impacts are generally associated with the potential increase in storm water runoff and the increased consumption of water.

The physical environment will benefit from the closure of the solar facility since the site will be restored to its natural state. However the disposal of waste during decommissioning will require certain management measures.

5.3.2 Social/Economic environment

The negative impacts during the construction phase relate primarily to security risks, the increase in construction vehicle traffic and associated dust and noise pollution. Special care should be taken to minimise the latter. The potentially most significant impacts relate to the provision of temporary employment and other economic benefits for the duration of the construction phase.

The negative impacts during the operational phase are generally associated with the visual impact of photovoltaic solar facilities. The operational phase will have direct positive impacts through the provision of employment opportunities for its duration, the generation of additional electricity and the generation of income to the local community.

The decommissioning phase will result in the loss of employment and the generation of waste that will require management measures.

5.4 Conceptual framework

The anticipated key impacts are evaluated for the construction and operational phases of the proposed development respectively. In order to conceptualise the different impacts a diagram is presented, which specify the following (see Diagrams 1 and 2):

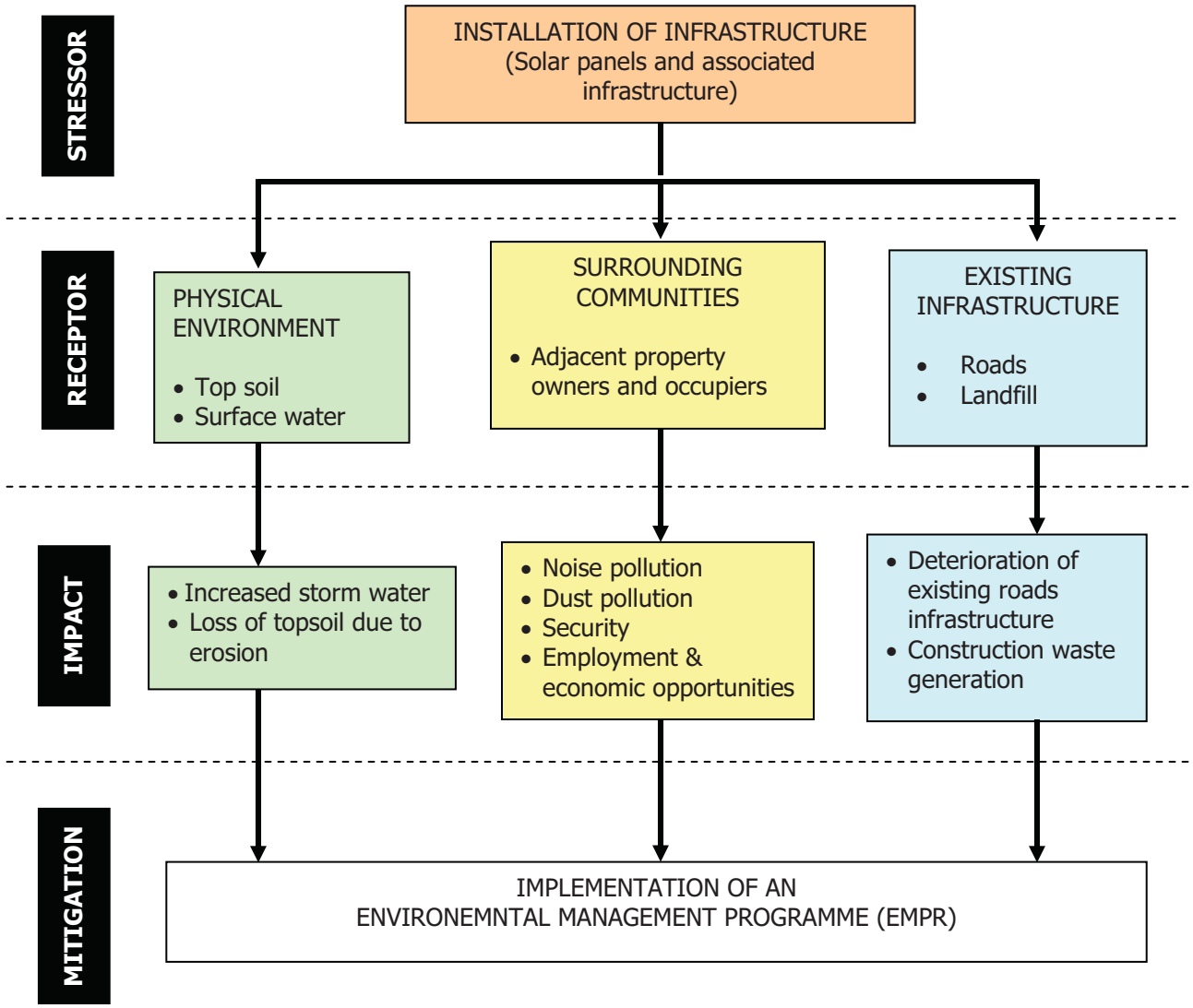
- **Stressor**: Indicates the aspect of the proposed development, which initiates and cause impacts on elements of the environment.
- **Receptor**: Highlights the recipient and most important components of the environment affected by the stressor.
- **Impacts**: Indicates the net result of the cause-effect between the stressor and receptor.
- **Mitigation**: Impacts need to be mitigated to minimise the effect on the environment.

The scoping process aims to scope potential impacts and focus on the most significant impacts in order to determine key issues for more in depth assessment during the EIA process as well as whether the proposed mitigation measures (if available) would be sufficient.

5.4.1 Impacts during the construction phase

Stressors during the construction phase predominantly refer to the installation of the solar panels and associated infrastructure. Receptors refer to the physical environment and surrounding communities as well as the existing infrastructure. Diagram 1 provides a conceptual model of the stressors, receptors and impacts. The main mitigation measures would be included in a detailed construction environmental management plan (EMP) to be compiled as part of the EIA report.

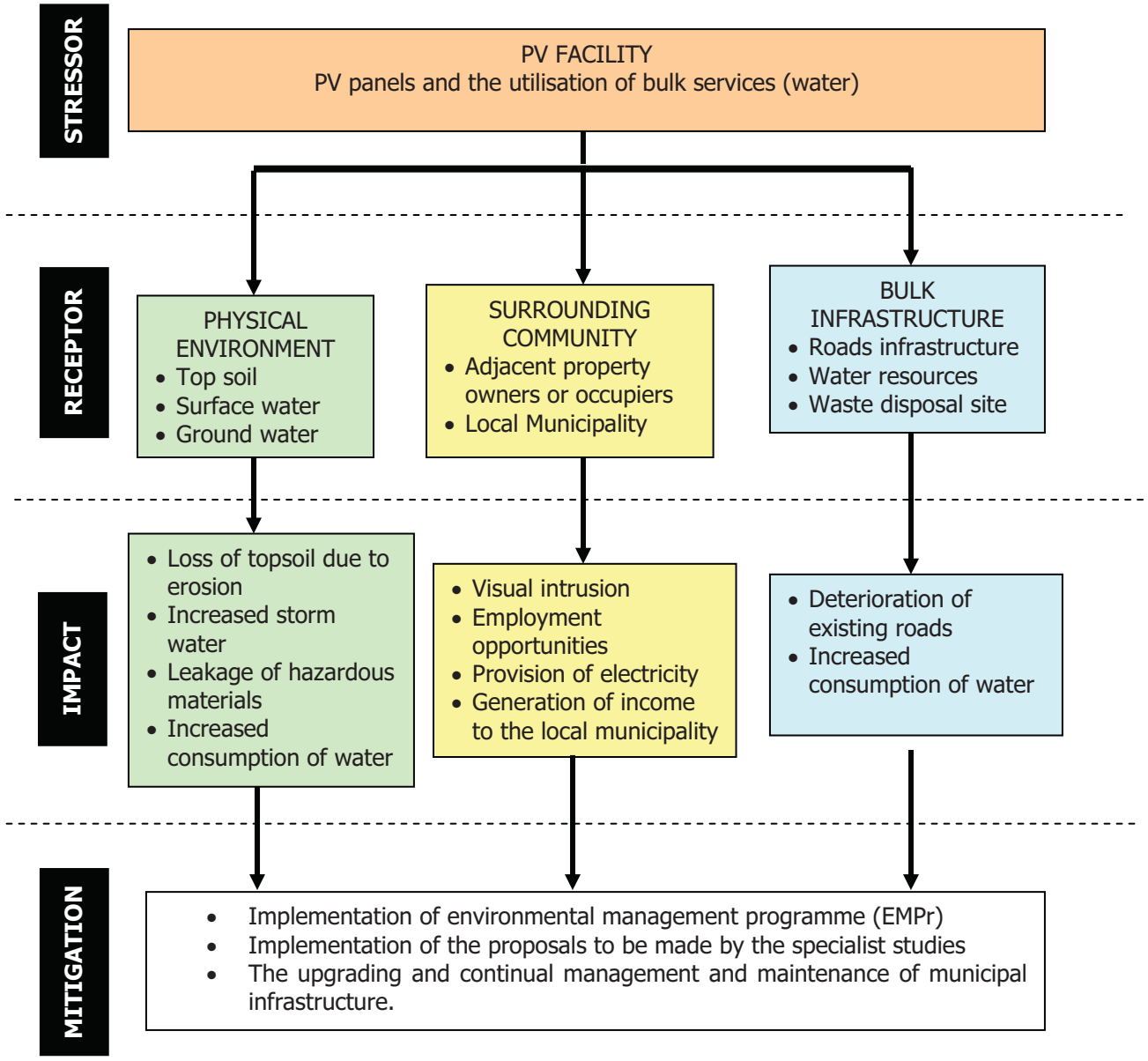
Diagram 1: Conceptual model of impacts during the construction phase



5.4.2 Impacts during the operational phase

Stressors during the operational phase predominantly refer to the multiple photovoltaic (PV) panels and the utilisation of bulk services. Receptors refer to the physical and socio-economic environment. Diagram 1 provides a conceptual model of the stressors, receptors and impacts. The main mitigation measures would be included in a detailed environmental management programme (EMPr) to be compiled as part of the EIA report.

Diagram 2: Conceptual model of impacts during the Operational Phase



5.5 Key issues identified

The scoping methodology identified the following key issues which should be addressed in the EIA report.

5.5.1 Impacts during the construction phase

During the construction phase minor negative impacts are foreseen over the short term. The latter refers to a period of months. The potentially most significant impacts relate to the provision of temporary employment and other economic benefits for the duration of the construction phase.

5.5.2 Impacts during the operational phase

During the operational phase the study area will serve as an electricity generation facility and the negative impacts are generally associated with the potential increase in storm water runoff, the increased consumption of water, leakage of hazardous materials, visual intrusion, and security risks. The operational phase will have direct positive impacts through the provision of employment opportunities for its duration, the generation of additional electricity and the generation of income to the local community.

5.5.3 Impacts during the decommissioning phase

The physical environment will benefit from the closure of the solar facility since the site will be restored to its natural state. However, the decommissioning phase will result in the loss of employment and the generation of waste that will require management measures.

6. PUBLIC PARTICIPATION AND CONSULTATION

This section aims to address the following requirements of the regulations:

28. (1) 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 –

(h) details of the public participation process conducted in terms of regulation 27(a), including –

(i) the steps that were taken to notify potentially interested and affected parties of the application;

(ii) proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the application have been displayed, placed or given;

(iii) a list of all persons or organisations that were identified and registered in terms of regulation 55 as interested and affected parties in relation to the application; and

(iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues.

6.1 Public participation process

The public participation process was conducted strictly in accordance with Regulations 27 and 54 to 57. The following three categories of variables were taken into account when deciding the required level of public participation:

- The scale of anticipated impacts
- The sensitivity of the affected environment and the degree of controversy of the project
- The characteristics of the potentially affected parties

Since the scale of anticipated impacts is low, the site already being degraded and the fact that no conflict were foreseen between potentially affected parties, no additional public participation mechanisms were considered at this stage of the process. The following actions have already been taken:

- Newspaper advertisement
  Since the proposed development is unlikely to result in any impacts that extent beyond the municipal area where it is located, it was deemed necessary to advertise in a local newspaper. An advertisement was placed in English in the local newspaper (Stellalander) on the 8 August 2012 (see Appendix B) notifying the public of the EIA process and requesting Interested and Affected Parties (I&APs) to register with, and submit their comments to Environamics Environmental Consultants. IAPs were given the opportunity to raise comments within 30 days of the advertisement.

- Site notices
  Site notices were placed on site in English on the 8 August 2012 to inform surrounding communities and immediately adjacent landowners of the proposed development. I&APs

were given the opportunity to raise comments by 17 September 2012. Photographic evidence of the site notices is included in Appendix C.

- Direct notification of identified I&APs

  Identified I&APs, including key stakeholders representing various sectors, were directly informed of the proposed development via registered post on 8 August 2012 and were requested to submit comments by 17 September 2012. For a complete list of stakeholder details see Appendix D and for proof of registered post see Appendix E. The consultees included:

  - North West Department of Economic Development, Environment, Conservation and Tourism (NWDEDECT)
  - The Department of Energy
  - The Department of Water Affairs
  - The National Department of Agriculture
  - Department of Mineral Resources
  - The South African Heritage Resources Agency (SAHRA)
  - ESKOM
  - National Energy Regulator of South Africa (NERSA)
  - The Wildlife and Environment Society of South Africa (WESSA)
  - The Dr. Ruth Segomotsi Mompati District Municipality
  - The Naledi Local Municipality
  - The Local Councilor
  - The Civil Aviation Authority (CAA)
  - The Vryburg Ratepayers association

  It was expected from the IAPs to provide their inputs and comments within 30 days after receipt of the notification. To date the Naledi Local Municipality, Eskom, and SAHRA provided feedback (see Appendix F for written comments).

- Direct notification of surrounding land owners and occupiers

  Written notices were also provided to all surrounding land owners and occupiers on 8 August 2012. For a list of surrounding land owners see Appendix D. To date only Dr. Chris van Zyl has provided feedback (see Appendix F for written comments).

6.2 Consultation process

Regulation 54 requires that the municipality, relevant ward councillor and any organ of state having jurisdiction in respect of any aspect of the activity should be given written notice of the activity. A complete list of all the consultees who received written notice as well as proof of registered post is attached as Appendices D and E.

6.3 Registered IAPs

IAPs include all stakeholders who deem themselves affected by the proposed development. To date Dr. Chris van Zyl has requested to be included as a registered I&AP. According to Regulation 56(1) "*A registered interested and affected party is entitled to comment, in writing, on all written submissions, including draft reports made to the competent authority*". This report is the Draft

Scoping Report to be issued for public comments in terms of the EIA Regulations. The draft scoping report will be made available to the following registered I&APs and State Departments:

- The North West Department of Agriculture, Conservation, Environment and Rural Development (NWDEDECT)
- The Department of Water Affairs
- The National Department of Agriculture
- The South African Heritage Resources Agency (SAHRA)
- ESKOM
- SANRAL
- PRASA
- Transnet
- The Naledi Local Municipality
- Dr. Chris van Zyl

The registered I&APs and key stakeholders will be notified of the availability of the draft report and will be requested to provide written comments on the report within 40 days. All issued identified during this review period will be documented and compiled into a Comments and Response Report in the Final Scoping Report.

6.4 Issues raised by IAPs and consultation bodies

Table 6.1 summarises the comments received from consultation bodies. The full wording and original correspondence is included in Appendix F.

Table 6.1: Issues raised by key consultation bodies

Organisation	Person	Written comment (see Appendix F)
The NWDEDECT	Environmental Officer: Mr. Steven Mukhola	The Department confirmed receipt of the confirmation letter for the application for environmental authorisation accepted by the National Department of Environmental Affairs on 8 August 2012. The application has been assigned to Ms. Obitseng Moholo with file reference NWP/DEA/15/2012.
The Naledi Local Municipality	The Municipal Manager: Mr. Segapo	With reference to the application to purchase a portion of the farm Rosendal to establish a photovoltaic solar plant the municipality confirmed in a letter dated 9 March 2012 that the Council has resolved during a meeting which was held on 6 March 2012 per Resolution No. 68/2012 as follows: • That the application received be approved. • That a portion of hundred and fifty (150) hectare be sold. • That the company to which the property is sold conducts an EIA, rezoning and division of land for their own account. • That after the commissioning the process of purchasing the land at market value be commenced with.

SAHRA	Heritage Officer: Kathryn Smuts & Head Archaeologist: Ms. Colette Scheermeyer	SAHRA stated in a letter dated 20 September 2012 that they have no objection to the development (in terms of the archaeological component of the heritage resources) on condition that, if any new evidence of archaeological sites or artifacts, graves or other heritage resources are found during development, construction or mining, SAHRA and an archaeologist must be alerted immediately. SAHRA also requires that a palaeontological assessment be compiled for the proposed project and that the report must be submitted to SAHRA prior to the project commencing. If the palaeontologist deems the fossil resources of the area to be of low significance, or if the impact of the development is unlikely to be high, a letter of exemption from further palaeontological studies may be submitted to SAHRA.
ESKOM	Land Development Manager: Mr. Wikus Snyman Senior Advisor Demand Side Management: Mr. Valmon Muller	Eskom state in a letter dated 22 June 2012 that they raise no objection to the application provided that it's rights and services are acknowledged and respected at all times, and the requirements as laid down by the Occupation Health and Safety Act (Act No. 85 of 1993) are complied with. As additional safety measures Eskom requires the a number of conditions be complied with – refer to Appendix F. Eskom provided an estimate of the cost of providing the works and connection in letter dated 12 August 2012.

7. THE NEED AND DESIRABILITY

This section aims to address the following requirements of the regulations:

28. (1) 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 –
(i) a description of the need and desirability of the proposed activity.

7.1 The need for the proposed development

The proposed development is a direct result of the growing demand for electricity and the need for renewable energy forms in South Africa. According to Eskom, the demand for electricity in South Africa has been growing at approximately 3% per annum. This growing demand, fuelled by increasing economic growth and social development, is placing increasing pressure on South Africa's existing power generation capacity. Coupled with this, is the growing awareness of environmental responsible development, the impacts of climate change and the need for sustainable development. The use of renewable energy technologies, as one of a mix of technologies needed to meet future energy consumption requirements is being investigated as part of Eskom's long-term strategic planning and research process.

The primary rationale for the proposed photovoltaic solar facility is to add new generation capacity from renewable energy to the national electricity mix and to aid in achieving the goal of 42% share of all new installed generating capacity being derived from renewable energy forms, as targeted by the Department of Energy (DoE) (Integrated Resource Plan 2010-2030). In terms of the Integrated Resource Plan (IRP), approximately 8.4GW of the renewable energy mix is planned to be the new installed capacity generated from solar photovoltaic (PV) technologies over the next thirty years
.
The establishment of the photovoltaic solar facility will significantly contribute to achieving this objective and will also address some of the key weaknesses and threats identified by the Naledi Local Municipality's Integrated Development Plan (Naledi IDP, 2012-17).

7.2 The desirability of the proposed development

The development of a solar facility will have several benefits for society in general, some of which are discussed below:

- Security of power supply - The project has the potential of "securing" economic activity by assisting in removing supply constraints if Eskom generation activities result in a supply shortfall. When supply is constrained it represents a limitation to economic growth. When a supply reserve is available, it represents an opportunity for economic growth.

- Local employment - The proposed project will contribute to local economic growth by supporting industry development in line with provincial and regional goals and ensuring advanced skills are drawn to the North West Province. The project will likely encounter widespread support from government, civil society and businesses, all of whom see potential opportunities for revenues, employment and business opportunities locally. The promotion and development of photovoltaic solar facilities, which will in turn lead to growth

in tax revenues and sales of carbon credits, will result in increased foreign direct investment.

- Reduced air pollution, carbon dioxide emissions and water consumption - The additional power supplied through solar energy will reduce the reliance on the combustion of fossil fuels to produce power. The reduction of GHG emissions as a result of the project implementation will be achieved due to reduction of CO2 emissions from combustion of fossil fuel at the existing grid-connected power plants and plants which would likely be built in the absence of the project activity. Coal power also requires high volumes of water, in areas of South Africa where water supply is already over-stretched and water availability is highly variable.

- Lower costs of alternative energy - An increase in the number of solar facilities commissioned will eventually reduce the cost of the power generated through solar facilities. This will contribute to the country's objective of utilising more renewable energy and less fossil fuel based power sources. It will assist in achieving the goal to generate 10 000 GWh of electricity from renewable energy by 2013 and the reduction of South Africa's GHG emissions by approximately 34% below the current emissions baseline by 2020.

- Increased surety of supply and increased quantity of available power - By diversifying the sources of power in the country, the surety of supply will increase. Additionally, the power demands of South Africa are ever increasing and by adding solar power this demand can be met, even exceeded without increasing pollution in relation to the use of fossil fuels.

- Provision of job opportunities - The main benefit of the proposed development operating in the area is that local companies or contractors will be hired for the duration of the construction period (8-10 months). Based on the information from similar projects the construction phase is expected to create approximately 300 employment opportunities. The operational phase will provide permanent job opportunities to the local communities since security guards and general labourers will be required on a full time basis. The operational phase will employ approximately 50 people full time for a period of up to 20 years.

- Generation of income to the Local Community - In addition to the provision of job opportunities, it is required that the applicant donate approximately R4 200 000 per annum on local socio economic development, and approximately R1 500 000 per annum on local enterprise development. This will be for the full length of the project (minimum of 20 years). Therefore the local community may be granted the opportunity to improve their social and economic situation.

8. PLAN OF STUDY FOR EIA

This section aims to address the following requirements of the regulations:

28. (1) 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 –

(n) a plan of study for environmental impact assessment which sets out the proposed approach to the environmental impact assessment of the application, which must include –

(i) a description of the tasks that will be undertaken as part of the environmental impact assessment process, including any specialist reports or specialised processes, and the manner in which such tasks will be undertaken;

(ii) an indication of the stages at which the competent authority will be consulted;

(iii) a description of the proposed method of assessing the environmental issues and alternatives, including the option of not proceeding with the activity; and

(iv) particulars of the public participation process that will be conducted during the environmental impact assessment process.

8.1 Approach to EIA

This section gives a brief outline of the process Environamics will follow when conducting the Environmental Impact Report (EIR) process for the construction of the proposed 75MW photovoltaic solar facility. The approach to the EIA is to focus on those key issues identified during the scoping process. This will ensure that the EIA focus on the most significant impacts and in the process save time and resources. During this phase, specialist studies will be undertaken to assess all potential impacts that are significant. The specialist studies will assess impacts on both the social and the biophysical environment. The studies will also help in identifying ways that can help to mitigate the envisaged impacts.

Table 8.1 provides a summary description of:

- Key environmental issues;
- Key questions to be addressed as part of the EIA;
- Tasks to be performed in order to address the questions;
- Specialist to be involved (if applicable);
- Methods to be applied; and
- Target date for completion of the task.

The EIA will thus aim to identify impacts and make proposals to avoid them, and where they can not be avoided to mitigate them to acceptable levels.

Table 8.1: Summary of tasks and methods as part of EIA process

Key issues	Question to be addressed (terms of reference)	Task	Specialist to be appointed (if applicable)	Method to be applied	Target date for completion
CONSTRUCTION PHASE					
Addressing impacts associated with construction activities	➢ How will the construction process be managed to minimize and avoid environmental impacts?	The EAP to compile a detailed construction environmental management programme (EMPr).	N/a	Review of best practice EMP to be included in the contractual agreements and tender documentation	Included with submission of EIA report.
OPERATIONAL PHASE					
Addressing impacts associated with the operation of the solar plant	➢ How will the facility be managed to minimize and avoid environmental impacts?	The EAP to compile an environmental management programme (EMPr).	N/a	Review of best practice EMPr	Included with submission of EIA report.
Impacts on water quantity	➢ Will the proposed development have a sustainable water supply?	The EAP to consult with the Department of Water Affairs on the availability of water.	N/a	As determined by the Department of Water Affairs	Included with submission of EIA report.
Geotechnical impacts	➢ Are the geotechnical conditions favourable for the development of a solar plant?	A geologist to conduct a geotechnical investigation, comprising a geotechnical soil investigation.	Geologist	As determined by specialist	Included with submission of EIA report.

Heritage and archeological impacts	➢ Will the proposed development impact on any heritage or archeological artifacts?	An archeologist to conduct a heritage and archeological study.	Archeologist	As determined by specialist	Included with submission of EIA report.
Visual impacts	➢ To what extent will the proposed development be visually intrusive to the surrounding communities?	A specialist to conduct a visual impact assessment.	Visual specialist	As determined by specialist	Included with submission of EIA report.
Socio-economic impacts	➢ How will the proposed development impact on the socio-economic environment?	A specialist to conduct a social impact assessment.	Socio-economic specialist	As determined by specialist	Included with submission of EIA report.
Agricultural impacts	➢ How will the proposed development impact on agricultural resources?	A specialist to conduct an agriculture impact assessment (soil survey).	Agricultural economist	As determined by specialist	Included with submission of EIA report.
Ecological Impacts	➢ How will the proposed development impact on the ecology?	Ecologist to conduct an Ecological Fauna and Flora Habitat Survey.	Ecologist	As determined by specialist	Included with submission of EIA report.
DECOMMISIONING PHASE					
Addressing impacts associated with decommissioning activities	➢ How will the decommissioning process be managed to minimize and avoid environmental impacts?	The EAP to compile a environmental management programme (EMPr)	N/a	Review of best practice EMPr	Included with submission of EIA report.

CUMMULATIVE IMPACTS					
Addressing cumulative impacts associated with the development of solar plants in the vicinity of the proposed development.	➢ How will the cumulative impacts resulting from the proposed facilities be managed?	The EAP to conduct a detailed assessment of the cumulative impacts associated with the development of multiple solar plants in the proximity of the proposed development.	N/a	Cumulative effects assessment.	Included with submission of EIA report.

8.2 Public participation process

All registered I&APs and relevant State Departments will be given the opportunity to review the Draft Scoping Report in accordance with Regulation R543. A minimum of 40 days commenting period will be allowed and all stakeholders and I&APs will be given an opportunity to forward their written comments within that period. All issues identified during this public review period will be documented and compiled into a Comments and Response Report to be included as part of the Final Scoping Report.

After comments from the public on the draft Scoping Report have been received and incorporated into the Final Scoping Report, the report will be submitted to the National Department of Environmental Affairs for consideration. In addition, registered I&APs and relevant State Departments would be afforded, unless otherwise indicated by DEA, at least 21 days to comment on the final report. Arrangements will be made to discuss the report with the Environmental Officer responsible for the project from the DEA.

8.3 Method of environmental assessment

The environmental assessment aims to identify the various possible environmental impacts that could results from the proposed development. Different impacts need to be evaluated in terms of its significance and in doing so highlight the most critical issues to be addressed.

Significance is determined through a synthesis of impact characteristics which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity of the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence. Significance is calculated as shown in Table 8.2.

Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

8.3.1. Impact Rating System

Impact assessment must take account of the nature, scale and duration of impacts on the environment whether such impacts are positive or negative. Each impact is also assessed according to the project phases:

- planning
- construction
- operation
- decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact should be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance should also be included. The rating system is applied to the potential impacts on the receiving environment and includes an objective evaluation of the mitigation of the impact. In assessing the significance of each impact the following criteria is used:

Table 8.2: *The rating system*

NATURE		
Include a brief description of the impact of environmental parameter being assessed in the context of the project. This criterion includes a brief written statement of the environmental aspect being impacted upon by a particular action or activity.		
GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be experienced.		
1	Site	The impact will only affect the site.
2	Local/district	Will affect the local area or district.
3	Province/region	Will affect the entire province or region.
4	International and National	Will affect the entire country.
PROBABILITY		
This describes the chance of occurrence of an impact.		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).
DURATION		
This describes the duration of the impacts. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact will either disappear with mitigation or will be mitigated through natural processes in a span shorter than the construction phase (0 – 1 years), or the impact will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 30 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered indefinite.

INTENSITY/ MAGNITUDE		
Describes the severity of an impact.		
1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/ component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired. Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.
REVERSIBILITY		
This describes the degree to which an impact can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.
4	Irreversible	The impact is irreversible and no mitigation measures exist.
IRREPLACEABLE LOSS OF RESOURCES		
This describes the degree to which resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.

CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts. A cumulative impact is an effect which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible cumulative impact	The impact would result in negligible to no cumulative effects.
2	Low cumulative impact	The impact would result in insignificant cumulative effects.
3	Medium cumulative impact	The impact would result in minor cumulative effects.
4	High cumulative impact	The impact would result in significant cumulative effects

SIGNIFICANCE

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The calculation of the significance of an impact uses the following formula:

(Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.

The summation of the different criteria will produce a non weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.

Points	Impact significance rating	Description
6 to 28	Negative low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative high impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive high impact	The anticipated impact will have significant positive effects.
74 to 96	Negative very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".
74 to 96	Positive very high impact	The anticipated impact will have highly significant positive effects.

9. CONCLUSION

This Draft Scoping Report aimed at identifying the 'scope' of the EIA that will be conducted in respect of the activity for which authorisation is being applied for. It can be concluded that:

- The scoping phase complied with the specifications set out in Regulations 26 to 29.
- All key consultees have been consulted as required by the Regulations 26 and 54 to 57.

Based on the contents of the report the following key environmental issues were identified which need to be addressed in the EIA report:

- Impacts during construction phase:
- Temporary employment and other economic benefits (positive medium)
- Impacts during the operational phase:
    - Increase in storm water runoff
    - Increased consumption of water
    - Leakage of hazardous material
    - Visual intrusion
    - Security risks
    - Permanent employment opportunities
    - Generation of additional electricity
    - Generation of income to the Local Community
- Impacts during the decommissioning phase:
    - Generation of waste
    - Loss of employment
- Cumulative biophysical impacts resulting from similar development in close proximity to the proposed development.

The latter issues will be addressed in more detail in the EIA report. We trust that the department find the report in order and eagerly await your final decision in this regard.

Ms. Carli Steenkamp
Environamics Environmental Consultants

10. REFERENCES

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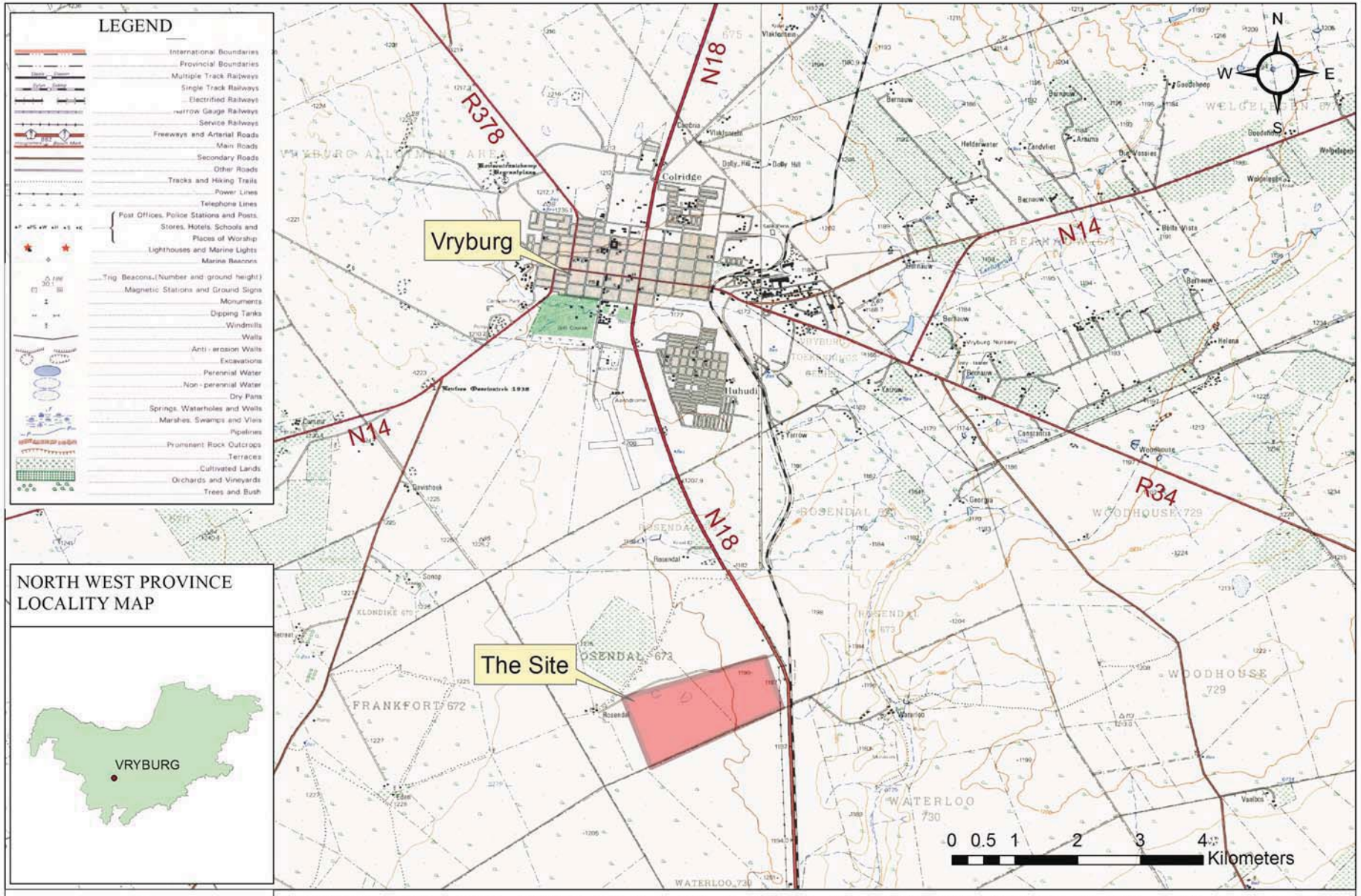
Figures

Figure 1 – Locality Map



NORTH WEST PROVINCE
LOCALITY MAP

ENVIRONAMICS

LOCALITY MAP: THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, NORTH WEST PROVINCE

Adopted from the 1:50 000 Topographical Maps-2724BA Naple & 2724BB Lefton	GPS: 27°01'06.68" S 24°44'43.86" E	Project Nr: 2012-11

Figure 2 – Regional Map

Environamics
Environmental Consultants

THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON A PORTION OF THE FARM WATERLOO 992, REGISTRATION DIVISION IN, NORTH WEST, SITUATED WITHIN THE NALEDI LOCAL MUNICIPALITY AREA OF JURISDICTION

1:250 000 Topographical Map – 2724

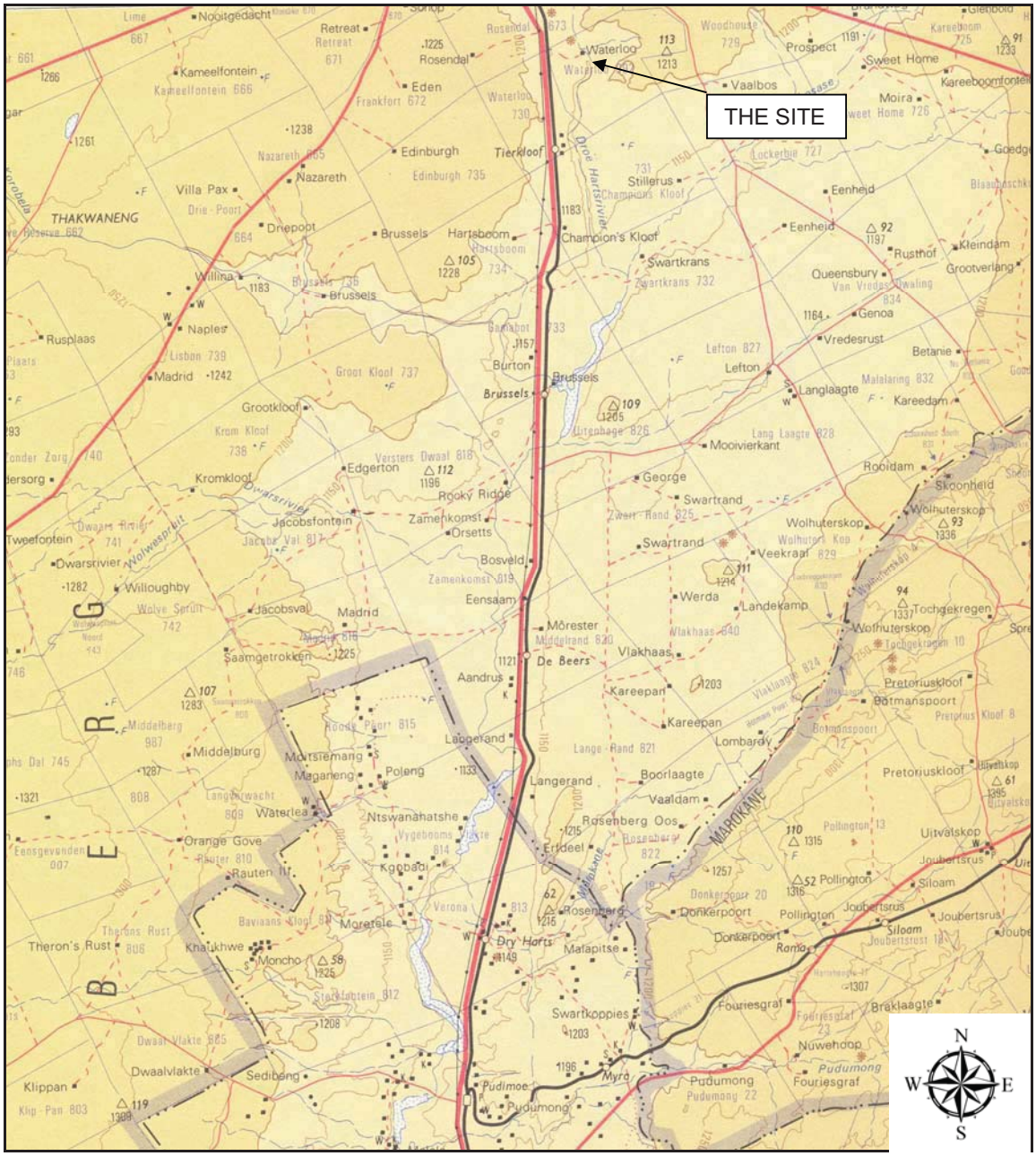


Figure 3 – Possible Water Areas

Rosendal site

Legend

- Rivers
- Rosendal 673 Site Boundary
- Possible Water Areas
- 500m Buffer

Groundwater

Occurrence

- Fractured 0.1 - 0.5 l/s
- Fractured 0.5 - 2.0 l/s
- Fractured 2.0 - 5.0 l/s
- Fractured > 5.0 l/s
- Intergranular and Fractured 0.0 - 0.1 l/s
- Intergranular and Fractured 0.1 - 0.5 l/s

N
W E
S

Kilometers

0 0.15 0.3 0.6 0.9 1.2

Plates

Appendices

CURRICULUM VITAE

MS. CARLI STEENKAMP

PERSONAL DETAILS:

Name:	*Carli Steenkamp*
Date of Birth:	*24 April 1984*
Nationality:	*South African*
Profession:	*Environmental Manager*

POSITION WITH ENVIRONAMICS:

Director & Environmental Assessment Practitioner (EAP)

ACADEMIC QUALIFICATIONS:

M.Env.Man.

REGISTRATIONS:

IAIA, ELA

Environmental Assessment Practitioner

KEY QUALIFICATIONS:

Masters in Environmental Management (M.Env. Man.) *Cum Laude*, North West University (NWU), SA (2008-2009)
BSc in Town and Regional Planning (B.Art et Scien) North West University (NWU), SA (2003–2007)

Further courses:

- Project Management NQF Level: 5 (2011)
- GTZ/InWEnt SEA Training Course: SEA and Climate Change presented at the IAIA Special Symposium, Washington D.C. USA (2010)
- Environmental Management Systems ISO 14001:2004: Audit: A lead Auditor course based on ISO 19011:2002 SAATCA Registered CEM-04.1.1 NQF Level: 6 (2008)
- Environmental Management System (ISO 14001:2007) SAATCA Registered CEM-03.1 NQF Level: 6 (2008)
- Implementing an Occupational Health and Safety Management System Based on OHSAS 18001 SAATCA Registered CEM-08.2.1 NQF Level: 6 (2008)
- Environmental Impact Assessment: The NEMA Regulations: A Practical Approach CEM-05.1 NQF Level: 5 (2007)
- Environmental Law for Environmental Managers CEM-02.1 NQF Level: 6 (2007)
- Development Economics and Economic analysis (Economy 3) as extra subjects (2006)

Registered at:
International Association for Impact Assessment (IAIA)
Environmental Law Association (ELA)

PROJECT EXPERIENCE:

Involvement with environmental management projects and EIA applications:

Carli Steenkamp has been involved with environmental management in general and EIA in particular for numerous years. Some of the projects are summarised below, which demonstrates her specialist competence.

- Strategic Environmental Perspective on GDoH's West Rand Sedibeng Master plan
- EIA Report Quality Review for the Madiba Bay Leisure Park Development
- Review of EIA procedure for the photovoltaic plant near Bronkhorstspruit
- Workshop on the application of SEA to Finnish development Co-operation in South Africa
- Strategic perspective for a biodiversity offset near Heidelberg, Gauteng
- Environmental risk quantification project for ABSA Bank Ltd.
- EIA for a township establishment of 4200 residential erven for Rammulotsi
- EIA in terms of the Minerals and Petroleum Resources Act (28/2002) for mining right for sand winning in Kroonstad
- EIA for the development of a filling station on the N1 near Windbug, Free State
- EIA for the construction of a crematorium near Klerksdorp
- BA in terms of the National Environmental Management: Waste Act (59/2008) for the temporary storage of hazardous waste in Lichtenburg
- Eight (8) BAs for the construction of photovoltaic solar plants and associated infrastructure in the North West and Northern Cape Provinces
- 24G application for the storage of a dangerous good (diesel) near Delareyville

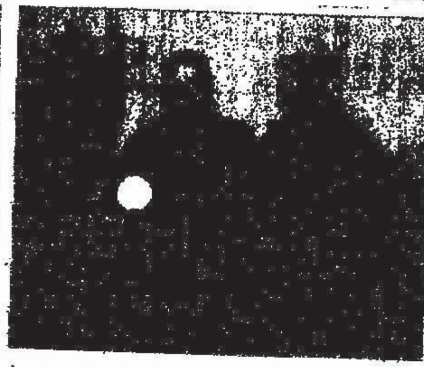
Advice on the alignment of authorisation processes

Carli Steenkamp's experience with EIA processes and the intricacies around process management stems from her involvement in practice as well as research. She has extensive knowledge in the alignment of processes and in improving the efficiency of authorisation processes as this was the main focus of her Masters research. The aim of the research was to determine the efficiency and alignment of environmental impact assessment (EIA) and planning authorisation processes. A peer reviewed paper is in the process of being published and national conference contributions have already emanated from the research.

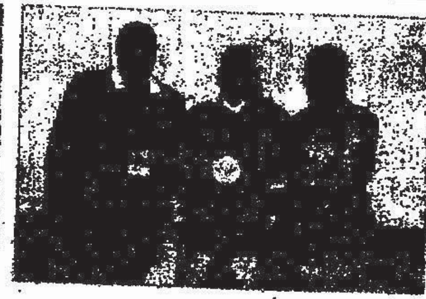
Appendix B – Press advertisement

Aandag Carli

JD van der Vyver, vise-voorsitter van Agri Vryburg, het tydens Agri Vryburg se tweejaarlikse Gala-Aand blomme aan Suretha Bellingan en Kotie Venter oorhandig om dankie te sê vir hul onbaatsugtige diens aan georganiseerde landbou in die omgewing.



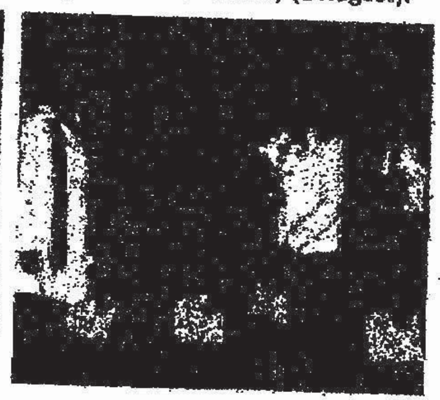
Joppie Pretorius (middel) is verlede week aangewys as naaswenner van Agri Vryburg (voorheen Vryburg Boere-Unie) se Jongboer van die Jaar-kompetisie. Hier is hy saam met Gerhard le Roux van Supreme Auto en Kobus Marais (Old Mutual).



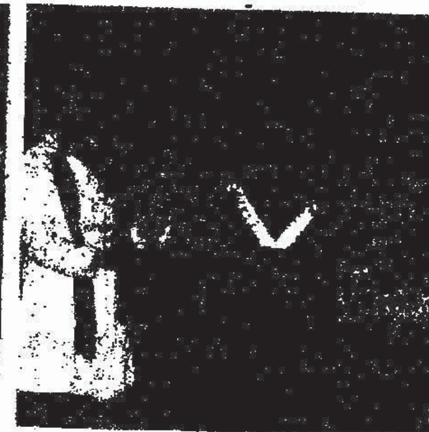
Turner Mahura (centre) was announced as runner up Black Commercial Farmer of the Year during Agri Vryburg's bi-annual Gala function. Phiri Joale (Suidwes Landbou) and Morutoe Montshioagae congratulated him with his achievement. The function was held on Wednesday (1 August).

Willem Pretorius, van Agri Kameel en voorsitter van Agri Vryburg, is tydens Agri Vryburg se tweejaarlikse Gala-Aand aangewys as Staatmaker van die Jaar. Suretha Bellingan en Karl Markram (Farm Expert) het die toekenning aan hom oorhandig.

Willem van Wyk van Agri Excelsior is aangewys as Sekretaris van die Jaar tydens Agri Vryburg se tweejaarlikse Gala-Aand Woensdagaand (1 Augustus). Die toekenning is deur Hendrik van Niekerk namens Van Wyk ontvang. Suretha Bellingan en Hannes van Aswegen (Vryburg Pick 'n Pay) het die toekenning oorhandig.



Agter elke suksesvolle boerevereniging...is 'n hardwerkende sekretaresse/sekretaris. Suretha Bellingan, Anneline Kotze, Santie Pieterse, Christelle Pretorius, Kotie Venter en Willem van Wyk (afwesig) is tydens Agri Vryburg se tweejaarlikse Gala-Aand vir hul harde werk vereer.



Agri Kameel is tydens Agri Vryburg se tweejaarlikse Gala-Aand aangewys as Boerevereniging van die Jaar. Voorsitter Willem Pretorius het die toekenning van Suretha Bellingan en Tertius Engelbrecht (Landbank) ontvang.

ENVIRONMENTAL IMPACT ASSESSMENT APPLICATION

NEAS Ref: DEA/EIA/0001359/2012; DEA Ref: 14/12/16/3/3/2/390
DEA Official: Ms. Mmatlala Rabothata; Tel: (012) 395 1768

Notice is given, in terms of the EIA regulations published in Government Notice No. R543 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (Act No. 107 of 1998), of the intent to carry out an **Environmental Impact Assessment** (i.t.o. Listing Notice 2 – G.N. R545) for the following activity:

- The development of photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, situated within the Naledi Local Municipality area of jurisdiction. The site is located approximately 8km south of Vryburg.
- Description: This application relates to the development of a 75MW photovoltaic solar plant and associated infrastructure.
- Size of site: The site is approximately 150ha in extent.
- Proponent: Sediba Solar Power Plant (Pty) Ltd
- Consultant: Carli Steenkamp
  Environamics Environmental Consultants
  Tel: 018 – 299 1505
  Fax: 018 – 299 1580
  Cell: 082 220 8651
  E-mail: Carli.Steenkamp@nwu.ac.za
  Postal Address: PO Box 6484, Baillie Park, 2526

The **Environmental Impact Assessment** application form was submitted to the National Department of Environmental Affairs. In order to ensure that you are identified as an interested and/or affected party or to obtain further information please submit your name, contact information and interest in the matter, in writing, to the contact person given above **within 30 days of this advertisement.**

Appendix C – On site notice

Location of site notices on the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West - Placed on 8 August 2012

Location of the site notice 1

Location of the site notice 2

Wording of the site notices

ENVIRONMENTAL IMPACT ASSESSMENT APPLICATION

NEAS Ref: DEA/EIA/0001359/2012; DEA Ref: 14/12/16/3/3/2/390
DEA Official: Ms. Mmatlala Rabothata; Tel: (012) 395 1768

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  Cell: 082 220 8651
  E-mail: Carli.Steenkamp@nwu.ac.za
  Postal Address: PO Box 6484, Baillie Park, 2526

The **Environmental Impact Assessment** application will be subm itted to the National Department of Environmental Affairs. In order to ensure that you are identified as an interested and/or affected party please submit your name, contact information and interest in the matter, in writing, to the contact person given above **by 17 September 2012.**

Appendix D – List of I&APs

Table: List of consultation bodies and IAPs as required by the EIA Regulations (GNR 543)

Organization	Contact person	Postal address	E-mail address	Contact details	Date submitted	Date feedback received
Land Owner - Regulation 54(2)(b)(i)						
Naledi Local Municipality	Municipal Manager: Mr. Segapo	PO Box 35 Vryburg 8600	municipalmanager@naledi.local.gov.za	053 928 2202 (t) 053 927 0977 (f)	08/08/2012 via registered post	09/03/2012
The Municipality in which jurisdiction the development is located – Regulation 54(2)(b)(v)						
Naledi Local Municipality	Municipal Manager: Mr. Segapo	PO Box 35 Vryburg 8600	municipalmanager@naledi.local.gov.za	053 928 2202 (t) 053 927 0977 (f)	08/08/2012 via registered post	09/03/2012
Municipal councilor of the ward in which the site is located – Regulation 54(2)(b)(iv)						
Naledi Local Municipality	Councilor: Mr. S.B. Kgodumo	PO Box 35 Vryburg 8600	municipalmanager@naledi.local.gov.za	053 928 2202 (t) 053 927 0977 (f)	08/08/2012 via registered post	No feedback received
Organs of state having jurisdiction – Regulation 54(2)(b)(vi)						
NW Department of Economic Development, Environment, Conservation and Tourism	Ms. Ouma Skosana	Private Bag X125 Mmabatho 2735	-	018 389 5331 (t) 018 389 5093 (f)	08/08/2012 via registered post	No feedback received
Department of Water Affairs and Forestry	Mrs. Nosie Mazwi and Mr. Abe Abrahams	PO Box 528 Bloemfontein 9300	abrahamsa@dwa.gov.za & mazwir@dwa.gov.za	051 405 9000 (t) 051 448 1115 (f)	08/08/2012 via registered post	No feedback received
Department of Agriculture	Ms. Anneliza Collett/ Ms. Mashudu Marubini	Private Bag X250 Pretoria 0001	AnnelizaC@nda.agric.za MashuduMa@daff.gov.za	012 319 7508 (t) 012 329 5938 (f) 012 319 7634 (t) 012 319 7619 (f)	08/08/2012 via registered post	No feedback received
Department of Energy	Director General: Ms. Nelly Magubane	Private Bag X19 Arcadia 0007	kate.modise@energy.gov.za	012 444 4256 (t) 086 581 8505 (f)	08/08/2012 via registered post	No feedback received

Department of Mineral Resources	Mr. Pieter Swart	Private Bag A1 Klerksdorp 2570	Swart@dmr.gov.za	018 487 9830 (t) 018 462 9039 (f)	08/08/2012 via registered post	No feedback received
South African Heritage Resources Agency (SAHRA)	Mr. Sibayi	PO Box 4637 Cape Town 8000	dsibayi@sahra.org.za asalomon@sahra.org.za	021 462 4502 (t) 021 462 4509 (f)	08/08/2012 via registered post	20/09/2012
Other– Regulation 54(2)(b)(vii)						
Dr. Ruth Segomotsi Mompati District Municipality	The Municipal Manager: Mr. Tfhetlho	PO Box 21 Vryburg 8600	-	053 927 2222 (t) 053 927 2401 (f)	08/08/2012 via registered post	No feedback received
Vryburg Ratepayers Association	Ds. Martin Jordaan	PO Box 2972 Vryburg 8600	-	053 927 3404 (t) 082 320 4892 (Cell)	08/08/2012 via registered post	No feedback received
ESKOM	Ms. Katlego Motlha	PO Box 1091 Johannesburg 2001	MotlhaKN@eskom.co.za	-	08/08/2012 via registered post	28/08/2012
NERSA	Ms. Andile Gxasheka	PO Box 40343, Arcadia, 0007	andile.gxasheka@nersa.org.za & nokuthula.nkosi@nersa.org.za	012 401 4775 (t) 012 401 4700 (f)	08/08/2012 via registered post	No feedback received
WESSA	-	PO Box 435, Ferdale, 2160	info@wessanorth.co.za & se@museumsnc.co.za	011 462 5663 (t)	08/08/2012 via registered post	No feedback received
Civil Aviation Authority	Ms. Lizelle Stroh & Mr. Chris Isherwood	Private Bag X73 Halfway House 1685	StrohL@caa.co.za isherwoodC@caa.co.za	011 545 1028 (t) 011 545 1282 (f) 082 823 8436 (Cell)	08/08/2012 via registered post	No feedback received
Surrounding land owners – Regulation 54(2)(b)(iii)						
Chris van Zyl Trust	Dr. Chris van Zyl	PO Box 9 Nigbol 2775	-	082 779 3974 (Cell)	08/08/2012 via registered post	03/09/2012

Edenburg Trust	-	PO Box 267 Vryburg 8600	-	-	08/08/2012 via registered post	No feedback received
L & Pa Kriel	-	PO Box 265 Vryburg 8600	-	-	08/08/2012 via registered post	No feedback received
Vryburg Poultry Trust	-	3992 Ben Mogapi Street, Huhudi Vryburg 8600	-	-	08/08/2012 via registered post	No feedback received
-	Mr. Eeufesius Viljoen	PO Box 229 Vryburg 8600	-	-	08/08/2012 via registered post	No feedback received
Tiger Kloof Educational Institution	Mr. Eddie Cilliers	PO Box 441 Vryburg 8600	Info@Tigerkloof.org.za emcilliers@telkomsa.net	053 988 7000 (t) 053 928 7031 (f) 082 564 3354 (Cell)	08/08/2012 via registered post	No feedback received
Transnet	Risk Manager: Mr. Francis Rahlapane	PO Box 72501 Parkview 2122	Francis.Rahlapane@transnet.net	011 668 5009 (t) 011 774 9469 (f) 083 414 4293 (Cell)	08/08/2012 via registered post	No feedback received
-	E.A.L. Van der Merwe	PO Box 534 Vryburg 8600	-	-	08/08/2012 via registered post	No feedback received

Appendix E – Proof of correspondance

ist of parcels posted:
:OD
nsured
)rdinary

*Lys van pakkette gepos:
KBA
Versekerde
Gewone

Post Office

Sender's reference no. Afsender se verwysingsno.	Addressee's name and address Naam en adres van geadresseerde	Trade-chrage/Value of ordinary/insured parcel Handelsbedrag waarde van gewone/ versekerde pakket R c	COD/ Insurance fee KBA-/ versekerings-koste R c	Parcel no. Pakketno.
	1. NWDEDECT, Private Bag X2039, Mmabatho, 2735			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 827 ZA CUSTOMER COPY 301028R
	2. Department of Water Affairs, Private Bag X6101, Kimberley, 8300			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 889 ZA CUSTOMER COPY 301028R
	3. Department of Agriculture, Private Bag X120, Pretoria, 0001			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 861 ZA CUSTOMER COPY 301028R
	4. Dr. Ruth Segomotsi Mompati DM, Po Box 21, Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 356 ZA CUSTOMER COPY 301028R
	5. Naledi LM, Po Box 35, Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 444 ZA CUSTOMER COPY 301028R
	6. Naledi LM - the councillor, Po Box 35, Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 311 ZA CUSTOMER COPY 301028R
	7. Department of Energy, Private Bag X19, Arcacia, 0007			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 844 ZA CUSTOMER COPY 301028R
	8. Estom, Po Box 1091, Johannesburg, 2001			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 946 ZA CUSTOMER COPY 301028R
	9. NERSA, Po Box 40342, Arcadia, 0007			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 427 ZA CUSTOMER COPY 301028R
	10. SAHRA, Po Box 4637, Cape Town, 8000			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 395 ZA CUSTOMER COPY 301028R
	11. NESSA, Po Box 435, Ferndale, 2160			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 373 ZA CUSTOMER COPY 301028R
	12. Civil Aviation Authority, Private Bag X 73, Halfway House, 1685			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 339 ZA CUSTOMER COPY 301028R

Sender's name and address:
Naam en adres van afsender: Environamics
PO Box 6484
Baillie Park, 2526

Number of items posted:
Getal stukke gepos: 12

Received by - Ontvang deur:

Date stamp (Datumstempel)
2012-08-08
1

No compensation will be considered unless enquiry regarding this postal article is made within one year after the date of posting.
Geen vergoeding word oorweeg nie tensy navraag i.v.m. Hierdie posstuk binne een jaar na die posdatum gedoen word.
*Delete whatever is not applicable/Skrap wat nie van toepassing is nie.

LEBONE LITHO PRINTERS

3000

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14NWDEDECT; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
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e-mail: Carli.Steenkamp@nwu.ac.za

NW DEPARTMENT OF ECONOMIC DEVELOPMENT, ENVIRONMENT, CONSERVATION AND TOURISM
PRIVATE BAG X 2039
MMABATHO
2735

8 August 2012

For attention: Ms. Ouma Skosana

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14DWA; CC Reg.No: 2007/225140/23

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Baillie Park, 2526

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DEPARTMENT OF WATER AFFAIRS
ACTING REGIONAL HEAD
PRIVATE BAG X6101
KIMBERLEY
8300

8 August 2012

For attention: Mr. A. Abrahams

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Agric; CC Reg.No: 2007/225140/23

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DEPARTMENT OF AGRICULTURE
DIRECTORATE: LAND USE AND
SOIL MANAGEMENT
PRIVATE BAG X120
PRETORIA
0001

For attention: Ms Mashudu Marubini

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14DM; CC Reg.No: 2007/225140/23

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DR RUTH SEGOMOTSI MOMPATI
DISTRICT MUNICIPALITY
THE MUNICIPAL MANAGER
PO BOX 21
VRYBURG
8600

8 August 2012

For attention: Mr. Tfhetlho

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Mun; CC Reg.No: 2007/225140/23

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Baillie Park, 2526

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8 August 2012

NALEDI LOCAL MUNICIPALITY
THE MUNICIPAL MANAGER
PO BOX 35
VRYBURG
8600

For attention: Mr. Segapo

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Councillor; CC Reg.No: 2007/225140/23

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Baillie Park, 2526

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8 August 2012

NALEDI LOCAL MUNICIPALITY
THE COUNCILLOR
PO BOX 35
VRYBURG
8600

For attention: Mr. S.B. Kgodumo

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

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    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

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Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Energy; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

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e-mail: Carli.Steenkamp@nwu.ac.za

8 August 2012

DEPARTMENT OF ENERGY
DIRECTOR GENERAL
PRIVATE BAG X19
ARCACIA
0007

For attention: Ms. Nelly Magubane

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Eskom; CC Reg.No: 2007/225140/23

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ESKOM
PO BOX 1091
JOHANNESBURG
2001

For attention: Ms. Katlego Motlha

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

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    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Nersa; CC Reg.No: 2007/225140/23

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8 August 2012

NERSA
RENEWABLE ENERGY SPECIALIST
PO BOX 40342
ARCADIA
0007

For attention: Ms. Andile Gxasheka

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

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6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14SAHRA; CC Reg.No: 2007/225140/23

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SOUTH AFRICAN HERITAGE RESOURCES AGENCY
PO BOX 4637
CAPE TOWN
8000

For attention: Mr. Dumisani Sibayi

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

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    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the existing substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 450m³ of water would be required per annum for the site.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14WESSA; CC Reg.No: 2007/225140/23

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WILDLIFE AND ENVIRONMENT SOCIETY OF SOUTH AFRICA (WESSA)
PO BOX 435
FERNDALE
2160

8 August 2012

To whom it may concern:

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

1. Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 under Section 24(5), 24(M) and 44 of the National Environmental Management Act (107 of 1998) of the intent to carry out the above mentioned activity.

2. The developer has commissioned an Environmental Impact Assessment (EIA) process as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. The following activities are listed in GNR 545 and require Scoping & EIA to be conducted:

    - *Activity 1: "The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."*
    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14CAA; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
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CIVIL AVAITION AUTHORITY
PRIVATE BAG X73
HALFWAY HOUSE
1685

For attention: Ms. Lizelle Stroh

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

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    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

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3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

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6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

*List of parcels posted:
COD
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Ordinary

*Lys van pakkette gepos:
KBA
Versekerde
Gewone

Post Office

Sender's reference no. Afsender se verwysingsno.	Addressee's name and address Naam en adres van geadresseerde	Trade-chrage/Value of ordinary/insured parcel Handelsbedrag waarde van gewone/ versekerde pakket R c	COD/ Insurance fee KBA-/ versekerings-koste R c	Parcel no. Pakketno.
	1. Ratepayers Association, Po Box 2972 Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 963 ZA CUSTOMER COPY 301028R
	2. Department of Minerals, North West Region, Private Bag A1, Klerksdorp, 2570			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 894 985 ZA CUSTOMER COPY 301028R

Sender's name and address:
Naam en adres van afsender: Environamics, PO Box 6484, Baillie Park, 2526

Number of items posted:
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ENVIRONAMICS
Environmental Consultants

Ref: 2012-14RP; CC Reg.No: 2007/225140/23

PO Box 6484,
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RATEPAYERS ASSOCIATION
PO BOX 2972
VRYBURG
8600

For attention: Ds. Martin Jordaan

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

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    - *Activity 8: "The construction of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex."*
    - *Activity 15: "Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."*

3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

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Kind regards

Carli Steenkamp

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Minerals; CC Reg.No: 2007/225140/23

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Baillie Park, 2526

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e-mail: Carli.Steenkamp@nwu.ac.za

DEPARTMENT OF MINERAL RESOURCES
PRIVATE BAG A1
KLERKSDORP
2570

For attention: Mr Pieter Swart

8 August 2012

REQUEST FOR COMMENTS: ENVIRONMENTAL IMPACT ASSESSMENT (EIA) PROCESS FOR THE DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON THE A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 673, REGISTRATION DIVISION IN, SITUATED WITHIN THE NALEDI LOCAL MANICIPALITY AREA OF JURISDICTION

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3. The project entails the generation of approximately 75MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be 150 hectares (including supporting infrastructure on site). The key components of the proposed project are described below:

    3.1 PV Panel Array - This constitutes an array of photovoltaic panels that will be mounted on metal structures which are fixed into the ground either through a concrete foundation or a deep seated screw.

    3.2 Wiring to Central Inverters - Sections of the PV array will be wired to central inverters which have a rated power of 500kW each. The inverter is a pulse width mode inverter that converts DC electricity to alternating current (AC) electricity at grid frequency.

3.3 Connection to Grid – Connecting the array to the electrical grid requires transformation of the voltage from 480V to 22,000V. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers. A new substation will not be required and the electricity generated from the solar panels will be transmitted via either aboveground or underground lines to the Mookodi substation.

3.4 Supporting Infrastructure - A control facility with basic services such as water and electricity and a warehouse and guardhouse would be constructed at the site and would have an approximate footprint 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry. In terms of project maintenance, approximately 3 000m³ of water would be required per annum during the operational phase of the plant.

4. In terms of Regulation 54 of the EIA Regulations all interested and effected parties, surrounding land owners as well as organs of state that may have jurisdiction over any aspect of the activity, need to be given the opportunity to comment.

5. We therefore request that you provide us with comments on the above development no later than **17 September 2012**. Attached for your attention please find a map indicating the locality of the proposed development.

6. We trust that you find the above in order. If there are any uncertainties or additional information required please feel free to contact the undersigned or Francois Retief from our offices at 018 299 1586 or 083 639 2293.

Kind regards

Carli Steenkamp

*List of parcels posted:
COD
Insured
Ordinary

*Lys van pakkette gepos:
KBA
Versekerde
Gewone

Post Office

	Sender's reference no. Afsender se verwysingsno.	Addressee's name and address Naam en adres van geadresseerde	Trade-chrage/Value of ordinary/insured parcel Handelsbedrag waarde van gewone/ versekerde pakket R c	COD/ Insurance fee KBA-/ versekerings-koste R c	Parcel no. Pakketno.
1.		Edenburg Trust Po Box 267 Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 563 ZA CUSTOMER COPY 301028R
2.		L & PA Kriel PO Box 265 Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 546 ZA CUSTOMER COPY 301028R
3.		Vryburg Poultry Trust 3992 Ben Mogapi Street Huhudi, Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 529 ZA CUSTOMER COPY 301028R
4.		Po Box 229 Vryburg, 8600 For attention: Mr. Vitjoen			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 501 ZA CUSTOMER COPY 301028R
5.		Tiger Kloof Educational Institution PO Box 441 Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 299 ZA CUSTOMER COPY 301028R
6.		Transnet, PO Box 72501 Parkview, 2122			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 489 ZA CUSTOMER COPY 301028R
7.		Chris Van Zyl Trust PO Box 1801 Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 683 297 585 ZA CUSTOMER COPY 301028R
8.		EAL Van der Merwe, PO Box 534, Vryburg, 8600			REGISTERED LETTER (with a domestic insurance option) ShareCall 0860 111 502 www.sapo.co.za RD 716 897 046 ZA CUSTOMER COPY 301028R

Sender's name and address:
Naam en addres van afsender: Environamics
PO Box 6484
Baillie Park, 2526

Number of items posted:
Getal stukke gepos: 8.

Received by - Ontvang deur:

Date-stamp
Datumstempel
2012-09-03
1

No compensation will be considered unless enquiry regarding this postal article is made within one year after the date of posting.
Geen vergoeding word oorweeg nie tensy navraag i.v.m. Hierdie posstuk binne een jaar na die posdatum gedoen word.
*Delete whatever is not applicable/Skrap wat nie van toepassing is nie.

LEBONE LITHO PRINTERS

300003

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner1; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

EDENBURG TRUST
PO BOX 267
VRYBURG
8600

To whom it may concern:

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

The developer has commissioned an Environmental Impact Assessment (EIA) as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. Section 56(2)(b) of the Regulations requires that all surrounding land owners and occupiers be given written notice and opportunity to comment on the proposed activity. In light of this requirement please provide the following information if you wish to participate as a registered interested and affected party (I&AP) in the authorisation process:

Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner2; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

L & PA KRIEL
PO BOX 265
VRYBURG
8600

To whom it may concern:

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

The developer has commissioned an Environmental Impact Assessment (EIA) as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. Section 56(2)(b) of the Regulations requires that all surrounding land owners and occupiers be given written notice and opportunity to comment on the proposed activity. In light of this requirement please provide the following information if you wish to participate as a registered interested and affected party in the authorisation process:

Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner3; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

8 August 2012

VRYBURG POULTRY TRUST
3992 BEN MOGAPI STREET
HUHUDI
VRYBURG
8600

To whom it may concern:

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

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Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner4; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

LAND OWNER
PO BOX 229
VRYBURG
8600

For Attention: Mr. Eeufesius Viljoen

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

The developer has commissioned an Environmental Impact Assessment (EIA) as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. Section 56(2)(b) of the Regulations requires that all surrounding land owners and occupiers be given written notice and opportunity to comment on the proposed activity. In light of this requirement please provide the following information if you wish to participate as a registered interested and affected party in the authorisation process:

Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner5; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

TIGER KLOOF EDUCATIONAL INTITUTION
PO BOX 441
VRYBURG
8600

To whom it may concern:

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

The developer has commissioned an Environmental Impact Assessment (EIA) as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. Section 56(2)(b) of the Regulations requires that all surrounding land owners and occupiers be given written notice and opportunity to comment on the proposed activity. In light of this requirement please provide the following information if you wish to participate as a registered interested and affected party in the authorisation process:

Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

TRANSNET
PO BOX 72501
PARKVIEW
2122

FOR ATTENTION: Mr. Francis Rahlapane

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

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Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner7; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

CHRIS VAN ZYL TRUST
PO Box 1801
Vryburg
8600

For Attention: Dr. Chris van Zyl

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

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Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner8; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell: 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

E.A.L. VAN DER MERWE
PO BOX 534
VRYBURG
8600

For attention: Mr. Van der Merwe

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

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Name:	
Property description:	
Tel:	**Fax:**
Cell:	**e-mail:**
COMMENTS (if any):	
Signature:	**Date:**

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**: **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za

Appendix F – Written comments

the DEDECT

Department:
Economic Development, Environment, Conservation and Tourism
North West Provincial Government

AgriCentre Building
Cnr. Dr. James Moroka& Stadium Road
Private Bag X2039,
Mmabatho. 2735

CHIEF DIRECTORATE: ENVIRONMENTAL SERVICES
DIRECTORATE: ENVIRONMENTAL QUALITY & PROTECTION

Tel: (018) 389 5156
Fax: (018) 389 5006
oskosana@nwpg.gov.za

Reference: NWP/DEA/15/2012
DEA Ref : 14/12/16/3/3/2/390

Attention: **Mmatiala Rabothata**
Department of Environmental Affairs
Private Bag X 447
PRETORIA
0001

Tel No.: (012) 395 1694/ 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 DEVELOPMENT OF A 75MW PHOTOVOLTAIC SOLAR PLANT AND ASSOCIATED INFRASTRUCTURE ON A PORTION OF THE REMAINING EXTENT OF THE FARM ROSENDAL 873 IN, NORTH WEST PROVINCE

We confirm having received the above mentioned confirmation letter for the Application of Environmental Authorisation accepted by National Department of Environmental Affairs on 08 August 2012.

Please note the application has been assigned to **Ms. Obitseng Moholo,** Mafikeng Office, reachable at (018) 389 5677. This file reference number is **NWP/DEA/15/2012**. 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:

Agricentre Building
Cnr. Dr. James Moroka Drive & Stadium Road (Opposite Convention Centre)
Mmabatho
2735
Office No E10

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

Yours Faithfully

Mr. Steven Mukhola
Environmental Officer Control Grade B: Development Impact Management
Department of Economic Development, Environment, Conservation and Tourism
Date: 14/08/2012

cc: Ms. Carli Steenkamp

Fax No: (018) 299 1580

Local Municipality
Masepala wa Selegae
Plaaslike Munisipaliteit

NALEDI

MUNICIPAL
MANAGER

P O Box / Lebokose Pose / Posbus 35
VRYBURG
8600

TEL / MOGALA / TELE: 053 928 2199
FAX / FEKESE / FAKS: 053 927 0977
053 927 3482

Address all letters to the Municipal Manager
Makwalo otlhe a lebesitwe go Motsamaise wa Masepala
Rig alle briewe aan die Munisipale Bestuurder

Ref: ~~17/2/12/1~~ *Enquiries:* SMIT/fm
No. Tshupetso
Verw. Nr. *Dipotsiso:*
Navrae:

09 MARCH 2012

The Manager
Era Estate Agents
P O Box 123
VRYBURG
8600

tiaan.pretorius@era.co.za

Sir

APPLICATION TO PURCHASE A PORTION OF THE FARM ROSENDAL TO ESTABLISH A SOLAR POWER FARM

Your application in the above regard has reference.

Council has resolved during a meeting which was held on 6 March 2012 per Resolution No: 68/2012 as follows:

"1. That the application received from Subsolar Energy Pty. (Ltd.) be approved.

2. That a portion of hundred and fifty (150) ha from Rosendal farm be sold to Subsolar Energy Pty. (Ltd.).

3. That the company in point 1. above conducts environmental impact assessment for their own account.

4. That the company Subsolar Energy conduct rezoning and division of land for their own account.

5. That after the commissioning the process of purchasing the land at market value be commenced with."

The Municipal Valuer was already instructed to determine the market value of the property to establish whether your client's offer is market related. You will be informed of the purchase price in due course.

Yours faithfully

M T SEGAPO
MUNICIPAL MANAGER

Rosendal PV
Our Ref: 9/2/103/0002

Enquiries: Kathryn Smuts
Tel: 021 462 4502
Email: ksmuts@sahra.org.za
CaseID: 382

Date: Thursday September 20, 2012

Final Comment

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

Attention: Carli Steenkamp
Environamics
PO Box 6484
Baillie Park
2526

Proposed Development of a 75 MW Photovoltaic Solar Plant and Associated Infrastructure on a Portion of the Remaining Extent of the Farm Rosendal 673, Registration Division IN, Situated within the Naledi Local Municipality Area of Jurisdiction

van Schalkwyk, J. June 2012. *Heritage impact assessment for the Proposed Development of Photovoltaic Power Plants on Four Different Locations in North West and Northern Cape Provinces*

Subsolar Energy has proposed the establishment of four Photovoltaic Solar Energy Facilities in the North West and Northern Cape Provinces. One of these facilities will be located on the Farm Rosendal 673, south of Vryburg. The site is 150 ha and the facility will generate up to 75 MW of electricity. The receiving environment is flat, with no notable topographic features, and is currently used for grazing.

The archaeological report relates that the area has been inhabited since the Early Stone Age, with artefacts from this time found fairly frequently along watercourses and near hills. Substantial numbers of stone engravings are known from the area, dating to the Later Stone Age. Iron Age sites in the area are limited to those dating to the Late Iron Age, with stone walled sites related to Tswana occupation of the area. Historically, Vryburg was established in 1883 and a large concentration camp was set up on its outskirts during the South African War. The site survey yielded no heritage resources.

Decision:

SAHRA requires that:

- A palaeontological assessment be compiled for the proposed project. This report must be submitted to SAHRA for comment before the project can proceed. If the palaeontologist deems the fossil resources of the area to be of low significance, or if the impact of the development is unlikely to be high, a letter of exemption from further palaeontological studies may be submitted to SAHRA.

As there is apparently no evidence of any significant archaeological material in this area, the SAHRA Archaeology, Palaeontology and Meteorites Unit has no objection to the development (in terms of the archaeological component of the heritage resources) on condition that, if any new evidence of archaeological sites or artefacts, graves or other heritage resources are found during development, construction or mining, SAHRA and an archaeologist must be alerted immediately.

Enquiries: Kathryn Smuts
Tel: 021 462 4502
Email: ksmuts@sahra.org.za
CaseID: 382

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

Yours faithfully

Kathryn Smuts
Heritage Officer: Archaeology
South African Heritage Resources Agency

Colette Scheermeyer
SAHRA Head Archaeologist
South African Heritage Resources Agency

ADMIN:
(DEA, Ref: 14/12/16/3/3/2/390)

Terms & Conditions:

1. This approval does not exonerate the applicant from obtaining local authority approval or any other necessary approval for proposed work.
2. If any heritage resources, including graves or human remains, are encountered they must be reported to SAHRA immediately.
3. SAHRA reserves the right to request additional information as required.

Eskom

Mr Dick Berlijn
Subsolar Energy
21 Dam Road
Waterkloof
PRETORIA
0181

12 August 2012

Valmon Muller
+27 11 711 2707

Ref No.: 68204042

Dear Mr Berlijn

COST ESTIMATE LETTER FOR THE CONSTRUCTION OF WORKS TO CONNECT A 75MW GENERATOR TO THE DISTRIBUTION SYSTEM FOR SUBSOLAR PROJECT MOOKODI.

Thank you for your application dated 19 March 2012 relating to the construction of works to connect your generation Facility, situated at Vryburg, to the Eskom Distribution System, and/or the possible impact on Eskom's Transmission and Distribution System of connecting your generator that is embedded within a plant. Eskom has assessed your requirements and herewith provides an estimate of the cost of providing the works and connection. It is based on engineering assumptions and provided in order to assist in making a decision whether or not you should proceed to request a budget quotation.

This cost estimate letter is not an offer for a contract. It is purely illustrative and in anticipation of a request for a budget quotation. No information contained in this cost estimate letter shall be deemed to form part of any contract between Eskom and any party.

Furthermore, if based on this cost estimate letter you request a budget quotation, any information recorded in this cost estimate letter will lapse immediately (even if a budget quotation is eventually not provided or accepted) and Eskom will not be bound to perform in terms of it in any way.

Eskom will require certain documents and approvals, set out herein, and payment of a quotation fee in order to provide a budget quotation.

1. DEFINITIONS AND INTERPRETATION

The words and expressions in this cost estimate letter shall have the meanings ascribed to them in the Electricity Regulation Act, the South African Grid Code and the Distribution Code, each as amended from time to time. The Codes are obtainable from the National Energy Regulator of South Africa's website. Log onto www.nersa.org.za and then follow the link to 'Electricity' and then to 'Technical Standards'.

The following capitalised words and expressions shall have the meanings as assigned to them and cognate expressions shall have corresponding meanings:

1.1. **'Code(s)'** means the Distribution Code, the Grid Code, the Wind Code or any other code, published by NERSA, as applicable and as amended, modified, extended, replaced or re-enacted from time to time..

1.2. **'Connection Charge'** means the charges recouped or to be recouped by Eskom from the Customer for the cost of construction of the Eskom Connection Works and connecting the Facility to the Distribution or Transmission System, which shall be either (a) a Distribution and/or Transmission Standard Connection Charge if the

Group Customer Services
Grid Access Unit.
204 Smit street, Braamfontein, Johannesburg.
P.O. Box 8610, Johannesburg, 2000 SA
Tel +27 11 711 9111 Fax +27 86 662 9753. www.eskom.co.za
Eskom Holdings SOC Limited Reg No 2002/015527/06

connection is a Standard Connection or (b) a Distribution and/or Transmission Premium Connection Charge, if the connection is a Premium Connection

1.3. **'Connection and Use-of-System Agreement'** means the agreement(s), required by the Code, to be entered into, in writing, between Eskom and the generator to physically connect to Eskom's Distribution or Transmission System and to allow the generator access to and use of Eskom's Distribution or Transmission System.

1.4. **'Connection Site'** means the land or property on, over or under which the Eskom Connection Assets is constructed or on which Eskom requires land rights, including for access to the Eskom Connection Assets.

1.5. **'Customer'** means Subsolar Energy.

1.6. **'Dedicated Connection Assets'** means those assets forming part of the Eskom Connection Assets that are created for the sole use of the Customer, to meet the Customer's technical specifications and are unlikely to be shared in Eskom's planning horizon by any other end-use customer.

1.7. **'Distribution'** means the regulated business unit through which Eskom constructs, owns, operates and maintains Eskom's Distribution System in accordance with its Licence and the Code.

1.8. **'Distribution System'** means Eskom's network infrastructure operating at a nominal voltage of 132 kV or less.

1.9. **'EA'** means environmental authorisation(s).

1.10. **'Eskom'** means Eskom Holdings SOC Limited (Registration Number 2002/015527/06);

1.11. **'Eskom Connection Assets'** means the electricity network infrastructure to connect the Facility to the Distribution System, which shall be constructed in accordance with the Eskom budget quotation and owned, operated and maintained by Eskom. The Eskom Connection Assets shall include the Point of Utility Connection in cases, where this equipment is owned, operated and maintained by Eskom.

1.12. **'Eskom Connection Works'** means the planning, design procurement, construction, erecting, commissioning, operating and maintenance of the Eskom Connection Assets.

1.13. **'Facility'** means the Customer's generator plant, situated at Vryburg together with Facility Connection Equipment for the safe, efficient and optimal operation of the plant, up to the Point(s) of Supply, which shall be designed, constructed, installed, operated and maintained by or on behalf of the Customer, but excluding the Eskom Connection Assets whether or not located at the Connection Site.

1.14. **'Facility Connection Equipment'** means the Facility equipment, including the Point of Generator Connection, to connect the Facility to the Distribution or Transmission System, which shall be constructed, owned, operated and maintained by the Customer, as agreed between Eskom and the Customer. The Facility Connection Equipment shall also include the Point of Utility Connection in cases where this equipment is owned, operated and maintained by the Customer.

1.15. **'HV'** means high voltage.

1.16. **'Maximum Export Capacity'** means the maximum capacity at the Customer's Point(s) of Supply notified by the Customer, as set out in paragraph 2.1, and accepted by Eskom for the transmission of electrical energy between the Facility and the Distribution or Transmission System.

1.17. **'NERSA'** means the National Energy Regulator of South Africa established in terms of the National Energy Regulator Act (Act no 4 of 2004) or its successor-in-title.

1.18. **'NRS 048'** means the quality of supply standards issued by the South African Bureau of Standards, as revised from time to time or as replaced by another standard.

1.19. **'Point of Generator Connection (PGC)'** means the circuit-breaker and associated ancillary equipment (instrument transformers, protection, isolators) that connects a generator to any electrical network. The 33 kV busbar in the new Subsolar Substation.

1.20. **'Point(s) of Measurement'** means the physical point(s) on an electrical network where the electricity supplied to the Customer by Eskom or where the electricity supplied by the Customer to Eskom, is measured. The 33 kV busbar in the new Subsolar Substation.

1.21. **'Point(s) of Supply (POS)'** means the physical point(s) on an electrical network from where electricity is supplied to the Customer by Eskom or from where the Customer supplies electricity to Eskom. The 33 kV busbar in the new Subsolar Substation.

1.22. **'Point of Utility Connection (PUC)'** means one or more circuit-breakers and associated ancillary equipment (instrument transformers, protection, isolators), entirely independent of any PGC, that connects the Facility to the Distribution or Transmission System. The 33 kV busbar in the new Subsolar Substation.

1.23. **'Premium Connection'** means a connection based on the Customer's requirements that are in excess of the specifications of a Standard Connection for a more reliable and secure connection.

1.24. **'Premium Connection Charge'** means a charge payable for costs associated with Premium Connection Assets included in the scope of the Eskom Connection Works to meet customer specific requirements in excess of what is considered as the least life-cycle cost investment. The Premium Connection Charge comprises the Premium Connection/Conversion Fee (where applicable) and the Premium Up-front Connection Charge.

1.25. **'Premium Connection Assets'** means the Eskom Connection Assets to be constructed, or to be installed if the Customer elects a Premium Connection which equipment is in addition to and/or in place of the equipment installed in the case of a Standard Connection.

1.26. **'Self-build Connection Assets'** means those assets forming part of the Eskom Connection Assets to be constructed or installed by the Customer in terms of the Self-build Connection Agreement to be concluded.

1.27. **'Self-build Construction Agreement'** means the contract to be concluded between Eskom and the Customer defining, *inter alia,* the terms, rights and obligations of these parties, and specifically including the conditions under which the self-build option requested by the Customer will be allowed and exercised.

1.28. **'Self-build Connection Works'** means those works forming part of the Eskom Connection Works to be undertaken by the Customer in terms of the Self-build Connection Agreement.

1.29. **'Standard Connection'** means a connection based on the lowest life-cycle cost design that meets the specifications of the Code and applicable standards for a technically acceptable solution.

1.30. **'Standard Connection Charge'** means a charge that is payable for costs associated with Standard Connection Assets. The Standard Connection Charge comprises the Standard Connection/Conversion Fee (where applicable) and the Standard Up-front Connection Charge.

1.31. **'Standard Connection Assets'** means the Eskom Connection Assets to be constructed or to be installed if the Customer elects a Standard Connection which

equipment meets the specifications of the Code and applicable standards for a technically acceptable solution.

1.32. **'Use-of-System Charges'** means at any time, such monthly charges applicable to generators as may be levied by Eskom against the Customer in connection with the provision to the Customer of capacity on and use of the Distribution System as set forth in the Code(s) and as approved by NERSA. Eskom's prevailing Schedule of Standard Prices at any time shall serve as prima facie evidence of the Distribution Use-of-System Charges in force at that time.

1.33. **'Year'** means Eskom's financial year which is a period of 12 calendar months commencing on 1 April in a calendar year and ending on 31 March in the subsequent calendar year.

2. TECHNICAL CONDITIONS

2.1. The Maximum Export Capacity (MEC) of the Facility will be 75 MW at a voltage level of 33 kV to be injected into the Distribution System at the Customer's Point of Supply.

2.2. The Customer shall pay all of the costs associated with the Eskom Connection Works in compliance with the Code, including if applicable, any actual costs for upstream investment.

2.3. The Customer shall provide the relevant protection, synchronising and control equipment at the Customer's Point(s) of Utility Connection which is compatible with the protection standard as required by Eskom's Distribution Division. For Distribution System connected generators refer to the Distribution Standard for the Interconnection of Embedded Generation (Annexure D).

2.4. For the Facility, the Customer's Point*(s)* of Supply shall be at the 33 kV busbar in the new Subsolar Substation.

2.5. Prior to the connection of the Facility to the Distribution System, the Customer shall comply with all applicable laws including but not limited to those governing the electricity supply industry including regulations, the Codes, directives and guidelines, failing which Eskom may refuse to allow the connection, or disconnect the connection until such time as there is compliance with such laws.

2.6. The Customer shall be responsible for ensuring that the Facility complies with the Occupational Health and Safety Act (Act 85 of 1993) and relevant safety legislation. The Customer is also required to forward to Eskom the details of the section 16 (2)-appointee delegated in terms of the Occupational Health and Safety Act and a valid certificate of compliance.

2.7. The estimated duration of completing the Eskom Connection Works will be negotiated upon acceptance of the budget quotation.

2.8. **Network performance and quality of supply**

2.8..1. Eskom is required to provide a standard of quality of supply, which complies with NRS 048 as is required by NERSA. The Customer shall comply with the quality of supply limits determined in accordance with NRS 048-4:2009.

2.8..2. Eskom shall use its reasonable endeavours to furnish the Customer with reliable and continuous network availability. However, Eskom does not guarantee that the continuity and voltage quality of the connection will always be maintained under all contingencies. It will be incumbent on the Customer to take adequate measures to protect the Facility against any damage and /

or losses that could arise from voltage or supply interruptions, voltage dips or any other variations in the voltage quality.

2.8..3. Eskom generally contracts with customers for a Standard Connection in terms of which no specific voltage dip or interruption limits will be specified in the contract. Indicative levels of voltage dip and interruption performance may be obtained on request from Eskom. In order to ensure greater levels of assurance on interruption (and in some cases dip) performance, generators may elect to:

2.8..3.1. Pay for the necessary infrastructure required to provide a connection with higher levels of reliability; or

2.8..3.2. Pay for additional monitoring equipment to effect monitoring of performance at the supply point.

3. ASSUMPTIONS AND SCOPE

3.1. This cost estimate is based on the information provided by you in Part 1 of the application form (Annexure C) and assumes that the Facility will be the only one connected to the Distribution System in the area and includes the following technical assumptions:

3.2. Scope of Eskom Connection Works

Standard Connection Assets (including the Dedicated Connection Assets)

Subsolar New 132/33kV, 80MVA Substation

- Install a 132kV fully equipped line bay.
- Install a 132kV busbar bay, and busbar VT's.
- Install a fully equipped 132/33kV 80MVA transformer bay consisting of;
  - 132kV isolators, 132kV CT's and 132kV breakers.
  - 132/33kV 80MVA transformer1, transformer plinth and bund walls.
  - 33kV NECRT and surge arrestors.
- Install a 33kV fully equipped transformer MV bay consisting of;
  - 33kV kiosk breaker, 33kV isolators, 33kV VT's and cable end support.
- Build a control room and install oil holding dam.
- Install concrete palisade fence, yard stones, substation earth mat, lightning mast and lighting.

Mookodi-Subsolar 132kV, 5.2km Chickadee line

- Build 1km of 132kV Chikadee line from Mookodi MTS to the proposed Subsolar substation.

Mookodi Install new 132kV line bay

- Install a 132kV line bay at Mookodi MTS.

3.3. Land development

Requirements from the Developer

Subsolar 100m x 100m Substation servitude

- Acquire and register 100m x 100m servitude in favour of Eskom for the proposed Mookodi substation.

Mookodi- Subsolar 132kV 5.2km line servitude

- Acquire and register 5.2km of 132kV line servitude in favour of Eskom for the proposed132kV line from Mookodi MTS to the proposed Subsolar substation.

3.4. Other assumptions

- The 75MW requested cannot be connected by 2015 as it could results it RVC exceeding the 5% limit under N-1 contingency (Mercury-Mookodi line out).
- However by year 2015, 28MW can be connected under N-1 contingency
- There is a 400kV line planned from Epsilon to Mookodi (planned: June-2016).
- The requested 75MW can be connected by 2016 with no technical problems, provided the 400kV line from Epsilon to Mookodi has been commissioned.

3.5. **Connection timelines**

Subject to the content of this cost estimate letter and the conditions of any budget quotation accepted later, Eskom may be able to finalise its portion of the Eskom Connection Works within 36 months of the commencement of construction by Eskom. This date is not binding on Eskom in any way and will be finally agreed only upon acceptance of the budget quotation at an appropriate time.

3.6. **Self-build Connection Works**

The above assumptions and scope set out in paragraphs 3.1 to 3.4 do not make provision for Self-build Connection Works.

The approval of a self-build option by Eskom and the take-over of any Self-built Connection Works by Eskom will be subject to the conditions contained in Eskom's procedure for HV self-build projects (a copy will be made available on request) and the Self-build Construction Agreement to be concluded, which *inter alia* include the following:

3.6.1 Self-build Connection Works will be limited to works in respect of Dedicated Connection Assets.

3.6.2 The Self-Build Connection Works must be built according to the Eskom standards and Eskom will not under any circumstances take over and energise any asset that is not built according to the Eskom standards.

3.6.3 The Customer shall pay all costs incurred by Eskom in relation to all Monopoly Works (see Table 3).

In the event that the Customer plans to construct a portion of the Eskom Connection Works itself, an application to do so must be submitted in writing. This will require a revised cost-estimate.

4. ESTIMATED COSTS

4.1. The estimated project costs in 2012 Rand value, based on the above assumptions are:

Table 1 Costs of Standard Connection Assets (dedicated)

Cost item	Excl VAT	Incl VAT
Materials	R 14 825 648.00	R 16 901 238.72
Labour	R 280 287.00	R 319 527.18
Contracts	R 5 772 380.00	R 6 580 513.20
Transport	R 256 710.00	R 292 649.40
EDNS	R 1 998 205.00	R 2 277 953.70
Survey & Design	R 1 619 325.73	R 1 846 031.33
Other	R 3 712 883.00	R 4 232 686.62
Total	R 28 465 438.73	R 32 450 600.15

The above costs exclude escalation, which will be dealt with in detail in the Budget Quotation.

5. FINANCIAL

The applicable charges are set out in Table 2

5.1. Connection Charges

5.1.1 The cost of the Eskom Connection Equipment will be charged in accordance with the investment criteria contained in the Code as follows:

- For a Standard Connection, the Customer must pay for all dedicated costs through a Standard Connection Charge. If applicable, Eskom may also recover upstream costs through the Standard Connection Charge from the Customer.
- For a Premium Connection, the cost of additional dedicated assets, plus a pro-rata share of the upstream network, associated with providing a requested Premium Connection must be paid by the Customer through a Premium Connection Charge.

5.1.2 The Customer shall pay the Connection Charges at the time of accepting the budget quotation or as otherwise agreed with Eskom.

5.2. Connection Charge Guarantee

5.2.1 If the Connection Charge is not paid up front, the Customer shall provide a connection charge guarantee. This guarantee amount will be decreased by each payment received in terms of the agreed payment schedule. A bank guarantee may be provided, for which a blank guarantee form is available on request.

5.3. Early Termination Guarantee

5.3.1 Not all costs associated with the Eskom Connection Equipment will be payable as a Connection Charge. An early termination guarantee, as indicated in Table 3 below, shall be required to cover the risk of early termination for costs that are not funded by the Connection Charge.

5.3.2 The amount of the early termination guarantee will decrease with 1/10th (one tenth) per year, starting 4 (four) years after this connection is made available

and will be completely extinguished after 13 (thirteen) years. The amount is either payable in cash or a bank guarantee may be provided, for which a blank guarantee form is available on request.

5.3.3 If the project is cancelled before connection or if an Act of Insolvency occurs in relation to the customer before connection of the Facility to the Distribution System or if the Connection and Use-of-System Agreement is terminated before the thirteen-year period has lapsed, Eskom shall be entitled to call up the early termination guarantee without any notice to the Customer.

5.4. **Use-of-System Charges**

The following charges are payable, once the Facility is connected:

5.4.1 The Customer shall pay the monthly Use-of-System Charges for the use of the Transmission or Distribution System, subject to the terms and conditions set out in the Connection and Use-of-System Agreement. The current pricing structure is set out in the pricing annexure "B" attached to this letter.

5.4.2 The Use-of-System Charges shall be based on the location of the Facility, the voltage of the Point of Supply, the amount of energy exported by the Facility and the Maximum Export Capacity.

5.5. **Table of charges**

The estimated figures for the Connection Charges described in 5.1 are as follows

Table 2 – Table of estimated charges and guarantees

Option 1

SUMMARY OF ESTIMATED CONNECTION CHARGES	Excl VAT	Incl VAT
Distribution Standard Connection Charge	R 31 383 146.20	R 35 776 786.67
ETG	**R 1 255 721.98**	

The values are stated in 2012. Rand values and include overheads.

6. BUDGET QUOTATION

Eskom shall provide a budget quotation to the Customer, subject to the conditions set out below and provided that payment of the quotation fee and the documentation/information set out in this paragraph 6 is received within 12 (twelve) months from the date of this letter:

6.1. **Budget quotation conditions**

6.1.1 Where the Customer intends to submit bids in a programme regulated by the Electricity Regulations on New Generation Capacity:

6.1.1.1 The entity responsible for procurement (currently the Department of Energy) must pre-qualify applications to receive a budget quotation based on the published pre-qualification criteria.

6.1.2 Where the Customer does not intend to submit a bid as part of a regulated bid programme, the Customer shall submit:

6.1.2.1 A letter from NERSA confirming receipt of an application for a licence.

6.1.2.2 Proof of land ownership or permission to use the land intended.

6.1.2.3 EA progress – at least a letter of confirmation from the Department of Environmental Affairs, approving the scoping report and appointment of an environmental consultant to conduct the studies necessary to obtain environmental approvals or permits.

6.1.2.4 Proof of reasonable viability of the proposed technology regarding the primary energy source.

6.1.3 The Customer shall complete and submit Annexure A: Request for budget quotation to Eskom.

6.1.4 The Customer shall complete and submit Part 2 of the application form to Eskom.

6.1.5 The Customer shall pay the quotation fee once the applicant has been pre-qualified in terms of paragraph 6.1.1.1 and/or satisfied the required conditions in paragraph 6.1.2.

6.2 Quotation fee

6.2.1 Eskom will incur costs, such as survey, environmental impact assessments, and detailed design, in providing a budget quotation. These costs are payable upfront as a quotation fee before Eskom will proceed with the budget quotation.

6.2.2 If the Customer qualifies to receive a budget quotation, the quotation fee will, in present terms, amount to R 1,619,325.73, (+ VAT = R 1,846,031.33) This quotation fee will be valid for a period of 12 months from the date of this letter, where after the cost estimate and quotation fee may be revised by Eskom.

6.2.3 After acceptance of any budget quotation, the quotation fee will be deducted from the project costs and subsequently the Connection Charge will be adjusted accordingly. Should the Customer decide not to accept the budget quotation, the quotation fee will be forfeited to offset costs.

7 LEGAL

7.1 Eskom may not connect the Facility to the Distribution System unless the Customer has obtained approval or a license from NERSA and complies with the prevailing law in general. Any costs incurred by Eskom, at or after providing the budget quotation, is payable by the Customer irrespective of whether these approvals are obtained or not.

7.2 If you wish Eskom to proceed to provide a budget quotation the Customer must complete the "Request for a Budget Quotation" letter, attached to this cost estimate letter as annexure "A" and forward the request together with the quotation fee and other required documentation, to Eskom, within 12 months of the date of signature of this letter.

7.3 Before the Facility is connected to the Distribution System, the Customer shall enter into a written Connection and Use-of-System Agreement with Eskom related to the connection of the Facility to the Distribution System. Such agreement shall regulate the terms upon which the Facility may be connected to the Distribution System.

7.4 Where the Customer has been allowed to exercise the self-build option, a Self-built Construction Agreement will be required to be signed with Eskom. If the Customer fails to construct the Self-built Connection Assets in accordance with the required Eskom Standards and specifications, Eskom will not be obligated to take ownership of these assets or to energise it. In this instance, the Customer will retain ownership and manage the Self-built Connection Assets itself until such time as the Customer has brought these assets in line with the required standards and specifications. Should the Customer fail to meet this requirement, Eskom can provide to the Customer a new quotation to complete the project and take over the assets.

7.5 If the Customer intends also to consume electricity at the Facility, which is to be supplied by Eskom, and the Customer does not have an electricity supply agreement or the terms and conditions of the Customer's existing electricity supply agreement will change due to the establishment of the Facility, the Customer shall be required to

sign an electricity supply agreement that will regulate the supply of electricity to the Facility. Please contact Valmon Muller at telephone number +27 11 711 2707 if this is the case.

7.6 The Customer shall be liable to pay any taxes and/or levies relating to the subject matter hereof, which may be imposed in terms of any existing and/or future legislation or as approved by NERSA.

7.7 The terms and conditions of this letter are subject to the provisions of the Code, the Electricity Regulation Act (No 4 of 2006) and the rules and regulations issued thereunder, including any rules and regulations pertaining to an electricity conservation or a rationing programme or -scheme, and of Eskom's licences and schedule of standard prices, as amended or re-enacted from time to time and any other applicable laws.

7.8 The information contained in this cost estimate letter should not be used for anything other than its intended purpose. Eskom accepts no liability, contractual or otherwise, as a result of any reliance on this information and the Customer accordingly indemnifies Eskom against any liability emanating from the use of this information.

7.9 Eskom's bank account details for direct deposits or bank transfers are:

Bank:	FNB
Eskom regional bank account number:	62006191077
Eskom regional branch code:	255005
CC&B Account number	N/A
Reference number	68204042

Please attach proof of payment to this letter.

For any information, enquiries or confirmation, please contact Valmon Muller at telephone number +27 11 711 2707.

I thank you for the opportunity of allowing Eskom to provide this service and trust that your favourable written reply will reach this office shortly.

Yours sincerely

.....
TG Kgabo
SENIOR MANAGER: GRID ACCESS UNIT

28/08/2012
.....
Date:

Cc Customer file

ENVIRONAMICS
Environmental Consultants

Ref: 2012-14Surr.owner7; CC Reg.No: 2007/225140/23

PO Box 6484,
Baillie Park, 2526

Tell: 018 299 1505
Fax: 018 299 1580
Cell. 082 220 8651
e-mail: Carli.Steenkamp@nwu.ac.za

CHRIS VAN ZYL TRUST
PO Box 1801
Vryburg
8600

For Attention: Dr. Chris van Zyl

8 August 2012

EIA PROCESS: NOTICE TO SURROUNDING LAND OWNERS/OCCUPIERS

Notice is hereby given in terms of regulations published in Government Notice No. R. 543, 544 and 545 in terms of Chapter 5 of the National Environmental Management Act (107 of 1998) of intent to carry out the following activity:

> The development of a 75MW photovoltaic solar plant and associated infrastructure on a portion of the Remaining Extent of the farm Rosendal 673, Registration Division IN, North West, situated within the Naledi Local Municipality area of jurisdiction. The location for the proposed development is indicated on the attached locality map.

The developer has commissioned an Environmental Impact Assessment (EIA) as required by the National Environmental Management Act (107 of 1998). Environamics is appointed as the independent consultant responsible for the EIA. Section 56(2)(b) of the Regulations requires that all surrounding land owners and occupiers be given written notice and opportunity to comment on the proposed activity. In light of this requirement please provide the following information if you wish to participate as a registered interested and affected party in the authorisation process:

Name:	C. G. VAN ZYL		
Property description:	WATERLOO FARM		
Tel:	0539271038	**Fax:**	0539271079
Cell:	0827793974	**e-mail:**	[illegible]
COMMENTS (if any): No.			
Signature:	[signature]	**Date:**	3/9/2012.

Please return this form to the following contact details (either fax, post or e-mail) no later than **17 Sept. 2012**; **Fax:** (018) 299 1580; **Post:** Environamics, PO Box, 6484, Baillie Park, 2526; or **e-mail:** Carli.Steenkamp@nwu.ac.za