

#### APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATION

File Reference Number: **NEAS Reference Number:** 

Date Received:

(For official use only) 14/12/16/3/3/2/504 DEAT/EIA/0001751/2013

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

#### **PROJECT TITLE**

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV2) on Badenhorst Dam Farm near De Aar, Northern Cape

Kindly note that:

- This application form is current as of 2 August 2010. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
- The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
- Where applicable black out the boxes that are not applicable in the form. 3.
- Incomplete applications may be returned to the applicant for revision.
- The use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the Regulations.
- This application must be handed in at the offices of the relevant competent authority as determined by the Act and regulations.
- No faxed or e-mailed applications will be accepted. 7.
- Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.
- Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

#### Queries must be addressed to the contact hereunder:

#### **Departmental Details**

#### Postal address:

Department of Environmental Affairs

Attention: Director: Environmental Impact Evaluation

Private Bag X447

Pretoria 0001

#### Physical address:

Department of Environmental Affairs

Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)

2<sup>nd</sup> Floor North Tower

315 Pretorius Street

Pretoria

0002

Queries should be directed to the Directorate: Environmental Impact Evaluation at:

Tel: 012-310-3268

Fax: 012-320-7539

Please note that this form <u>must</u> be copied to the relevant provincial environmental department/s.

View the Department's website at <a href="http://www.deat.gov.za/">http://www.deat.gov.za/</a> for the latest version of the documents.

#### SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

Ва	denh	orst [	Dam	Farm	180			_									-			_
C	0	5	7	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	1

(if there are more that 6, please attach a list with the rest of the numbers)
(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

#### PROJECT TITLE

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV2) on Badenhorst Dam Farm near De Aar, Northern Cape

#### 1. BACKGROUND INFORMATION

Mulilo Renewable Energy (Pty) I	Ltd	
Warren Morse		
Office 301 Execujet Business (	Centre, Tower	Road, Cape Town Internationa
7525	Cell:	083 760 9586
021 934 5278	Fax:	021 935 0505
warren@mulilo.com		
Northern Cape Department of Er	nvironmental A	ffairs and Nature Conservation
Ms Anga Yaphi		
Private Bag X6102, Kimberley		
8300	Cell:	079 695 0267
054 332 2885	Fax:	054 331 1155
ayaphi@upprov.ncape.gov.za		
De Aar Stone Crushers Ltd, Farn	n 180 Portion	(Please see Annexure C)
P.O Box 340, De Aar		
7000	Cell:	082 259 6096
053 631 0046	Fax:	
	]	
	tails to this app	olication
Emthanjeni Local Municipality		
De Aar, Northern Cape.		
		0.0000000000000000000000000000000000000
	Fax:	053 631 0105
deaar@emthanjeni.co.za		
	Warren Morse Office 301 Execujet Business C PO Box 50, Cape Town Internat 7525 021 934 5278 warren@mulilo.com  Northern Cape Department of Er Ms Anga Yaphi Private Bag X6102, Kimberley 8300 054 332 2885 ayaphi@upprov.ncape.gov.za  De Aar Stone Crushers Ltd, Farr P.O Box 340, De Aar 7000 053 631 0046  In instances where there is more	Office 301 Execujet Business Centre, Tower PO Box 50, Cape Town International Airport 7525

#### 2. ACTIVITIES APPLIED FOR TO BE AUTHORISED

2.1 For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant notice) :	Describe each listed activity as per project description¹:
544, 2 August 2010	9	In order to transport water from the Municipal supply system to the proposed PV facility at Badenhorst Dam, a pipeline may be constructed.
544, 2 August 2010	10	A 132kV overhead distribution line would be required to connect the PV facility to the onsite-substation. The 132kV distribution line would be approximately 2km long.
544, 2 August 2010	11 (x and xi)	Buildings and structures exceeding 50 m <sup>2</sup> are being proposed for Badenhorst Dam farm and it is possible that these might be within 32 meters of small tributaries.
545, 2 August 2010	1	The proposed solar (PV) facilities would each have a generation capacity of 75MW; as such this activity is triggered.
545, 2 August 2010	<u>15</u>	Based on our knowledge of the farm, the predominant farming activity is grazing. It is therefore assumed that this activity would be triggered as the DEA considers grazing land to be undeveloped.
546, 2 August 2010	10	Dangerous goods might be stored and handled on site from time to time within 100m of a watercourse.
546, 2 August 2010	14	This activity may or may not be triggered depending on the extent of the indigenous vegetation. This will be confirmed by the botanical assessment.
546, 2 August 2010	16	It is assumed that buildings and infrastructure, exceeding 10m² would be constructed on the project site. Depending on the location of the respective buildings, this activity may be triggered.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

2.2 A project schedule, indicating the different phases and timelines of the project, must be attached to this application form (Please see Annexure A).

<sup>&</sup>lt;sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description

#### 3. OTHER AUTHORISATIONS REQUIRED

#### 3.1 DO YOU NEED ANY AUTHORISATIONS IN TERMS OF ANY OF THE FOLLOWING LAWS?

3.1.1 National Environmental Management: Waste Act	No
3.1.2 National Environmental Management: Air Quality Act	No
3.1.3 National Environmental Management: Protected Areas Act	No
3.1.4 National Environmental Management: Biodiversity Act	No
3.1.5 National Environmental Management:	
Integrated Coastal Management Act <sup>2</sup>	No
3.1.6 National Water Act	Yes
3.1.7 National Heritage Resources Act	Yes
3.1.8 Mineral Petroleum Development Resources Act	No
3.1.9 Other (please specify)	No
3.2 Have such applications been lodged already?	No

<sup>&</sup>lt;sup>2</sup> Where an environmental authorization in terms of chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all the relevant factors including those listed in section 63(1) of the National Environmental Management: Integrated Coastal Management Act.

#### 4. DECLARATIONS

#### 4.1 The Applicant

#### I, Warren Morse of Mulilo Renewable Energy (PTY) Ltd ,declare that I -

- am, or represent<sup>3</sup>, the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment
- practitioner to act as the independent environmental assessment practitioner for this application /
- will obtain exemption from the requirement to obtain an environmental assessment practitioner<sup>4</sup>;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment

Regulations, 2010, including but not limited to -

- costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
- costs incurred in respect of the undertaking of any process required in terms of the Regulations;
- costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
- costs in respect of specialist reviews, if the competent authority decides to recover costs; and
- the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;

will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;

will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;

am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;

hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;

will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;

will perform all other obligations as expected from an applicant in terms of the Regulations;

<sup>3</sup> If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached (**Please see Annexure B**).

<sup>&</sup>lt;sup>4</sup> If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

all the particulars furnished by me in this form are true and correct; and I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant <sup>5</sup> / Signature on behalf of the applicant:
Mulilo henewable Energy (PTY) LTD  Name of company (if applicable):
11.07.2013
Date:

<sup>&</sup>lt;sup>5</sup> If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority. An EAP may not sign on behalf of an applicant.



Department Environment REPUBLIC					
DETAILS OF EAP AND	DECLARATION OF I	NTEREST			
File Reference Number: NEAS Reference Number	14/12/16/3 DEAT/EIA/	the second control of	and the second	398	
Date Received:					
Application for authorisa 1998), as amended and	tion in terms of the Na the Environmental Imp	tional Environn act Assessme	nental Mana nt Regulatio	ngement Act, 1998 (Act No. ns, 2010	107 of
PROJECT TITLE Proposed Photovoltaic	(Solar) Energy Plan	t (referred to	as Radoni	norst PV2) on Badenhors	4 Daw
Farm near De Aar, Nort	hern Cape		as Daueiii	orst PV2) on Badennors	t Dam
Environmental Assessment Practitioner (EAP):1	Aurecon South Africa	a (Pty) Ltd			
Contact person:	Miss Karen Versfeld				
Postal address: Postal code:	PO Box 494, Cape T 8000	own	T 0 - II	1004454	
Telephone:	021 526 5737		Cell:	084 454 9944	
E-mail:	karen.versfeld@aure	condroup com		021 526 9500	
Professional affiliation(s) (if any)				ural Scientist with SACNASF	Ρ.
Project Consultant:	N/A				
Contact person:					
Postal address:					
Postal code:			Cell:		_
Telephone: E-mail:			Fax:		

#### I, Karen Versfeld of Aurecon South Africa (Pty) Ltd, declare that -

#### General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing
  the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession
  that reasonably has or may have the potential of influencing any decision to be taken with respect to the
  application by the competent authority; and the objectivity of any report, plan or document to be prepared by
  myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that
  are submitted to the competent authority in respect of the application, provided that comments that are made by
  interested and affected parties in respect of a final report that will be submitted to the competent authority may
  be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

#### Disclosure of Vested Interest (delete whichever is not applicable)

 I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

	-			<del></del>	
Si	gna	iture o	f the	environmenta	assessment practitioner:

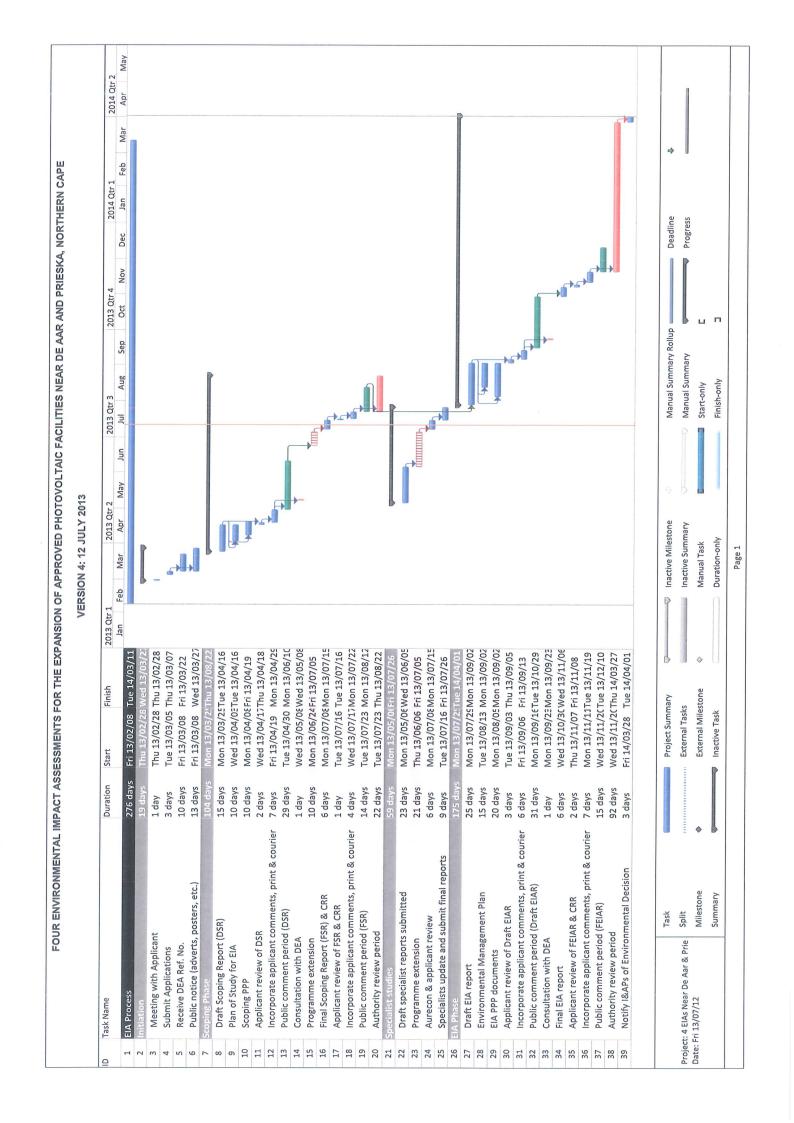
Aurecon South Africa (Pty) Ltd

Name of company:

10/07/2013

Date: 1

# ANNEXURE A Project Programme



### **ANNEXURE B**

### Letter from Applicant Regarding Signing Rights



#### Mulilo Renewable Energy (Pty )Ltd

**PHYSICAL ADDRESS** 

Office 301 Execujet Business Centre Tower Road Cape Town International Airport 7525 South Africa Telephone: +27 (0) 21 934 5268

Facsimile: +27 (0) 21 935 0505 / 0866356809 Email : <u>chris@capedeep.com</u>

POSTAL ADDRESS P O Box 50

Cape Town International Airports

7525 South Africa

4th March 2013

#### RESOLUTION

Further to a meeting of the board of Mulilo Renewable Energy (Pty) Ltd, held at Cape Town on 4<sup>th</sup> March 2013, it has been agreed that Warren Morse has the authority to sign the Application Forms for Environmental Authorisation.

Signed at Cape Town on 4th March 2013

Director

C Aberdein Director

Directors: CD Aberdein, J Coetsee, D J Crombie, J H Cullum

Mulilo Renewable Energy (Pty) Ltd Registration number: 2008 / 010114 / 07

PO Box 50 Cape Town International Airport Cape Town 7525 South Africa

## ANNEXURE C Landowner Consent

SOLAR & WIND

AWSAw/lease : 08/04/09

#### **MEMORANDUM VAN HUUROOREENKOMS**

aangegaan en gesluit tussen

De Aar Stone Crushers Bk

BL 1998/012 728/23

(Registrasienommer: )

(die 'VERHUURDER')

en

#### **MULILO RENEWABLE ENERGY (EDMS) BPK**

(Registrasienommer: 2008/010114/07)

(die 'HUURDER')

Me of

#### 1. INTERPRETASIE

In hierdie Huurooreenkoms, tensy die konteks tot die teendeel aandui:

1.1 beteken die VERHUURDER:

De Aar Stone Crushers BK

- 1.2 beteken die HUURDER Mulilo Renewable Energy (Edms) Bpk Ltd, Registrasienommer: 2008/010114/07, verteenwoordig deur Johannes Coetsee, wie behoorlik gemagtig is om as sodanig op te tree, van p/a Keeromstraat 68, Kaapstad, 8001;
- 1.4 beteken die AANVANGSDATUM die datum van ondertekening van hierdie Huurooreenkoms deur die party daartoe wat dit laaste onderteken;
- beteken die OKKUPASIEDATUM die Aanvangsdatum;
- 1.6 beteken die AKTIVERINGSDATUM die eerste datum wat 'n turbine krag aan Eskom of 'n ander kommersiële gebruiker lewer, soos voorsiening voor gemaak word in klousule 5.4 hieronder.

r gemaak word in



#### APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATION

File Reference Number: **NEAS Reference Number:** Date Received:

(Fior official luste) officy) 14/12/16/3/3/2/483 DEAT/EIA/0001750/2013

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

#### **PROJECT TITLE**

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV3) on Badenhorst Dam Farm near De Aar, Northern Cape

Kindly note that:

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#### **Departmental** Details

#### Postal address:

Department of Environmental Affairs

Attention: Director: Environmental Impact Evaluation

Private Bag X447

Pretoria 0001

#### Physical address:

Department of Environmental Affairs

Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)

2<sup>nd</sup> Floor North Tower

315 Pretorius Street

Pretoria

0002

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Fax: 012-320-7539

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Bac	denh	orst [	Dam I	Farm	180	_														
C	0	5	7	0	0	0	0	0	0	0	0	0	1	8	0	0	0_	0	0	1

(if there are more that 6, please attach a list with the rest of the numbers) (These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

#### PROJECT TITLE

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV3) on Badenhorst Dam Farm near De Aar, Northern Cape

#### 1. BACKGROUND INFORMATION

Project applicant:	Mulilo Renewable Energy (Pty)	+4	
Trading name (if any):	Ividillo Renewable Energy (Fty)		
Contact person:	Warren Morse		
Physical address:	Office 301 Execujet Business (	Centro Tower	Poad Cano Town International
Postal address:	PO Box 50, Cape Town Internat	ional Airnort	Road, Cape Town internationa
Postal code:	7525	Cell:	083 760 9586
Telephone:	021 934 5278	Fax:	021 935 0505
E-mail:	warren@mulilo.com	] ' ux.	021 000 0000
Provincial Authority:	Northern Cape Department of E	nvironmental A	ffairs and Nature Conservation
Contact person:	Ms Anga Yaphi		
Postal address:	Private Bag X6102, Kimberley		
Postal code:	8300	Cell:	079 695 0267
Telephone:	054 332 2885	Fax:	054 331 1155
E-mail:	ayaphi@upprov.ncape.gov.za		
Landowner:	De Aar Stone Crushers Ltd, Farr	n 180 Portion	(please see Annexure C).
Contact person:			
Postal address:	P.O. Box 340, De Aar		
Postal code:	7000	Cell:	082 259 6096
Telephone:	053 631 0046	Fax:	
E-mail:		<u> </u>	
	In instances where there is more	e than one lan	downer, please attach a list of
Land anthonyth to be	landowners with their contact de	tails to this app	olication.
Local authority in whose jurisdiction the	Emthanjeni Local Municipality		
proposed activity will			
fall:			
iaii.			
Nearest town or	De Aar, Northern Cape.		
districts:	Do rtar, Hormom Cape.		
Contact person:	Mev. C. Kloppers		
Postal address:	45 Voortrekker street	_	
Postal code:	7000	Cell:	
	053 632 9100	Fax;	053 631 0105
_ '	deaar@emthanjeni.co.za	. 4/11	000 001 0100

#### 2. ACTIVITIES APPLIED FOR TO BE AUTHORISED

2.1 For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant notice) :	Describe each listed activity as per project description <sup>1</sup> :
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Please note that any authorisation that may result from this application will only cover activities specifically applied for.

2.2 A project schedule, indicating the different phases and timelines of the project, must be attached to this application form. (please see Annexure B).

<sup>&</sup>lt;sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description

#### 3. OTHER AUTHORISATIONS REQUIRED

#### 3.1 DO YOU NEED ANY AUTHORISATIONS IN TERMS OF ANY OF THE FOLLOWING LAWS?

3.1.1 National Environmental Management: Waste Act	No
3.1.2 National Environmental Management: Air Quality Act	No
3.1.3 National Environmental Management: Protected Areas Act	No
3.1.4 National Environmental Management: Biodiversity Act	No
3.1.5 National Environmental Management:	
Integrated Coastal Management Act <sup>2</sup>	No
3.1.6 National Water Act	Yes
3.1.7 National Heritage Resources Act	Yes
3.1.8 Mineral Petroleum Development Resources Act	No
3.1.9 Other (please specify)	No
3.2 Have such applications been lodged already?	No

<sup>&</sup>lt;sup>2</sup> Where an environmental authorization in terms of chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all the relevant factors including those listed in section 63(1) of the National Environmental Management: Integrated Coastal Management Act.

#### 4. DECLARATIONS

#### 4.1 The Applicant

#### I, Warren Morse of Mulilo Renewable Energy (PTY) Ltd ,declare that I -

- am, or represent<sup>3</sup>, the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment
- practitioner to act as the independent environmental assessment practitioner for this application /
- will obtain exemption from the requirement to obtain an environmental assessment practitioner<sup>4</sup>;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
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Regulations, 2010, including but not limited to -

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- costs incurred in respect of the undertaking of any process required in terms of the Regulations;
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- costs in respect of specialist reviews, if the competent authority decides to recover costs; and
- the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;

will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;

will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;

am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;

hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;

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will perform all other obligations as expected from an applicant in terms of the Regulations;

<sup>3</sup> If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached (please see Annexure B).

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Signature of the applicant <sup>5</sup> / Signature on behalf of the applicant:	
Mulilo Renewable Energy (PTY) LTD  Name of company (if applicable):	
11.07.2013 Date:	

<sup>&</sup>lt;sup>5</sup> If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority. An EAP may not sign on behalf of an applicant.



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Application for authorisa	ation in terms of the Nat	ional Environm	ental Mana	agement Act, 1998 (Act No. 107 of
1990), as amended and	the Environmental Imp	act Assessmen	t Regulatio	ns, 2010
PROJECT TITLE				
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Farm near De Aar, Nor	thern Cape	(10101104 10	us Daueili	loist PV3) oil Badelinoist Dam
Environmental				
Assessment Practitioner	Aurecon South Africa	ı (Pty) Ltd		
(EAP):1	NA' 16 NA 6 11			
Contact nargon:				
Contact person:	Miss Karen Versfeld			
Postal address:	PO Box 494, Cape To	own		
Postal address: Postal code:	PO Box 494, Cape To 8000	own	Cell:	084 454 9944
Postal address: Postal code: Telephone:	PO Box 494, Cape To 8000 021 526 5737		Cell: Fax:	084 454 9944 021 526 9500
Postal address: Postal code: Telephone: E-mail:	PO Box 494, Cape To 8000			
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s)	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree	congroup.com	Fax:	021 526 9500
Postal address: Postal code: Telephone: E-mail:	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree	congroup.com	Fax:	
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s) (if any)	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree Miss Versfeld is regis	congroup.com	Fax:	021 526 9500
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s) (if any)  Project Consultant:	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree	congroup.com	Fax:	021 526 9500
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s) (if any)  Project Consultant: Contact person:	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree Miss Versfeld is regis	congroup.com	Fax:	021 526 9500
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s) (if any)  Project Consultant: Contact person: Postal address:	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree Miss Versfeld is regis	congroup.com tered as a Cand	Fax: didate Natu	021 526 9500
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s) (if any)  Project Consultant: Contact person: Postal address: Postal code:	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree Miss Versfeld is regis	congroup.com tered as a Can	Fax:  didate Natu	021 526 9500
Postal address: Postal code: Telephone: E-mail: Professional affiliation(s) (if any)  Project Consultant: Contact person: Postal address:	PO Box 494, Cape To 8000 021 526 5737 karen.versfeld@auree Miss Versfeld is regis	congroup.com tered as a Can	Fax: didate Natu	021 526 9500

#### 4.2 The Environmental Assessment Practitioner

#### I, Karen Versfeld of Aurecon South Africa (Pty) Ltd, declare that -

#### General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession
  that reasonably has or may have the potential of influencing any decision to be taken with respect to the
  application by the competent authority; and the objectivity of any report, plan or document to be prepared by
  myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that
  are submitted to the competent authority in respect of the application, provided that comments that are made by
  interested and affected parties in respect of a final report that will be submitted to the competent authority may
  be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

#### Disclosure of Vested Interest (delete whichever is not applicable)

 I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

Sig	nat	ure o	of the	environmenta	al assessment practitioner:	_

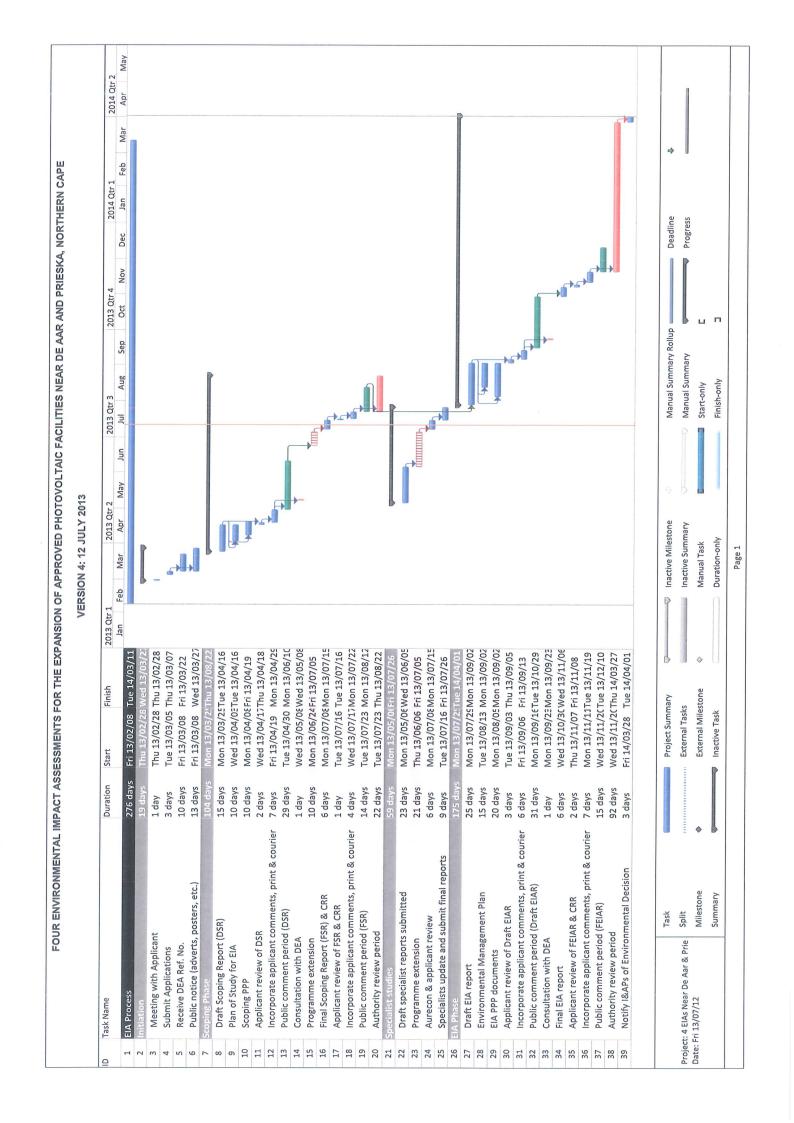
Aurecon South Africa (Pty) Ltd

Name of company:

16/07/2013

Date:

# ANNEXURE A Project Programme



### **ANNEXURE B**

### Letter from Applicant Regarding Signing Rights



#### Mulilo Renewable Energy (Pty )Ltd

**PHYSICAL ADDRESS** 

Office 301 Execujet Business Centre Tower Road Cape Town International Airport 7525 South Africa Telephone: +27 (0) 21 934 5268

Facsimile: +27 (0) 21 935 0505 / 0866356809 Email : <u>chris@capedeep.com</u>

POSTAL ADDRESS P O Box 50

Cape Town International Airports

7525 South Africa

4th March 2013

#### RESOLUTION

Further to a meeting of the board of Mulilo Renewable Energy (Pty) Ltd, held at Cape Town on 4<sup>th</sup> March 2013, it has been agreed that Warren Morse has the authority to sign the Application Forms for Environmental Authorisation.

Signed at Cape Town on 4th March 2013

Director

C Aberdein Director

Directors: CD Aberdein, J Coetsee, D J Crombie, J H Cullum

Mulilo Renewable Energy (Pty) Ltd Registration number: 2008 / 010114 / 07

PO Box 50 Cape Town International Airport Cape Town 7525 South Africa

## ANNEXURE C Landowner Consent

SOLAR & WIND

AWSAw/lease : 08/04/09

#### **MEMORANDUM VAN HUUROOREENKOMS**

aangegaan en gesluit tussen

De Aar Stone Crushers Bk

BL 1998/012 728/23

(Registrasienommer: )

(die 'VERHUURDER')

en

#### **MULILO RENEWABLE ENERGY (EDMS) BPK**

(Registrasienommer: 2008/010114/07)

(die 'HUURDER')

Me of

#### 1. INTERPRETASIE

In hierdie Huurooreenkoms, tensy die konteks tot die teendeel aandui:

1.1 beteken die VERHUURDER:

De Aar Stone Crushers BK

- 1.2 beteken die HUURDER Mulilo Renewable Energy (Edms) Bpk Ltd, Registrasienommer: 2008/010114/07, verteenwoordig deur Johannes Coetsee, wie behoorlik gemagtig is om as sodanig op te tree, van p/a Keeromstraat 68, Kaapstad, 8001;
- 1.4 beteken die AANVANGSDATUM die datum van ondertekening van hierdie Huurooreenkoms deur die party daartoe wat dit laaste onderteken;
- beteken die OKKUPASIEDATUM die Aanvangsdatum;
- 1.6 beteken die AKTIVERINGSDATUM die eerste datum wat 'n turbine krag aan Eskom of 'n ander kommersiële gebruiker lewer, soos voorsiening voor gemaak word in klousule 5.4 hieronder.

r gemaak word in



## APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATION

File Reference Number: NEAS Reference Number:

14/12/16/3/3/2/506

Date Received:

DEAT/EIA/0001752/2013

(For official use only)

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

## **PROJECT TITLE**

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV4) on Badenhorst Dam Farm near De Aar, Northern Cape

Kindly note that:

- 1. This application form is current as of 2 August 2010. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
- The application must be typed within the spaces provided in the form. The sizes of the spaces provided are
  not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format
  and will extend automatically when each space is filled with typing.
- 3. Where applicable black out the boxes that are not applicable in the form.
- 4. Incomplete applications may be returned to the applicant for revision.
- 5. The use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the Regulations.
- This application must be handed in at the offices of the relevant competent authority as determined by the Act and regulations.
- 7. No faxed or e-mailed applications will be accepted.
- 8. Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.
- Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

## Queries must be addressed to the contact hereunder:

### **Departmental Details**

### Postal address:

Department of Environmental Affairs

Attention: Director: Environmental Impact Evaluation

Private Bag X447

Pretoria

0001

## Physical address:

Department of Environmental Affairs

Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)

2<sup>nd</sup> Floor North Tower

315 Pretorius Street

Pretoria

0002

Queries should be directed to the Directorate: Environmental Impact Evaluation at:

Tel: 012-310-3268

Fax: 012-320-7539

Please note that this form <u>must</u> be copied to the relevant provincial environmental department/s.

View the Department's website at <a href="http://www.deat.gov.za/">http://www.deat.gov.za/</a> for the latest version of the documents.

## SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (Including portions of sites) that are part of the application.

Badenhorst Dam Farm 180																				
C		5	7		0	0	0	0		0	0	0	1	8	0	0	0	0	0	1

(if there are more that 6, please attach a list with the rest of the numbers)
(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

## **PROJECT TITLE**

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV4) on Badenhorst Dam Farm near De Aar, Northern Cape

## 1. BACKGROUND INFORMATION

Project applicant:	Mulilo Renewable Energy (Pty) L	td								
Trading name (if any):										
Contact person:	Warren Morse									
Physical address:	Office 301 Execujet Business Centre, Tower Road, Cape Town International									
Postal address:	PO Box 50, Cape Town Internation	onal Airport								
Postal code:	7525	Cell:	083 760 9586							
Telephone:	021 934 5278	Fax:	021 935 0505							
E-mail:	warren@mulilo.com									
Provincial Authority:	Northern Cape Department of En	vironmental At	fairs and Nature Conservation							
Contact person:	Ms Anga Yaphi									
Postal address:	Private Bag X6102, Kimberley									
Postal code:	8300	Cell:	079 695 0267							
Telephone:	054 332 2885	Fax:	054 331 1155							
E-mail:	ayaphi@upprov.ncape.gov.za									
Landowner:	De Aar Stone Crushers Ltd, Farm	180 Portion 1	(please see Annexure C).							
Contact person:										
Postal address:	P.O Box 340, De Aar									
Postal code:	7000	Cell:	082 259 6096							
Telephone:	053 631 0046	Fax:								
E-mail:										
	In instances where there is more									
	landowners with their contact det	tails to this app	olication.							
Local authority in whose	Emthanjeni Local Municipality									
jurisdiction the										
proposed activity will										
fall:										
Nearest town or	De Aar, Northern Cape.									
districts:	Bo Mar, Morthern Supe.									
Contact person:	Mev. C. Kloppers									
Postal address:	45 Voortrekker street									
Postal code:	7000	Cell:								
Telephone:	053 632 9100	Fax:	053 631 0105							
E-mail:	deaar@emthanjeni.co.za									

## 2. ACTIVITIES APPLIED FOR TO BE AUTHORISED

2.1 For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant notice) :	Describe each listed activity as per project description <sup>1</sup> :
544, 2 August 2010	9	In order to transport water from the Municipal supply system to the proposed PV facility at Badenhorst Dam, a pipeline may be constructed.
544, 2 August 2010	10	A 132kV overhead distribution line would be required to connect the PV facility to the onsite-substation. The 132kV distribution line would be approximately 2km long.
544, 2 August 2010	11 (x and xi)	Buildings and structures exceeding 50 m <sup>2</sup> are being proposed for Badenhorst Dam farm and it is possible that these might be within 32 meters of small tributaries.
545, 2 August 2010	1	The proposed solar (PV) facilities would each have a generation capacity of 75MW; as such this activity is triggered.
545, 2 August 2010	<u>15</u>	Based on our knowledge of the farm, the predominant farming activity is grazing. It is therefore assumed that this activity would be triggered as the DEA considers grazing land to be undeveloped.
546, 2 August 2010	10	Dangerous goods might be stored and handled on site from time to time within 100m of a watercourse.
546, 2 August 2010	14	This activity may or may not be triggered depending on the extent of the indigenous vegetation. This will be confirmed by the botanical assessment.
546, 2 August 2010	16	It is assumed that buildings and infrastructure, exceeding 10m <sup>2</sup> would be constructed on the project site. Depending on the location of the respective buildings, this activity may be triggered.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

2.2 A project schedule, indicating the different phases and timelines of the project, must be attached to this application form (please see Annexure A).

<sup>&</sup>lt;sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description

## 3. OTHER AUTHORISATIONS REQUIRED

## 3.1 DO YOU NEED ANY AUTHORISATIONS IN TERMS OF ANY OF THE FOLLOWING LAWS?

3.1.1 National Environmental Management: Waste Act	No
3.1.2 National Environmental Management: Air Quality Act	No
3.1.3 National Environmental Management: Protected Areas Act	No
3.1.4 National Environmental Management: Biodiversity Act	No
3.1.5 National Environmental Management:	
Integrated Coastal Management Act <sup>2</sup>	No
3.1.6 National Water Act	Yes
3.1.7 National Heritage Resources Act	Yes
3.1.8 Mineral Petroleum Development Resources Act	No
3.1.9 Other (please specify)	No
3.2 Have such applications been lodged already?	No

<sup>2</sup> Where an environmental authorization in terms of chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all the relevant factors including those listed in section 63(1) of the National Environmental Management: Integrated Coastal Management Act.

#### 4. DECLARATIONS

## 4.1 The Applicant

## I, Warren Morse of Mulilo Renewable Energy (PTY) Ltd ,declare that I -

- am, or represent<sup>3</sup>, the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment
- · practitioner to act as the independent environmental assessment practitioner for this application /
- will obtain exemption from the requirement to obtain an environmental assessment practitioner<sup>4</sup>;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment

Regulations, 2010, including but not limited to -

- costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
- costs incurred in respect of the undertaking of any process required in terms of the Regulations;
- costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
- costs in respect of specialist reviews, if the competent authority decides to recover costs; and
- the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;

will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;

will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;

am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;

hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations:

will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;

will perform all other obligations as expected from an applicant in terms of the Regulations;

<sup>3</sup> If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached (please see Annexure B).

<sup>4</sup> If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

all the particulars furnished by me in this form are true and correct; and I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant <sup>5</sup> / Signature on behalf of the applicant:
Mulilo Renewable Energy (PTY) LTD  Name of company (if applicable):
Name of company (if applicable):
11.07.2013
Date:

<sup>5</sup> If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority. An EAP may not sign on behalf of an applicant.



Environment REPUBLIC	al Affairs DF SOUTH AFRICA			
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	L			
DETAILS OF EAP AND	DECLARATION OF IN	NTEREST		
File Reference Number:		(For official to		
NEAS Reference Number	er:	14/12/16/3/	3/2/506 001752/2013	<u> </u>
Date Received:		BETTTETT	700 17 02720 10	
Application for authorisat 1998), as amended and t	ion in terms of the Nat he Environmental Impa	ional Environm act Assessmen	ental Manage t Regulations	ement Act, 1998 (Act No. 107 of , 2010
Proposed Photovoltaic Farm near De Aar, North	(Solar) Energy Plan nern Cape	t (referred to	as Badenho	rst PV4) on Badenhorst Dam
Environmental				
Assessment Practitioner (EAP):1	Aurecon South Africa	(Pty) Ltd		
Contact person:	Miss Karen Versfeld			
Postal address:	PO Box 494, Cape To	own		
Postal code:	8000		Cell:	084 454 9944
Telephone: E-mail:	021 526 5737		Fax:	021 526 9500
Professional affiliation(s) (if any)	karen.versfeld@aure Miss Versfeld is regis		l didate Natura	al Scientist with SACNASP.
Project Consultant:	N/A			
Contact person:				
Postal address:				
Postal code:			Cell:	
Telephone: E-mail:			-ax:	

## 4.2 The Environmental Assessment Practitioner

## I, Karen Versfeld of Aurecon South Africa (Pty) Ltd, declare that -

#### General declaration:

I act as the independent environmental practitioner in this application

I will perform the work relating to the application in an objective manner, even if this results in views and findings
that are not favourable to the applicant

I declare that there are no circumstances that may compromise my objectivity in performing such work;

 I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;

• I will comply with the Act, regulations and all other applicable legislation;

• I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I-undertake to disclose to the applicant and the competent authority all material information in my possession
that reasonably has or may have the potential of influencing - any decision to be taken with respect to the
application by the competent authority; and - the objectivity of any report, plan or document to be prepared by
myself for submission to the competent authority;

 I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;

I will ensure that the comments of all interested and affected parties are considered and recorded in reports that
are submitted to the competent authority in respect of the application, provided that comments that are made by
interested and affected parties in respect of a final report that will be submitted to the competent authority may
be attached to the report without further amendment to the report;

• I will keep a register of all interested and affected parties that participated in a public participation process; and

• I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not

all the particulars furnished by me in this form are true and correct;

 will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and

I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

## Disclosure of Vested Interest (delete whichever is not applicable)

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

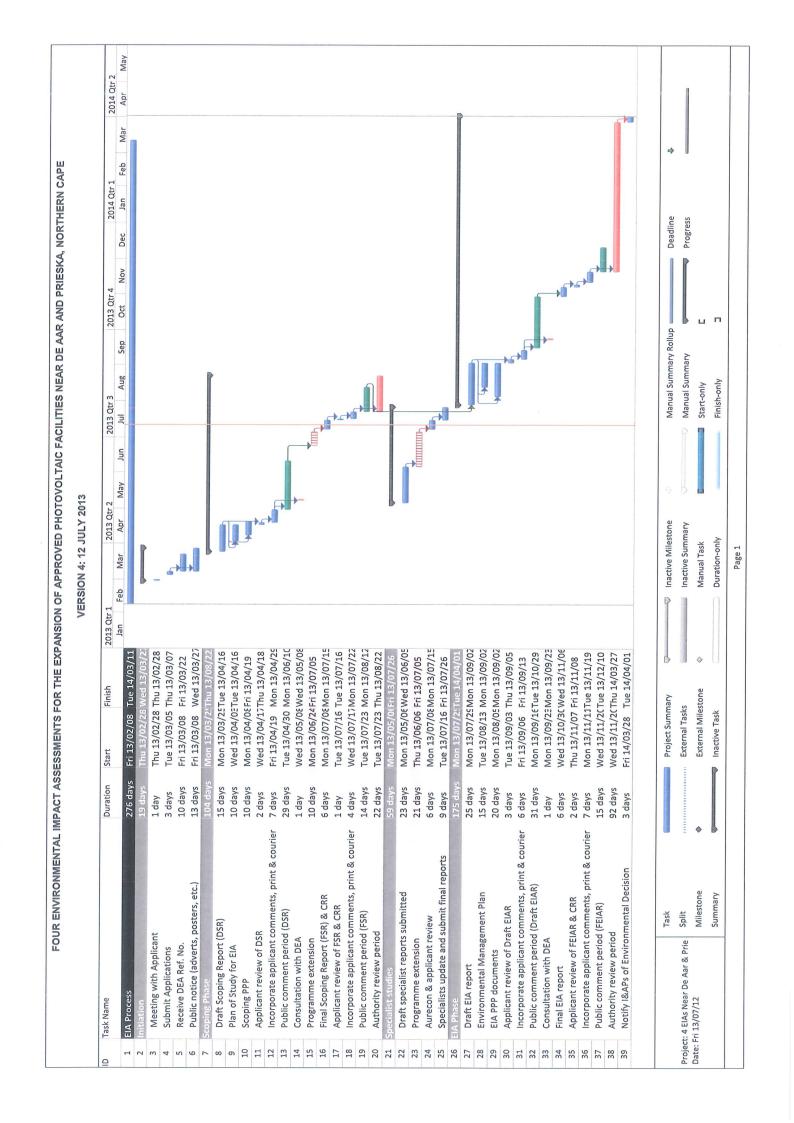
Sid	nature	of the	environmenta	ıl assessn	nent practitione	r:

Aurecon South Africa (Pty) Ltd

Name of company:

10/07/2013 Date:

# ANNEXURE A Project Programme



## **ANNEXURE B**

## Letter from Applicant Regarding Signing Rights



## Mulilo Renewable Energy (Pty )Ltd

**PHYSICAL ADDRESS** 

Office 301 Execujet Business Centre Tower Road Cape Town International Airport 7525 South Africa Telephone: +27 (0) 21 934 5268

Facsimile: +27 (0) 21 935 0505 / 0866356809 Email : <u>chris@capedeep.com</u>

POSTAL ADDRESS P O Box 50

Cape Town International Airports

7525 South Africa

4th March 2013

## RESOLUTION

Further to a meeting of the board of Mulilo Renewable Energy (Pty) Ltd, held at Cape Town on 4<sup>th</sup> March 2013, it has been agreed that Warren Morse has the authority to sign the Application Forms for Environmental Authorisation.

Signed at Cape Town on 4th March 2013

Director

C Aberdein Director

Directors: CD Aberdein, J Coetsee, D J Crombie, J H Cullum

Mulilo Renewable Energy (Pty) Ltd Registration number: 2008 / 010114 / 07

PO Box 50 Cape Town International Airport Cape Town 7525 South Africa

## ANNEXURE C Landowner Consent

SOLAR & WIND

AWSAw/lease : 08/04/09

## **MEMORANDUM VAN HUUROOREENKOMS**

aangegaan en gesluit tussen

De Aar Stone Crushers Bk

BL 1998/012 728/23

(Registrasienommer: )

(die 'VERHUURDER')

en

## **MULILO RENEWABLE ENERGY (EDMS) BPK**

(Registrasienommer: 2008/010114/07)

(die 'HUURDER')

Me of

#### 1. INTERPRETASIE

In hierdie Huurooreenkoms, tensy die konteks tot die teendeel aandui:

1.1 beteken die VERHUURDER:

De Aar Stone Crushers BK

- 1.2 beteken die HUURDER Mulilo Renewable Energy (Edms) Bpk Ltd, Registrasienommer: 2008/010114/07, verteenwoordig deur Johannes Coetsee, wie behoorlik gemagtig is om as sodanig op te tree, van p/a Keeromstraat 68, Kaapstad, 8001;
- 1.4 beteken die AANVANGSDATUM die datum van ondertekening van hierdie Huurooreenkoms deur die party daartoe wat dit laaste onderteken;
- beteken die OKKUPASIEDATUM die Aanvangsdatum;
- 1.6 beteken die AKTIVERINGSDATUM die eerste datum wat 'n turbine krag aan Eskom of 'n ander kommersiële gebruiker lewer, soos voorsiening voor gemaak word in klousule 5.4 hieronder.

r gemaak word in



## APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATION

File Reference Number: **NEAS Reference Number:** Date Received:

(For official ruse only) 14/12/16/3/3/2/485 DEAT/EIA/0001753/2013

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010

## **PROJECT TITLE**

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV5) on Badenhorst Dam Farm near De Aar, Northern Cape

Kindly note that:

- This application form is current as of 2 August 2010. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority.
- The application must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing.
- Where applicable black out the boxes that are not applicable in the form.
- Incomplete applications may be returned to the applicant for revision.
- The use of the phrase "not applicable" in the form must be done with circumspection. Should it be done in respect of material information required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the Regulations.
- This application must be handed in at the offices of the relevant competent authority as determined by the Act and regulations.
- No faxed or e-mailed applications will be accepted.
- Unless protected by law, all information filled in on this application will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this application on request, during any stage of the application process.
- Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

## Queries must be addressed to the contact hereunder:

## **Departmental Details**

#### Postal address:

Department of Environmental Affairs

Attention: Director: Environmental Impact Evaluation

Private Bag X447

Pretoria 0001

## Physical address:

Department of Environmental Affairs

Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)

2<sup>nd</sup> Floor North Tower

315 Pretorius Street

Pretoria

0002

Queries should be directed to the Directorate: Environmental Impact Evaluation at:

Tel: 012-310-3268

Fax: 012-320-7539

Please note that this form <u>must</u> be copied to the relevant provincial environmental department/s.

View the Department's website at <a href="http://www.deat.gov.za/">http://www.deat.gov.za/</a> for the latest version of the documents.

## SITE IDENTIFICATION AND LINKAGE

Please indicate all the Surveyor-general 21 digit site (erf/farm/portion) reference numbers for all sites (including portions of sites) that are part of the application.

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(if there are more that 6, please attach a list with the rest of the numbers)
(These numbers will be used to link various different applications, authorisations, permits etc. that may be connected to a specific site)

## **PROJECT TITLE**

Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV5) on Badenhorst Dam Farm near De Aar, Northern Cape

## 1. BACKGROUND INFORMATION

Project applicant:	Mulilo Renewable Energy (Pty)	I td	
Trading name (if any):	Traine Helle Habie Energy (1 ty)	Liu	
Contact person:	Warren Morse		
Physical address:		Centre Tower	Road, Cape Town Internationa
Postal address:	PO Box 50, Cape Town Interna	tional Airport	Noau, Cape Town Internations
Postal code:	7525	Cell:	083 760 9586
Telephone:	021 934 5278	Fax:	021 935 0505
E-mail:	warren@mulilo.com	-   ' un.	021 933 0303
Provincial Authority:	Northern Cape Department of E	nvironmental	Affairs and Nature Conservation
Contact person:	Ms Anga Yaphi	······································	mano and Mature Conservation
Postal address:	Private Bag X6102, Kimberley		
Postal code:	8300	Cell:	079 695 0267
Telephone:	054 332 2885	Fax:	054 331 1155
E-mail:	ayaphi@upprov.ncape.gov.za	<del></del>	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Landowner:	De Aar Stone Crushers Ltd, Far	m 180 Portion	1 (please see Annexure C).
Contact person:			
Postal address:	P.O Box 340, De Aar		
Postal code:	7000	Cell:	082 259 6096
Telephone:	053 631 0046	Fax:	
E-mail:		]	
	In instances where there is mor	e than one lan	downer, please attach a list of
lasala. (I. 20. t	landowners with their contact de	etails to this ap	plication.
Local authority in whose	Emthanjeni Local Municipality		
urisdiction the			
oroposed activity will fall:			
all.			İ
Nearest town or	Do Aor Northorn Con-		
listricts:	De Aar, Northern Cape.		
Contact person:	Mev. C. Kloppers		
Postal address:	45 Voortrekker street		
	7000	Call	
	053 632 9100	Cell:	050 004 0405
. '.,	deaar@emthanjeni.co.za	Fax:	053 631 0105
	dedanwennnanjeni.co.za		

### 2. ACTIVITIES APPLIED FOR TO BE AUTHORISED

Activity No (s) (in

Indicate the

2.1 For an application for authorisation that involves more than one listed or specified activity that, together, make up one development proposal, all the listed activities pertaining to this application must be indicated.

Describe each listed activity as per project

number and date of the relevant notice:	terms of the relevant notice) :	description <sup>1</sup> :
544, 2 August 2010	9	In order to transport water from the Municipal supply system to the proposed PV facility at Badenhorst Dam, a pipeline may be constructed.
544, 2 August 2010	10	A 132kV overhead distribution line would be required to connect the PV facility to the onsite-substation. The 132kV distribution line would be approximately 2km long.
544, 2 August 2010	11 (x and xi)	Buildings and structures exceeding 50 m <sup>2</sup> are being proposed for Badenhorst Dam farm and it is possible that these might be within 32 meters of small tributaries.
545, 2 August 2010	1	The proposed solar (PV) facilities would each have a generation capacity of 75MW; as such this activity is triggered.
545, 2 August 2010	<u>15</u>	Based on our knowledge of the farm, the predominant farming activity is grazing. It is therefore assumed that this activity would be triggered as the DEA considers grazing land to be undeveloped.
546, 2 August 2010	10	Dangerous goods might be stored and handled on site from time to time within 100m of a watercourse.
546, 2 August 2010	14	This activity may or may not be triggered depending on the extent of the indigenous vegetation. This will be confirmed by the botanical assessment.
546, 2 August 2010	16	It is assumed that buildings and infrastructure, exceeding 10m <sup>2</sup> would be constructed on the project site. Depending on the location of the respective buildings, this activity may be triggered.

Please note that any authorisation that may result from this application will only cover activities specifically applied for.

2.2 A project schedule, indicating the different phases and timelines of the project, must be attached to this application form (please see Annexure A).

<sup>&</sup>lt;sup>1</sup> Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description

## 3. OTHER AUTHORISATIONS REQUIRED

## 3.1 DO YOU NEED ANY AUTHORISATIONS IN TERMS OF ANY OF THE FOLLOWING LAWS?

3.1.1 National Environmental Management: Waste Act	No
3.1.2 National Environmental Management: Air Quality Act	No
3.1.3 National Environmental Management: Protected Areas Act	No
3.1.4 National Environmental Management: Biodiversity Act	No
3.1.5 National Environmental Management:	
Integrated Coastal Management Act <sup>2</sup>	No
3.1.6 National Water Act	Yes
3.1.7 National Heritage Resources Act	Yes
3.1.8 Mineral Petroleum Development Resources Act	No
3.1.9 Other (please specify)	No
3.2 Have such applications been lodged already?	No
· · · · · · · · · · · · · · · · · · ·	

<sup>2</sup> Where an environmental authorization in terms of chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all the relevant factors including those listed in section 63(1) of the National Environmental Management: Integrated Coastal Management Act.

#### 4. DECLARATIONS

## 4.1 The Applicant

## I, Warren Morse of Mulilo Renewable Energy (PTY) Ltd ,declare that I -

- am, or represent<sup>3</sup>, the applicant in this application;
- have appointed / will appoint (delete that which is not applicable) an environmental assessment
- practitioner to act as the independent environmental assessment practitioner for this application /
- will obtain exemption from the requirement to obtain an environmental assessment practitioner<sup>4</sup>;
- will provide the environmental assessment practitioner and the competent authority with access to all information at my disposal that is relevant to the application;
- will be responsible for the costs incurred in complying with the Environmental Impact Assessment

Regulations, 2010, including but not limited to -

- costs incurred in connection with the appointment of the environmental assessment practitioner or any person contracted by the environmental assessment practitioner;
- costs incurred in respect of the undertaking of any process required in terms of the Regulations;
- costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations;
- costs in respect of specialist reviews, if the competent authority decides to recover costs; and
- the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the competent authority;

will ensure that the environmental assessment practitioner is competent to comply with the requirements of these Regulations and will take reasonable steps to verify whether the EAP complies with the Regulations;

will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the competent authority in this regard;

am responsible for complying with the conditions of any environmental authorisation issued by the competent authority;

hereby indemnify the Government of the Republic, the competent authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or environmental assessment practitioner is responsible for in terms of these Regulations;

will not hold the competent authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;

will perform all other obligations as expected from an applicant in terms of the Regulations;

<sup>3</sup> If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached (please see Annexure B).

<sup>4</sup> If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

all the particulars furnished by me in this form are true and correct; and I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Signature of the applicant <sup>5</sup> / Signature on behalf of the applicant:
Mulilo Renewable Energy (PTY)LTD
Name of company (if applicable):
11.07.2013
Date:

<sup>5</sup> If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority. An EAP may not sign on behalf of an applicant.



Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA	
DETAILS OF EAP AND DECLARATION OF INTEREST	
File Reference Number: NEAS Reference Number Date Received:	14/12/16/3/3/2/485 DEAT/EIA/0001753/2013
Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2010	
PROJECT TITLE  Proposed Photovoltaic (Solar) Energy Plant (referred to as Badenhorst PV5) on Badenhorst Dam  Farm near De Aar, Northern Cape	
Environmental Assessment Practitioner (EAP):1	Aurecon South Africa (Pty) Ltd
Contact person:	Miss Karen Versfeld
Postal address:	PO Box 494, Cape Town
Postal code: Telephone:	8000     Cell:     084 454 9944       021 526 5737     Fax:     021 526 9500
E-mail:	karen.versfeld@aurecongroup.com
Professional affiliation(s) (if any)	Miss Versfeld is registered as a Candidate Natural Scientist with SACNASP.
Project Consultant: Contact person: Postal address: Postal code: Telephone:	N/A  Cell: Fax:
E-mail:	

#### 4.2 The Environmental Assessment Practitioner

## I, Karen Versfeld of Aurecon South Africa (Pty) Ltd, declare that -

### General declaration:

- I act as the independent environmental practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing any decision to be taken with respect to the application by the competent authority; and the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
- I will keep a register of all interested and affected parties that participated in a public participation process; and
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not
- all the particulars furnished by me in this form are true and correct;
- will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I realise that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

## Disclosure of Vested Interest (delete whichever is not applicable)

 I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2010;

Signature of the environmental assessment practitioner:

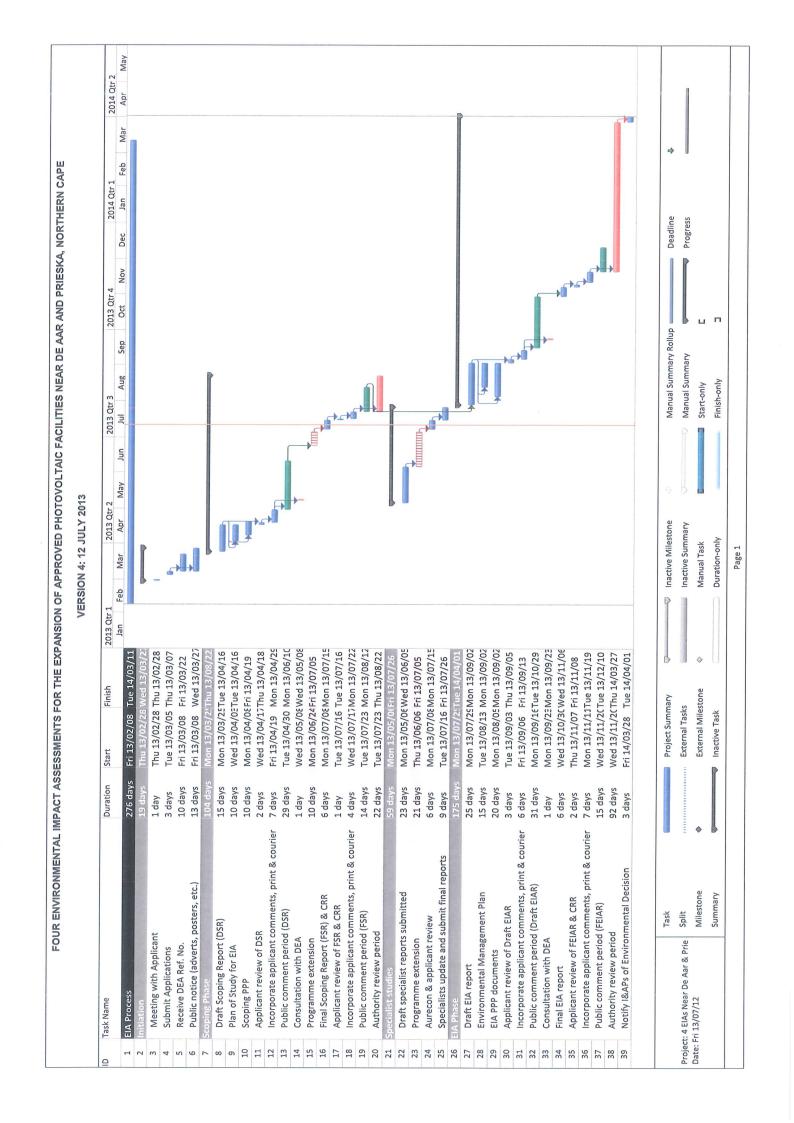
Aurecon South Africa (Pty) Ltd

Name of company:

10/07/2013

Date:

# ANNEXURE A Project Programme



## **ANNEXURE B**

## Letter from Applicant Regarding Signing Rights



## Mulilo Renewable Energy (Pty )Ltd

**PHYSICAL ADDRESS** 

Office 301 Execujet Business Centre Tower Road Cape Town International Airport 7525 South Africa Telephone: +27 (0) 21 934 5268

Facsimile: +27 (0) 21 935 0505 / 0866356809 Email : <u>chris@capedeep.com</u>

POSTAL ADDRESS P O Box 50

Cape Town International Airports

7525 South Africa

4th March 2013

## RESOLUTION

Further to a meeting of the board of Mulilo Renewable Energy (Pty) Ltd, held at Cape Town on 4<sup>th</sup> March 2013, it has been agreed that Warren Morse has the authority to sign the Application Forms for Environmental Authorisation.

Signed at Cape Town on 4th March 2013

Director

C Aberdein Director

Directors: CD Aberdein, J Coetsee, D J Crombie, J H Cullum

Mulilo Renewable Energy (Pty) Ltd Registration number: 2008 / 010114 / 07

PO Box 50 Cape Town International Airport Cape Town 7525 South Africa

## ANNEXURE C Landowner Consent

SOLAR & WIND

AWSAw/lease : 08/04/09

## **MEMORANDUM VAN HUUROOREENKOMS**

aangegaan en gesluit tussen

De Aar Stone Crushers Bk

BL 1998/012 728/23

(Registrasienommer: )

(die 'VERHUURDER')

en

## **MULILO RENEWABLE ENERGY (EDMS) BPK**

(Registrasienommer: 2008/010114/07)

(die 'HUURDER')

Me of

#### 1. INTERPRETASIE

In hierdie Huurooreenkoms, tensy die konteks tot die teendeel aandui:

1.1 beteken die VERHUURDER:

De Aar Stone Crushers BK

- 1.2 beteken die HUURDER Mulilo Renewable Energy (Edms) Bpk Ltd, Registrasienommer: 2008/010114/07, verteenwoordig deur Johannes Coetsee, wie behoorlik gemagtig is om as sodanig op te tree, van p/a Keeromstraat 68, Kaapstad, 8001;
- 1.4 beteken die AANVANGSDATUM die datum van ondertekening van hierdie Huurooreenkoms deur die party daartoe wat dit laaste onderteken;
- beteken die OKKUPASIEDATUM die Aanvangsdatum;
- 1.6 beteken die AKTIVERINGSDATUM die eerste datum wat 'n turbine krag aan Eskom of 'n ander kommersiële gebruiker lewer, soos voorsiening voor gemaak word in klousule 5.4 hieronder.

WY W



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

NEAS Reference: DEA/EIA/0001751/2013 DEA Reference; 14/12/16/3/3/2/504

Enquirles: Kim Balutto

Tel: 012 310 3859 Fax: 012 320 7539 E-mail: KBalutto@environment.gov.za

Ms Karen De Bruyn Aurecon SA (Pty) Ltd PO Box 494 CAPE TOWN 8000

Fax: 021 526 9500 Tel: 021 526 9400

## PER FACSIMILE / MAIL

Dear Ms De Bruyn

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING & EIA PROCESS) FOR THE PROPOSED PHOTVOLTAIC (SOLAR) ENERGY PLANT (REFERRED TO AS BADENHORTS PV2) ON BADENHORTS DAM FARM NEAR DE AAR, NORTHERN CAPE PROVINCE

The Department confirms having received the Application Form; Details of EAP and Declaration of Interest form; Landowner Consent; Locality map and Project Schedule on 11 March 2013 for environmental authorisation for the abovementioned project. The Application Is accepted.

Please include both reference numbers (NEAS Reference and DEA Reference), as listed above, on all documents and correspondence submitted to the Department.

Please note that one hard copy and one electronic copy (saved on CD/DVD) of draft reports, and five hard copies and one electronic copy of final reports must be submitted to the Department.

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

All applicable Departmental Guidelines must be considered throughout the application from downloaded www.environment.gov.za, Environmental Impact Management button, listed under "EIA Administration": Integrated Environmental Management Information Series link. These include, but are not limited to, the following topics: Scoping, Environmental Impact Reporting, Stakeholder Engagement, Specialist Studies, Impact Significance, Cumulative Effects Assessments, Alternatives in EIA and Environmental Management Plans.

- Please be advised that in terms of the EIA Regulations and NEMA the investigation of alternatives is mandatory. Alternatives must therefore be identified, investigated to determine if they are feasible and reasonable. It is also mandatory to investigate and assess the option of not proceeding with the proposed activity (the "no-go" option).
- Refer to the attached annexure for specific requirements for the submission of applications for environmental authorisation for solar/wind power generation facilities.
- Should water, solid waste removal, effluent discharge, stormwater management and electricity services be provided by the municipality, you are requested to provide this office with written proof that the municipality has sufficient capacity to provide the necessary services to the proposed development. Confirmation of the availability of services from the service providers must be provided together with the reports to be submitted.
- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
  - A detailed and complete EMPr must be submitted with the EIR. This EMPr must not provide recommendations but must indicate actual remediation activities which will be binding on the applicant. Without this EMPr the documents will be regarded as not meeting the requirements and will be returned to the applicant for correction.
  - The applicant/EAP is required to inform this Department in writing upon submission of any draft report, of the contact details of the relevant State Departments (that administer laws relating to a matter affecting the environment) to whom copies of the draft report were submitted for comment. Upon receipt of this confirmation, this Department will in accordance with Section 240 (2) & (3) of the National Environmental Management Act, 1998 (Act 107 of 1998) inform the relevant State Departments of the commencement date of the 40 day commenting period, or 60 days in the case of the Department of Water Affairs for waste management activities which also require a licence in terms of the
    - Should it be necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999), please submit the necessary application to SAHRA or the relevant provincial heritage agency and submit proof thereof with the Environmental Impact assessment Report. The relevant heritage agency should also be involved during the public participation process and have the opportunity to comment on all the reports to be submitted to this Department.

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

- Positions of solar/wind facilities;
- Foundation footprint;
- Permanent laydown area footprint;
- Construction period laydown footprint;

- Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make
- Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;
- The location of Heritage sites;
- Sub-station(s) and/or transformer(s) sites including their entire footprint;
- Cable routes and trench dimensions (where they are not along internal roads);
- Connection routes (including pylon positions) to the distribution/transmission network;
- Cut and fill areas at solar panels/ wind turbines sites along roads and at substation/transformer sites indicating the expected volume of each cut and fill;
- Spoil heaps (temporary for topsoil and subsoil and permanently for excess material), Borrow pits;
- All existing infrastructure on the site, especially roads;
- Buildings including accommodation;
- A map combining the final layout plan must be superimposed (overlain) on the environmental sensitivity map.

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

- All recommendations and mitigation measures to be recorded in the Final EIR.
- A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
  - An open space management plan to be implemented during the construction and
  - A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to
  - An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is
  - A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-
    - An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.

An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and

A traffic management plan for the site access roads to ensure that no hazards would results from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.

An environmental sensitivity map indicating environmental sensitive areas and features

 Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

The EAP must, in order to give effect to regulation 56 (2), before submitting the final basic assessment report/environmental impact assessment report to the Department give registered interested and affected parties access to, and an opportunity to comment on the report in writing within 21 days.

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

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

Yours sincerely

Chief Director: Integrated Environmental Authorisations Mr Mark Gordon

Department of Environmental Affairs

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 26/03/2013

Mulilo Renewable Energy (- 1/2	Fax: 021 936 0505 Fax: 054 331 1155 Fax: 053 631 0105
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# EIA INFORMATION REQUIRED FOR SOLAR ENERGY FACILITIES

#### General site information 1.

The following general site information is required:

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

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

#### Site maps and GIS information 2.

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

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

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

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

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

# 3. Regional map and GIS information

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

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

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

#### Important stakeholders 4.

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

Mrs. Anneliza Collett

Directorate: Land Use & Soil Management Department of Agriculture, Forestry & Fisheries

Tel: 012 - 319 7508 Fax: 012 - 329 5938

e-mail: AnnelizaC@nda.agric.za

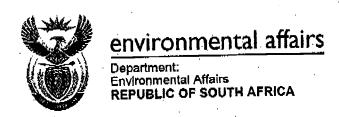
www.agis.agric.za

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

# AGRICULTURE STUDY REQUIREMENTS

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

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



Private Bag X 447<sup>7</sup> PRETORIA · 0001· Fedsure Building · 315 Pretorius Street · PRETORIA. Tel (+ 27.12) 310 3911 · Fax (+ 27.12) 322 2682

> NEAS Reference: DEA/EIA/0001750/2013 DEA Reference: 14/12/16/3/3/2/483

Enquiries: Kim Balutto
Tel: 012 310 3859 Fax: 012 320 7539 E-mail: KBalutto@environment.gov.za

Ms Karen De Bruyn Aurecon SA (Pty) Ltd PO Box 494 CAPE TOWN 8000

Fax: 021 526 9500 Tel: 021 526 9400

PER FACSIMILE / MAIL

Dear Ms De Bruyn

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING & EIA PROCESS) FOR THE PROPOSED PHOTVOLTAIC (SOLAR) ENERGY PLANT (REFERRED TO AS BADENHORTS PV3) ON BADENHORTS DAM FARM NEAR DE AAR, NORTHERN CAPE PROVINCE

The Department confirms having received the Application Form; Details of EAP and Declaration of Interest form; Landowner Consent; Locality map and Project Schedule on 11 March 2013 for environmental authorisation for the abovementioned project. The Application is accepted.

Please include both reference numbers (NEAS Reference and DEA Reference), as listed above, on all documents and correspondence submitted to the Department.

Please note that <u>one hard copy and one electronic copy</u> (saved on CD/DVD) of draft reports, and <u>five hard copies and one electronic copy</u> of <u>final reports</u> must be submitted to the Department.

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  with written proof that the municipality has sufficient capacity to provide the necessary
  services to the proposed development. Confirmation of the availability of services from the
  service providers must be provided together with the reports to be submitted.
- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
- A detailed and complete EMPr must be submitted with the EIR. This EMPr must not
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  relevant provincial heritage agency and submit proof thereof with the Environmental
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  the public participation process and have the opportunity to comment on all the reports to
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- Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible);
- Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;
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- Cut and fill areas at solar panels/ wind turbines sites along roads and at substation/transformer sites indicating the expected volume of each cut and fill;
- Borrow pits;
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- Buildings including accommodation;
- All "no-go" areas; and
- A map combining the final layout plan must be superimposed (overlain) on the environmental sensitivity map.

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

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

Yours sincerely

Mr Mark Gordon

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs Letter signed by: Mr Herman Alberts

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 2 6/03/20/3

CC:	Mr Warren Morse	Mulilo Renewable Energy (Pty) Ltd	Fax: 021 935 0505
	Ms Anga Yaphi	NCDEANC	Fax: 054 331 1155
	Ms C Kloppers	Emthanjeni Local Municipality	Fax: 053 631 0105

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  - Type of technology
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  - > Laydown area dimensions (construction period and thereafter)
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- Bare areas which may be susceptible to soil erosion
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- Rivers, streams and water courses
- Ridgelines and 20m continuous contours with height references in the GIS database
- > Fountains, boreholes, dams (in-stream as well as off-stream) and reservoirs
- High potential agricultural areas as defined by the Department of Agriculture, Forestry and Fisheries
- Buffer zones (also where it is dictated by elements outside the site):
  - 500m from any irrigated agricultural land
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- > Indicate isolated residential, tourism facilities on or within 1km of the site
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With the above information authorities will be able to assess the strategic and site impacts of applications.

### 3. Regional map and GIS information

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

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- An indication of new road or changes and upgrades that must be done to existing roads in order to get equipment onto the site including cut and fill areas and crossings of rivers and streams

### 4. Important stakeholders

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

Mrs. Anneliza Collett

Directorate: Land Use & Soil Management
Department of Agriculture, Forestry & Fisheries

Tel: 012 - 319 7508 Fax: 012 - 329 5938

e-mail: AnnelizaC@nda.agric.za

www.agis.agric.za

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

### B. <u>AGRICULTURE STUDY REQUIREMENTS</u>

- Detailed soil assessment of the site in question, incorporating a radius of 50 m surrounding the site, on a scale of 1:10 000 or finer. The soil assessment should include the following:
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> NEAS Reference: DEA/EIA/0001752/2013 DEA Reference: 14/12/16/3/3/2/506 Enquiries: Kim Balutto

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Department of Environmental Affairs Letter signed by: Mr Herman Alberts

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 26/03/20/3

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Directorate: Land Use & Soil Management Department of Agriculture, Forestry & Fisheries

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e-mail: AnnelizaC@nda.agric.za

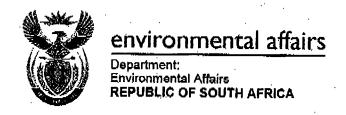
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- A shape file containing the soil forms and relevant attribute data as depicted on the map



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NEAS Reference: DEA/EIA/0001753/2013 DEA Reference: 14/12/16/3/3/2/485 Enquiries: Kim Balutto

Tel: 012 310 3859 Fax: 012 320 7539 E-mail: KBalutto@environment.gov.za

Ms Karen De Bruyn Aurecon SA (Pty) Ltd PO Box 494 CAPE TOWN 8000

Fax: 021 526 9500 Tel: 021 526 9400

PER FACSIMILE / MAIL

Dear Ms De Bruyn

ACKNOWLEDGEMENT OF RECEIPT AND ACCEPTANCE OF NEW APPLICATION FOR ENVIRONMENTAL AUTHORISATION (SCOPING & EIA PROCESS) FOR THE PROPOSED PHOTVOLTAIC (SOLAR) ENERGY PLANT (REFERRED TO AS BADENHORTS PV5) ON BADENHORTS DAM FARM NEAR DE AAR, NORTHERN CAPE PROVINCE

The Department confirms having received the Application Form; Details of EAP and Declaration of Interest form; Landowner Consent; Locality map and Project Schedule on 11 March 2013 for environmental authorisation for the abovementioned project. The Application is accepted.

Please include both reference numbers (NEAS Reference and DEA Reference), as listed above, on all documents and correspondence submitted to the Department.

Please note that <u>one hard copy and one electronic copy (saved on CD/DVD) of draft reports</u>, and <u>five hard copies and one electronic copy of finel reports</u> must be submitted to the Department.

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

All applicable Departmental Guidelines must be considered throughout the application process. These can be downloaded from the Department's website: www.environment.gov.za, Environmental Impact Management button, listed under "EIA Administration": Integrated Environmental Management Information Series link. These include, but are not limited to, the following topics: Scoping, Environmental Impact Reporting, Stakeholder Engagement, Specialist Studies, Impact Significance, Cumulative Effects Assessments, Alternatives in EIA and Environmental Management Plans.

- Please be advised that in terms of the EIA Regulations and NEMA the investigation of alternatives is mandatory. Alternatives must therefore be identified, investigated to determine if they are feasible and reasonable. It is also mandatory to investigate and assess the option of not proceeding with the proposed activity (the "no-go" option).
- Refer to the attached annexure for specific requirements for the submission of applications for environmental authorisation for solar/wind power generation facilities.
- Should water, solid waste removal, effluent discharge, stormwater management and
  electricity services be provided by the municipality, you are requested to provide this office
  with written proof that the municipality has sufficient capacity to provide the necessary
  services to the proposed development. Confirmation of the availability of services from the
  service providers must be provided together with the reports to be submitted.
- In the reports to be submitted it must clearly be demonstrated in which way the proposed development will meet the requirements of sustainable development. You must also consider energy efficient technologies and water saving devices and technologies for the proposed development. This could include measures such as the recycling of waste, the use of low voltage or compact fluorescent lights instead of incandescent globes, maximising the use of solar heating, the use of dual flush toilets and low-flow shower heads and taps, the management of storm water, the capture and use of rainwater from gutters and roofs, the use of locally indigenous vegetation during landscaping and the training of staff to implement good housekeeping techniques.
- A detailed and complete EMPr must be submitted with the EIR. This EMPr must not
  provide recommendations but must indicate actual remediation activities which will be
  binding on the applicant. Without this EMPr the documents will be regarded as not
  meeting the requirements and will be returned to the applicant for correction.
- The applicant/EAP is required to inform this Department in writing upon submission of any draft report, of the contact details of the relevant State Departments (that administer laws relating to a matter affecting the environment) to whom copies of the draft report were submitted for comment. Upon receipt of this confirmation, this Department will in accordance with Section 24O (2) & (3) of the National Environmental Management Act, 1998 (Act 107 of 1998) inform the relevant State Departments of the commencement date of the 40 day commenting period, or 60 days in the case of the Department of Water Affairs for waste management activities which also require a licence in terms of the National Water Act, 1998 (Act 36 of 1998).
- Should it be necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999), please submit the necessary application to SAHRA or the relevant provincial heritage agency and submit proof thereof with the Environmental Impact assessment Report. The relevant heritage agency should also be involved during the public participation process and have the opportunity to comment on all the reports to be submitted to this Department.

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

- Positions of solar/wind facilities:
- Foundation footprint;
- Permanent laydown area footprint;
- Construction period laydown footprint;

- Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible);
- Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used,
- The location of Heritage sites;
- Sub-station(s) and/or transformer(s) sites including their entire footprint;
- Cable routes and trench dimensions (where they are not along internal roads);
- Connection routes (including pylon positions) to the distribution/transmission network;
- · Cut and fill areas at solar panels/ wind turbines sites along roads and at substation/transformer sites indicating the expected volume of each cut and fill;
- Borrow pits:
- Spoil heaps (temporary for topsoil and subsoil and permanently for excess material);
- All existing infrastructure on the site, especially roads;
- Buildings including accommodation;
- All "no-go" areas; and
- A map combining the final layout plan must be superimposed (overlain) on the environmental sensitivity map.

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

- All recommendations and mitigation measures to be recorded in the Final EIR.
- · A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- An open space management plan to be implemented during the construction and operation of the facility.
- A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility including timeframes for restoration which must indicate rehabilitation within the shortest possible time after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
- A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-
- An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.

- An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- A traffic management plan for the site access roads to ensure that no hazards would results from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

The EAP must, in order to give effect to regulation 56 (2), before submitting the final basic assessment report/environmental impact assessment report to the Department give registered interested and affected parties access to, and an opportunity to comment on the report in writing within 21 days.

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

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

Yours sincerely

Mr Mark Gordon

**Chief Director: Integrated Environmental Authorisations** 

Department of Environmental Affairs Letter signed by: Mr Herman Alberts

Designation: Environmental Officer: Integrated Environmental Authorisations

Date: 26/03/2013

CC:	Mr Warren Morse	Mulilo Renewable Energy (Pty) Ltd	Fax: 021 935 0505
Ĺ	Ms Anga Yaphi	NCDEANC	Fax: 054 331 1155
	Ms C Kloppers	Emthanjeni Local Municipality	Fax: 053 631 0105

# A. EIA INFORMATION REQUIRED FOR SOLAR ENERGY FACILITIES

### 1. General site information

The following general site information is required:

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

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

## 2. Site maps and GIS information

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

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

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

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

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

## 3. Regional map and GIS information

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

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

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

## 4. Important stakeholders

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

Mrs. Anneliza Collett

Directorate: Land Use & Soil Management Department of Agriculture, Forestry & Fisheries

Tel: 012 - 319 7508 Fax: 012 - 329 5938

e-mail: AnnelizaC@nda.agric.za

www.agis.agric.za

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

## B. AGRICULTURE STUDY REQUIREMENTS

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

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