



Nacht Wacht - Bredasdorp Uitkyk - Swellendam

Basic Assessment Report

DRAFT BASIC ASSESSMENT REPORT OF BIOTHERM ENERGY PTY (LTD) FOR THE ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT NEAR BREDASDORP AND FARM UITKYK NEAR SWELLENDAM, WESTERN CAPE

DRAFT REPORT FOR COMMENT

BREDASDORP &
SWELLENDAM



DEA REFERENCE NUMBER:
12/12/20/1757

CSIR REPORT No.:
CSIR/CAS/EMS/ER/2010/0001/B

PREPARED BY:
CSIR
P O Box 320
STELLENBOSCH
7599
SOUTH AFRICA

AUTHORS:
MINNELISE LEVENDAL
PAUL LOCHNER

TEL: + 27 21 888 2400
FAX: + 27 21 888 2693
EMAIL: mlevendal@csir.co.za

PREPARED FOR:
BIOTHERM ENERGY (PTY) LTD
BUILDING 1, GROUND FLOOR,
CNR LESLIE AVE EAST &
DESIGN QUARTER BLVD, FOURWAYS

CONTACT PERSON:
WERNER ENGELBRECHT
011-367 4600 (TEL)
011-367 4601 (FAX)
EMAIL:
WENGELBRECHT@BIOTHERMENERGY.COM



MARCH 2010

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT
NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

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SUMMARY OF PROJECT AT FARM NACHT WACHT NEAR BREDASDORP AND FARM UITKYK NEAR SWELLENDAM

BioTherm Energy (Pty) Ltd ("BioTherm") is a South African-based independent power producer that designs, builds, finances, owns and operates energy projects in South and Southern Africa. CSIR has been appointed by BioTherm Energy (Pty) Ltd acting on behalf of BioTherm Wind Holdings (Pty) Ltd to undertake the Basic Assessment Process for the erection of a wind monitoring mast of up to 100m high on:

- Farm Nacht Wacht near Bredasdorp
(coordinates: 34° 31' 43.0"S; 20° 05' 29.5"E; Site elevation = 107m) and
- Farm Uitkyk near Swellendam
(coordinates: 34° 14' 05.5"S; 20° 12' 52.6"E; Site elevation = 303m).

It should be noted that micro-siting during the design phase may lead to minor refinement of the exact site for the masts.

The Nacht Wacht site is on top of a fynbos-covered limestone ridge about 20km from the sea. The existing 66kV power line grid runs through the property.

The Uitkyk site is an undulating, agricultural area with extensive grazing by sheep and cattle, as well as wheat farming. The habitat is completely transformed by agriculture.

Data from the monitoring mast will be transmitted via the local cellphone network to a central receiver. During the monitoring period, power for the mast will be provided by a solar panel located on the mast. The monitoring data from the mast will be used to inform the planning, financing and investment decisions for the proposed wind project.

Two alternative mast designs are being investigated:

- a lattice mast that sits on a concrete base with a maximum footprint of 1m x 1m and is supported by stays extending in four directions up to 65m from the base; or
- an unsupported lattice mast that sits on a concrete 4m x 4m base and does not require stays.

The construction will be done in two phases: firstly constructing the base and allowing the concrete to cure; and secondly the erection of the mast. The mast will be operational for a period of approximately three years. Thereafter, the mast could be retained for performance measurement of the wind farm (should the wind farm proceed); or be decommissioned. Applications to undertake the Environmental Impact Assessment Process for two wind farms on the same sites have been submitted to the national Department of Environmental Affairs (DEA reference numbers: 12/12/20/1797 and 12/12/20/1798 for the Nacht Wacht and Excelsior/Uitkyk sites respectively). For each site, the potential operational life of the mast beyond 3 years will be included in the full EIA for the wind farm.

The public participation process that was followed to date is listed in Section D and Section F (Appendix E) of this report. The proposed activity was advertised in the "Suidernuus/Southern Post" on 29 January 2010 for the site at farm Nacht Wacht, near Bredasdorp. The proposed activity for the site at farm Uitkyk was advertised in the "Langeberg Bulletin" on 29 January 2010 (see Section F (Appendix E4)). All the neighbouring land owners and other Interested and Affected Parties were identified and notified of the proposed project. The two local municipalities were also notified of the proposed activity. All the comments received from the Interested and Affected Parties are listed in Section F (Appendix E 5).

The data collected would inform further planning and investment decisions. Considering the small footprint of the mast (1m^2 or 16m^2 if the self-supported lattice mast (tower) is used), the minimal impact on the sense of place (i.e. visual impact and associated impact on the tourism potential), very limited habitat loss, low impact on vegetation and low impact on birds and bats, the impact of the mast is predicted to be of low significance. Furthermore, the impact is relatively short term, being only for a monitoring period of a maximum of 3 years. Provided that the recommended management actions are implemented effectively, the proposed wind monitoring masts are assessed to provide a net positive contribution to sustainability, through providing data that can be used to support financing and planning of potential wind energy projects, which have the potential to reduce South Africa's carbon footprint from additional power generation.



environment & tourism

Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

(For official use only)

File Reference Number:					
Application Number:					
Date Received:					

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2006

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2006 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority.
7. No faxed or e-mailed reports will be accepted.
8. The report must be compiled by an independent environmental assessment practitioner.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed. In addition, if it is clear to the EAP that because of the particular circumstances of the case it is not sensible to complete any of the sections indicated under paragraph 3 of this report, he or she may apply for exemption from completing that part of the report in the spaces provided in the report. It must however be noted that if the application for exemption is turned down, the report may have to be resubmitted.

SECTION A: APPLICATION FOR EXEMPTION

The relevant parts of this section must be completed if the environmental assessment practitioner (EAP) on behalf of the applicant wishes to apply for exemption from completing or complying with certain parts of this basic assessment report.

1. APPLICATION FOR EXEMPTION FROM ASSESSING ALTERNATIVES:

At least two alternatives (site or activity) should be assessed. If that is not possible, the applicant should apply for exemption from having to assess alternatives. Such exemption will, however, not apply to the no-go alternative that must be assessed in all cases.

Provide a detailed motivation for not considering alternatives including an explanation of the reason for the application for exemption (supporting documents, if any, should be attached to this report):

I declare that the above motivation is accurate and, hereby apply for exemption in terms of regulation 51 of the Environmental Impact Assessment Regulations, 2006, from having to assess alternatives in this application as required in section 24(4)(b) in the National Environmental Management Act, 1998 (Act No. 107 of 1998)

Signature of the EAP: _____ Date: _____

2. APPLICATION FOR EXEMPTION FROM COMPLYING WITH PARTS OF REGULATION 23(2) REGARDING THE CONTENT OF THIS BASIC ASSESSMENT REPORT:

Application for exemption from certain parts of regulation 23(2) regarding the completion of certain parts of this basic assessment report may be made by completing the relevant sections below.

Indicate the numbers of the sections of this report for which exemption is applied for:

Section B:	7(a)	7(b)	7(c)	7(d)	8	9	10(c)	10(e)	10(f)	10(g)	10(h)	10(j)	10(k)	12
Section C:	1	2	3	4	5	6								
Section D:	1(a)	1(b)	1(c)	1(d)	1(f)	1(g)	3							

Provide a detailed motivation including an explanation of the reason for the application for exemption (supporting documents, if any, should be attached to this report):

I declare that the above motivation is accurate and, hereby apply for exemption in terms of regulation 51 of the EIA Regulations, 2006, from having to complete the indicated sections of the Basic Assessment Report.

Signature of the EAP: _____ Date: _____

SECTION B: ACTIVITY INFORMATION

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for in detail (A1):

The activity comprises the erection of a high lattice wind monitoring mast of up to 100m which will be in place for approximately three years. Thereafter, the mast could be retained for performance measurement of the wind farm (should the wind farm proceed); or be decommissioned. Anemometers (devices to measure wind speed) will be placed at different intervals on the mast. Data from the monitoring mast will be transmitted via the local cellphone network to a central receiver. During the monitoring period, power for the mast will be provided by a solar panel located on the mast. The monitoring data from the mast will be used to inform the planning, financing and investment decisions for the proposed wind project.

Two alternative mast designs are being investigated:

- a lattice mast that sits on a concrete base with a maximum footprint of 1m x 1m and is supported by stays extending in four directions up to 65m from the base; or
- an unsupported lattice mast that sits on a concrete base of 4m x 4m which does not require stays.

The construction will be done in two phases: firstly constructing the base and allowing the concrete to cure; and secondly the erection of the mast. When the monitoring period is complete, the mast can be dismantled and re-used elsewhere. The proposed type of wind monitoring mast is provided in Section F (Appendix C1).

2. ALTERNATIVES

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

2(a) Site alternatives:

Describe site alternative 1 (S1), for the activity described above, or for any other activity alternative:

The preferred sites were identified during the pre-feasibility stage of the project. The sites for the wind masts were also informed by the selection of the sites for the wind farms. BioTherm reviewed a range of potential sites in the Overberg Region, including site visits to approximately eight sites that were short-listed. The sites were evaluated based on a range of criteria such as:

- Local wind climate, using data from local weather stations in the Overberg
- Conservation areas such as national parks, nature reserves and wetlands
- Aviation and military zones such as the Overberg Toetsbaan (OTB) and SA Air Force facilities and associated constraints (further technical studies in this regard are currently underway)
- Road access for construction and operational maintenance
- Engagement with landowners.

Describe site alternative 2 (S2), if any, for the activity described above, or for any other activity alternative:

Describe site alternative 3 (S3), if any, for the activity described above, or for any other activity alternative:

(2)(b) Activity alternatives:

Describe activity alternative 2 (A2), if any, for any or all of the site alternatives as appropriate:

Wind measuring mast alternatives:

BioTherm initially considered the erection of a mast of up to 80m, but it was decided that the 100m mast was more adequate to obtain the required wind data.

Describe activity alternative 2 (A2), if any, for any or all of the site alternatives as appropriate:

Describe activity alternative 2 (A2), if any, for any or all of the site alternatives as appropriate:

Describe activity alternative 2 (A2), if any, for any or all of the site alternatives as appropriate:

4. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Alternative:

Alternative S1¹ (preferred or only site alternative)

Coordinates for the mid-point of the wind mast monitoring site at Farm Nacht Wacht.

Coordinates for the mid-point of the wind mast monitoring site at Farm Uitkyk.

Latitude (S):		Longitude (E):	
34°	31.717'	20°	5.492'
34°	14.001'	20°	12.877'
o	'	o	'
o	'	o	'

Alternative S2 (if any)

Alternative S3 (if any)

In the case of linear activities:

Alternative:

Alternative S1 (preferred or only route alternative)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Alternative S3 (if any)

- Starting point of the activity
- Middle point of the activity
- End point of the activity

Latitude (S):

Longitude (E):

o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'
o	'	o	'

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

5. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1² (preferred activity alternative)

Size of the activity:

Physical project footprint is approximately:
 1m x 1m for the concrete base, with stays extending up to 65m from base.
 Or a 4m x4m base with a self-supporting lattice mast (no stays).

Alternative A2 (if any)

Alternative A3 (if any)

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Length of the activity:

m
m
m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

m ²
m ²
m ²

¹ "Alternative S.." refer to site alternatives.

² "Alternative A.." refer to activity, process, technology or other alternatives.

6. SITE ACCESS

Does ready access to the site exist, or is access directly from an existing road?
If NO, what is the distance over which a new access road will be built

YES	NO

Describe the type of access road planned:

N/A

Include the position of the access road on the site plan.

7. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

7(a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?
If yes, what estimated quantity will be produced per month?

YES	NO
A maximum of approximately 16 m ³ excavated material from the mast foundation, packaging waste as well as some domestic waste such as workers lunch packaging.	

How will the construction solid waste be disposed of (describe)?

During construction the expected waste materials are as follows:

- Excavated material from the mast foundation (approximately 0.5 m³ for the mast foundation of 1m x 1 m at a depth of 1m; and approx 16 m³ for mast foundation of 4m x 4m and a depth of 1m). The excavated material and top soil will be used to cover the area around the mast and re-establish natural vegetation.
- Packaging material from construction, such as the cardboard and plastic packaging will be collected and recycled.
- Domestic waste, such as workers lunch packaging, will be collected and disposed of at municipal bins.

Where will the construction solid waste be disposed of (describe)?

Excavated material from construction will be re-used on site, as described above.

Will the activity produce solid waste during its operational phase?

YES	NO

If yes, what estimated quantity will be produced per month?

m³

How will the solid waste be disposed of (describe)?

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the application should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?

YES	NO

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:

See above - It is the intention of the applicant to have all recyclable material, such as the packaging and domestic waste, moved to a recycling facility in the area. Top soil and excavated material will be re-used for the rehabilitation of the site around the base of the mast.

Has a specialist been consulted to assist with the completion of this section?

YES	NO

If YES, please complete:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone:

	Cell: <input type="text"/>

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM
NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENLIDAM

E-mail: Fax:

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify:

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date:

7(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	YES	NO
If yes, what estimated quantity will be produced per month?	<input type="text"/> m ³	
Will the activity produce any effluent that will be treated and/or disposed of on site?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.		
Will the activity produce effluent that will be treated and/or disposed of at another facility?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes, provide the particulars of the facility:		

Facility name:

Contact person:

Postal address:

Postal code:

Telephone:

E-mail:

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

Water will be required to wash the concrete mixing equipment. The water will be brought to the site. Waste water will be stored and removed from site after construction.

Has a specialist been consulted to assist with the completion of this section? YES NO

If YES, please complete:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify:

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date:

7(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	YES	NO
If yes, is it controlled by any legislation of any sphere of government?	<input type="checkbox"/> YES	<input type="checkbox"/> NO
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.		
If no, describe the emissions in terms of type and concentration:		

Has a specialist been consulted to assist with the completion of this section? YES NO

If YES, please complete:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify:

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date:

7(d) Generation of noise

Will the activity generate noise?	YES	NO
If yes, is it controlled by any legislation of any sphere of government?	<input type="checkbox"/> YES	<input type="checkbox"/> NO

(note: SANS guidelines exist for noise emissions, as discussed below, and are being applied)

--	--

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Noise during construction phase:

During the construction phase, the noise generated will be mainly caused by the diesel powered equipment, such as the generators used for powering of equipment used for the clearing and also preparation of the land for laying the foundation for the mast.

Noise during operations phase:

There is no noise from the operation of the wind measuring mast.

Has a specialist been consulted to assist with the completion of this section?

YES	NO
-----	----

If YES, please complete:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date:

8. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

municipal	water board	groundwater	river, stream, dam or lake	other	the activity will not use water
				Portable chemical toilets will be used during construction. Drinking water for construction workers will be taken to the site. Ready mixed concrete will be used as necessary, thus no washing or discharge on site.	

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

	liters
--	--------

Does the activity require a water use permit from the Department of Water Affairs and Forestry?

YES	NO
-----	----

If yes, please submit the necessary application to the Department of Water Affairs and Forestry and attach proof thereof to this application if it has been submitted.

Note: Approx 10 m³ water will be required during construction to wash the equipment used for working with concrete. The dirty wash water will be stored on site and removed by a suitable waste water operator at the end of construction.

9. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

During construction, generators will provide energy to power the equipment used for the clearing and preparation of the land for laying the mast foundation. Solar power will be supplied to the anemometers via a small solar panel that will be mounted on to the mast.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Renewable energy, i.e. solar power will be used to power the anemometers and data loggers.

10. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as **Appendix A** to this document. The site or route plans must indicate the following:

- 10(a) The scale of the plan which must be at least a scale of 1:500;
- 10(b) the property boundaries and numbers of all the properties within 50m of the site;
- 10(c) the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 10(d) the exact position of each element of the application as well as any other structures on the site;
- 10(e) the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 10(f) all trees and shrubs taller than 1.8m;
- 10(g) walls and fencing including details of the height and construction material;
- 10(h) servitudes indicating the purpose of the servitude;
- 10(i) sensitive environmental elements within 100m of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWAF);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 10(j) for gentle slopes the 1m contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 10(k) the positions from where photographs of the site were taken.

11. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under **Appendix B** to this form. It should be supplemented with additional photographs of relevant features on the site, if applicable.

12. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as **Appendix C** for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

13. ACTIVITY MOTIVATION

13(a) Socio-economic value of the activity

Capital cost for wind measuring mast

What is the expected yearly income that will be generated by or as a result of the activity?

Will the activity contribute to service infrastructure or is it a public amenity?

How many new employment opportunities will be created in the development phase of the activity?

What is the expected value of the employment opportunities during the development phase?

What percentage of this will accrue to previously disadvantaged individuals?

How many permanent new employment opportunities will be created during the operational phase of the activity?

R 1,300,000	
R0	
YES	NO
Approx 4-5 direct jobs during construction (including a security guard who will be appointed during the construction phase and the erection of the mast)	
R0	
N/A	
None	

What is the expected current value of the employment opportunities during the first 10 years?

(there will only be employment opportunities at the construction phase-the current value of these are not determined at this stage)

What percentage of this will accrue to previously disadvantaged individuals?

%

13(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

Renewable energy is a priority for South Africa, as confirmed by the announcement by government on 1 April 2009 of favourable feed-in tariffs for renewable energy sources such as wind energy. The tariff for wind energy is R1.25 / kWh.

At a national level, renewable energy has the potential to play an important role in South Africa through diversifying the sources of power generation and reducing the carbon footprint from fossil fuel power generation, such as coal fired power stations. Currently, approximately 90% of South Africa's power generation is derived from coal. The favourable renewable energy feed-in tariffs (REFIT) released by government in April 2009 provide an important catalyst to promote the use of wind energy in South Africa. Electricity generated by wind energy, that displaces fossil fuels, leads to greenhouse gas (GHG) emission reductions

Indicate any benefits that the activity will have for society in general:

- 1) Improving the knowledge base for the wind farm project:
The monitoring data from the wind mast will be used to inform the planning, financing and investment decisions for the proposed wind project.
- 2) Contribution to meeting South Africa's targets for renewable energy:
The wind mast data will contribute towards informing potential investment in wind farms in the Overberg area, thereby contributing to SA's goal to increase renewable energy usage.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

Temporary jobs will be created and the local communities will have access to good quality wind data which can inform potential investment in wind farms in the area.

14. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:

Administering authority:

Date:

National Environmental Management Act	DEA	1998
National Environmental Management Act, Regulations (R 386)	DEA	2006
National Environmental Management: Biodiversity Act	DEA	2004
National Heritage Resources Act	SAHRA	1999
Aviation Act	Civil Aviation Authority	1962
Aviation Regulations	Civil Aviation Authority	1997
SANS 10103 : 2008 Edition 6 (noise guidelines)	SABS	2008
Land Use Planning Ordinance (Ordinance 15 of 1985)	Local Authority	1985

SECTION C: SITE/AREA DESCRIPTION

Important note: For linear activities (pipelines etc) as well as activities that cover very large sites, it may be necessary to complete Section C for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g. A):
(complete only when appropriate)

1. GRADIENT OF THE SITE

Indicate the general gradient of the sites.

Alternative S1: Site at Farm Nacht Wacht

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
-------------	------------------------	------------------------	------------------------	-------------------------	------------------------	-------------------------

Alternative S1: Site at Farm Uitkyk

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
-------------	------------------------	------------------------	------------------------	-------------------------	------------------------	-------------------------

Alternative S2:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
-------------	------------------------	------------------------	------------------------	-------------------------	------------------------	-------------------------

Alternative S3:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
-------------	------------------------	------------------------	------------------------	-------------------------	------------------------	-------------------------

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Alternative S1: Site at Farm Nacht Wacht

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
-----------	---------	-----------------------------	---------------	--------------------	-------	----------------------------	------	-----------

Alternative S1: Site at Farm Uitkyk

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
-----------	---------	-----------------------------	---------------	-------------	-------	-----------------------------------	------	-----------

Alternative S2:

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
-----------	---------	-----------------------------	---------------	-------------	-------	----------------------------	------	-----------

Alternative S3:

Ridgeline	Plateau	Side slope of hill/mountain	Closed valley	Open valley	Plain	Undulating plain/low hills	Dune	Sea-front
-----------	---------	-----------------------------	---------------	-------------	-------	----------------------------	------	-----------

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:	Alternative S2:	Alternative S3:
Shallow water table (less than 1.5m deep)	YES	NO	YES
Dolomite, sinkhole or doline areas	YES	NO	YES
Seasonally wet soils (often close to water bodies)	YES	NO	YES
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES
Dispersive soils (soils that dissolve in water)	YES	NO	YES
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES
Any other unstable soil or geological feature	YES	NO	YES
An area sensitive to erosion	YES	NO	YES

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM
NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

Has a specialist been consulted to assist with the completion of this section?

YES	NO
-----	----

Note: In preparing this BA report, the CSIR team drew on relevant specialist inputs such as from the Draft Basic Assessment Reports and Final Basic Assessment Reports for the national wind atlas project of the Department of Energy (CSIR 2010).

If YES, please complete:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify: _____

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date: _____

4. GROUND COVER

Tick the types of groundcover present on the site.

Alternative S1: Site at Nacht Wacht farm

Natural veld – good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens	Other: Indigenous vegetation with scattered aliens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil	

Alternative S1: Site at Uitkyk farm

Natural veld – good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____

Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites? YES NO

If YES, specify and explain: _____

Are there any special or sensitive habitats or other natural features present on any of the alternative sites? YES NO

If YES, specify and explain: _____

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify: _____

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date: _____

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Alternative S2:

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

Has a specialist been consulted?

YES	NO
-----	----

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

If YES, please complete the following:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____

Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites? YES NO

If YES, specify and explain: _____

Are there any special or sensitive habitats or other natural features present on any of the alternative sites? YES NO

If YES, specify and explain: _____

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify: _____

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date: _____
 The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Alternative S3:

Natural veld - good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an "E" is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

Has a specialist been consulted? YES NO

If YES, please complete the following:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____

Are there any rare or endangered flora or fauna species (including red data species) present on any of the alternative sites? YES NO

If YES, specify and explain: _____

Are there any special or sensitive habitats or other natural features present on any of the alternative sites? YES NO

If YES, specify and explain: _____

Are any further specialist studies recommended by the specialist? YES NO

If YES, specify: _____

If YES, is such a report(s) attached? YES NO

Signature of specialist: _____ Date: _____
 The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

5. LAND USE CHARACTER OF SURROUNDING AREA

Black out land uses and/or prominent features that does not currently occur within a 500m radius of the site

Alternative S1: Site at farm Nacht Wacht farm and site at farm Uitkyk

Natural area	Low density residential	Medium density residential	High density residential	Informal residential ^A
Retail	Commercial & warehousing	Light industrial	Medium industrial ^{AN}	Heavy industrial ^{AN}
Power station ^A	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam ^A	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility	Church	Old age home
Sewage treatment plant ^A	Train station or shunting yard ^N	Railway line ^N	Major road (4 lanes or more) ^N	Airport ^N

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

Harbour	Sport facilities	Golf course	Polo fields	Filling station ^H
Landfill or waste treatment site ^A	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe):	<p><u>Site at Farm Nacht Wacht:</u></p> <p>PB lime works Quarry, owned by Overberg Agri, is situated north of the site. The Zwelitsha township (part of Bredasdorp), is to the west of the site next to the quarry. The land to the south is mostly agricultural, with wheat and barley farming as well as pastures for grazing sheep and cattle. The land to the east is vacant, as is some land to the west (towards Bredasdorp). Two 66 kV powerlines (one old and one new) traverse the property. The old powerline runs north-south of the property, and the new powerline runs west-east of the property.</p> <p><u>Site at Farm Uityk:</u></p> <p>Agricultural land, with pastures used for grazing and wheat farming.</p>			

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM
NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

If any of the boxes marked with an "N" are ticked, please consult an appropriate noise specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____
 Will the ambient noise level have a negative impact on the proposed activity?

YES	NO
-----	----

 If YES, specify and explain: _____
 Are any further specialist or studies recommended by the specialist?

YES	NO
-----	----

 If YES, specify: _____
 If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date: _____

If any of the boxes marked with an "Au" are ticked, please consult an appropriate air quality specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____
 Will the ambient air pollution level have a negative impact on the proposed activity?

YES	NO
-----	----

 If YES, specify and explain: _____
 Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

 If YES, specify: _____
 If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date: _____

If any of the boxes marked with an "Hu" are ticked, please consult an appropriate health assessment specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist: _____
 Qualification(s) of the specialist: _____
 Postal address: _____
 Postal code: _____
 Telephone: _____ Cell: _____
 E-mail: _____ Fax: _____
 Will the surrounding land use pose any unacceptable health risk on the proposed activity?

YES	NO
-----	----

 If YES, specify and explain: _____
 Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

 If YES, specify: _____
 If YES, is such a report(s) attached?

--	--

Signature of specialist: _____ Date: _____

Alternative S2:

Natural area	Low density residential	Medium density residential	High density residential	Informal residential ^A
Retail	Commercial & warehousing	Light industrial	Medium industrial ^{AN}	Heavy industrial ^{AN}
Power station ^A	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam ^A	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility	Church	Old age home
Sewage treatment plant ^A	Train station or shunting yard ^N	Railway line ^N	Major road (4 lanes or more) ^N	Airport ^N

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

Harbour	Sport facilities	Golf course	Polo fields	Filling station ^H
Landfill or waste treatment site ^A	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe):				

If any of the boxes marked with an "N" are ticked, please consult an appropriate noise specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Will the ambient noise level have a negative impact on the proposed activity?

YES	NO
-----	----

If YES, specify and explain:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date:

If any of the boxes marked with an "Au" are ticked, please consult an appropriate air quality specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Will the ambient air pollution level have a negative impact on the proposed activity?

YES	NO
-----	----

If YES, specify and explain:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date:

If any of the boxes marked with an "Hu" are ticked, please consult an appropriate health assessment specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Will the surrounding land use pose any unacceptable health risk on the proposed activity?

YES	NO
-----	----

If YES, specify and explain:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date:

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

Alternative S3:

Natural area	Low density residential	Medium density residential	High density residential	Informal residential ^A
Retail	Commercial & warehousing	Light industrial	Medium industrial ^{AN}	Heavy industrial ^{AN}
Power station ^A	Office/consulting room	Military or police base/station/compound	Casino/entertainment complex	Hospitality facility
Open cast mine	Underground mine	Spoil heap or slimes dam ^A	Quarry, sand or borrow pit	Dam or reservoir
Hospital/medical center	School	Tertiary education facility	Church	Old age home
Sewage treatment plant ^A	Train station or shunting yard ^N	Railway line ^N	Major road (4 lanes or more) ^N	Airport ^N
Harbour	Sport facilities	Golf course	Polo fields	Filling station ^H
Landfill or waste treatment site ^A	Plantation	Agriculture	River, stream or wetland	Nature conservation area
Mountain, koppie or ridge	Museum	Historical building	Graveyard	Archeological site
Other land uses (describe):				

If any of the boxes marked with an "N" are ticked, please consult an appropriate noise specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Will the ambient noise level have a negative impact on the proposed activity?

YES	NO
-----	----

If YES, specify and explain:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date:

If any of the boxes marked with an "Au" are ticked, please consult an appropriate air quality specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

Will the ambient air pollution level have a negative impact on the proposed activity?

YES	NO
-----	----

If YES, specify and explain:

Are any further specialist studies recommended by the specialist?

YES	NO
-----	----

If YES, specify:

If YES, is such a report(s) attached?

YES	NO
-----	----

Signature of specialist: _____ Date:

If any of the boxes marked with an "Hu" are ticked, please consult an appropriate health assessment specialist to assist in the completion of this section.

Has a specialist been consulted?

YES	NO
-----	----

If YES, please complete the following:

Name of the specialist:

Qualification(s) of the specialist:

Postal address:

Postal code:

Telephone: Cell:

E-mail: Fax:

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

Will the surrounding land use pose any unacceptable health risk on the proposed activity?	YES	NO
If YES, specify and explain:		
Are any further specialist studies recommended by the specialist?	YES	NO
If YES, specify:		
If YES, is such a report(s) attached?		

Signature of specialist: _____ Date: _____

6. CULTURAL/HISTORICAL FEATURES

Alternative S1

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?	YES	NO
	Uncertain	
If YES, explain:		
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:		
Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO
If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.		

Alternative S2

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?	YES	NO
	Uncertain	
If YES, explain:		
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:		
Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO
If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.		

Alternative S3

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?	YES	NO
	Uncertain	
If YES, explain:		
If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.		
Briefly explain the findings of the specialist:		
Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO
If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.		

SECTION D: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The environmental assessment practitioner must follow any relevant guidelines adopted by the competent authority in respect of public participation and must at least –

- 1(a) Fix a notice in a conspicuous place, on the property where it is intended to undertake the activity which states that an application will be submitted to the competent authority in terms of these regulations and which provides information on the proposed nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations on the application may be made.

A notice board was placed at the farm gates of Nacht Wacht and Uitkyk. Photographs of the two notice boards are included in Section F (Appendix E.1) with this application.

- 1(b) inform landowners and occupiers of adjacent land of the applicant's intention to submit an application to the competent authority

See response to 1(c) below

- 1(c) inform landowners and occupiers of land within 100 metres of the boundary of the property where it is proposed to undertake the activity and whom may be directly affected by the proposed activity of the applicant's intention to submit an application to the competent authority;

Letters were sent to neighbouring land owners to inform them of the project.

All other Interested and Affected Parties (I&APs) were identified and included on the project database. All I&APs were sent notification of the Basic Assessment via an email or a letter which included the Background Information Document on the proposed project (Letter 1 to I&APs) (contained in Section F (Appendix E3).

Section 4 below provides more detail on the Public Participation process followed for this assessment. A copy of the project database is contained Appendix E.2 and correspondence sent to I&APs is in Appendix E.3 (both in Section F).

- 1(d) inform the ward councillor and any organisation that represents the community in the area of the applicant's intention to submit an application to the competent authority;

The councillors, Mr Richard Mitchell of the Alzulhas Municipality at Bredasdorp, and Mr J Du Toit Loubser of the Swellendam Municipality, have been included on the I&AP database and provided with copies of all the relevant correspondence. See Section 4 below for more detail on the Public Participation Process. A copy of the database is contained in Section F (Appendix E.2).

- 1(e) inform the municipality which has jurisdiction over the area in which the proposed activity will be undertaken of the applicant's intention to submit an application to the competent authority; and

The Cape Agulhas Municipality and the Swellendam Municipality were identified and included on the project database (See Section F (Appendix E.2))

- 1(f) inform any organ of state that may have jurisdiction over any aspect of the activity of the applicant's intention to submit an application to the competent authority; and

The stakeholder database in Section F (Appendix E.2) of this application includes all National and Provincial organs of state that were identified and included in the BA process.

- 1(g) place a notice in one local newspaper and any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of these regulations.

An advertisement for each site was placed in the local newspapers:

- (a) the "Suidernuus/Southern Post" on 29 January 2010 for the site at farm Nacht Wacht, near Bredasdorp and
(b) the "Langeberg Bulletin" on 29 January 2010 (see Section F (Appendix E4)).

Copies of these advertisements are included in Section F (Appendix E.4)

2. CONTENT OF ADVERTISEMENTS AND NOTICES

Advertisements and notices must indicate that an application will be submitted to the competent authority in terms of the EIA regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made;

An advertisement for each site was placed in the local newspapers (the advertisements were placed in both English and Afrikaans):

- (a) the “Suidernuus/Southern Post” on 29 January 2010 for the site at farm Nacht Wacht, near Bredasdorp and
- (b) the “Langeberg Bulletin” on 29 January 2010 (see Section F (Appendix E4)).

Copies of these advertisements are included in Section F (Appendix E.4)

A notice board was placed on the sites (see Section F (Appendix E1)).

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for site alternatives where appropriate.

Copies of the newspaper adverts and notice boards are contained in Section F (Appendix E).

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The public participation process up until the release of the Draft Basic Assessment Report is summarised below:

IDENTIFICATION AND NOTIFICATION OF I&APS

- Newspaper advertisements - “Suidernuus/Southern Post” on 29 January 2010 for the site at Farm Nacht Wacht and “Langeberg Bulletin” on 29 January 2010 (Section F (Appendix E4)) and
- Notice board at the sites – notice boards were placed at the farms (Section F (Appendix E1)).
- Registration and Comment Period –I&APs were provided with a comment period from 2 to 19 February 2010 within which to register their interest on the database or raise issues of concern for inclusion in the Draft BA Report. I&APs also had the opportunity to register on the database following the placement of the newspaper ads on 29 January 2010. I&APs registered on the project database will again be provided with written notification of the 40 day comment period for the Draft Basic Assessment Report.
- Notice to surrounding landowners – see section 1(c)
- Identification of key stakeholders see section 1(c-f)- One mechanism to identify I&APs is through media advertisements. In addition the following I&AP groups were proactively identified, included on the project database and notified of the process:
 - Local Authorities –Cape Agulhas Municipality (Municipal manager, Mr Reynold Stephens) and the Swellendam Municipality (Municipal Manager, Mr Nico Nel)
 - Councillors – Mr Richard Mitchell (Cape Agulhas Municipality) and Mr J du Toit Loubsher (Swellendam Municipality)
 - Aviation – South African Civil Aviation Authority (SACAA); Overberg Toetsbaan (OTB) and the South African Air Force
 - Organs of State –South African Heritage Resources Agency (SAHRA), Heritage Western Cape, South African Roads Agency Limited (SANRAL), National Department of Environmental Affairs (DEA); Western Cape Department of Environmental Affairs and Development Planning (DEA&DP), Department of Agriculture-Western Cape
 - Conservation: South African National Parks (Bontebok National Park); the Botanical Society of South Africa (BOTSOC); CapeNature; Agulhas Biodiversity Initiative-Oversight Committee (ABI-OC); Agulhas National Park; Birdlife Overberg; Birdlife-SA; Bat society; Overberg Crane Group; Bat Conservation Group; Lower Breede River Conservancy Trust (LBRC)
 - Surrounding Landowners – as outlined in section 1(c)
- Information dissemination and availability – The DBAR will be made available on the website www.csir.co.za/EIA (follow the link to the BioTherm Overberg Wind Project, Western Cape).

Affected organs of state will receive a CD or hard copy of the Draft Report. In addition a copy of the Draft Basic Assessment will be made available for public comment in the local Libraries.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

Comments and responses have been summarised in the comments and responses report attached in Appendix E.6.

Comments received from I&APs have been included in Section F (Appendix E5) of this report.

6. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

Has any comment been received from the local authority?

YES	NO
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If "YES", briefly describe the feedback below (also attach any correspondence to and from the local authority to this application):

The Cape Agulhas Municipality (Mr Bertus Hayward) requested an application for consent use. This application must effectively address the aesthetic and visual impact, as well as the desirability ("wenslikheidsimpak") of the project.

The Swellendam Municipality (Mr Willie Hattingh) requested an application for departure.

The comments received from local municipalities have been included in Section F (Appendix E5) of this report.

7. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES	NO
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If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

The South African Civil Aviation Authority (SACAA) requested that an application be lodged with them. The site at Farm Nacht Wacht near Bredasdorp is in close proximity to the aviation and military zones such as the Overberg Toetsbaan (OTB) and SA Airforce facilities. Approval must therefore be obtained from the SACAA. Although the site at Farm Uitkyk, Swellendam, is not close to the OTB and SA Air Force facilities, approval from the SACAA for that site must be obtained as well. Further technical studies to inform these applications are currently undertaken by BioTherm.

Heritage Western Cape (Mr Zwelibanzi Shiceka) requested that an application be lodged with them.

Department of Agriculture: Western Cape (Mr Paul Herselman) requested to be registered as an Interested and Affected Party on the project. Subsequent to the request, we received an email stating that the Department of Agriculture has no objection in terms of land use for the purpose of agriculture to the proposed construction of a wind monitor mast on the site at Farm Nacht Wacht, Bredasdorp

South African National Parks (Bontebok National Park, Ms Carli Venter) requested to be registered as an Interested and Affected Party on the Swellendam project.

BirdLife Overberg requested to be registered as an Interested and Affected Party on both projects in Bredasdorp and Swellendam. Dr Anton Odendal noted that the EIA and BA procedures must be implemented according to the letter of the law. This applies particularly to announcements about public meetings and the like that should be put out timeously so as to allow I&APs to prepare their submissions.

The Botanical Society of South Africa (Southern Overberg Branch) requested to be registered as an Interested and Affected Party in the PPP of Biotherm Wind Holdings in the Cape Agulhas Municipal area, Bredasdorp.

See Section F (Appendix E.5 and E.6) in Section F for the comments received and for the comments and response report.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2006, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the issues raised by interested and affected parties.

Site at Nacht Wacht, Bredasdorp:

1. Impacts on Civil Aviation and military zones as the site falls within the proclaimed flying area of AFB Overberg and may have an impact on the operations of the SAF in this area (Lt Col MV vd Heever; SA Air Force)
2. Impact on civil aviation-apply to the South African Civil Aviation Authority (Lizell Ströh, SACAA)
3. Impacts on the hard dunes which is home to critical limestone fynbos and concern about the integrity of the limestone formation. (Ms Sharon Brink, Southern Overberg Branch of the Botanical Society of South Africa)
4. Impacts on land use planning-apply for consent use (Mr Bertus Hayward; Cape Agulhas Municipality)
5. Impacts on Heritage (Mr Zwelibanzi Shiceka; Heritage Western Cape requested that the necessary forms are completed in terms of the National Heritage Resources Act)
6. Impacts on Agriculture (Mr Paul Herselman, Department of Agriculture: Western Cape) requested to be registered on the project. Subsequent to the request we were notified via email that the Department of Agriculture has no objection in terms of land use for the purpose of agriculture to the proposed construction of a wind monitor mast on the site at Farm Nacht Wacht, Bredasdorp.

Site at Farm Uitkyk, Swellendam:

7. Impacts on Civil Aviation and military zones as the site falls within the proclaimed flying area of AFB Overberg and may have an impact on the operations of the SAF in this area (Lt Col MV vd Heever; SA Air Force)
8. Impact on civil aviation-apply to the South African Civil Aviation Authority (Lizell Ströh, SACAA)
9. Impact on land use planning (Mr Willie Hattingh; Swellendam Municipality)
10. Visual impact and associated tourism impact; biodiversity/conservation concerns (Ms Carli Venter, South African National Parks: Bontebok National Park)
11. Impacts on Heritage (Mr Zwelibanzi Shiceka; Heritage Western Cape requested that the necessary heritage forms are completed in terms of the National Heritage Resources Act)
12. Impacts on Agriculture (Mr Paul Herselman, Department of Agriculture, Western Cape) requested to be registered on the project.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

See Appendix E.6 in Section F.

2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, including impacts relating to the choice of site alternatives.

Alternative S1 (preferred alternative)

Direct impacts:

- (i) Impact on aviation planning and restrictions

The site at Farm Nacht Wacht near Bredasdorp is in close proximity to the aviation and military zones such as the Overberg Toetsbaan (OTB) and the SA Air Force Base-Overberg. The site is within the proclaimed low flying and general flying area of the SA Air Force Base-Overberg and the proposed activity may have an impact on the operations of the SA Air Force and the OTB in this area. Approval from the SACAA must be obtained. The site at Farm Uitkyk, Swellendam is not in close proximity to the OTB and the SA Airforce facilities and it is therefore unlikely that the proposed erection of a wind mast at Farm Uitkyk, Swellendam will impact on the operations of the OTB and the SA Air Force Base Overberg. This however needs to be confirmed with the SA Air Force Base Overberg and approval needs to be obtained from the SACAA. BioTherm are currently undertaking further specialist technical studies to inform these applications.

Indirect impacts:

Cumulative impacts:

Alternative S2

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative S3

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:
No improved knowledge and quality of wind monitoring data.

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1	Alternative S2	Alternative S3

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase:

Alternative A1 (preferred alternative)

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative A2

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative A3

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1:	Alternative A2:	Alternative A3:

3. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the construction phase:

Alternative S1 (preferred alternative)

Direct impacts:

Vegetation Clearing

The project requires clearing of an area of approximately 1 m² for the laying of the mast foundation (with a footprint of 1m x 1m). No additional clearing required and stays will not need clearance. Alternatively, the project requires clearing of an area of approximately 16 m² for the laying of the mast foundation (if the mast is used with a footprint of 4m x 4m, without the stays).

A Botanical Assessment for the BioTherm Basic Assessment study was undertaken by Nick Helme of Nick Helme Botanical Surveys; dated 23 February 2010 for the sites at Nacht Wacht and Uitkyk (see Section F, Appendix D1 and D2 respectively). The section below gives a description of the vegetation at the two sites and provides the key findings of the botanical assessment for each site.

Site at Nacht Wacht, Bredasdorp

The proposed site and its extensive surroundings (>200ha) support largely pristine De Hoop Limestone Fynbos (Mucina & Rutherford 2006).

De Hoop Limestone Fynbos is restricted to limestone outcrops in the Agulhas – Riversdale Plain, and is here at its western extent. Because it is very infertile and usually very rocky the habitat has not been severely impacted by agriculture, and alien invasive vegetation, quarrying and urbanisation are the primary threats. The vegetation type is regarded as Least Threatened on a national basis, with about 97% of its original extent remaining, a national conservation target of 32%, and 26% formally conserved (Rouget et al 2004). The Draft National List of Threatened Ecosystems does not list this habitat (DEAT 2009).

The following conclusions were drawn from the botanical study for the site at Farm Nacht Wacht, Bredasdorp:

- The proposed monitoring mast site is located within an extensive area of natural Limestone Fynbos vegetation. This area has a High botanical sensitivity, and is a designated Critical Biodiversity Area.
- The proposed mast is not likely to significantly disrupt any ecological processes or fragment any habitat, but is likely to impact on at least two or three plant Species of Conservation Concern.
- If an access road or track is constructed it will substantially increase the botanical impacts, and this is consequently not recommended.
- Provided that no access track is constructed the extent of loss and damage to natural vegetation associated with the proposed mast is likely to be negligible and insignificant at a local and regional scale, and no specific mitigation is thus required.
- It should be noted that potentially significant botanical impacts are likely to arise if any large scale wind energy facility is built on this currently largely pristine limestone ridge. Developments in the region should be sited entirely within the very extensive agricultural areas, and should not impact on the remaining patches of natural vegetation.

Site at Farm Uitkyk, Swellendam:

The original natural vegetation in the area is a mix of Eastern Ruens Shale Renosterveld and Ruens Silcrete Renosterveld (Mucina & Rutherford 2006).

Ruens Silcrete Renosterveld is restricted to lowland areas in the Overberg, from Botriver to Riversdale, and has been heavily impacted by agriculture, due to the fertile soils and relatively high rainfall. The vegetation type is regarded as Critically Endangered on a national basis, with only 22% of its original extent left, an unreachable national conservation target of 27%, and 0.2% formally conserved (Rouget et al 2004). The Draft National List of Threatened Ecosystems also lists this as a Critically Endangered ecosystem (DEAT 2009).

The Eastern Ruens Shale Renosterveld is restricted to lowland areas in the eastern Overberg, from Riviersonderend to Swellendam, and has been very heavily impacted by agriculture, due to the fertile soils and relatively high rainfall. The vegetation type is regarded as Critically Endangered on a national basis, with only 13% of its original extent left, an unreachable national conservation target of 27%, and 0.2% formally conserved (Rouget et al 2004). The Draft National List of Threatened Ecosystems also lists this as a Critically Endangered ecosystem (DEAT 2009).

The following conclusions were drawn from the botanical study for the site at Farm Uitkyk, Swellendam:

- The proposed monitoring mast site is not located within an area of natural vegetation, and is instead situated within currently agricultural lands of Very Low botanical sensitivity. The proposed mast is not likely to disrupt any ecological processes, fragment any habitat, or impact on any plant Species of Conservation Concern.
- The extent of loss and damage to natural vegetation associated with these masts is likely to be negligible and insignificant at a local and regional scale, and no specific mitigation is thus required, as from a botanical perspective it is optimally sited.
- It should be noted that in order to avoid potentially significant botanical impacts that any large scale wind energy facility in the region should be sited entirely within the very extensive agricultural areas, and should not impact on the remaining natural Renosterveld vegetation.

It should however be pointed out that any remaining natural vegetation in the region must be considered Very High Sensitivity, and no infrastructural development should be considered in these Renosterveld remnants. Numerous plant Species of Conservation Concern are likely to occur in any such patches of habitat (taken from the Botanical Assessment by Nick Helme for the BioTherm BA; dated 23 February 2010).

Water use

No impact. Water will not be required to wash the concrete mixing equipment as ready-made concrete will be brought onto site. Drinking water for construction workers will be taken to the site.

Noise

Noise generated during the construction phase of the project will mainly be caused by the construction vehicles on site, diesel powered equipment, such as the generators used for powering of equipment, clearing of vegetation, and preparation of the land for laying of the foundation. SANS guidelines exist for noise emissions, and will be applied. The impact significance of construction noise is rated as low.

Visual

The activity comprises the erection of a lattice wind monitoring mast of approximately 100m which could be supported by stays extending up to 65m from the base of the mast (see Appendix C1). Alternatively, a wind monitoring lattice mast which is not supported by stays can be erected. Anemometers (devices to measure wind speed) will be placed at different intervals on the mast. Given the short duration of the visual impact during construction phase and the low level of visibility, this is rated as being a negative impact of low significance.

Economics

The construction phase is expected to give rise to approximately four construction jobs. This impact is rated as positive and of low significance.

Heritage

Considering the extremely small footprint of the proposed activity for the laying of the foundation of the mast, and the fact that it is on land that has been disturbed by agriculture, there will be no impact on heritage resources.

Health and Safety

Health and safety is an overarching issue in the construction and erection of the mast. Workers should be made aware of these issues by receiving training on various aspects of the requirements for the construction process, including health and safety issues, equipment such as stays (if this option is applied), safety issues when working at high heights and using cranes, etc. With the necessary health and safety requirements in place, this impact is rated as being a negative impact of low significance.

Indirect impacts:

Secondary industries may benefit from this development in the following ways: accommodation for construction workers, transport of workers to and from the site; and support services such as concrete suppliers. This impact is rated as positive and of low significance.

Cumulative impacts:

Alternative S2

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative S3

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Should this project not go ahead, there will be:

- None of the impacts as mentioned, including no loss of vegetation for the laying of the foundation and the laydown area of the mast stays (if applicable).

<ul style="list-style-type: none"> ○ No creation of direct jobs during the construction phase (approximately four), neither any secondary jobs. ○ No visual impact from the erection of the wind monitoring mast ○ No wind monitoring data to inform the planning, financing and investment decisions for the proposed wind project. <p>Indirect impacts:</p> <ul style="list-style-type: none"> ○ No indirect benefits for improved efficiency of planning for wind energy. ○ No indirect benefits for reducing uncertainty of investments in wind energy <p>Cumulative impacts:</p>
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Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1	Alternative S2	Alternative S3
<p>1. Vegetation Clearing</p> <ul style="list-style-type: none"> (i) Top soil from areas to be excavated (e.g. for the foundation of the mast) must be stored and re-used on site. (ii) Minimise the areas to be cleared of vegetation or where vegetation is to be trimmed). <p>2. Construction Areas</p> <p>These areas must be clearly demarcated using hazardous tape to limit the extent of the impacts.</p> <p>3. Road Access</p> <p>Care should be taken when using the access route so as to prevent damage to the vegetation. Vehicles should try to stay on the road as far as possible, even when they need to turn around.</p> <p>4. Health and Safety</p> <p>Health and Safety training should be provided to staff involved in the construction phase, particularly for the erection of the mast. Health and safety guidelines should be available during construction and operation.</p> <p>5. Exercise of best practice on site.</p> <p>6. Provision of portable toilets for workers for the conservation of water and the site.</p>		

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the construction phase:

<p>Alternative A1 (preferred alternative)</p> <p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>
<p>Alternative A2</p> <p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>
<p>Alternative A3</p> <p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>
<p>No-go alternative (compulsory)</p> <p><i>Direct impacts:</i></p>

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM
NACHT WACHT NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1:

Alternative A2:

Alternative A3:

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4. IMPACTS THAT MAY RESULT FROM THE OPERATIONAL PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative S1 (preferred alternative)

Direct impacts:

Visual

The wind measuring mast will be approximately 100m high. If the wind mast will only be operational for 3 years, it can be considered a temporary structure which will only be there for a short time period before being taken down again. This impact is therefore short-lived. The visual impact of the wind mast is predicted to be negative and of low significance.

If the mast is retained after the three years for performance measurement of the potential wind farm, it will be a long lived structure together with the wind turbines. The visual impact of the mast will then be of low significance as it will be incorporated into the landscape character of the wind turbines.

Noise

The wind monitoring mast will not produce any significant noise impacts. SANS guidelines exist for noise emissions, and will be applied.

Economics

This project will provide 4 permanent posts. It will promote the use of renewable energy in South Africa. The project is predicted to have a positive impact of low significance.

Heritage

No features of heritage value are shown to occur in the vicinity of the proposed sites. If any archaeological or paleontological findings are made during construction (e.g. from excavations), Heritage Western Cape and SAHRA should immediately be notified and a relevant specialist should be consulted. Taking the above in consideration, as well as the very limited footprint of the project, no impact on heritage is predicted.

Impacts on Birds

The CSIR has appointed Chris van Rooyen from Chris van Rooyen Consulting to undertake a bird impact screening study to inform mainly the BioTherm EIA for the full wind farm at the sites in Bredasdorp and Swellendam. The section below provides an overview of this study and is used to provide baseline information from a bird perspective for the Basic Assessment for the wind monitoring mast.

The Overberg region is very sensitive from a bird impact perspective. Both Nacht Wacht and Excelsior study sites are located in the Overberg Wheatbelt. The mosaic of wheat, barley and canola fields interspersed with pastures that comprises the area known as the Overberg Wheatbelt, is classified as an Important Bird Area (Barnes 1998). The Overberg holds the largest population of Blue Cranes in the world. At times the Overberg can hold nearly 20% of this species' global population, as well as containing large numbers of Denham's Bustard and White Stork *Ciconia ciconia* during the summer (Barnes 1998). The Blue Crane has relatively recently expanded its range into the Overberg, where it feeds on inter alia fallen grain and recently germinated crops.

The study area at Excelsior is a good example of the Overberg Wheatbelt: a mosaic of grain fields interspersed with pastures (in this instance mostly lucerne). It is of specific importance to the endemic, Red listed Blue Crane, as well as the Red listed Denham's Bustard and Agulhas Long-billed Lark *Certhilauda brevirostris*.

The Red listed Black Harrier is also found frequently in the modified agricultural matrix of the Overberg region, where several pairs breed (Barnes 1998), although it prefers the natural renosterveld in between the cereal crops. Red listed Secretary birds are also present as well as some typical karroid birds such as the endemic Karoo Korhaan *Eupodotis vigorsii* (Barnes 1998).

No fatal or significant environmental flaws were identified as far as potential impacts of the single wind monitoring mast on birds are concerned for the sites at Nacht Wacht and Uitkyk. The most significant impacts as far as birds are concerned will be associated with the wind turbines for the full wind farm which is part of a separate EIA process. The most significant impact associated with the turbines is the potential loss of habitat for Blue Cranes and Ludwig's Bustard, as well as the possibility of raptor collisions with the turbines, particularly at Nachtwacht.

It should however be noted that the said screening study reported that the existing power lines in the Overberg Wheatbelt are a much bigger threat to birds, especially cranes, bustards, secretary birds and storks as far as collision mortality is concerned. A detailed bird specialist study will be undertaken by Chris

van Rooyen of Chris van Rooyen Consulting during the EIA for the full wind farm.

Impacts on Bats

The Overberg region is sensitive from a bats perspective. The probability of caves resulting from limestone rock formations, topography and proximity to the Kars river, might lend Nacht Wacht, Bredasdorp to experience a higher occurrence of bats than the site at Uitkyk, Swellendam.

No fatal or significant environmental flaws were identified as far as potential impacts of the single wind monitoring mast on bats are concerned for the sites at Nacht Wacht and Uitkyk. The most significant impacts as far as bats are concerned will be associated with the wind turbines for the full wind farm which is part of a separate EIA process. A detailed bat specialist study will be undertaken during the EIA for the full wind farm by Dr Samantha Stoffberg of the University of Stellenbosch.

Indirect impacts:

Health and Safety

Health and safety is an overarching issue, and applies to operational phase of the project, when maintenance is required. Operators should be aware that specialised equipment (e.g. cranes) will be needed should maintenance of the mast, anemometer or solar panel be required and work will be performed at high heights. Workers must have undergone the necessary safety training. It is important that there are guidelines in place to deal with emergencies, such as someone being hurt during maintenance work on the mast.

Secondary economic benefits

- o Employment of support industries, e.g. maintenance of mast during its lifecycle;
- o Promote potential generation of wind energy for SA.

Cumulative impacts:

None

Alternative S2

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative S3

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Should this project not go ahead, there will be:

- o No loss of vegetation for the laying of the foundation and the laydown area for the mast stays (if this option is applied);
- o No visual intrusion;
- o No provision of additional wind information (from the monitoring mast) to inform the planning and design for the potential larger scale wind projects; and
- o No job creation.

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1

Alternative S2

Alternative S3

In order to minimise the negative aspects and maximise the positive, the following is recommended:

- (i) Install lighting on the mast in accordance with Civil Aviation Regulations. Other lighting of the site should be designed to

<p>minimise light pollution without compromising safety.</p> <p>(ii) Demarcate the construction area.</p> <p>(iii) Maximise the local economic opportunities, by appointing local labour forces and training this staff.</p>		
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List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the operational phase:

Alternative A1 (preferred alternative)

<p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>

Alternative A2

<p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>

Alternative A3

<p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>

No-go alternative (compulsory)

<p><i>Direct impacts:</i></p> <p><i>Indirect impacts:</i></p> <p><i>Cumulative impacts:</i></p>

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1	Alternative A2	Alternative A3

5. IMPACTS THAT MAY RESULT FROM THE DECOMMISSIONING AND CLOSURE PHASE

List the potential site alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning or closure phase:

Alternative S1 (preferred alternative)

Direct impacts:

The mast could be a temporary structure (at least three years), after which it can be decommissioned. It can however be re-assembled and re-used at another site.

Indirect impacts:

Cumulative impacts:

Alternative S2

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative S3

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

If this project does not go ahead there will be no need to decommission the project.

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative S1	Alternative S2	Alternative S3

List the potential activity/technology alternative related impacts (as appropriate) that are likely to occur as a result of the decommissioning and closure phase:

Alternative A1 (preferred alternative)

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative A2

Direct impacts:

Indirect impacts:

Cumulative impacts:

Alternative A3

Direct impacts:

Indirect impacts:

Cumulative impacts:

No-go alternative (compulsory)

Direct impacts:

Indirect impacts:

Cumulative impacts:

Indicate mitigation measures that may eliminate or reduce the potential impacts listed above:

Alternative A1

Alternative A2

Alternative A3

6. PROPOSED MANAGEMENT OF IMPACTS AND MITIGATION

Indicate how identified impacts and mitigation will be monitored and/or audited.

Alternative S1

**Alternative
S2**

**Alternative
S3**

DESIGN PHASE

- Mast colour should be as per the South African Civil Aviation Regulations of 1997.
- BioTherm has submitted an application to the SACAA to inform the design of the mast.
- For access to the site, use the existing gravel farm tracks.

CONSTRUCTION PHASE

(i) Clearing of vegetation and maintenance of natural habitat

- Top soil from areas to be excavated (e.g. for the foundation of the mast) must be stored and re-used on site.
- Minimise the areas to be cleared of vegetation.
- Ensure that the storage and operation of construction equipment and activities of personnel are contained within the designated work areas.
- Avoid soil erosion within and in the vicinity of the construction area.

(iii) Road access to site

- Access roads disturbed during construction must be rehabilitated
- Care should be taken when using the access route so as to prevent further damage to the vegetation. Vehicles should try to stay on the road as far as possible, even when they need to turn around.

(iv) Soil and Groundwater

- Prevent the spillage of fuel, oil or grease on site and remedy this should it occur.
- Prevent spillage of cement into soil and vegetation beyond the defined area.

(v) Visual

- Minimise visual impact during the construction phase.
- Minimise contrast with surrounding environment and visibility of the mast to humans.

(vi) Aviation

Ensure that the facility complies with Civil Aviation Authority requirements for mast visibility to aircraft. Ensure that the wind mast at both sites meets the requirements of the Overberg Toetsbaan (OTB) and the South African Air Force.

(vii) Site management

- Ensure that wastes are managed in an environmentally friendly manner.
- Provision of portable toilets for workers on site.

(viii) Health and safety

- Health and Safety training should be provided to staff involved in the construction phase, particularly for workers operating at high heights. Health and safety guidelines must be available during construction.

<p><u>OPERATIONAL PHASE</u></p> <ul style="list-style-type: none"> ○ Maximise the local economic opportunities, by appointing local labour forces and training this staff. <p><u>DECOMMISSIONING PHASE</u></p> <ul style="list-style-type: none"> ○ Return the area in its original state, noting that it is reasonable to expect that below ground foundations would remain. 		
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Alternative A1	Alternative A2	Alternative A3

7. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative S1 (preferred alternative)

The main positive and negative impacts are summarised below:

Sourcing of wind data and promotion of wind energy

The effect of the project in promoting the use of wind energy is predicted to have a positive impact of low significance.

Visual impact and effect on “sense of place”

The wind measuring mast will be approximately 100m high. If the wind mast will only be operational for 3 years, it can be considered a temporary structure which will only be there for a short time period before being taken down again. This impact is therefore short-lived. The visual impact of the wind mast is predicted to be negative and of low significance.

If the mast is retained after the three years for performance measurement of the potential wind farm, it will be a long lived structure together with the wind turbines. The visual impact of the mast will then be of low significance as it will be incorporated into the landscape character of the wind turbines.

Impact of vegetation clearing and habitat loss

Site at Farm Nacht Wacht, Bredasdorp

- The proposed monitoring mast site is located within an extensive area of natural Limestone Fynbos vegetation. This area has a High botanical sensitivity, and is a designated Critical Biodiversity Area.
- The proposed mast is not likely to significantly disrupt any ecological processes or fragment any habitat, but is likely to impact on at least two or three plant Species of Conservation Concern.
- If an access road or track is constructed it will substantially increase the botanical impacts, and this is consequently not recommended.
- Provided that no access track is constructed the extent of loss and damage to natural vegetation associated with the proposed mast is likely to be negligible and insignificant at a local and regional scale, and no specific mitigation is thus required.

It should be noted that the single wind monitoring mast itself will have a very limited footprint (1m² or 16m² if the self-supported lattice will be used). It will utilise the existing gravel track for access to the mast during construction and operations.

Site at Farm Uitkyk, Swellendam

- The proposed monitoring mast site is not located within an area of natural vegetation, and is instead situated within currently agricultural lands of Very Low botanical sensitivity. The proposed mast is not likely to disrupt any ecological processes, fragment any habitat, or impact on any plant Species of Conservation Concern.
- The extent of loss and damage to natural vegetation associated with these masts is likely to be negligible and insignificant at a local and regional scale, and no specific mitigation is thus required, as from a botanical perspective it is optimally sited.
- It should be noted that in order to avoid potentially significant botanical impacts that any large scale wind energy facility in the region should be sited entirely within the very extensive agricultural areas, and should not impact on the remaining natural Renosterveld vegetation.

Impacts on birds

No fatal or significant environmental flaws were identified as far as potential impacts of the single wind monitoring mast on birds are concerned for the sites at Nacht Wacht and Uitkyk. The most significant impacts as far as birds are concerned will be associated with the wind turbines for the full wind farm which is part of a separate EIA process. The most significant impact associated with the turbines is the potential loss of habitat for Blue Cranes and Ludwig's Bustard, as well as the possibility of raptor collisions with the turbines, particularly at Nachtwact.

It should however be noted that the said screening study reported that the existing power lines in the Overberg Wheatbelt are a much bigger threat to birds, especially cranes, bustards, secretary birds and storks as far as collision mortality is concerned. A detailed bird specialist study will be undertaken by Chris van Rooyen of Chris van Rooyen Consulting during the EIA for the full wind farm.

Impacts on bats

The Overberg region is sensitive from a bats perspective. The probability of caves resulting from limestone rock formations, topography and proximity to the Kars river, might lend Nacht Wacht, Bredasdorp to experience a higher occurrence of bats than the site at Uitkyk, Swellendam.

No fatal or significant environmental flaws were identified as far as potential impacts of the single wind monitoring mast on bats are concerned for the sites at Nacht Wacht and Uitkyk. The most significant impacts as far as bats are concerned will be associated with the wind turbines for the full wind farm which is part of a separate EIA process. A detailed bat specialist study will be undertaken during the EIA for the full wind farm by Dr Samantha Stoffberg of the University of Stellenbosch.

Heritage

Considering the extremely small footprint of the proposed activity for the laying of the foundation of the mast, no impact on heritage resources is predicted.

Noise

The wind monitoring mast will not produce any significant noise impacts. SANS guidelines exist for noise emissions, and will be applied.

Concluding statement

It is the opinion of the environmental practitioner that mitigation measures to avoid or reduce negative impacts have been adequately investigated. Provided that the recommended management actions are implemented effectively, the proposed wind monitoring mast is assessed to provide a net positive contribution to sustainability.

Alternative S2

Alternative S3

No-go alternative (compulsory)

8. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner).

YES	NO
-----	----

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

Not applicable.

If "YES", please list any recommended conditions, including mitigation measures, that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

Refer to the management actions and monitoring requirements listed in Section 6 for the design, construction, operations and decommissioning phases of the proposed project.

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The following appendices are attached as appropriate:

Appendix A: Site layout plans

- A.1: Location of the proposed monitoring mast (WM) on Farm Nacht Wacht (Bredasdorp) (1:250 000 map)
- A.2: Location of the proposed monitoring mast (WM) on Farm Nacht Wacht (Bredasdorp) (Satellite image)
- A.3: Location of the proposed monitoring mast (WM) on Farm Uitkyk (Swellendam) (1:250 000 map)
- A.4: Location of the proposed monitoring mast (WM) on Farm Uitkyk (Swellendam) (Satellite image)

Appendix B: Photographs

- B.1 Photographs taken from the centre of the site in the 8 compass directions
GPS coordinates at center of site (at Farm *Nacht Wacht (Bredasdorp)*): coordinates: (34°31'43.0"S, 020°05'29.5"E, elevation at 107m).
- B.2 Photographs taken from the centre of the site in the 8 compass directions
GPS coordinates at center of site (at Farm *Uitkyk (Swellendam)*): coordinates: (34°14'05.5"S, 020°12'52.6"E, elevation at 303m).

Appendix C: Facility illustrations

- C.1: Example of the potential lattice mast supported by stays to be used and its specifications.
- C.2: Example of the potential free-standing lattice mast (tower) to be used and its specifications.

Appendix D: No Specialist Studies

- D.1 Botanical Basic Assessment of proposed wind monitoring mast on the farm Nacht Wacht near Bredasdorp
- D.2 Botanical Basic Assessment of proposed wind monitoring mast on the farm Uitkyk near Swellendam.

Appendix E: Public Consultation

- E.1 Photo of Notice Board on Site
 - A Farm Nacht Wacht, Bredasdorp
 - B Farm Uitkyk, Swellendam
- E.2 List of database of Interested and Affected Parties
 - A Farm Nacht Wacht, Bredasdorp
 - B Farm Uitkyk, Swellendam

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- E.3 (i) Letter 1 to IAPs to invite them to register and to inform them of the proposed project
 - A Farm Nacht Wacht, Bredasdorp
 - B Farm Uitkyk, Swellendam
- (ii) Letter to organs of state to inform them of the project
- E.4 Advertisements placed
 - A Farm Nacht Wacht, Bredasdorp
 - B Farm Uitkyk, Swellendam
- E.5 Issues raised and comments received from I&APs prior to the release of the draft Basic Assessment Report
 - A Farm Nacht Wacht
 - B Farm Uitkyk
- E.6 Comments and response report
 - A Farm Nacht Wacht
 - B Farm Uitkyk

Appendix F: *Information in support of applications for exemption
(not applicable)*

Appendix G: *Other information*

- G.1 "Letter of consent" from farm owner
 - A Farm Nacht Wacht
 - B Farm Uitkyk
- G.2 Notice of Intent submitted by CSIR to National Department of Environmental Affairs (DEA)
- G.3 Letter from the National Department of Environmental Affairs (DEA) acknowledging the Notice of Intent

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APPENDIX A
Site Plans & Facility Illustrations

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Figure A.3:	Location of the proposed wind monitoring mast on Farm Uitkyk (Swellendam) (1:250 000 map)	7
Figure A.4:	Location of the proposed wind monitoring mast on Farm Uitkyk (Swellendam) (Satellite image)	8

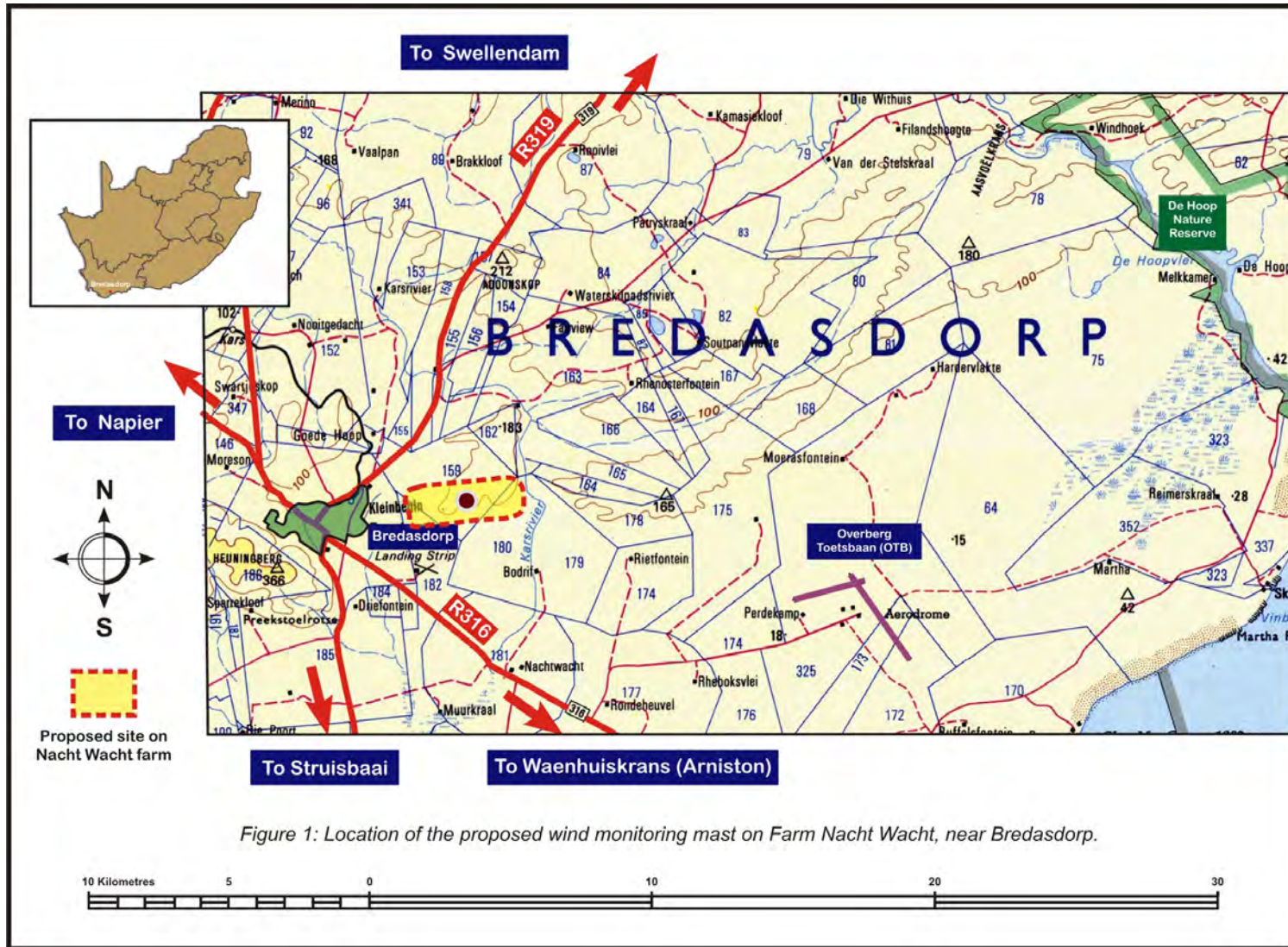


Figure 1: Location of the proposed wind monitoring mast on Farm Nacht Wacht, near Bredasdorp.

Figure A.1: Location of the proposed wind monitoring mast on Farm Nacht Wacht (Bredasdorp) (1:250 000 map)



Figure A.2: Location of the proposed wind monitoring mast on Farm Nacht Wacht (Bredasdorp) (Satellite image)

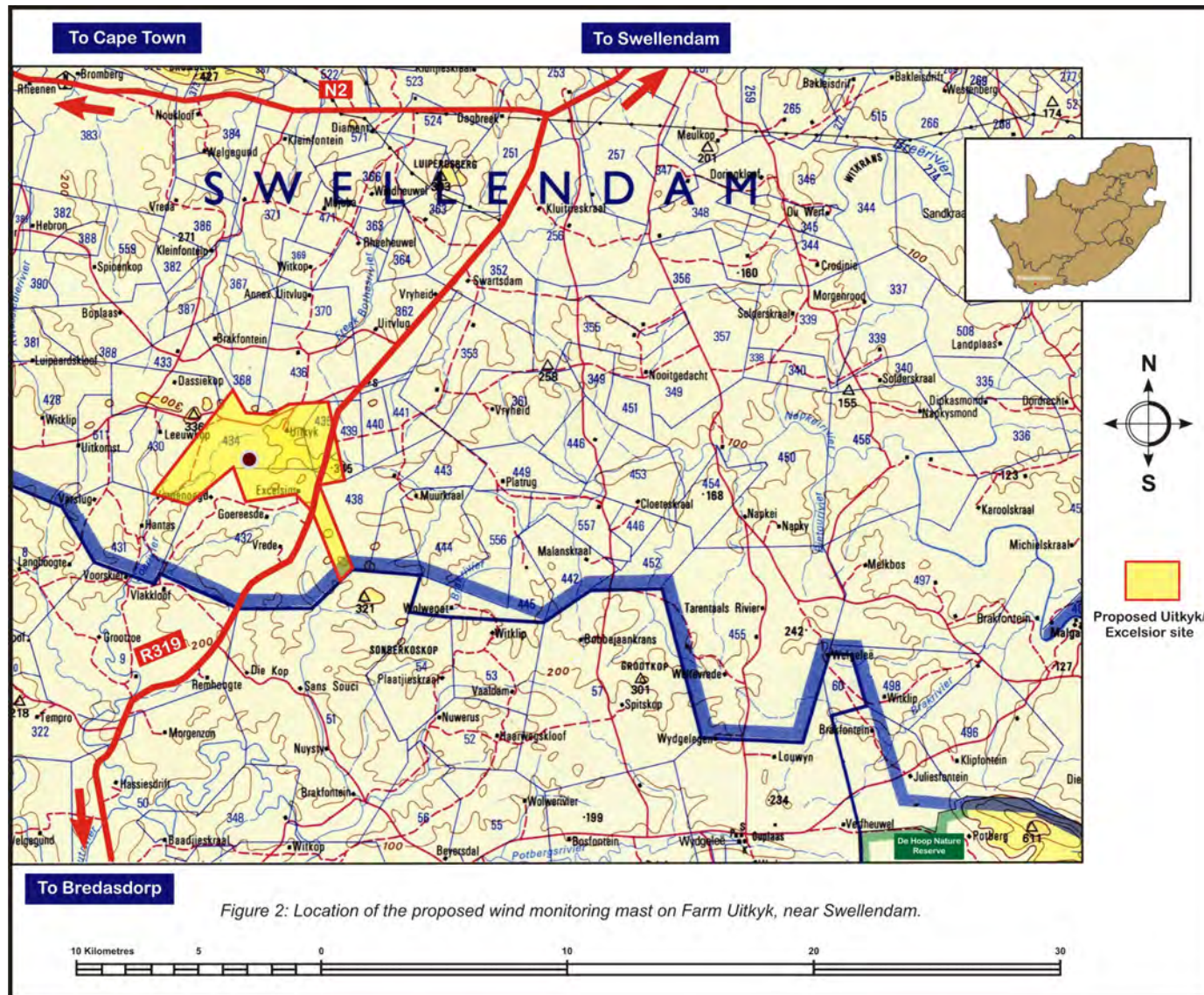


Figure 2: Location of the proposed wind monitoring mast on Farm Uitkyk, near Swellendam.

Figure A.3: Location of the proposed wind monitoring mast on Farm Uitkyk (Swellendam) (1:250 000 map)



Figure A.4: Location of the proposed wind monitoring mast on Farm Uitkyk (Swellendam)) (Satellite image)

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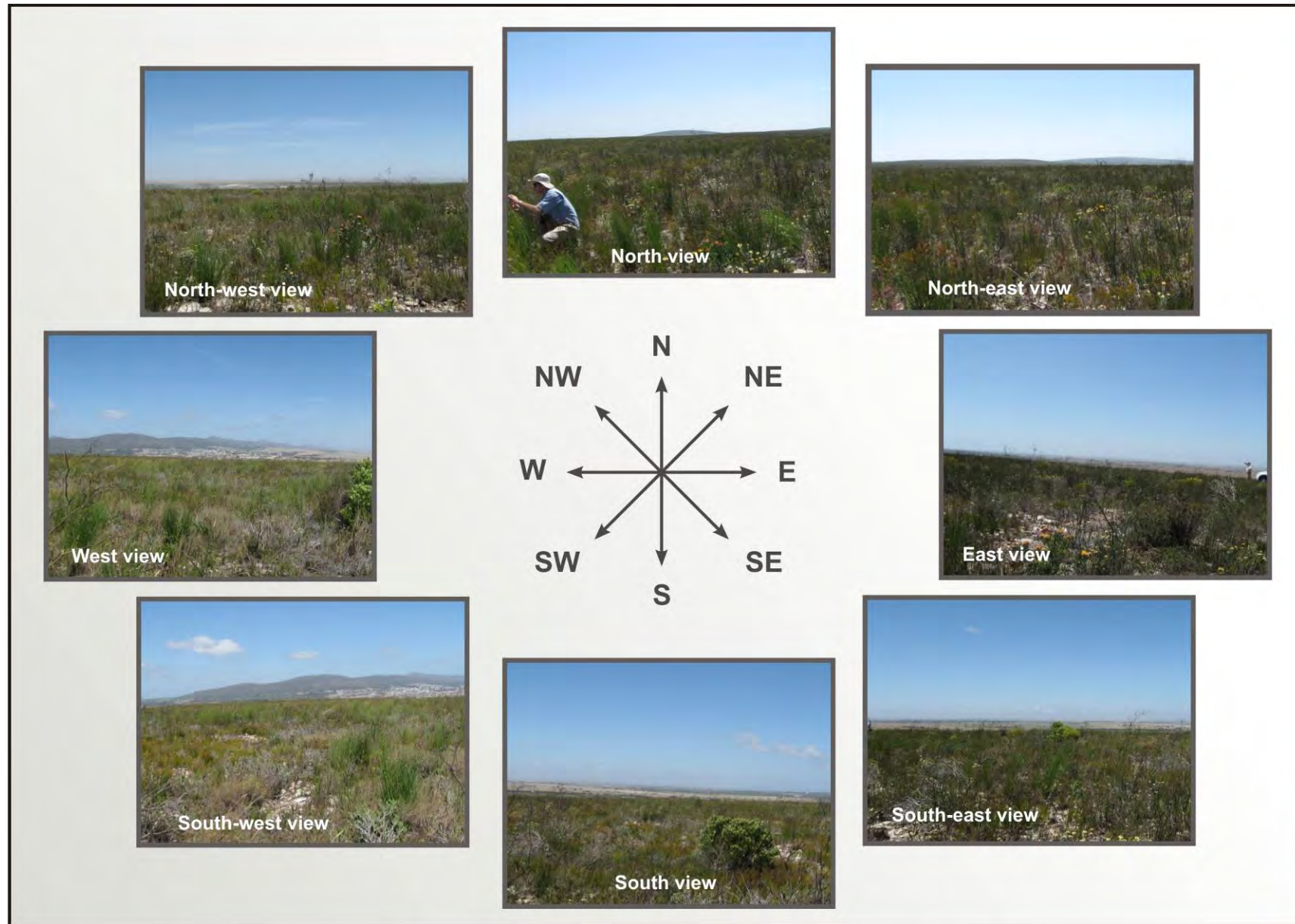
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**APPENDIX B
Site Photographs**

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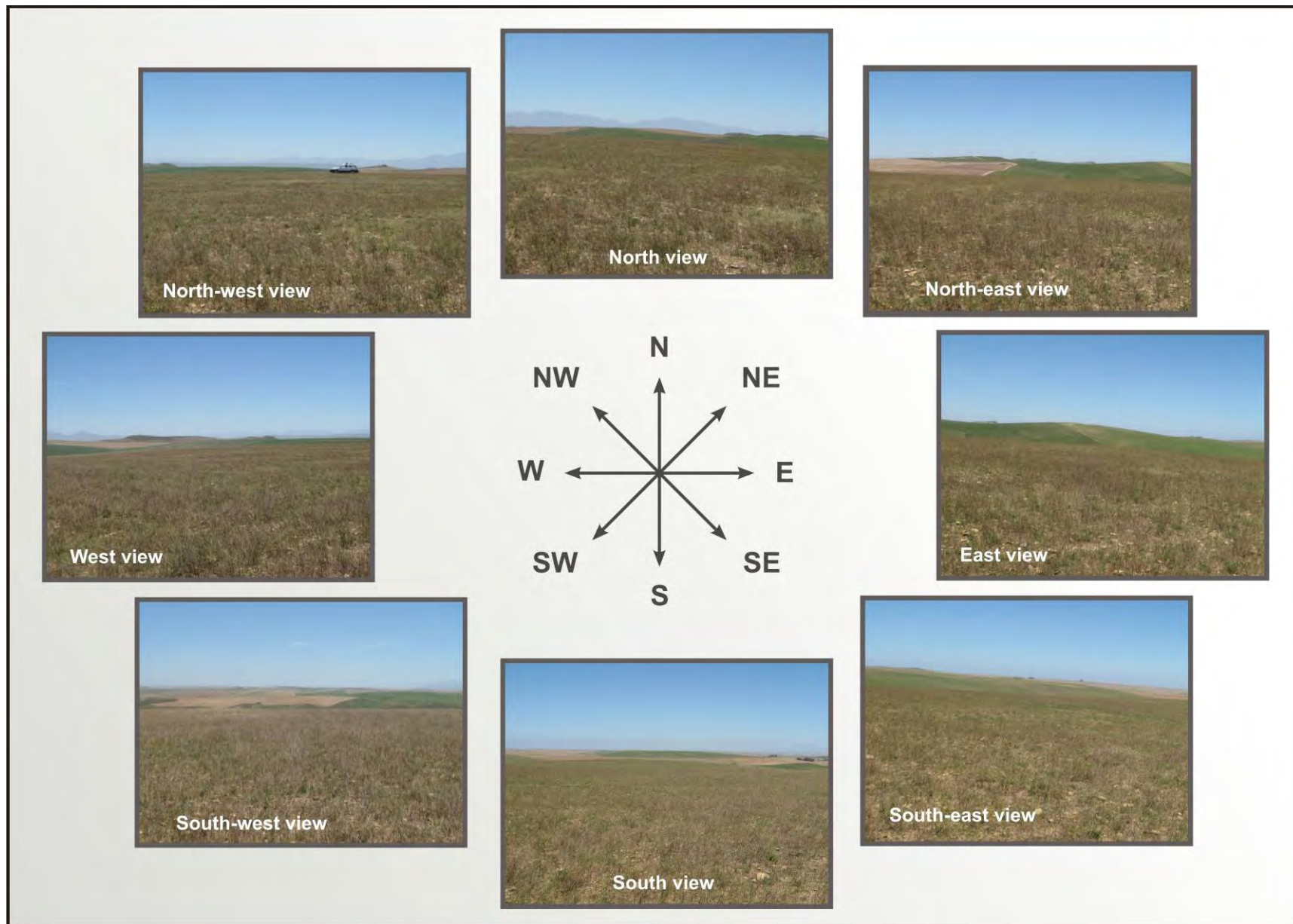
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GPS coordinates at center of site (at Farm Nacht Wacht (Bredasdorp): coordinates: (34°31'43.0"S, 020°05'29.5"E, elevation at 107m)



APPENDIX B2 Photographs taken from the centre of the site in the 8 compass directions (at Farm Uitkyk, Swellendam)

GPS coordinates at center of site (at Farm Uitkyk (Swellendam): coordinates: (34°14'05.5"S, 020°12'52.6"E, elevation at 303m)



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Facility Illustrations

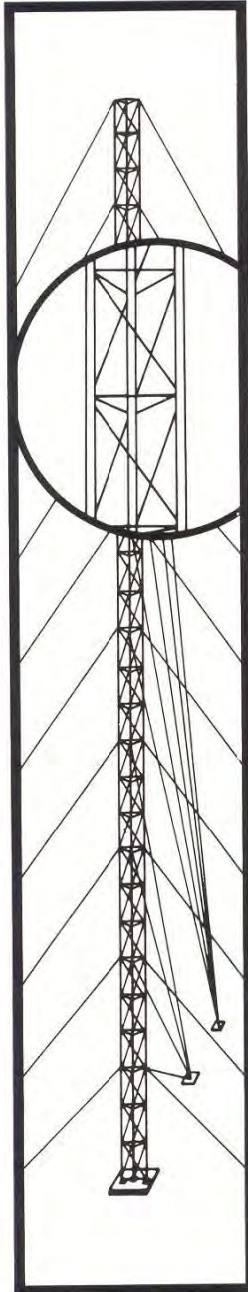
- Figure C.1: Example of the potential lattice mast supported by stays to be used and its specifications. _____ 13
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HEAVY DUTY GUYED LATTICE MASTS



Type 1000/483 and Type 1000/600

A range of two heavy duty lattice communications masts for microwave or similar use.
Available to 96 m height in 3 metre increments.

Type 1600/600 and Type 1600/760

A range of two extra heavy duty lattice communications masts available to
120 m in 3 metre increments.

Special features include:

- All bolted construction permits mast to be shipped in CKD form, and facilitates transport and handling.
- A wide range of custom made options available, including climbing steps, torque frames and dish mounting brackets.
- Standard navigation lights brackets.
- Earth kits.

MECHANICAL SPECIFICATIONS

1000/484

Leg centres	1 100 mm
Face width	1 148 mm
Leg size	Ø 48.0
Bracing size	Ø 42 mm
Face area per metre	0.20 m ²
Mass per metre	31.67 kg

Antenna Loading

Permissible flat plate area
= 1 m² at apex
and 1 m² at 3 m below apex.

1000/630

Leg centres	1 112 mm
Face width	1 172 mm
Leg size	Ø 63
Bracing size	Ø 42 mm
Face area per metre	0.23 m ²
Mass per metre	41.18 kg

Permissible flat plate area
= 2,65 m² at apex
and 2,65 m² at 3 m below apex.

1600/630

Leg centres	1 600 mm
Face width	1 660 mm
Leg size	Ø 63
Bracing size	Ø 42 mm
Face area per metre	0.26 m ²
Mass per metre	48.32 kg

Permissible flat plate area
= 3,5 m² at apex
and 3,5 m² at 3 m below apex.

1600/760

Leg centres	1 616 mm
Face width	1 692mm
Leg size	Ø 76.0
Bracing size	Ø 42mm
Face area per metre	0.29 m ²
Mass per metre	54.29 kg

Permissible flat plate area
= 7.0 m² at apex
and 7.0 m² at 3 m below apex.

Specifications subject to change without notice. Iss. 2



Tel: +27 (0)11 444-2299
Fax: +27 (0)11 444-2288
Web site: www.webb.co.za

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Figure C.1: Example of the potential lattice mast supported by stays to be used and its specifications.

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EHC Tower Range

Top parallel sections in face width of 580mm, 1060mm, 1300mm, 1540mm, 2020mm and 2500mm.
Parallel Sections up to 15m in length.

From 2500 to 1060 face width with triangular Z bracing.

From 10500 to 2500 face width with diamond bracing.

A comprehensive range of heavy duty towers up to 120 m in height suitable for cellular, microwave and broadcast application. Designed by a leading consulting engineer, the modular design provides flexible and cost effective solutions. The range of towers is field proven throughout Africa.

Features:

- Available to 120 m height
- Modular design using standard components
- Computer aided design requires only details of height, antenna load, wind speed, terrain category, etc to verify structure required
- With maximum member length 4 m, the towers can be erected without the use of a crane
- Open ended braces permit egress of water and full cover of internal galvanising
- Tubular members facilitate antenna mounting
- Top sections available in parallel configuration to facilitate mounting of antennas

Technical

- Designed to local and international specifications
- Manufactured in accordance with SABS 1200H
- Galvanised to SABS ISO 1461
- Grade 300W steel used in structural members
- Full Engineering Certification offered
- Quality System in compliance with ISO 9001

Tower Options

- Internal or External Caged ladders
- Optional Fall Arrest System
- Rest Platforms
- Working Platforms and Crows Nests
- Antenna Mounting Brackets
- Painting to ICAO standards
- Aircraft warning lights

Specifications subject to change without notice. Iss. 2



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Web site: www.webb.co.za

Figure C.2: Example of the potential free-standing lattice mast (tower) to be used and its specifications.

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**APPENDIX D
Specialist Studies**

- Appendix D.1 Botanical Basic Assessment of proposed wind monitoring mast on the farm Nacht Wacht near Bredasdorp
- Appendix D.2 Botanical Basic Assessment of proposed wind monitoring mast on the farm Uitkyk near Swellendam.

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NICK HELME BOTANICAL SURVEYS

PO Box 22652 Scarborough 7975

Ph: 021 780 1420 Fax: 021 780 1868 cell: 082 82 38350 email: botaneek@africa.com

VAT Reg. # 4930216892 Pri.Sci.Nat # 400045/08

**BOTANICAL BASIC ASSESSMENT OF PROPOSED
WIND MONITORING MAST ON THE FARM 159
(NACHTWACHT SITE), IN THE BREDASDORP AREA
OF THE OVERBERG, WESTERN CAPE.**

Compiled for : CSIR, Stellenbosch.

Client: BioTherm Energy (Pty) Ltd.

23 February 2010

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

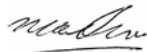
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DECLARATION OF INDEPENDENCE

In terms of Chapter 5 of the National Environmental Management Act of 1998 specialists involved in Impact Assessment processes must declare their independence and include an abbreviated Curriculum Vitae.

I, N.A. Helme, do hereby declare that I am financially and otherwise independent of the client and their consultants, and that all opinions expressed in this document are substantially my own.



NA Helme

Abridged CV:

Contact details as per letterhead.

Surname : HELME

First names : NICHOLAS ALEXANDER

Date of birth : 29 January 1969

University of Cape Town, South Africa. BSc (Honours) – Botany (Ecology & Systematics). 1990.

Since 1997 I have been based in Cape Town, and have been working as a specialist botanical consultant, specialising in the diverse flora of the south-western Cape. Since the end of 2001 I have been the Sole Proprietor of Nick Helme Botanical Surveys.

A selection of relevant botanical work is as follows:

- Botanical assessment of portion of Bakkelys Drift, Swellendam (Sandton Sales; 2010)
- Scoping study of proposed WEF near Caledon (Arcus Gibb; 2009).
- Baseline study of Hoek van de Berg 572, Hawston (De Villiers Brownlie; 2009)
- Botanical assessment of erf 139, Benguela Cove (MS Architects; 2009)
- Botanical scoping and impact assessment for proposed WEF near Hopefield (Savannah Environmental, 2007 & 2008)
- Botanical scoping study for proposed WEF on farm Langefontein, Langebaan (Ninham Shand, 2008)

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- Botanical basic assessment of proposed new entrance to Bontebok National Park, Swellendam (SANParks, 2008)
- Botanical scoping and impact assessment for proposed Eskom WEF near Vredendal (Savannah Environmental, 2007)
- Botanical assessment of proposed housing sites A-D, Bredasdorp (Urban Dynamics, 2007)
- Botanical Assessment of Farm 587/6, Cloud's End, Hemel & Aarde (Peter Dall Consultancy; 2007)
- Botanical assessment of three proposed housing sites in Arniston (Urban Dynamics, 2006)
- Botanical assessment of proposed upgrade of Gansbaai – Elim road (CCA, 2006)
- Botanical assessment of farm Vierfontein, Napier (Ecosense, 2006)
- Botanical assessment of proposed Eskom powerline route between Bredasdorp and Struisbaai (SHE Cape 2006)
- Botanical assessment of proposed Eskom powerline route in the Swellendam area (SHE Cape 2006)
- Botanical Scoping and Impact Assessment of Arabella Phase 2 (Arabella Sheraton; 2004)
- Botanical Assessment of proposed Maremanna polo and housing development, Farm 781, Botriver (Stratovest (Pty) Ltd, 2004)
- Botanical assessment of proposed Benguela Cove development (Mike Nixon; 2001)
- Cape Lowlands Renosterveld Project fieldwork and reporting (Botanical Society of SA; 2001 – 2003).

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1

1. INTRODUCTION

This botanical assessment was commissioned in order to help inform the application process for the erection of a wind monitoring mast on Farm 159 in the Bredasdorp area of the Western Cape. The site is known as the Nachtwacht site. A single mast will be erected on the site, up to 100m high. Two alternative mast designs are being considered. The monitoring mast would be located on the crest of a limestone ridge, some 3km east of Bredasdorp.

2. STUDY AREA

The site lies about 3km east of Bredasdorp, on the Farm 159. The area is at the southern edge of the region commonly known as the Ruens, a reference to the rolling hills which are such a feature of the area, and at the northern edge of what is known as the Agulhas Plain. The proposed mast site is situated on the top of one of the prominent, mostly undisturbed limestone ridges in the area, at an altitude of about 107m. The area is heavily agricultural, with most farms producing sheep and cereals, but the entire limestone ridge and the area within 1km of the proposed mast supports undisturbed natural vegetation. The proposed mast is to be situated at 34 41 43.0S and 20 05 29.5E (see Figure 1).



Figure 1: Location of the proposed monitoring mast site. The length of the airstrip is about 1.0km. The pale limestone ridge is very prominent in this Dec 2006 image due to recent fire.

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2

The study area is part of the Cape Floristic Region and the Fynbos biome. Soils are sandy and slightly alkaline, derived from the underlying limestones, which outcrop extensively throughout the vicinity of the site (see Plate 1).

There are no streams or wetlands in the immediate vicinity of the proposed mast, although there are various seasonal drainage lines on the greater property, and the perennial Kars river lies some 3km to the east.

The entire limestone ridge in this area has been provisionally identified as a Critical Biodiversity Area (CBA) in the Overberg Fine Scale Conservation Plan (S. Holness – pers. comm).



Plate 1: View of pristine De Hoop Limestone Fynbos in vicinity of proposed mast site, showing extensive exposed limestone bedrock with characteristic potholing and a high diversity of plant species at home in these potholes.

3. LIMITATIONS AND ASSUMPTIONS

I undertook a site visit on 18 February 2010. From a seasonality perspective this was not ideal for a botanical survey. Technically the site is located near the edge of a bimodal rainfall region, and in fact late summer is usually not a bad time of the year for a botanical survey in this area. However, the area is currently experiencing a fairly severe drought and was very dry at the time of the site visit.

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3

No bulbs or annuals were visible or identifiable, and a number of rare or localised plant species could be expected within these groups. However, I used a habitat based approach, drawing on experience in similar habitats in the region, and using direct habitat and species observations and Google Earth imagery (Dec 2006) as informants of habitat quality and sensitivity. Confidence levels in the botanical findings are high.

The total foundation footprint for a guyed mast would be about 2m², and about 16m² for a lattice mast. It is assumed that there will be a need for concrete or cement mixing, as the mast (depending on which type is used; guyed or lattice) will need to be anchored to the bedrock. It is not known if a vehicular access track is proposed, or if an offroad vehicle will simply drive over the veld to get there, or if the mast will be carried in on foot.

4. TERMS OF REFERENCE

The terms of reference for this study were as follows:

- Describe the vegetation on the site, and note the presence or likelihood of locally and regionally endemic plant species, rare plant species, or Species of Conservation Concern (SCC; previously known as Red Data Book species).
- Assess the local (Bredasdorp) and regional (Agulhas Plain) conservation value of the site, especially in light of the National Spatial Biodiversity Assessment (NSBA, Rouget *et al* 2004) and draft Overberg Fine Scale Conservation Plan (Holness – in prep).
- Provide recommendations regarding the suitability of the area for the mast, and suggest any mitigation measures that could reduce identified impacts.
- Make reference to any relevant elements of the CapeNature TOR for biodiversity specialists.

5. THE VEGETATION

The proposed site and its extensive surroundings (>200ha) support largely pristine De Hoop Limestone Fynbos (Mucina & Rutherford 2006).

De Hoop Limestone Fynbos is restricted to limestone outcrops in the Agulhas – Riversdale Plain, and is here at its western extent. Because it is very infertile and usually very rocky the habitat has not been severely impacted by agriculture, and alien invasive vegetation, quarrying and urbanisation are the primary threats. The

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vegetation type is regarded as Least Threatened on a national basis, with about 97% of its original extent remaining, a national conservation target of 32%, and 26% formally conserved (Rouget *et al* 2004). The Draft National List of Threatened Ecosystems does not list this habitat (DEAT 2009).



Plate 2: View of a shallow soil area on the limestone ridge, looking southeast towards Arniston. The reddish plants of the regionally endemic and Vulnerable purple vygie *Delosperma mariae* are in the foreground. All the many plants in shallow soil areas over rock are very vulnerable to root disturbance and crushing by both foot and vehicle.

The proposed mast site is located on the ridgetop, in what is essentially pristine De Hoop Limestone Fynbos. This vegetation type is known for its high species diversity, for an exceptionally high number of habitat endemics (those restricted to this limestone habitat), and very high number of regional endemics (Mucina & Rutherford 2006). The vegetation in the area is currently about 5 to 6 years old, and is recovering very well after a large fire in the area in about 2004.

Sandy soils occur at the southern base of the ridge, and this area consequently supports a fairly different plant community, that has elements of both Agulhas Sand Fynbos and Elim Ferricrete Fynbos (Plate 4), both of which are threatened vegetation types.

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Alien vegetation on the limestone ridge is <1% of overall cover, and is typically restricted to a few clumps, where *Eucalyptus lehmanii* (spider gum) and *Acacia cyclops* (rooikrans) have become established.

Notable animals observed on site include Cape Dwarf chameleon (Plate 3) and the Red Data listed Denham's Bustard.

About 80% of the plant species found on the limestone ridge are restricted to this habitat, and are thus habitat endemics. Many are also regional endemics. Some of the many indigenous plant species noted on the limestone ridge in the vicinity of the mast site include *Anginon pumilum*, *Ceratocaryum argenteum*, *Ischyrolepis leptoclados*, *Calopsis fruticosus*, *Wahlenbergia sp.*, *Erica scytophylla*, *Centella gymnocarpa*, *Carpobrotus muirii*, *Euchaetis longibracteata*, *Morella quercifolia*, *Delosperma mariaea*, *Osteospermum subulatum*, *Ficinia praemorsa*, *Ursinia sp. nov.*, *Polygala meridionalis*, *Helichrysum chlorochrysum*, *Thamnochortus pluristachyus*, *Protea obtusifolia*, *Leucospermum truncatum*, *Leucadendron meridianum* and *Aspalathus sp.*

Species either common or more prevalent in the sandy soils at the southern base of the ridge include *Lachnaea axillaris*, *Leucadendron meridianum*, *Leucospermum heterophyllum*, *Metalsia muricata*, *Aspalathus juniperina*, *Thamnochortus insignis*, *Mastersiella digitata*, *Protea repens*, *Serruria fasciflora* and *Athanasia dentata*.

It is worth noting that Limestone Fynbos is a fire driven ecosystem (de Villiers et al 2005), and requires a fire once every 10-15 years in order to function optimally.

5.1 Plant Species of Conservation Concern

The limestone ridge and the southern flats support a very significant number of plant Species of Conservation Concern, as listed in the revised Red Data Book of South African Plants (Raimondo *et al* – in press). Some of these are briefly outlined below, and there is a very high likelihood that many others are present, with the likely total being at least 15 Species of Conservation Concern. Most of these species are relatively common in the site, while some occur as widely scattered individuals. As many of them are so common on site it is not possible to map their distributions.

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Of particular interest are two species that appear to be undescribed (new) species. These are a species of *Rhodocoma* (Restionaceae) and a species of *Ursinia* (Asteraceae). The *Rhodocoma* is known only from one other small patch in the OTB (Overberg Toets Baan; pers. obs.), in very similar habitat, and the rare, perennial *Ursinia* is known from 2 other collections on limestone in the Agulhas region (Mucina - pers. comm.).

Delosperma mariaea (Vulnerable; Mesembryanthemaceae) – common on site in shallow soils over limestone pavement

Anginon pumilum (Rare; Apiaceae) – cryptic species fairly common on site

Lachnaea axillaris (Near Threatened; Thymeleaceae) – common on sandy flats

Centella gymnocarpa (Near Threatened; Araliaceae) – common on limestones

Osteospermum subulatum (Threatened; Asteraceae) – uncommon on limestones

Protea obtusifolia (Near Threatened; Proteaceae) – common on limestones

Leucospermum heterophyllum (Endangered; Proteaceae) – uncommon on sandy flats.

5.2 Botanical Sensitivity

The proposed mast site and all areas with 1km of the site are of High botanical sensitivity. This assessment is based on the fact that the entire ridge is a designated Critical Biodiversity Area in the Overberg Fine Scale Conservation Plan; the area supports largely pristine De Hoop Limestone Fynbos with a very high number of habitat and regional endemics, including many plant Species of Conservation Concern; the vegetation is a fire driven ecosystem; and the vegetation is prone to invasion by alien Argentine ants, which are associated with disturbance and which can disrupt the natural ant based seed dispersal of up to 30% of all Fynbos species.

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Plate 3: The Limestone Fynbos is home to many interesting animals, including what is tentatively identified as this Cape Dwarf Chameleon.



Plate 4: The southern access to the site crosses a flat sandy area with a very rare mix of three different vegetation types, and numerous threatened species, including the sprawling pincushion *Leucospermum heterophyllum* (Endangered; large green mat forming plant in foreground).

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6. ASSESSMENT OF PROPOSED MAST SITE

The proposed mast is located within largely pristine De Hoop Limestone Fynbos. Botanical impacts associated with monitoring mast erection and operation are relatively small (at least compared to potential impacts associated with wind turbine placement, and construction of roads). However, based on what I have observed next to existing and smaller monitoring masts (in other areas) there is a moderate degree of trampling of the natural vegetation. The excavations for either the guy wire concrete bases or the lattice foundation is likely to cause local loss of vegetation and disturbance to the adjacent vegetation, but this is still likely to be regionally negligible. In the case of a lattice mast a 4m by 4m concrete foundation will be required.

It is assumed that no access road or track will be constructed to the site – naturally this would be the primary source of disturbance should a road be constructed or even just a “tweespoor” track driven with an offroad vehicle (without any formal construction). Impacts of an access track or road could be Low - Medium negative, and cannot be mitigated, but can be avoided (by walking in the components instead).

Loss of ecological connectivity and disruption of ecological processes is likely to be negligible, although it is worth noting that the introduction of alien invasive Argentine ants (*Linepithema humile*) may occur even with the minimal disturbance associated with a monitoring mast. The aggressive alien ants can spread up to 50m away from their source, and outcompete the indigenous ants who are responsible for seed dispersal and burying of up to 30% of all Fynbos plant species. The alien Argentine ants do not disperse or bury the seeds, and instead leave them on the soil surface where they are quickly predated by rodents.

Direct, indirect and cumulative botanical impacts of the proposed mast will thus range from Very Low negative (no vehicular access) to Low to Medium negative (with vehicular access).

The following three potential botanical impacts are analysed.

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Impact 1: Loss of natural vegetation in mast footprint and disturbance of surrounding natural vegetation.

Significance before mitigation: Negligible

Mitigation: Nothing special required in this context

Significance after mitigation: Negligible

Impact 2: Loss of natural vegetation in possible access track and disturbance of surrounding natural vegetation.

Significance before mitigation: Low – Medium negative

Mitigation: Not really possible, although total avoidance is possible, by walking in all components (recommended)

Significance after mitigation: Very Low negative (if components walked in)

Impact 3: Loss of ecological connectivity and disruption of ecological processes.

Significance before mitigation: Low negative (Argentine ants)

Mitigation: Ensure that no rubble or rubbish is left on site, no soil brought in, and that no vehicles access area (ants may hitch a ride in mud or soil on vehicles).

Significance after mitigation: Negligible

7. CONCLUSIONS

- The proposed monitoring mast site is located within an extensive area of natural Limestone Fynbos vegetation. This area has a High botanical sensitivity, and is a designated Critical Biodiversity Area.
- The proposed mast is not likely to significantly disrupt any ecological processes or fragment any habitat, but is likely to impact on at least two or three plant Species of Conservation Concern.
- If an access road or track is constructed it will substantially increase the botanical impacts, and this is consequently not recommended.
- Provided that no access track is constructed the extent of loss and damage to natural vegetation associated with the proposed mast is likely to be negligible and insignificant at a local and regional scale, and no specific mitigation is thus required.
- It should be noted that potentially significant botanical impacts are likely to arise if any large scale wind energy facility is built on this currently largely pristine limestone ridge. Developments in the region should be sited entirely within the very extensive agricultural areas, and should not impact on the remaining patches of natural vegetation.

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NICK HELME BOTANICAL SURVEYS

PO Box 22652 Scarborough 7975

Ph: 021 780 1420 Fax: 021 780 1868 cell: 082 82 38350 email: botaneek@africa.com

VAT Reg. # 4930216892 Pri.Sci.Nat # 400045/08

**BOTANICAL BASIC ASSESSMENT OF PROPOSED
WIND MONITORING MAST ON THE FARM UITKYK
434, IN THE SWELLENDAM AREA OF THE OVERBERG,
WESTERN CAPE.**

Compiled for : CSIR, Stellenbosch.

Client: BioTherm Energy (Pty) Ltd.

23 February 2010

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

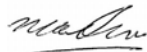
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DECLARATION OF INDEPENDENCE

In terms of Chapter 5 of the National Environmental Management Act of 1998 specialists involved in Impact Assessment processes must declare their independence and include an abbreviated Curriculum Vitae.

I, N.A. Helme, do hereby declare that I am financially and otherwise independent of the client and their consultants, and that all opinions expressed in this document are substantially my own.



NA Helme

Abridged CV:

Contact details as per letterhead.

Surname : HELME

First names : NICHOLAS ALEXANDER

Date of birth : 29 January 1969

University of Cape Town, South Africa. BSc (Honours) – Botany (Ecology & Systematics). 1990.

Since 1997 I have been based in Cape Town, and have been working as a specialist botanical consultant, specialising in the diverse flora of the south-western Cape. Since the end of 2001 I have been the Sole Proprietor of Nick Helme Botanical Surveys.

A selection of relevant botanical work is as follows:

- Botanical assessment of portion of Bakkelys Drift, Swellendam (Sandton Sales; 2010)
- Scoping study of proposed WEF near Caledon (Arcus Gibb; 2009).
- Baseline study of Hoek van de Berg 572, Hawston (De Villiers Brownlie; 2009)
- Botanical assessment of erf 139, Benguela Cove (MS Architects; 2009)
- Botanical scoping and impact assessment for proposed WEF near Hopefield (Savannah Environmental, 2007 & 2008)
- Botanical scoping study for proposed WEF on farm Langefontein, Langebaan (Ninham Shand, 2008)

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- Botanical basic assessment of proposed new entrance to Bontebok National Park, Swellendam (SANParks, 2008)
- Botanical scoping and impact assessment for proposed Eskom WEF near Vredendal (Savannah Environmental, 2007)
- Botanical Assessment of Farm 587/6, Cloud's End, Hemel & Aarde (Peter Dall Consultancy; 2007).
- Botanical assessment of farm Vierfontein, Napier (Ecosense, 2006)
- Botanical assessment of proposed Eskom powerline route between Bredasdorp and Struisbaai (SHE Cape 2006)
- Botanical assessment of proposed Eskom powerline route in the Swellendam area (SHE Cape 2006)
- Botanical Scoping and Impact Assessment of Arabella Phase 2 (Arabella Sheraton; 2004)
- Botanical Assessment of proposed Maremanna polo and housing development, Farm 781, Botriver (Stratovest (Pty) Ltd, 2004)
- Botanical assessment of proposed Benguela Cove development (Mike Nixon; 2001)
- Cape Lowlands Renosterveld Project fieldwork and reporting (Botanical Society of SA; 2001 – 2003).

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1. INTRODUCTION

This botanical assessment was commissioned in order to help inform the application process for the erection of a wind monitoring mast on the farm Uitkyk 434 in the Swellendam area of the Western Cape. A single mast will be erected on the site. An initial mast of 15m tall will be erected on site, which may then be replaced by one 80m tall. The monitoring mast would be located on a working farm, in agricultural lands.

2. STUDY AREA

The site lies between Swellendam and Bredasdorp, on the farm Uitkyk 434. The area is commonly known as the Ruens, a reference to the rolling hills which are such a feature of the area. The proposed mast site is situated on the top of one of the many rolling hills in the area, at an altitude of about 303m. The area is heavily agricultural, with most farms producing sheep and cereals. The proposed mast is to be situated at 34 14 05.5S and 20 12 52.6E (see Figure 1).

The study area is part of the Cape Floristic Region and the Renosterveld biome, within the Overberg bioregion. Soils are typically loamy, derived from the underlying Bokkeveld group shales. Silcrete caps are a prominent feature in this area, and these flat rocky areas often have concave, exposed clay and gravel slopes just below these caps (see Plate 1). There are no streams or wetlands in the immediate vicinity of the proposed mast, although there are various drainage lines on the greater property.

As there is no natural vegetation on the mast site it lies outside all identified priority Renosterveld areas in the Overberg (Von Hase *et al* 2003).

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Figure 1: Location of the proposed monitoring mast site. The distance from the mast site to the R310 is about 3.4km.

3. LIMITATIONS AND ASSUMPTIONS

I undertook a site visit on 18 February 2010. From a seasonality perspective this was far from ideal for a botanical survey. Technically the site is located within a bimodal rainfall region, and in fact late summer is usually not a bad time of the year for a botanical survey in this area. However, the area is currently experiencing a severe drought and was very dry at the time of the site visit. No bulbs or annuals were visible or identifiable, and a number of rare or localised plant species could be expected within this group, although these are not likely to persist within the extensive cultivated areas. However, I used a habitat based approach, drawing on experience in similar habitats in the region, and using habitat observations and Google Earth imagery (Aug 2005) as informants of habitat quality and sensitivity. At any time of the year there is a marked difference between natural veld and cultivated lands (see Plates 1 and 2), and there is thus in fact little room for confusion. Confidence levels in the botanical findings are thus high, given that the proposed site is clearly in agricultural lands.

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The total foundation footprint for the mast is assumed to be about 1m², and the total area directly impacted by the mast would be only about 2m². It is assumed that there will be a need for concrete or cement mixing, as the mast (depending on which type is used; EHC and/or guyed lattice) will each need to be anchored with four guy wires attached to concrete footings, as there is little or no bedrock evident. New access roads are unlikely to be necessary as the fallow fields can easily be driven across, and there are existing access tracks to the fields.

4. TERMS OF REFERENCE

The terms of reference for this study were as follows:

- Describe the vegetation on the site, and note the presence or likelihood of locally and regionally endemic plant species, rare plant species, or Species of Conservation Concern (SCC; previously known as Red Data Book species).
- Assess the local (Swellendam) and regional (Overberg) conservation value of the sites, especially in light of the National Spatial Biodiversity Assessment (NSBA, Rouget *et al* 2004) and Cape Lowlands Project (2003) products.
- Provide recommendations regarding the suitability of the area for the mast, and suggest any mitigation measures that could reduce identified impacts.
- Make reference to any relevant elements of the CapeNature TOR for biodiversity specialists.

5. THE VEGETATION

The original natural vegetation in the area is a mix of Eastern Ruens Shale Renosterveld and Ruens Silcrete Renosterveld (Mucina & Rutherford 2006). Very little natural vegetation remains on farms in this area, and typically less than 10 or 15% of each farm still supports natural vegetation.

Ruens Silcrete Renosterveld is restricted to lowland areas in the Overberg, from Botriver to Riversdale, and has been heavily impacted by agriculture, due to the fertile soils and relatively high rainfall. The vegetation type is regarded as Critically Endangered on a national basis, with only 22% of its original extent left, an unreachable national conservation target of 27%, and 0.2% formally conserved (Rouget *et al* 2004). The Draft National List of Threatened Ecosystems also lists this as a Critically Endangered ecosystem (DEAT 2009).

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Plate 1: View of ploughed lands (below) and clearly defined edge demarcating boundary of the natural vegetation, in this case the Critically Endangered Ruens Silcrete Renosterveld. Note the rocky silcrete caps to the hills, exposed clays on concave slopes below, and presence of white quartzite gravels.

Eastern Ruens Shale Renosterveld is restricted to lowland areas in the eastern Overberg, from Riviersonderend to Swellendam, and has been very heavily impacted by agriculture, due to the fertile soils and relatively high rainfall. The vegetation type is regarded as Critically Endangered on a national basis, with only 13% of its original extent left, an unreachable national conservation target of 27%, and 0.2% formally conserved (Rouget *et al* 2004). The Draft National List of Threatened Ecosystems also lists this as a Critically Endangered ecosystem (DEAT 2009).

The proposed mast site is located in existing, ploughed and cultivated agricultural lands (see Figure 1), and there is thus no significant remaining natural vegetation in the immediate vicinity of the proposed site. The actual site sensitivity is thus Very Low from a botanical perspective. No plant Species of Conservation Concern are likely to occur within 50m of the proposed mast site. There are thus no botanical constraints to the proposed development in this area.

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Plate 2: View of extensive cultivated lands and remnant patches (darker) of Eastern Ruens Shale Renosterveld in steep, rocky valleys. The proposed mast is situated in an area very similar to the area in the foreground.

It should however be pointed out that any remaining natural vegetation in the region must be considered Very High Sensitivity, and no infrastructural development should be considered in these Renosterveld remnants. Numerous plant Species of Conservation Concern are likely to occur in any such patches of habitat.

6. ASSESSMENT OF PROPOSED MAST SITE

Impacts associated with monitoring mast erection are relatively small (at least compared to potential impacts associated with turbine erection, and construction of roads). However, based on what I have observed next to existing and smaller monitoring masts (in other areas) there is a moderate degree of trampling of the natural vegetation, but this would be of no significance in this agricultural context. The excavations for the guy wire concrete supports is likely to cause more disturbance than the actual mast base, but this is still likely to be regionally negligible. It is assumed that no special roads will be constructed – naturally these will be the primary source of disturbance should they be constructed.

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Loss of ecological connectivity and disruption of ecological processes is likely to be negligible.

Direct, indirect and cumulative botanical impacts will all be Very Low.

For sake of completeness the following two potential botanical impacts are analysed.

Impact 1: Loss of natural vegetation in footprint and disturbance of surrounding natural vegetation.

Significance before mitigation: Negligible

Mitigation: Nothing special required in this context

Significance after mitigation: Negligible

Impact 2: Loss of ecological connectivity and disruption of ecological processes.

Significance before mitigation: Negligible

Mitigation: Nothing special required in this context.

Significance after mitigation: Negligible

7. CONCLUSIONS

- The proposed monitoring mast site is not located within an area of natural vegetation, and is instead situated within currently agricultural lands of Very Low botanical sensitivity. The proposed mast is not likely to disrupt any ecological processes, fragment any habitat, or impact on any plant Species of Conservation Concern.
- The extent of loss and damage to natural vegetation associated with these masts is likely to be negligible and insignificant at a local and regional scale, and no specific mitigation is thus required, as from a botanical perspective it is optimally sited.
- It should be noted that in order to avoid potentially significant botanical impacts that any large scale wind energy facility in the region should be sited entirely within the very extensive agricultural areas, and should not impact on the remaining natural Renosterveld vegetation.

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DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

E.1(A) PHOTO OF NOTICE BOARD ON SITE (FARM NACHT WACHT, BREDASDORP)



FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM



FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

E.1(B) PHOTOS OF NOTICE BOARD ON SITE (FARM UITKYK, SWELLENDAM)



FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM



BioTherm Energy **CSIR**
Just Power Through Science

PUBLIC PARTICIPATION PROCESS

NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND A BASIC ASSESSMENT PROCESS

ENVIRONMENTAL IMPACT ASSESSMENT

This serves as notification that an Environmental Impact Assessment (EIA) is being conducted by the CSIR acting on behalf of BioTherm Wind Holdings (Pty) Ltd (entity yet to be formed) for the construction and operation of a wind energy facility. The facility would utilise wind turbines of 2 to 3 MW each, with a combined generation capacity of approximately 110MW. The facility will be erected on the following farms within the Swellendam Municipal area:

- Farm Uitkyk Remaining portion of farm 434;
- Farm Excelsior Portion 6, a portion of the Farm Goereeseo No. 432;
- De Kop Farm "Aangrensende" Farm Vryheid No 435; Portion 0 of Farm Vryheid No. 435;
- Klaas Kaffer Heuwel 438; Portion 1 of Farm Klaas Kaffer Heuwel No. 438

In terms of the regulations GN R 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Impact Assessment is required, as the project includes, amongst others, the following listed activities in GN R 387:

1. *"The construction of facilities or infrastructure, including associated structures or infrastructure, for –(a) the generation of electricity where –*
(i) the electricity output is 20 megawatts or more; or
(ii) the elements of the facility cover a combined area in excess of 1 hectare."

BASIC ASSESSMENT

Further notice is hereby given that a Basic Assessment (BA) process is being conducted by the CSIR on behalf of BioTherm Energy (Pty) Ltd (the project applicant). The BA is for the construction and operation of a wind monitoring mast of up to 100m on the remaining portion of Uitkyk Farm no 434, near Swellendam in the Western Cape. It will be erected at approximate position 34° 14' 05.5" S; 20° 12' 52.6"E; Site elevation = 303m

In terms of Government Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act, the need for a Basic Assessment is triggered by the inclusion of, but not limited to, the following listed activity in GN R 386:

14. *The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding –*
(a) masts of 15 metres and lower exclusively used
(i) by radio amateurs; or
(ii) for lighting purposes
(b) flag poles; and
(c) lightning conductor poles; and

The listed activities mentioned in the EIA and BA processes above require authorisation from the National Department of Environmental Affairs (DEA). Two applications for environmental authorisation to undertake the EIA (DEA reference number: 12/12/20/1798) and BA (DEA reference number: 12/12/20/1757) have been submitted to the DEA. The CSIR has been appointed as the independent Environmental Assessment Practitioner to manage the EIA and BA Applications.

The EIA and BA processes are also designed and conducted to meet the requirements of the national Heritage Resources Act (Act 25 of 1999) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.

Opportunity to be involved

Should you wish to obtain further information on the project or to provide any comments on the EIA and/or BA process, the CSIR invites you to register as an Interested and/or Affected Party. Please provide your full name, full postal address, phone numbers, and/or email address and state your matter of interest and/or area of concern or comments on the project. Please submit the information requested to the consultant indicated below by **9 April 2010**: Minalise Levendal; CSIR, P O Box 320, Stellenbosch, 7599; Tel.: 021 – 888 2495/2661; Fax: 021 – 888 2693; e-mail: mlevendal@csir.co.za.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT,
BREDASDORP AND FARM UITKYK, SWELLENDAM

E.2(A) LIST OR DATABASE OF INTERESTED AND AFFECTED PARTIES (FARM NACHT WACHT, BREDASDORP)

Institution / Farm	Names	Tel No.	Cell No.	Fax No.	E-mail	Postal Address
AFB Overberg	M.C. Swart	028-425 4225	083 320 2054	028-425 4068		Private Bag X14, Bredasdorp
Agulhas Biodiversity Initiative-Oversight Committee (ABI-OC)	Tertius Carinus		082 908 2794		<i>tertiusc@sanparks.org</i>	Agulhas national park PO Box 120 L'Algulhas, 7287
Bat Conservation Group	Claire Patterson	011-486 1102		011-486 1506	<i>claire@ewt.org.za</i>	Private Bag X11; Parkview; 2122
Bird Life SA / Bat Society	Eddie V Cassani	028-423 3095	084 370 5255		<i>eddieandangela@telkomsa.net</i>	PO Box 153; Napier; 7270
Birdlife Overberg	Dr Anton Odendal	028-316 1105	082 550 3347	028-316 1105	<i>birding@overberg.co.za</i>	PO Box 256; Onrusrivier; 7201
Boeta Wessels Trust	D.H. Wessels	028-425 1016	082 927 8320			Posbus 86, Bredasdorp, 7280
Bontebok Limeworks (Pty) Ltd	Johan Alberts	028-424 1157		028-424 1428	<i>johan@pandblime.co.za</i>	Bontebok Limeworks (Pty) Ltd, PO Box 2, Bredasdorp, 7280
Botanical Society of South Africa-Southern Overberg Branch	Sharon Brink	028-425 1050	082 878 0543	086 541 4842	<i>hsbrink@telkomsa.net</i>	1 Fletcher Street; Bredasdorp; 7280
Cape Agulhas Municipality	Cllr. Richard Mitchell Capey	028-425 1919	082 905 5058		<i>mayor@capeagulhas.com</i>	PO Box 51, Bredasdorp, 7280
Cape Agulhas Municipality	Reynold Stephens (Municipal manager)	028-425 5500			<i>info@capeagulhas.com</i>	PO Box 51; Bredasdorp; 7280
Cape Agulhas Municipality	Bertus Hayward	028-425 5500	082 961 6587	028-425 1019	<i>bertush@capeagulhas.com</i>	PO Box 51, Bredasdorp, 7280
Cape Lime	Mr Conradie	023-626 3190			<i>boetiec@capelime.co.za</i>	PO Box 134, Robertson, 6705
CapeNature	Samantha Ralston	021-866 8017	072 835 8741	021-866 1523	<i>landuse@capenature.co.za</i>	P/Bag X5014; Stellenbosch; 7599
Coastal & Environmental Services	Marc Hardy	046-622 2364	083 470 3696	046-622 6564 / 086 631 1611	<i>m.hardy@cesnet.co.za</i>	PO Box 934; Grahamstown; 6140
Department of Agriculture, Western Cape	Paul Herselman					Elsenburg; Private Bag X1; Elsenburg; 7607
Department of Agriculture: Western Cape: LandCare	Hennis Germishuys	028-424 1430			<i>hennisg@elsenburg.com</i>	PO Box 1138, Bredasdorp, 7280
Department of Environmental Affairs (National)	Ms Lene Grobbelaar (Assistant Director - Parastatals)	012-310 3087		012-320 7539	<i>lgrobbelaar@deat.gov.za</i>	Fedsure Building; 315 Pretorius Street; Pretoria; 0002
Department of Environmental Affairs and Development Planning (DEA & DP)	Zaahir Toefy	021-483 2700	083 648 5338	021-483 4372	<i>ztoefy@pgwc.gov.za</i>	Integrated Environmental Management; Utilitas Building (10 th Floor); 1 Dorp Street; Cape Town; 8000
Emvest Pretoria	Russel du Preez (Contact person - Thomas Mehl;	012-482 6823	082 338 0286	012-482 6899	<i>thomas.mehl@emvest.com</i>	PO Box 25752, Monument Park, Pretoria South

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT,
BREDASDORP AND FARM UITKYK, SWELLENDAM

Institution / Farm	Names	Tel No.	Cell No.	Fax No.	E-mail	Postal Address
	Agricultural Economist)					
ESKOM	Riaan Smith	021-980 3452	082 774 9288		<i>riaan.smit@eskom.co.za</i>	
Farm 159	Simon Streicher		082 372 0343		<i>streich@iafrica.com</i>	PO Box 407, Swellendam, 6740
Farm 162 (Boeta Wessels Trust)	Boeta Wessels / Kosie Wessels	028-425 1016	082 927 8320 / 082 927 8328		<i>weska@xsinet.co.za</i>	PO Box 86, Bredasdorp, 7280
Farm Nacht Wacht	J.D. Albertyn (Jnr)	028-424 1172	072 443 7740			Posbus 25, Bredasdorp, 7280
Farm Nacht Wacht (Nacht Wacht Trust – Albertyn Familie Trust)	Dawie Albertyn	028-424 1172	072 443 7740	028-424 1172	<i>Albertynbroers@brd.dorea.co.za</i>	PO Box 213 Bredasdorp, 7280
Heritage Western Cape	Nick Wiltshire and Zwelibanzi Shiceka	021-483 9685			<i>nwiltshire@pgwc.gov.za</i>	3 rd Floor, Protea Assurance Building, Green market Square, c/o Long Market Street & Green Market Square
ODM	Francois Kotze		082 499 9928			
Overberg Agri (Farm 9/159)	André Uys	028-214 3854	082 388 0038		<i>andreu@overbergagri.co.za</i>	PO Box 50, Caledon, 7230
Overberg Crane Group (OCG)	Mick D'Alton	028-424 2142	082 695 9835		<i>mandjdalton@omail.co.za</i>	
Overberg Toetsbaan (OTB)	Marinus Stoltz (Senior Environmental Officer)	028-445 2119	084 455 3322	028-445 2044	<i>marinuss@otb.co.za</i>	Private Bag X12, Bredasdorp, 7280
Overberg Toetsbaan (OTB)	Andre Gomez	028-445 2043			<i>andreg@otb.co.za</i>	Private Bag X12, Bredasdorp, 7280
Overberg Toetsbaan (OTB/PRV)	A.D. van Staden	028-424-2795	072 602 1707			Sonopstraat 11, Bredasdorp, 7280
Private	Dr Anton Odendal	028-316 1105	082 550 3347	028-316 1105	see below	PO Box 256; Onrusrivier; 7201
Private	Neno Junius		083 440 2858		<i>nenoj@mtnloaded.co.za</i>	Moresonstraat 4; Bredasdorp 7280
Private	Andre van Staden				<i>Andrev01@telkomsa.net</i>	
Private	Heyne Brink		082 895 9905		<i>bilboboy@gmail.com</i>	Villierstraat 11; Bredasdorp; 7280
Private	J.P.H. Huyzers	028-425 1155	082 898 9789			PO Box 97, Bredasdorp
Private	F. Arnott	028-424 2691	082 862 5568			17 Dorpsig Street, Bredasdorp, 7280
Private	Bossie Kemp	028-445 3044	083 291 8965			Vogelgesangstraat 16, Bredasdorp, 7280
Private	Hijn Tromp	028-445 3173	082 657 1023			PO Box 793, Bredasdorp, 7280
Realty1	Wessels van Zyl	028-245 1182	084 549 2917	028-424 2187	<i>wessel@realty1agulhas.com</i>	Realty1, Bredasdorp
SA Air Force	Lt Col M.A. vd Heever	028-425 4111 / 425 4004		028-425 4351	<i>tfdc@telkomsa.net</i>	Private Bag X14, Bredasdorp, 7280
SA National Roads Agency Limited	Cobus van der Walddt	021-957 4600		021-957 1630	<i>waltjc@nra.co.za</i>	Building 5; Parc Du Cap; Mistel Street; Bellville; 7535
SA National Roads Agency Limited	Rene de Kock	021-957 4600			<i>dekockr@nra.co.za</i>	Parc du Cap; Building 5; c/o Mispel & Willie van Schoor Ave; Bellville; 7530
SAAF	Jaco Nel				<i>Jaco.nel@vodamail.co.za</i>	
SACAA	Lizell Ströh	011-545 1232		011-545 1282	<i>strohl@caa.co.za</i>	Private Bag X73, Halfway House, 1685

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT,
BREDASDORP AND FARM UITKYK, SWELLENDAM

Institution / Farm	Names	Tel No.	Cell No.	Fax No.	E-mail	Postal Address
South African Heritage Resources Agency (SAHRA)	Ms. Mary Leslie	021-4624502		021-4624509		111 Harrington Str Cape Town 8000
Sunbird Lodge & Fynbos Reserve	Stephen & Olwyn Smuts	028 4233049	082 875 6473		<i>ssmuts@orcawireless.co.za</i>	Sunbird Lodge & Fynbos Reserve P O Box 287 Napier 7270
Vliegveld, Farm 3/182 & 180	LP du Toit		082 777 3935		<i>johan_dtt@yahoo.co.uk</i>	PO Box 401, Bredasdorp, 7280
	S.c.F. Smuts					

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT,
BREDASDORP AND FARM UITKYK, SWELLENDAM

E.2(B) LIST OR DATABASE OF INTERESTED AND AFFECTED PARTIES (FARM UITKYK, SWELLENDAM)

Institution / Farm	Names	Tel No.	Cell No.	Fax No.	E-mail	Postal Address
Agulhas Biodiversity Initiative-Oversight Committee (ABI-OC)	Tertius Carinus		082 908 2794		<i>tertiusc@sanparks.org</i>	Agulhas National Park, PO Box 120, L'Agulhas 7287
Bat Conservation Group	Claire Patterson	011-486 1102		011-486 1506	<i>claire@ewt.org.za</i>	Private Bag X11; Parkview; 2122
Bird Life SA / Bat Society-Overberg Cape	Eddie V Cassani	028-423 3095	084 370 5255		<i>eddieandangela@telkomsa.net</i>	PO Box 153; Napier; 7270
Birdlife Overberg	Dr Anton Odendal	028-316 1105	082 550 3347	028-316 1105	<i>birding@overberg.co.za</i>	PO Box 256; Onrusrivier; 7201
CapeNature	Samantha Ralston	021-866 8017	072 835 8741	021-866 1523	<i>landuse@capenature.co.za</i>	Private Bag X5014; Stellenbosch; 7599
Coastal & Environmental Services	Marc Hardy	046-622 2364	083 470 3696	046-622 6564 / 086 631 1611	<i>m.hardy@cesnet.co.za</i>	PO Box 934; Grahamstown; 6140
Department of Agriculture: Western Cape: LandCare	Hennis Germishuys	028-424 1430			<i>hennisg@elsenburg.com</i>	PO Box 1138, Bredasdorp, 7280
Department of Agriculture-Western Cape	Paul Herselman					Private Bag X1; Elsenburg; 7607
Department of Environmental Affairs (National)	Ms Lene Grobbelaar (Assistant Director - Parastatals)	012-310 3087		012-320 7539	<i>lgrobbelaar@deat.gov.za</i>	Fedsure Building; 315 Pretorius Street; Pretoria; 0002
Dept of Environmental Affairs and Development Planning (DEA& DP): Integrated Environmental Management;	Zaahir Toefy	021-483 2700	083 648 5338	021-483 4372	<i>ztoefy@pgwc.gov.za</i>	Utilitas Building (10 th Floor); 1 Dorp Street; Cape Town; 8000
ESKOM	Tiaan Odendal	028-514 1051	082 563 5844	028-514 2551	<i>odendag@eskom.co.za</i>	PO Box 273, Swellendam, 6740
ESKOM	Riaan Smith	021-980 3452	082 774 9288		<i>riaan.smit@eskom.co.za</i>	
Farm Aandblom	Adv Andries Streicher	028-514 2277	082 557 5696		<i>andriesalet@barvallei.co.za</i>	PO Box 117, Swellendam, 6740
Farm Brakfontein	Mathys Streicher	028-452 1663 / 028-514 1142	076 127 1841 / 082 335 9889		<i>sumara@telkomsa.net</i>	PO Box 197, Brakfontein Plaas, Swellendam, 6740
Farm Dassieskop	MJ Odendaal		082 785 9334		<i>modendaal@worldonline.co.za</i>	PO Box 238, Swellendam, 6740
Farm Excelsior (Excelsior Trust)	TM Mostert	028-514 2707	082 417 8179	028-514 2707	<i>excelsior@netralink.com</i>	PO Box 200; Bredasdorp; 7280
Farm Hanskraal	AJ du Toit	028-452 1612	082 777 7357		<i>aj@whalemail.co.za</i>	PO Box 977, Bredasdorp 7280
Farm Leeukop	Thys Odendaal	028-4521122	082 948 2431		<i>morgenkop@vodamail.co.za</i>	PO Box 326, Swellendam, 6740
Farm Vergenoeg	H Pratt	028-425 1466	084 510 8831		<i>hadre@whalemail.co.za</i>	PO Box 139, Bredasdorp 7280
Farm Vlakkloof	Daniel Giliomee		082 777 8866		<i>gildan@whalemail.co.za</i>	PO Box 146, Bredasdorp 7280
Heritage Western Cape	Nick Wiltshire and Zwelibanzi Shiceka	021-483 9685			<i>nwiltshire@pgwc.gov.za</i>	3 rd Floor, Protea Assurance Building, Green market Square, c/o Long Market

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT,
BREDASDORP AND FARM UITKYK, SWELLENDAM

Institution / Farm	Names	Tel No.	Cell No.	Fax No.	E-mail	Postal Address
						Street & Green Market Square
International Crane Foundation/Endangered Wildlife Trust Partnership	Kerryn Morrison	011-486 1102	082 877 5126	086 636 5854 or 011-486 1506	<i>kerrynm@ewt.org.za</i> <i>kerryn@savingcranes.org</i>	Private Bag X11, Parkview, 2122, South Africa
Katlou Boerdery Land owner	Mr and Mrs Burger	028 452 1640	086 513 2652	086 513 2654	<i>pjburger@vodamail.co.za</i> <i>madele@vodamail.co.za</i>	PO Box 300 Bredasdorp, 7280
Lower Breede River Conservancy Trust (LBRC)	Bronwyn Botha	028-537 1296	082 825 6172	086 654 4999	<i>lbrconservancy@telkomsa.net</i>	PO Box 149, Witsand, 6666
MA De Wet Trust	Madele Burger	028-452 1640	082 563 8351	086 513 2654	<i>madele@vodamail.co.za</i>	PO Box 300; Bredasdorp; 7280
Overberg Crane Group (OCG)	Mick D'Alton		082 695 9835		<i>mandjdalton@omail.co.za</i>	
Overberg Toetsbaan (OTB)	Andre Gomez	028-445 2043			<i>andreg@otb.co.za</i>	Private Bag X12, Bredasdorp, 7280
Private	Dr Anton Odendal	028-316 1105	082 550 3347	028-316 1105	see below	PO Box 256; Onrusrivier; 7201
Private	D Claassens		0845145081			
Private	E Basson	028-5141994	0835026243			PO Box 780, Swellendam, 6740
SA Air Force	Lt Col M.A. vd Heever	028-425 4111 / 4174		028-425 4351	<i>tfdc@telkomsa.net</i>	Private Bag X14, Bredasdorp, 7280
SA National Roads Agency	Cobus van der Waldt	021-957 4600		021-957 1630	<i>waltjc@nra.co.za</i>	Parc du Cap; Building 5; c/o Mispel & Willie van Schoor Ave; Bellville; 7530
SA National Roads Agency Limited	Rene de Kock	021-957 4600			<i>dekockr@nra.co.za</i>	Parc du Cap; Building 5; c/o Mispel & Willie van Schoor Ave; Bellville; 7530
SAAF	Jaco Nel				<i>Jaco.nel@vodamail.co.za</i>	
South African Civil Aviation Authority (SACAA)	Lizell Ströh	011-545 1232		011-545 1282	<i>strohl@caa.co.za</i>	Private Bag X73, Halfway House, 1685
South African Heritage Resources Agency (SAHRA)	Ms. Mary Leslie	021-4624502		021-4624509	<i>mleslie@sahra.org.za</i>	111 Harrington Str Cape Town 8000
South African National Parks: Bontebok National Park (SANPARKS)	Carli Venter	028-514 2735	082 774 2990	086 610 2301	<i>carliv@sanparks.org</i>	PO Box 149, Swellendam, 6740
Swellendam Municipality	Nico Nel (Municipal Manager)	028-514 8511			<i>nnel@swellenmun.co.za</i>	PO Box 20 Swellendam; 6740
Swellendam Municipality	J du Toit Loubser (Councillor and Owner of De Kop farm)	028-514 2702	083 226 1735	028-514 3068	<i>jloubser@swellenmun.co.za</i>	PO Box 89 Swellendam, 6740
Swellendam Municipality	Willie Hattingh	028-514 8539	084 4027715	028-514 2841	<i>whattingh@swellenmun.co.za</i>	PO Box 20, Swellendam, 6740
Swellendam Municipality	G. Claassens	028-514 8546	084 5145445	028-514 2841	<i>gclaasens@swellenmun.co.za</i>	PO Box 20, Swellendam, 6740

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

E.3(A) LETTER 1 TO I&APS TO INVITE THEM TO REGISTER AND TO INFORM THEM OF THE PROPOSED PROJECT (FARM NACHT WACHT, BREDASDORP)



www.futurethroughscience

P O Box 320
Stellenbosch
7599
South Africa
Tel: +27 21 888 2400
Fax: +27 12 888 2693
www.csir.co.za

2 February 2010

Dear Sir/Madam

**RE: NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT AND A BASIC
ASSESSMENT PROCESS FOR THE PROPOSED BIOTHERM WIND ENERGY
PROJECT AT THE NACHT WACHT SITE, NEAR BREDASDORP**

ENVIRONMENTAL IMPACT ASSESSMENT

This serves as notification that an Environmental Impact Assessment (EIA) is being conducted by the CSIR on behalf of BioTherm Energy (Pty.) Ltd. acting on behalf of BioTherm Wind Holdings (Pty.) Ltd (an entity yet to be formed). The EIA is for the construction and operation of a wind energy facility. The facility would utilise wind turbines of 2 to 3 MW each, with a combined generation capacity of approximately 80 MW. The facility will be erected on the following sites near Bredasdorp within the Cape Agulhas Municipal area:

- Nacht Wacht Farm 159 near Bredasdorp, Portion 3 of the Farm Nacht Wacht No. 159; and
- Farm Bo-drift 180/0 and portion 3 of Farm No. 182 near Bredasdorp.

In terms of the regulations GN R 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Impact Assessment is required, as the project includes, amongst others, the following listed activities in GN R 387;

1. *"The construction of facilities or infrastructure, including associated structures or infrastructure, for –*
 - (a) *the generation of electricity where -*
 - (i) *the electricity output is 20 megawatts or more; or*
 - (ii) *the elements of the facility cover a combined area in excess of 1 hectare."*

BASIC ASSESSMENT

Further notice is hereby given that a Basic Assessment (BA) process is being conducted by the CSIR on behalf of BioTherm Energy (Pty) Ltd (the project applicant). The BA is for the construction and operation of a wind monitoring mast up to 100m on portion 3 of Farm Nacht Wacht No 159 near Bredasdorp in the Western Cape. It will be erected at approximate position 34°31'43.0"S, 20°05'29.5"E; site elevation at 107m.

In terms of Government Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act, the need for a Basic Assessment is triggered by the inclusion of, but not limited to, the following listed activity in GN R 386

14. *"The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding -*

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- (a) masts of 15 metres and lower exclusively used*
(i) by radio amateurs; or
(ii) for lighting purposes
(b) flag poles; and
(c) lightning conductor poles."

The listed activities mentioned in the EIA and BA processes above require authorisation from the National Department of Environmental Affairs (DEA). The CSIR has submitted applications to DEA for environmental authorisation to undertake the EIA and BA processes. The CSIR has been appointed by BioTherm as the independent Environmental Assessment Practitioner to manage the EIA and BA applications.

The EIA and BA processes are also designed and conducted to meet the requirements of the National Heritage Resources Act (Act 25 of 1999) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.

Opportunity to be involved

Should you wish to obtain further information on the project or to provide any comments on the Environmental Impact Assessment and/or Basic Assessment process, the CSIR invites you to register as an Interested and/or Affected Party by no later than **19 February 2010**, so you can receive further notification on the draft reports. Please note that the I&AP register will be updated continuously during the BA and EIA processes.

We have enclosed with this letter a registration and comments form (one for the EIA and one for the BA process; see Afrikaans version on the reverse side) to assist you with registration and the submission of your comments. Please provide your full name, full postal address, phone numbers, and/or email and state your matter of interest and/or area of concern. The form must reach the CSIR by **no later than 19 February 2010** and must be sent to the Environmental Assessment Practitioner, Minnelise Levendal (see her contact details below). Please note that once you have registered as an Interested and Affected Party you will also be able to provide comments on the Draft Basic Assessment Report and/or the Draft Scoping Report which will be released later for a 40 day period for public review.

We have also enclosed with this letter a Background Information Document (BID) to tell you more about the project. Please note the BID is also available in Afrikaans and can be requested from Minnelise Levendal (see contact details below).

We look forward to your input and participation in this process and encourage you to raise issues that may affect you and/or about which you are concerned.

Yours sincerely



MINNELISE LEVENDAL
CSIR, Stellenbosch
Tel: 021 – 888 2495/2661
Faks: 021 – 888 2693
e-pos: mlevendal@csir.co.za

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UITKYK, SWELLENDAM



Background Information Document for the Basic Assessment and Environmental Impact Assessment processes for the proposed BioTherm wind energy project on the Nacht Wacht site in the Overberg Region, near Bredasdorp, Western Cape



Background

BioTherm Energy (Pty) Ltd (“BioTherm”) is a South African-based independent power producer that designs, builds, finances, owns and operates energy projects in South and Southern Africa. BioTherm focuses on renewable energy projects, CDM projects and energy efficiency projects. BioTherm Wind Holdings (Pty) Ltd (entity yet to be formed) is proposing to construct and operate a commercial wind energy project on the farms Nacht Wacht and Bo-drift (jointly referred to as the “Nacht Wacht site”). This site is located south-east

of Bredasdorp in the Overberg Region of the Western Cape Province.

The BioTherm project has two key components requiring environmental authorisation in terms of the National Environmental Management Act (Act 107 of 1998) and the associated Regulations GN R 385, 386 and 387 published on 21 April 2006:

- i. Establishment and operation of a **Wind Monitoring Mast** of up to 100m height, requiring a Basic Assessment (DEA Reference number: 12/12/20/1757).



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February 2010

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Background Information Document

ii. Establishment and operation of **Wind Turbines** of 2 to 3 MW each, with a combined maximum generation capacity of 110.4 MW, requiring a full Scoping and EIA process (DEA Reference number to be provided in future correspondence).

The CSIR has been appointed by BioTherm Energy (Pty) Ltd on behalf of BioTherm Wind Holdings (Pty) Ltd (entity yet to be formed) to undertake the Basic Assessment and EIA required for the project.

Approval for energy-related projects has been identified as a national priority. The national Department of Environmental Affairs (DEA) has therefore been identified as the authority responsible for environmental authorization for this project. The Basic Assessment and EIA need to inform the responsible authority and other stakeholders of the impacts (both positive and negative) of the project on the surrounding biophysical (natural) and socio-economic environment.

The EIA and BA processes are also designed and conducted to meet the requirements of the National Heritage Resources Act (Act 25 of 1999) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.

What does this document tell you

This document provides you, as an interested and affected party (I&AP) with the following:

- Background information on the proposed project;
- Basic Assessment and EIA process that will be undertaken; and
- Details on how you can be involved in the Public Participation process, receive information and raise issues.

The sharing of information forms an important component of the Public Participation process and provides you with the opportunity to become actively involved in the EIA process from the outset. The input received from I&APs together with the specialist investigations assists the responsible authority, in this instance the national Department

of Environmental Affairs (DEA), with their decision-making.

Need and objectives of the project

At a national level, renewable energy has the potential to play an important role in South Africa through diversifying the sources of power generation and reducing the carbon footprint from fossil fuel power generation, such as coal fired power stations. Currently, approximately 90% of South Africa's power generation is derived from coal. The favourable renewable energy feed-in tariffs (REFIT) released by government in April 2009 provide an important catalyst to promote the use of wind energy in South Africa. Electricity generated by wind energy, that displaces fossil fuels, leads to greenhouse gas (GHG) emission reductions.

Through installing a wind farm with a maximum capacity of approximately 80 MW, the objective of this BioTherm project is to support the growing demand for electricity by means of renewable energy and to lower the emissions of CO² into the atmosphere, thereby supporting national government in meeting its 2013 reduction target and international initiatives such as the Kyoto Protocol. BioTherm intends to use carbon finance under the clean Development Mechanism as created by Article 12 of the Kyoto Protocol.

This BioTherm project will also create opportunity for growth of a new industry and promote the SA government's Broad-Based Black Economic Empowerment (BBBEE) policy by offering shareholding to BBBEE investors. Local communities would also benefit from employment creation. For example, the government renewable energy target would result in 20 500 new jobs according to the NERSA REFIT report.

In the Overberg Region, the local power demand varies from 50 MW in the high demand season to about 19 MW in the low demand season. This clearly indicates that the main focus would be for the export to other areas via the Eskom distribution and transmission grid. Although the focus would be on export from this area it will, however, address the unstable grid or inadequate power supply in local area.



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Selection of the proposed site

During the pre-feasibility for the project, BioTherm reviewed a range of potential sites in the Overberg Region, including site visits to approximately eight sites that were short-listed. These sites were evaluated based on a range of criteria such as:

- ▶ Local wind climate, using data from local weather stations in the Overberg
- ▶ Local power line network, including existing grid availability, stability and capacity, local power utilisation, future developments and planned power line upgrades
- ▶ Conservation areas such as national parks, nature reserves and wetlands
- ▶ Aviation and military zones such as the Overberg Toetsbaan (OTB) and SA Air Force facilities and associated constraints (further technical studies in this regard are currently underway)
- ▶ Road access for construction and operational maintenance
- ▶ Engagement with landowners.

Based on the above review, two wind farm sites were selected as the best options, and are being taken forward to the feasibility study level. These two sites are the Nacht Wacht site (subject of this Background Information Document) and the Uitkyk/Excelsior site located near Swellendam (subject of a separate Background Information Document and associated EIA and BA process).

Wind monitoring mast

BioTherm proposes to establish a wind monitoring mast on the Nacht Wacht site (Figure 2). This site is a flat and open ridge about 20km from the sea. The existing 66kV grid runs through the site area.

The proposed location (in WGS 84) for the mast is as follows, noting that micro-siting during the design phase may lead to minor refinement of the exact site for the mast:

S34° 31' 43.0"

E20° 05' 29.5"

Ground elevation: 107 m.

The activity comprises the erection of an 100m high wind monitoring mast up to 100m high, with anemometers located at various heights. Data from the monitoring mast will be transmitted via the local cellphone network to a central receiver. During the monitoring period, power for the mast will be provided by a solar panel located on the mast. The monitoring data from the mast will be used to inform the planning, financing and investment decisions for the proposed wind project.

Two alternative mast designs are being investigated:

- ▶ a lattice mast that sits on a concrete base with a maximum footprint of 1m x 1m and is supported by stays extending in four directions up to 65m from the base
- ▶ an unsupported lattice mast that sits on a concrete 4m x 4m base and does not require stays.

The construction will be done in two phases: firstly constructing the base and allowing the concrete to cure; and secondly the erection of the mast. The mast will be operational for a period of approximately three years. Thereafter, the mast could be retained for performance measurement of the wind farm (should the wind farm proceed) or be decommissioned. The potential operational life of the mast beyond 3 years will be included in the full EIA for the wind farm.

Wind energy facility

The key components of the wind energy project are:

- ▶ Turbines of approximately 2 to 3 MW each.
- ▶ Wind monitoring mast of up to 100m high.
- ▶ Gravel access roads to the turbines, with the intent being to upgrade existing roads as far as possible.
- ▶ Construction of hard standing areas for use by cranes during construction and retained for possible maintenance use.
- ▶ Power line connection between wind turbines and the Eskom grid.

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The Siemens 2.3 MW turbine (Figure 1) was selected by BioTherm as an example of a typical turbine that could be used. This turbine has a hub height of approximately 100m, blade diameter of up to 101m, and a base of approximately 16m x 16m x 2.5m depth. The turbine generates up to 2.3 MW of electricity and operates in wind speeds from 4 m/s (approx 14 km/h) with nominal output at 12-13 m/s (43-47 km/h). It is available in South Africa and can be supplied and supported by the international engineering firm Siemens, which has been active in the South Africa for many years. The turbine is a tried product with over 2000 units in the field. Alternative suppliers could include GE, Nordex, REpower, Sinovel, Enercon, Vestas and Gamesa. These suppliers are not being considered as first choice, because of the proven quality of the Siemens product and commitment of Siemens to the South African market.

The project at the Nacht Wacht site (Figure 2) is proposed to be developed in two phases, both of which are covered in this EIA:

- ▶ **Phase 1:** approximately 9 turbines x 2.3 MW = 20.7 MW
- ▶ **Phase 2:** approximately 25 turbines x 2.3 MW = 57.5 MW

This results in a total potential development of approximately 34 turbines of approximately 2.3MW each, leading a maximum generation capacity of 78.2 MW. While the total capacity for this EIA is capped at 78.2 MW, the capacity of each phase is dependent on progress with other projects in the region and may be updated during the EIA.

Depending on other developments in the Overberg area, the capacity of the existing grid at the site (i.e. 66 kV line) is sufficient for Phase 1 and Phase 2. A new 66 kV of approximately 2 km will be required during Phase 1 to link the project to the existing lines.

The base of the turbine requires minimal land space. The base of the turbine is approximately 16m x 16m, which allows other activities (such as farming) to continue around the turbine. Typically in a wind farm, the turbines and supporting infrastructure (e.g. roads) occupy up to 5% of the total area of the wind farm.

Wind turbines will be tubular and painted white or light grey as these colours are inconspicuous under most lighting conditions and help to reduce light reflection.

Construction is in three distinct components: civil construction; electrical installation and wind turbine erection; and commissioning. The construction and commissioning phase of the project will typically require 12 months. There will be approximately 25 people employed for the building of access roads and turbine foundations, and approximately 16 people in cable laying and electrical installation. The wind turbine erection will require approximately 30 people including commissioning engineers.

The operational life of the wind turbines is expected to be a minimum of 25 years and can be extended through regular maintenance and/or upgrades in technology. The site will not normally be manned during operations. After commissioning, maintenance staff will visit the site for a period of one week every six months for scheduled maintenance. Other visits will only be in the event of faults and the replacement of parts.

On decommissioning, the turbines would be at the end of their useful life and either parts salvaged for use in other projects or scrapped. If required the foundations could be removed to 1m below the surface.



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Figure 1: Siemens 2.3 MW wind turbine, which is indicative of the type of wind turbine envisaged for this project.

Basic assessment process

In terms of Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act (NEMA, Act 107 of 1998) in Government Gazette 28753 on 21 April 2006, a Basic Assessment (BA) process is being conducted for the proposed wind measuring mast and wind turbine. The need for a Basic Assessment is triggered by the inclusion of, amongst others, the following activity listed in GNR 386:

- 14: The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding -
- (a) masts of 15 metres and lower exclusively used
 - (i) by radio amateurs; or
 - (ii) for lighting purposes
 - (b) flag poles; and
 - (c) lightning conductor poles.

The Basic Assessment process being implemented can be summarised as follows:

Step 1: Notify Authorities of Basic Assessment process

A "Notice of Intent" regarding the Basic Assessment has been submitted to DEA (DEA reference number: 12/12/20/1757) and circulated to other relevant organs of state.

Step 2: Notify I&APs and identify issues

The BA process was announced through an advert in the local newspaper, i.e. the "Suidernuus/Southern Post" on 29 January 2010. The advert was to inform I&APs of the proposed project and invite them to register on the database for the BA process. Letters will be sent to I&APs on the I&AP register and this database will be updated through-out the BA process. I&APs will be provided with a Background Information Document (BID) on the project, including a locality map and a comment form. I&APs will be provided with opportunity to raise any issues of concern related to the project, for inclusion in the Draft Basic Assessment Report.

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Step 3: Prepare a Draft Basic Assessment Report and release for I&AP review

All issues raised will be investigated and responded to by the BA team, with findings provided in the Draft Basic Assessment Report. This report will include an issues trail and will be released for a 40 day comment period. All I&APs on the project database will be notified in writing of the opportunity to comment on the report, and provided with a concise summary of the Draft Basic Assessment Report. The report shall be placed on the following website www.csir.co.za/EIA.

Step 4: Compile a Final Basic Assessment Report and submit to authorities

The Final Basic Assessment Report, including the official Application Form and a Comments and Responses Trail, will be compiled for submission to the authorities for decision making. The report shall be placed in the following website: www.csir.co.za/EIA. All I&APs on the project database will be notified in writing of the outcome of the application, including reasons for the decision and the appeal process.

Environmental assessment process

In terms of Regulations 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (NEMA, Act 107 of 1998) in Government Gazette 28753 on 21 April 2006, an environmental assessment process is required for the proposed wind farm. A full Scoping and Environmental Impact Assessment (EIA) will be conducted because, amongst others, it includes the following activity under R 387:

1. "The construction of facilities or infrastructure, including associated structures or infrastructure, for –
 - (a) the generation of electricity where –
 - (i) the electricity output is 20 megawatts or more; or
 - (ii) the elements of the facility cover a combined area in excess of 1 hectare.
 - (l) the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more";

The listed activities require authorisation from the National Department of Environmental Affairs (DEA). The environmental assessment needs to demonstrate to the responsible authority, DEA, and the project proponent, BioTherm, what the consequences of their choices will be in environmental, social and economic terms.

The Environmental Assessment Process being implemented can be summarised as follows:

Phase 1: Environmental Scoping

The purpose of the Scoping Process is to provide sufficient information to decision-making authorities to enable them to reach a decision on the scope of issues to be addressed in the EIA.

The objectives of the Scoping Process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives;
- Conduct an open and transparent consultation process and facilitate the inclusion of stakeholders' concerns in the decision-making process; and
- Identify key issues to be addressed in the EIA phase and outline the approach to addressing these issues.

Phase 2: Environmental Impact Assessment

The purpose of the EIA phase of the assessment is to address the issues raised in the Scoping Phase. Specialist studies will be conducted to assess alternatives, identify impacts and determine the significance of impacts as well as formulate mitigatory measures, if required to minimize/avoid negative impacts and maximise positive benefits of the project.

The following specialist studies and specialists have been identified:

1. Botany: Nicholas Helme
2. Avifauna (birds): Chris van Rooyen
3. Bats: Stephanie Dippenaar and Samantha Stoffberg
4. Heritage - Archaeology: Jonathan Kaplan
5. Heritage - Palaeontology: John Almond
6. Visual: Megan Anderson
7. Noise: Brett Williams.

A technical study on aviation and radar impact is also being commissioned by BioTherm for the Nacht Wacht site.

Public participation process

The public participation programme (PPP) is an integral part of the EIA process, and continues throughout this process. This section provides more detail on the PPP.

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Step 1: Notify authorities of EIA process

- › Submit an application for Scoping and EIA to the National Department of Environmental Affairs (DEA).

Step 2: Notify I&APs and identify issues

- › Notify I&APs of the project proposal.
- › Identify any issues/concerns of I&APs.
- › Provide I&APs with a Background Information Document (BID) on the project, including a locality map and a registration/issues form. I&APs are required to register their interest in the project to receive further project information.
- › One-on-one meetings will be conducted with relevant stakeholders.

Step 3: I&AP review of Draft Scoping Report

- › Issues and concerns raised by I&APs are contained in an Issues and Responses Trail for inclusion in the Draft Scoping Report.
- › The report is released for a 40 day comment period.
- › This report will also include the Plan of Study for EIA.
- › All registered I&APs on the project database are notified in writing of the opportunity to comment.
- › To assist I&APs with their understanding of the project, a public meeting, to which all I&APs are invited, will be held during the review period.
- › Copies of the report will be made available on the website www.csir.co.za.

Step 4: Final Scoping Report

- › Comments received from I&APs during the review process are considered in the compilation of the Final Scoping Report before it is submitted to DEA for their decision making.
- › All I&APs on the project database will be notified in writing of the submission of the Final Scoping Report to the authorities (DEA). The Final Scoping Report will include the Plan of Study for EIA (PSEIA) and Terms of Reference for specialist studies to be undertaken as part of the EIA process.
- › The PSEIA is subject to the approval of the authorities.

Step 5: Draft EIA Report and EMP for I&AP review

- › Compilation and release of a Draft EIA Report (including the draft EMP) for a 40 day I&AP review period.
- › All comments received from I&APs and authorities

via meetings held or via written correspondence are compiled into a Comments and Responses Trail for inclusion in the Final EIA Report.

- › The Comments and Responses Trail will indicate the nature of the comment, when and who raised the comment as well as indicate how the comment received has been considered in the Final EIA Report, in the project design or EMP for the project.

Step 6: Final EIA Report and Draft EMP

- › The Final EIA Report, including the Comments and Responses Trail and Draft EMP will be compiled for submission to the authorities for decision making (DEA). All I&APs of the project database will be notified in writing of the submission of the Final EIA Report.

Step 7: Notify I&APs of Environmental Authorisation and Appeal Period

- › All I&APs on the project database will be notified in writing regarding the environmental authorisation for the project and the appeal period, as well as the manner of appeal.

How can you get involved?

1. By registering your interest in the project with the consultant indicated below.
2. By responding to our invitation for your involvement advertised in local newspaper.
3. By mailing or faxing a comment form to the participation consultant indicated below.
4. By telephonically contacting the participation consultant if you have a query, comment, or require further project information.
5. By reviewing the various reports within the 40-day comment period.
6. By attending any feedback meetings, which may be held during the review period. Should you be registered as an I&AP you will be invited to attend these meetings.

Who should you contact?

Minnelise Levendal
CSIR, PO Box 320, Stellenbosch 7599
Phone 021 – 888 2495
Fax 021 – 888 2693

Email: mlevendal@csir.co.za

Website for information on this EIA process:

www.csir.co.za/EIA

Follow the link to *BioTherm Overberg Wind Project*.



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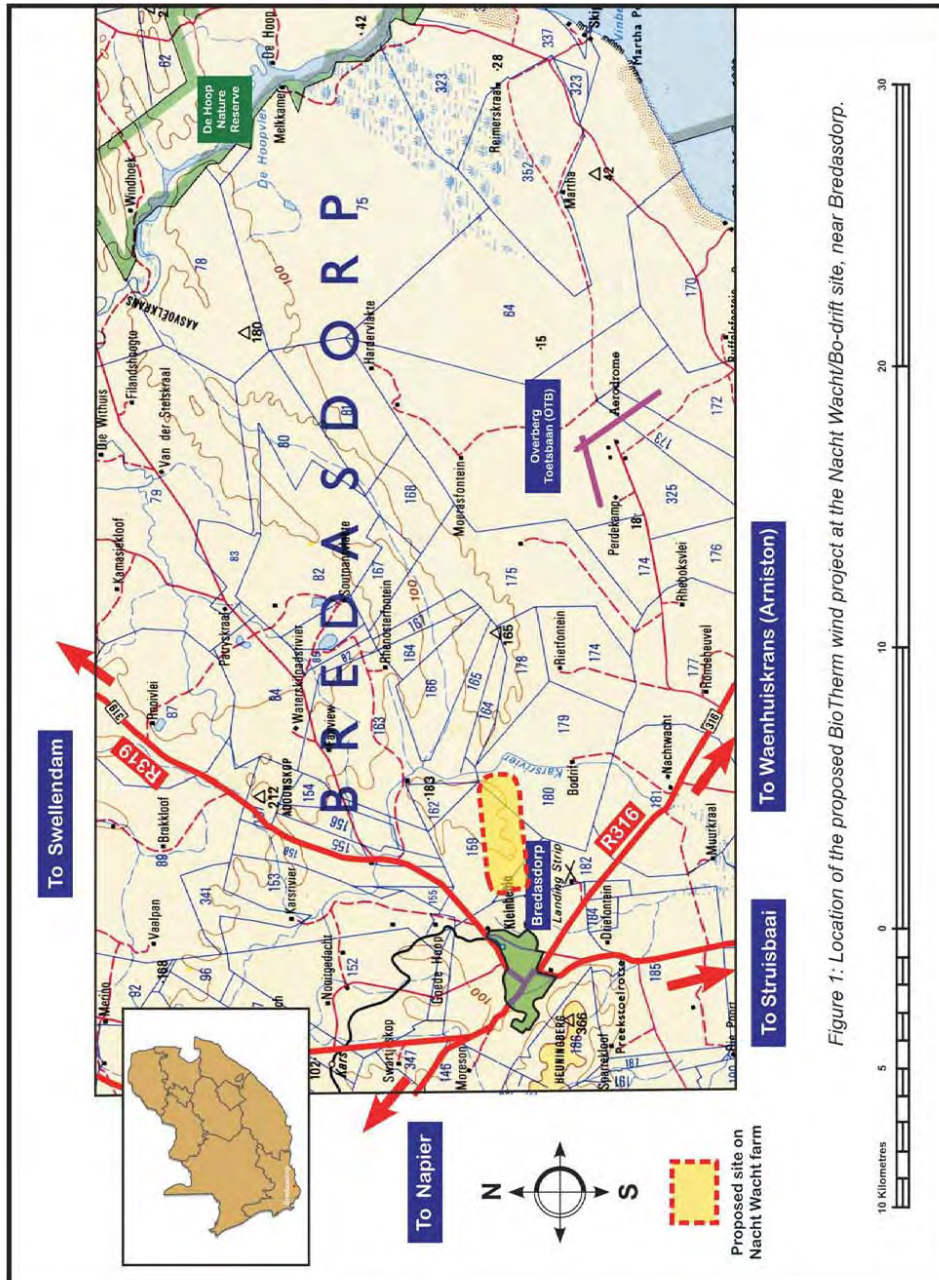


Figure 1: Location of the proposed BioTherm wind project at the Nacht Wacht/Bo-drift site, near Bredasdorp.

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UITKYK, SWELLENDAM

E.3(B) LETTER 1 TO I&APS TO INVITE THEM TO REGISTER AND TO INFORM THEM OF THE PROPOSED PROJECT (FARM UITKYK, SWELLENDAM)



our future through science

P O Box 320
Stellenbosch
7599
South Africa
Tel: +27 21 888 2400
Fax: +27 12 888 2693

www.csir.co.za

2 February 2010

Dear Sir/Madam

**RE: NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT AND A BASIC
ASSESSMENT PROCESS FOR THE PROPOSED BIOTHERM WIND ENERGY
PROJECT AT THE UITKYK/EXCELSIOR SITE, NEAR SWELLENDAM**

ENVIRONMENTAL IMPACT ASSESSMENT

This serves as notification that an Environmental Impact Assessment (EIA) is being conducted by the CSIR on behalf of BioTherm Energy (Pty.) Ltd. acting on behalf of BioTherm Wind Holdings (Pty.) Ltd (an entity yet to be formed). The EIA is for the construction and operation of a wind energy facility. The facility would utilise wind turbines of 2 to 3 MW each, with a combined generation capacity of approximately 110 MW. The facility will be erected on the following sites near Swellendam:

- Farm Uitkyk, Remaining portion of Farm 434;
- Farm Excelsior, Portion 6, a portion of the Farm Goereesoe No. 432;
- De Kop Farm "Aangrensende" Farm Vryheid No 435/0; and
- Farm Klaas Kaffer Heuwel 438/1.

In terms of the regulations GN R 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Impact Assessment is required, as the project includes, amongst others, the following listed activities in GN R 387;

1. *"The construction of facilities or infrastructure, including associated structures or infrastructure, for –*
 - (a) *the generation of electricity where –*
 - (i) *the electricity output is 20 megawatts or more; or*
 - (ii) *the elements of the facility cover a combined area in excess of 1 hectare."*

BASIC ASSESSMENT

Further notice is hereby given that a Basic Assessment (BA) process is being conducted by the CSIR on behalf of BioTherm Energy (Pty) Ltd (the project applicant). The BA is for the construction and operation of a wind monitoring mast up to 100m on the remaining portion of Farm Uitkyk no 434, near Swellendam in the Western Cape. It will be erected at approximate position 34°14'05.5"S, 20°12'52.6"E; site elevation at 303m.

In terms of Government Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act, the need for a Basic Assessment is triggered by the inclusion of, but not limited to, the following listed activity in GN R 386

14. *"The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding –*

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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(i) by radio amateurs; or
(ii) for lighting purposes
(b) flag poles; and
(c) lightning conductor poles."

The listed activities mentioned in the EIA and BA processes above require authorisation from the National Department of Environmental Affairs (DEA). The CSIR has submitted applications to DEA for environmental authorisation to undertake the EIA and BA processes. The CSIR has been appointed by BioTherm as the independent Environmental Assessment Practitioner to manage the EIA and BA applications.

The EIA and BA processes are also designed and conducted to meet the requirements of the National Heritage Resources Act (Act 25 of 1999) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.

Opportunity to be involved

Should you wish to obtain further information on the project or to provide any comments on the Environmental Impact Assessment and/or Basic Assessment process, the CSIR invites you to register as an Interested and/or Affected Party by no later than **19 February 2010**, so you can receive further notification on the draft reports. Please note that the I&AP register will be updated continuously during the BA and EIA processes.

We have enclosed with this letter a registration and comments form (one for the EIA and one for the BA process; see Afrikaans version on the reverse side) to assist you with registration and the submission of your comments. Please provide your full name, full postal address, phone numbers, and/or email and state your matter of interest and/or area of concern. The form must reach the CSIR by **no later than 19 February 2010** and must be sent to the Environmental Assessment Practitioner, Minnelise Levendal (see her contact details below). Please note that once you have registered as an Interested and Affected Party you will also be able to provide comments on the Draft Basic Assessment Report and/or the Draft Scoping Report which will be released later for a 40 day period for public review.

We have also enclosed with this letter a Background Information Document (BID) to tell you more about the project. Please note the BID is also available in Afrikaans and can be requested from Minnelise Levendal (see contact details below).

We look forward to your input and participation in this process and encourage you to raise issues that may affect you and/or about which you are concerned.

Yours sincerely



MINNELISE LEVENDAL
CSIR, Stellenbosch
Tel.: 021 – 888 2495/2661
Faks: 021 – 888 2693
e-pos: mlevendal@csir.co.za.

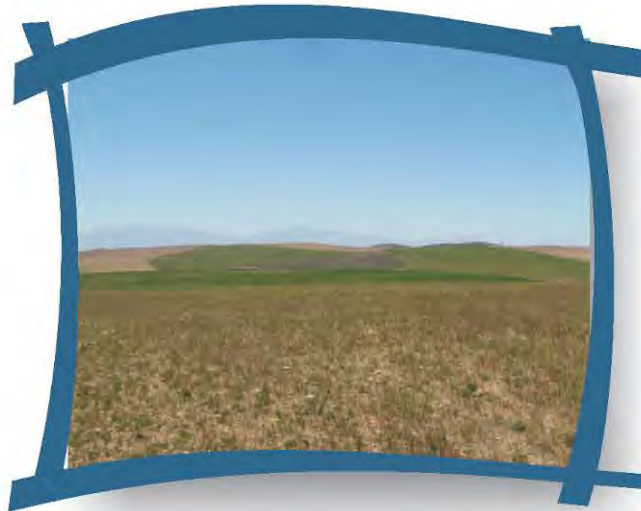
FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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Background Information Document for the Basic Assessment and Environmental Impact Assessment processes for the proposed BioTherm wind energy project on the Uitkyk/Excelsior site in the Overberg Region, near Swellendam, Western Cape



Background

BioTherm Energy (Pty) Ltd (“BioTherm”) is a South African-based independent power producer that designs, builds, finances, owns and operates energy projects in South and Southern Africa. BioTherm focuses on renewable energy projects, CDM projects and energy efficiency projects. BioTherm Wind Holdings (Pty) Ltd (entity yet to be formed) is proposing to construct and operate a commercial wind energy project on the farms Uitkyk, Excelsior, De Kop Farm “Aangrensende” and Klaaskaffersheuwel (jointly referred to as the “Uitkyk/Excelsior site”). This site is located

between Swellendam and Bredasdorp in the Overberg Region of the Western Cape Province.

The BioTherm project has two key components requiring environmental authorisation in terms of the National Environmental Management Act (Act 107 of 1998) and the associated Regulations GN R 385, 386 and 387 published on 21 April 2006:

- i. Establishment and operation of a **Wind Monitoring Mast** of up to 100m height, requiring a Basic Assessment (DEA Reference number: 12/12/20/1757).



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February 2010

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ii. Establishment and operation of **Wind Turbines** of 2 to 3 MW each, with a combined maximum generation capacity of 110.4 MW, requiring a full Scoping and EIA process (DEA Reference number to be provided in future correspondence).

The CSIR has been appointed by BioTherm Energy (Pty) Ltd on behalf of BioTherm Wind Holdings (Pty) Ltd (entity yet to be formed) to undertake the Basic Assessment and EIA required for the project.

Approval for energy-related projects has been identified as a national priority. The national Department of Environmental Affairs (DEA) has therefore been identified as the authority responsible for environmental authorization for this project. The Basic Assessment and EIA need to inform the responsible authority and other stakeholders of the impacts (both positive and negative) of the project on the surrounding biophysical (natural) and socio-economic environment.

The EIA and BA processes are also designed and conducted to meet the requirements of the National Heritage Resources Act (Act 25 of 1999) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.

What does this document tell you

This document provides you, as an interested and affected party (I&AP) with the following:

- Background information on the proposed project;
- Basic Assessment and EIA process that will be undertaken; and
- Details on how you can be involved in the Public Participation process, receive information and raise issues.

The sharing of information forms an important component of the Public Participation process and provides you with the opportunity to become actively involved in the EIA process from the outset. The input received from I&APs together with the specialist investigations assists the responsible authority, in this instance the national Department

of Environmental Affairs (DEA), with their decision-making.

Need and objectives of the project

At a national level, renewable energy has the potential to play an important role in South Africa through diversifying the sources of power generation and reducing the carbon footprint from fossil fuel power generation, such as coal fired power stations. Currently, approximately 90% of South Africa's power generation is derived from coal. The favourable renewable energy feed-in tariffs (REFIT) released by government in April 2009 provide an important catalyst to promote the use of wind energy in South Africa. Electricity generated by wind energy, that displaces fossil fuels, leads to greenhouse gas (GHG) emission reductions.

Through installing a wind farm with a maximum capacity of approximately 110 MW, the objective of this BioTherm project is to support the growing demand for electricity by means of renewable energy and to lower the emissions of CO² into the atmosphere, thereby supporting national government in meeting its 2013 reduction target and international initiatives such as the Kyoto Protocol. BioTherm intends to use carbon finance under the Clean Development Mechanism as created by Article 12 of the Kyoto Protocol.

This BioTherm project will also create opportunity for growth of a new industry and promote the SA government's Broad-Based Black Economic Empowerment (BBBEE) policy by offering shareholding to BBBEE investors. Local communities would also benefit from employment creation. For example, the government renewable energy target would result in 20 500 new jobs according to the NERSA REFIT report.

In the Overberg Region, the local power demand varies from 50 MW in the high demand season to about 19 MW in the low demand season. This clearly indicates that the main focus would be for the export to other areas via the Eskom distribution and transmission grid. Although the focus would be on export from this area it will, however, address the unstable grid or inadequate power supply in local area.



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Selection of the proposed site

During the pre-feasibility for the project, BioTherm reviewed a range of potential sites in the Overberg Region, including site visits to approximately eight sites that were short-listed. These sites were evaluated based on a range of criteria such as:

- ▶ Local wind climate, using data from local weather stations in the Overberg
- ▶ Local power line network, including existing grid availability, stability and capacity, local power utilisation, future developments and planned power line upgrades
- ▶ Conservation areas such as national parks, nature reserves and wetlands
- ▶ Aviation and military zones such as the Overberg Toetsbaan (OTB) and SA Air Force facilities and associated constraints (further technical studies in this regard are currently underway)
- ▶ Road access for construction and operational maintenance
- ▶ Engagement with landowners.

Based on the above review, two wind farm sites were selected as the best options, and are being taken forward to the feasibility study level. These two sites are the Uitkyk/Excelsior site (subject of this Background Information Document) and the Nacht Wacht site south-east of Bredasdorp (subject of a separate Background Information Document and associated EIA and BA process).

Wind monitoring mast

BioTherm proposes to establish a wind monitoring mast on the Uitkyk/Excelsior site (Figure 2). This site is an undulating, agricultural area with extensive grazing by sheep and cattle, as well as wheat farming.

The proposed location (in WGS 84) for the mast is as follows, noting that micro-siting during the design phase may lead to minor refinement of the exact site for the mast:

S 34° 14' 05.5"

E 20° 12' 52.6"

Ground elevation: 303m.

The activity comprises the erection of a wind monitoring mast up to 100m high, with anemometers located at various heights. Data from the monitoring mast will be transmitted via the local cellphone network to a central receiver. During the monitoring period, power for the mast will be provided by a solar panel located on the mast. The monitoring data from the mast will be used to inform the planning, financing and investment decisions for the proposed wind project.

Two alternative mast designs are being investigated:

- ▶ a lattice mast that sits on a concrete base with a maximum footprint of 1m x 1m and is supported by stays extending in four directions up to 65m from the base
- ▶ an unsupported lattice mast that sits on a concrete 4m x 4m base and does not require stays.

The construction will be done in two phases: firstly constructing the base and allowing the concrete to cure; and secondly the erection of the mast. The mast will be operational for a period of approximately three years. Thereafter, the mast could be retained for performance measurement of the wind farm (should the wind farm proceed) or be decommissioned. The potential operational life of the mast beyond 3 years will be included in the full EIA for the wind farm.

Wind energy facility

The key components of the wind energy project are:

- ▶ Turbines of approximately 2 to 3 MW each.
- ▶ Wind monitoring mast of up to 100m high.
- ▶ Gravel access roads to the turbines, with the intent being to upgrade existing roads as far as possible.
- ▶ Construction of hard standing areas for use by cranes during construction and retained for possible maintenance use.
- ▶ Power line connection between wind turbines and the Eskom grid.

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The Siemens 2.3 MW turbine (Figure 1) was selected by BioTherm as an example of a typical turbine that could be used. This turbine has a hub height of approximately 100m, blade diameter of up to 101m, and a base of approximately 16m x 16m x 2.5m depth. The turbine generates up to 2.3 MW of electricity and operates in wind speeds from 4 m/s (approx 14 km/h) with nominal output at 12-13 m/s (43-47 km/h). It is available in South Africa and can be supplied and supported by the international engineering firm Siemens, which has been active in the South Africa for many years. The turbine is a tried product with over 2000 units in the field. Alternative suppliers could include GE, Nordex, REpower, Sinovel, Enercon, Vestas and Gamesa. These suppliers are not being considered as first choice, because of the proven quality of the Siemens product and commitment of Siemens to the South African market.

The project at the Uitkyk/Excelsior site (Figure 2) is proposed to be developed in two phases, both of which are covered in this EIA:

- **Phase 1:** approximately 14 turbines x 2.3 MW = 32.2 MW
- **Phase 2:** approximately 34 turbines x 2.3 MW = 78.2 MW

This results in a total potential development of approximately 48 turbines of approximately 2.3MW each, leading a maximum generation capacity of 110.4 MW. While the total capacity for this EIA is capped at 110.4 MW, the capacity of each phase is dependent on progress with other projects in the region and may be updated during the EIA.

Depending on other developments in the Overberg area, the capacity of the existing grid at the site (i.e. 66 kV line) is not sufficient for Phase 1, and therefore a new 132 kV power line of approximately 14 km is proposed as part of this project and included in the EIA. This new line will extend from the 132 kV Vryheid Substation to the Uitkyk/Excelsior site and follow an existing power line servitude.

The base of the turbine requires minimal land space. The base of the turbine is approximately 16m x 16m, which allows other activities (such as farming) to continue around the turbine. Typically in a wind farm, the turbines and supporting infrastructure (e.g. roads) occupy up to 5% of the total area of the wind farm.

Wind turbines will be tubular and painted white or light grey as these colours are inconspicuous under most lighting conditions and help to reduce light reflection.

Construction is in three distinct components: civil construction; electrical installation and wind turbine erection; and commissioning. The construction and commissioning phase of the project will typically require 12 months. There will be approximately 25 people employed for the building of access roads and turbine foundations, and approximately 16 people in cable laying and electrical installation. The wind turbine erection will require approximately 30 people including commissioning engineers.

The operational life of the wind turbines is expected to be a minimum of 25 years and can be extended through regular maintenance and/or upgrades in technology. The site will not normally be manned during operations. After commissioning, maintenance staff will visit the site for a period of one week every six months for scheduled maintenance. Other visits will only be in the event of faults and the replacement of parts.

On decommissioning, the turbines would be at the end of their useful life and either parts salvaged for use in other projects or scrapped. If required the foundations could be removed to 1m below the surface.



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Figure 1: Siemens 2.3 MW wind turbine, which is indicative of the type of wind turbine envisaged for this project.

Basic assessment process

In terms of Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act (NEMA, Act 107 of 1998) in Government Gazette 28753 on 21 April 2006, a Basic Assessment (BA) process is being conducted for the proposed wind measuring mast and wind turbine. The need for a Basic Assessment is triggered by the inclusion of, amongst others, the following activity listed in GN R 386:

- 14: The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding -
- (a) masts of 15 metres and lower exclusively used
 - (i) by radio amateurs; or
 - (ii) for lighting purposes
 - (b) flag poles; and
 - (c) lightning conductor poles.

The Basic Assessment process being implemented can be summarised as follows:

Step 1: Notify Authorities of Basic Assessment process

A "Notice of Intent" regarding the Basic Assessment has been submitted to DEA (DEA reference number: 12/12/20/1757) and circulated to other relevant organs of state.

Step 2: Notify I&APs and identify issues

The BA process was announced through an advert in the local newspaper, i.e. the "Suidernuus/Southern Post" on 29 January 2010. The advert was to inform IA&Ps of the proposed project and invite them to register on the database for the BA process. Letters will be sent to I&APs on the I&AP register and this database will be updated through-out the BA process. I&APs will be provided with a Background Information Document (BID) on the project, including a locality map and a comment form. I&APs will be provided with

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opportunity to raise any issues of concern related to the project, for inclusion in the Draft Basic Assessment Report.

Step 3: Prepare a Draft Basic Assessment Report and release for I&AP review

All issues raised will be investigated and responded to by the BA team, with findings provided in the Draft Basic Assessment Report. This report will include an issues trail and will be released for a 40 day comment period. All I&APs on the project database will be notified in writing of the opportunity to comment on the report, and provided with a concise summary of the Draft Basic Assessment Report. The report shall be placed on the following website www.csir.co.za/EIA.

Step 4: Compile a Final Basic Assessment Report and submit to authorities

The Final Basic Assessment Report, including the official Application Form and a Comments and Responses Trail, will be compiled for submission to the authorities for decision making. The report shall be placed in the following website: www.csir.co.za/EIA. All I&APs on the project database will be notified in writing of the outcome of the application, including reasons for the decision and the appeal process.

Environmental assessment process

In terms of Regulations 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (NEMA, Act 107 of 1998) in Government Gazette 28753 on 21 April 2006, an environmental assessment process is required for the proposed wind farm. A full Scoping and Environmental Impact Assessment (EIA) will be conducted because, amongst others, it includes the following activity under R 387:

1. "The construction of facilities or infrastructure, including associated structures or infrastructure, for –
 - (a) the generation of electricity where –
 - (i) the electricity output is 20 megawatts or more; or
 - (ii) the elements of the facility cover a combined area in excess of 1 hectare.
 - (l) the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more";

The listed activities require authorisation from the National Department of Environmental Affairs (DEA). The environmental assessment needs to

demonstrate to the responsible authority, DEA, and the project proponent, BioTherm, what the consequences of their choices will be in environmental, social and economic terms.

The Environmental Assessment Process being implemented can be summarised as follows:

Phase 1: Environmental Scoping

The purpose of the Scoping Process is to provide sufficient information to decision-making authorities to enable them to reach a decision on the scope of issues to be addressed in the EIA.

The objectives of the Scoping Process are to:

- Identify and inform a broad range of stakeholders about the proposed development;
- Clarify the scope and nature of the proposed activities and the alternatives;
- Conduct an open and transparent consultation process and facilitate the inclusion of stakeholders' concerns in the decision-making process; and
- Identify key issues to be addressed in the EIA phase and outline the approach to addressing these issues.

Phase 2: Environmental Impact Assessment

The purpose of the EIA phase of the assessment is to address the issues raised in the Scoping Phase. Specialist studies will be conducted to assess alternatives, identify impacts and determine the significance of impacts as well as formulate mitigatory measures, if required to minimize/avoid negative impacts and maximise positive benefits of the project.

The following specialist studies and specialists have been identified:

1. Botany: Nicholas Helme
2. Avifauna (birds): Chris van Rooyen
3. Bats: Stephanie Dippenaar and Samantha Stoffberg
4. Heritage - Archaeology: Jonathan Kaplan
5. Heritage - Palaeontology: John Almond
6. Visual: Megan Anderson
7. Noise: Brett Williams.

Public participation process

The public participation programme (PPP) is an integral part of the EIA process, and continues throughout this process. This section provides more detail on the PPP.

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Step 1: Notify authorities of EIA process

- › Submit an application for Scoping and EIA to the National Department of Environmental Affairs (DEA).

Step 2: Notify I&APs and identify issues

- › Notify I&APs of the project proposal.
- › Identify any issues/concerns of I&APs.
- › Provide I&APs with a Background Information Document (BID) on the project, including a locality map and a registration/issues form. I&APs are required to register their interest in the project to receive further project information.
- › One-on-one meetings will be conducted with relevant stakeholders.

Step 3: I&AP review of Draft Scoping Report

- › Issues and concerns raised by I&APs are contained in an Issues and Responses Trail for inclusion in the Draft Scoping Report.
- › The report is released for a 40 day comment period.
- › This report will also include the Plan of Study for EIA.
- › All registered I&APs on the project database are notified in writing of the opportunity to comment.
- › To assist I&APs with their understanding of the project, a public meeting, to which all I&APs are invited, will be held during the review period.
- › Copies of the report will be made available on the website www.csir.co.za.

Step 4: Final Scoping Report

- › Comments received from I&APs during the review process are considered in the compilation of the Final Scoping Report before it is submitted to DEA for their decision making.
- › All I&APs on the project database will be notified in writing of the submission of the Final Scoping Report to the authorities (DEA). The Final Scoping Report will include the Plan of Study for EIA (PSEIA) and Terms of Reference for specialist studies to be undertaken as part of the EIA process.
- › The PSEIA is subject to the approval of the authorities.

Step 5: Draft EIA Report and EMP for I&AP review

- › Compilation and release of a Draft EIA Report (including the draft EMP) for a 40 day I&AP review period.

- › All comments received from I&APs and authorities via meetings held or via written correspondence are compiled into a Comments and Responses Trail for inclusion in the Final EIA Report.
- › The Comments and Responses Trail will indicate the nature of the comment, when and who raised the comment as well as indicate how the comment received has been considered in the Final EIA Report, in the project design or EMP for the project.

Step 6: Final EIA Report and Draft EMP

- › The Final EIA Report, including the Comments and Responses Trail and Draft EMP will be compiled for submission to the authorities for decision making (DEA). All I&APs of the project database will be notified in writing of the submission of the Final EIA Report.

Step 7: Notify I&APs of Environmental Authorisation and Appeal Period

- › All I&APs on the project database will be notified in writing regarding the environmental authorisation for the project and the appeal period, as well as the manner of appeal.

How can you get involved?

1. By registering your interest in the project with the consultant indicated below.
2. By responding to our invitation for your involvement advertised in local newspaper.
3. By mailing or faxing a comment form to the participation consultant indicated below.
4. By telephonically contacting the participation consultant if you have a query, comment, or require further project information.
5. By reviewing the various reports within the 40-day comment period.
6. By attending any feedback meetings, which may be held during the review period. Should you be registered as an I&AP you will be invited to attend these meetings.

Who should you contact?

Minnelise Levendal
CSIR, PO Box 320, Stellenbosch 7599
Phone 021 – 888 2495
Fax 021 – 888 2693
Email: mlevendal@csir.co.za
Website for information on this EIA process:
www.csir.co.za/EIA



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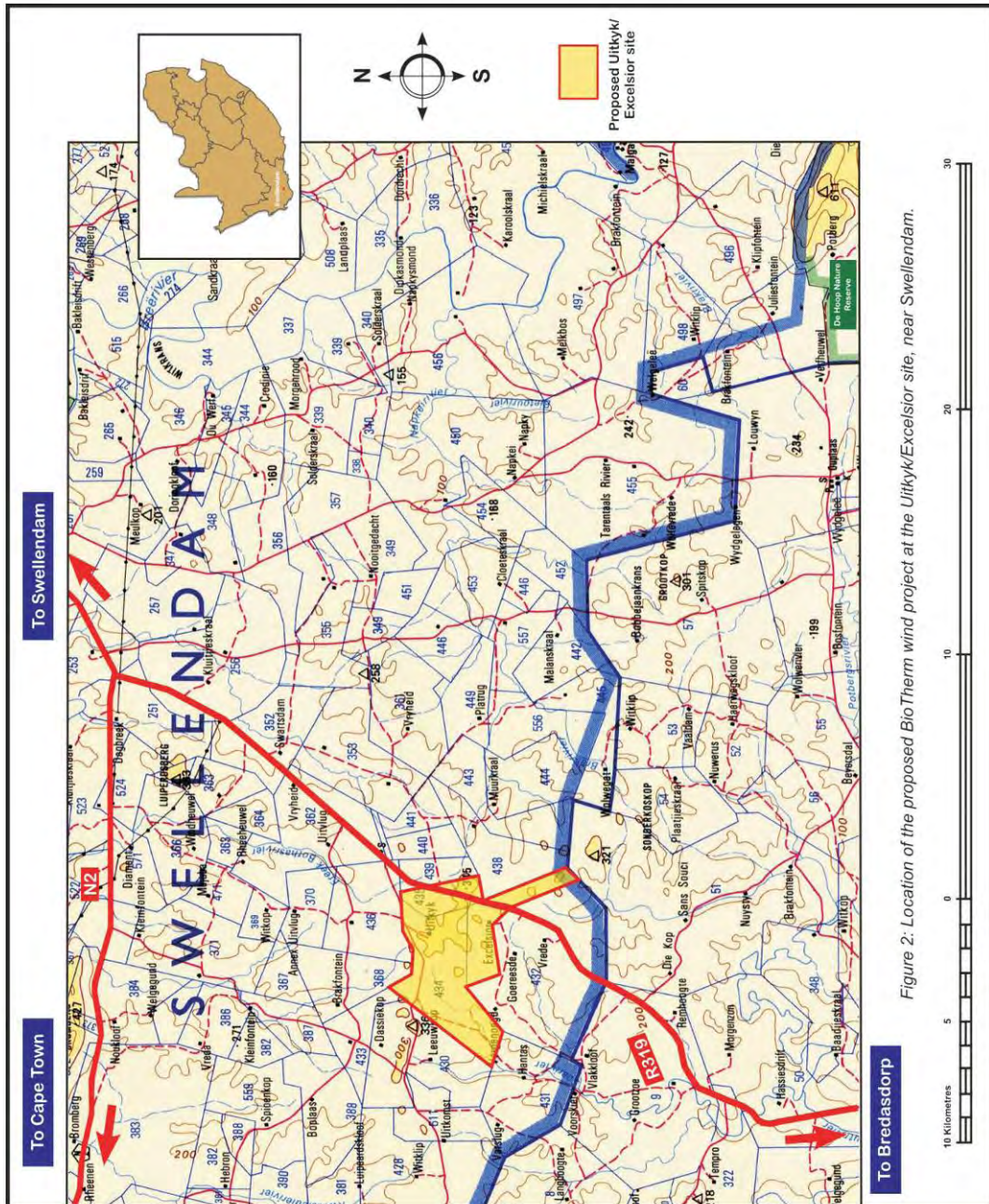


Figure 2: Location of the proposed BioTherm wind project at the Uitkyk/Excelsior site, near Swellendam.

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**E.3(C) LETTERS TO ORGANS OF STATE TO INFORM THEM OF THE PROJECT AND
TO INVITE THEM TO COMMENT**

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UITKYK, SWELLENDAM



PO Box 320 Stellenbosch 7599 South Africa
Tel: +27 21 888 2400
Fax: +27 21 888 2693

12th January 2010

ATTENTION: Ms Lizell Stroh

South African Civil Aviation Authority (CAA)
Private Bag X73
Halfway House
1685

Email: strohl@caa.co.za
Tel: (011) 545 1232

Dear Ms Stroh,

NOTICE OF INTENT FOR A BASIC ASSESSMENT FOR THE BIOTHERM WIND ENERGY PROJECT IN THE OVERBERG, NEAR SWELLENDAM, WESTERN CAPE PROVINCE

This letter is to inform you that a Notice of Intent has been submitted to the national Dept of Environmental Affairs for a Basic Assessment process for two wind monitoring masts being proposed by Biotherm (Pty) Ltd in the Overberg region of the Western Cape Province. The CSIR has been appointed by Biotherm as the independent Environmental Assessment Practitioner to conduct the Basic Assessment process in terms of the National Environmental Management Act (Act 107 of 1998) and its Regulations 385 and 386 (Government Gazette No. 28753 of 21 April 2006). Biotherm intends to establish two wind monitoring masts of 80m height – one mast on Nacht Wacht Farm near Bredasdorp and one mast on Uitkyk Farm near Swellendam. The masts are planned to be operational for approximately 3 years.

The national Department of Environmental Affairs is the competent authority, given that energy projects have been ascribed national strategic important and associated environmental decision-making placed a national level.

The following organs of State have been informed of this Basic Assessment process at the outset, and will be placed on the register of interested and affected parties:

Organisation	Name	Postal address	Telephone / email
National Department of Water and Environmental Affairs (DWEA)	Mr Dumisane Mthembu, Directorate: Environmental Impact Evaluation	Fedsure Forum Building (corner of Pretorius and Van der Walt Streets) 2nd Floor North Tower 315 Pretorius Street, Pretoria 0002	Tel: 012 - 310 3230, Fax: 012 - 320 7539 dmtthembu@deat.gov.za
Western Cape Department of Environmental Affairs and Development Planning (DEADP)	Mr Anthony Barnes	Utilitas Building 1 Dorp Street Cape Town 8001; Private Bag X9086 Cape Town 8000	Tel: (021) 483 4093
Western Cape Dept of Agriculture	Mr Paul Herselman (Director: Sustainable Resource Management)	Private Bag X1 Eisenberg 7606	Tel: (021) 808 5093 Eisenburg.Landcare@eisenburg.com laymanb@eisenburg.com

Ms N Shikwane (Chairperson), Prof C de la Rey, Dr N www.csir.co.za
Dr N Msomi, Dr FW Petersen, Prof MJ Wingfield, Dr S Sibisi

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Heritage Western Cape	Mr Nicholas Wiltshire	3rd Floor, Protea Assurance Building, Green Market Square, corner of Long Market street and Green Market Square, Cape Town 8001	Tel: (021) 483 9685 nwiltshire@pgwc.gov.za
Cape Agulhas Municipality	Mr Reynold Stevens (Municipal Manager)	PO Box 51 Bredasdorp 7280	Tel: (028) 425 5500
Swellendam Municipality	Mr Nico Nel (Municipal Manager)	PO Box 20 Swellendam 6740	Tel: (028) 514 8500
South African Civil Aviation Authority (CAA)	Ms Lizell Stroh	Private Bag X73 Halfway House 1685	strohl@caa.co.za Tel: (011) 545 1232
South African National Roads Agency Ltd (SANRAL)	Mr Cobus van der Waldt or Ms René de Kock	Building 5 Parc Du Cap Mistel Street Bellville, 7535	DeKockr@nra.co.za Tel (021) 957 4600 Fax (021) 946 1630

Please contact the Environmental Assessment Practitioners below should you have any queries, or recommendations for additional organs of state that should be informed of this BA process.

Yours sincerely



Paul Lochner (CSIR Project Leader; Certified Environmental Assessment Practitioner – SA)
Tel.: 021 – 888 2486
Fax: 021 – 888 2693
e-mail: plochner@csir.co.za

or

Minnelise Levendal (CSIR Project Manager)
Tel.: 021 – 888 2495
Fax: 021 – 888 2693
e-mail: mlevendal@csir.co.za

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PO Box 320 Stellenbosch 7599 South Africa
Tel: +27 21 888 2400
Fax: +27 21 888 2693

12th January 2010

ATTENTION: Mr Reynold Stevens
Municipal Manager

Cape Agulhas Municipality
PO Box 51
Bredasdorp
7280

Tel: (028) 425 5500

Dear Sir,

NOTICE OF INTENT FOR A BASIC ASSESSMENT FOR THE BIOTHERM WIND ENERGY PROJECT IN THE OVERBERG, NEAR SWELLENDAM, WESTERN CAPE PROVINCE

This letter is to inform you that a Notice of Intent has been submitted to the national Dept of Environmental Affairs for a Basic Assessment process for two wind monitoring masts being proposed by Biotherm (Pty) Ltd in the Overberg region of the Western Cape Province. The CSIR has been appointed by Biotherm as the independent Environmental Assessment Practitioner to conduct the Basic Assessment process in terms of the National Environmental Management Act (Act 107 of 1998) and its Regulations 385 and 386 (Government Gazette No. 28753 of 21 April 2006). Biotherm intends to establish two wind monitoring masts of 80m height – one mast on Nacht Wacht Farm near Bredasdorp and one mast on Uitkyk Farm near Swellendam. The masts are planned to be operational for approximately 3 years.

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Western Cape Department of Environmental Affairs and Development Planning (DEADP)	Mr Anthony Barnes	Utilitas Building 1 Dorp Street Cape Town 8001; Private Bag X9086 Cape Town 8000	Tel: (021) 483 4093
Western Cape Dept of Agriculture	Mr Paul Herselman (Director: Sustainable Resource Management)	Private Bag X1 Eisenberg 7606	Tel: (021) 808 5093 Eisenburg.Landcare@eisenburg.com laymanb@eisenburg.com

Ms N Shikwane (Chairperson), Prof C de la Rey, Dr N Msimang, Dr N Msomi, Dr FW Petersen, Prof MJ Wingfield, Dr S Sibisi
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FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

Heritage Western Cape	Mr Nicholas Wiltshire	3rd Floor, Protea Assurance Building, Green Market Square, corner of Long Market street and Green Market Square, Cape Town 8001	Tel: (021) 483 9685 nwiltshire@pgwc.gov.za
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Please contact the Environmental Assessment Practitioners below should you have any queries, or recommendations for additional organs of state that should be informed of this BA process

Yours sincerely

Paul Lochner (CSIR Project Leader; Certified Environmental Assessment Practitioner – SA)
Tel.: 021 – 888 2486
Fax: 021 – 888 2693
e-mail: plochner@csir.co.za

or

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UITKYK, SWELLENDAM



PO Box 320 Stellenbosch 7599 South Africa
Tel: +27 21 888 2400
Fax: +27 21 888 2693

12th January 2010

ATTENTION: Mr Anthony Barnes

Department of Environmental Affairs and Development Planning

Private Bag X9086
Cape Town
8000

Tel: (021) 483 4093

Dear Sir,

NOTICE OF INTENT FOR A BASIC ASSESSMENT FOR THE BIOTHERM WIND ENERGY PROJECT IN THE OVERBERG, NEAR SWELLENDAM, WESTERN CAPE PROVINCE

This letter is to inform you that a Notice of Intent has been submitted to the national Dept of Environmental Affairs for a Basic Assessment process for two wind monitoring masts being proposed by Biotherm (Pty) Ltd in the Overberg region of the Western Cape Province. The CSIR has been appointed by Biotherm as the independent Environmental Assessment Practitioner to conduct the Basic Assessment process in terms of the National Environmental Management Act (Act 107 of 1998) and its Regulations 385 and 386 (Government Gazette No. 28753 of 21 April 2006). Biotherm intends to establish two wind monitoring masts of 80m height – one mast on Nacht Wacht Farm near Bredasdorp and one mast on Uitkyk Farm near Swellendam. The masts are planned to be operational for approximately 3 years.

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Western Cape Dept of Agriculture	Mr Paul Herselman (Director: Sustainable Resource Management)	Private Bag X1 Eisenberg 7606	Tel: (021) 808 5093 Eisenberg.Landcare@eisenburg.com laymanb@eisenburg.com

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PO Box 320 Stellenbosch 7599 South Africa
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12th January 2010

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Heritage Western Cape

3rd Floor, Protea Assurance Building, Green Market Square,
corner of Long Market street and Green Market Square,
Cape Town 8001

Tel: (021) 483 9685
Email: nwiltshire@pgwc.gov.za

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PO Box 320 Stellenbosch 7599 South Africa
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Fax: +27 21 888 2693

12th January 2010

ATTENTION: Mr Cobus van der Waldt and Ms René de Kock

South African National Roads Agency Ltd (SANRAL)
Building 5, Parc Du Cap
Mistel Street
Bellville
7535

Email: DeKockr@nra.co.za
Tel (021) 957 4600
Fax (021) 946 1630

Dear Mr van der waldt and Ms de Kock,

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PO Box 320 Stellenbosch 7599 South Africa
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12th January 2010

ATTENTION: Mr Nico Nel
Municipal Manager

Swellendam Municipality
PO Box 20
Swellendam
6740

Tel: (028) 514 8500

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12th January 2010

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Director: Sustainable Resource Management

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E.4(A) ADVERTISEMENTS PLACED IN THE SOUTHERN NEWS/SUIDERNUUS (FARM NACHT WACHT, BREDASDORP)

PUBLIC PARTICIPATION PROCESS

**NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT PROCESS
AND A BASIC ASSESSMENT PROCESS**

ENVIRONMENTAL IMPACT ASSESSMENT
This serves as notification that an Environmental Impact Assessment (EIA) is being conducted by the CSIR acting on behalf of Biotherm Wind Holdings (Pty) Ltd (entity yet to be formed) for the construction and operation of a wind energy facility. The facility would utilize wind turbines of 2 to 3 MW each, with a combined generation capacity of approximately 80 MW. The facility will be erected on the following sites within the Cape Agulhas Municipal area:

- Nacht Wacht Farm 159 near Bredasdorp, Portion 3 of the Farm Nacht Wacht No. 159; and
- 1800 of Farm Bo-drif 180 and 182/3 of Farm 182 near Bredasdorp.

In terms of the regulations GN R 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1989) in Government Gazette 25753 published on 21 April 2006 an Environmental Impact Assessment is required, as the project includes, amongst others, the following listed activities in GN R 387:

- (i) The construction of facilities or infrastructure, including associated structures or infrastructure, for - (a) the generation of electricity where -
- (ii) the electricity output is 20 megawatts or more; or
- (iii) the elements of the facility cover a combined area in excess of 1 hectare.*

BASIC ASSESSMENT
Further notice is hereby given that a Basic Assessment (BA) process is being conducted by the CSIR on behalf of Biotherm Energy (Pty) Ltd (the project applicant). The BA is for the construction and operation of a wind monitoring mast on portion 3 of Farm Nacht Wacht No 159 near Bredasdorp in the Western Cape. It will be erected at approximate position 34°31'43.0"S, 20°05'29.5"E; site elevation at 107m.

In terms of Government Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act, the need for a Basic Assessment is triggered by the inclusion of, but not limited to, the following listed activity in GN R 386:

14. "The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding -

- (a) masts of 15 metres and lower exclusively used
- (i) by radio amateurs; or
- (ii) for lighting purposes
- (b) flag poles; and
- (c) lightning conductor poles.*

The listed activities mentioned in the EIA and BA processes above require authorisation from the National Department of Water Affairs and Environment (DWEA). Two applications for environmental authorisation to undertake the EIA and BA have been submitted to the DWEA. The CSIR has been appointed as the independent Environmental Assessment Practitioner to manage the EIA and BA Applications.

The EIA and BA processes are also designed and conducted to meet the requirements of the National Heritage Resources Act (Act 25 of 1989) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.

Opportunity to be involved
Should you wish to obtain further information on the project or to provide any comments on the EIA and/or BA process, the CSIR invites you to register as an Interested and/or Affected Party. Please provide your full name, full postal address, phone numbers, and/or email address and state your matter of interest and/or area of concern. Please submit the information requested to the consultant indicated below by **19 February 2010**: Minnie Leventhal; CSIR, P O Box 320, Stellenbosch, 7539; Tel.: 021 - 888 2495/2460; Fax: 021 - 888 2693; e-mail: mleventhal@csir.co.za.

OPENBARE DEELNAME PROSES

**KENNISGEWING VAN 'N ONGEWINGSIMPAK STUDIE EN 'N BASIESE
BESTEKOPNAME PROSES**

ONGEWINGSIMPAK BEPALING
Kennis word hiermee gegee van 'n Omgewingsimpak Beplanning wat tans onderneem word deur die CSIR namens Biotherm Wind Holdings (Edms) Bpk (onderneming moet nog gevestig word) vir die oprigting van 'n wind energie fasiliteit. Die fasiliteit sal wind turbines gebruik van 2-3MW, met 'n gemiddelde opwekkingskapasiteit van ongeveer 80MW. Die projek sal oppeng word op die volgende plekke naby Bredasdorp binne die Kaap Agulhas Munisipale gebied:

- Plaas Nacht Wacht No. 159, Gedeelte 3 van die plaas Nacht Wacht No. 159; en
- 1800 van Plaas Bo-drif No. 180, en 182/3 van Plaas No 182.

In terme van Regulasies in Goewermentskennisgewing 385, 386 en 387, wat gepubliseer is in Hoofstuk 5 van die Nasionale Omgewingsbestuurswet (NEMA, Wet 107 van 1989), wat in die Staatskoerant 28753 op 21 April 2006 verskyn het, word 'n Omgewingsinvloedbeplanning studie vereis aangesien dit die volgende gelyste aktiwiteit onder andere bevat in Goewermentskennisgewing No 387 van 2006:

(1) "Die bou van fasiliteite of infrastruktuur, met inbegrip van verwerende strukture of infrastruktuur, vir - (a) die opwekking van krag waar -

- (i) die kragopbrengs 20 megawatts of meer is; of
- (ii) die elemente van die fasiliteit 'n gekombineerde gebied groter as 1 hektaar dek*

BASIESE BESTEKOPNAME PROSES
Kennis word verder gegee dat 'n Basiese Bestekopname proses ook tans onderneem word deur die CSIR namens Biotherm Energy (Edms) Bpk (die aansoeker). Die Basiese Bestekopname proses is vir die voorgestelde oprigting van 'n wind monitoringsmas op gedeelte 3 van Plaas Nacht Wacht No. 159 naby Bredasdorp in die Wes Kaap (ligging ongeveer: 34°31'43.0"S, 20°05'29.5"E; hoogte van 107m).

'n Basiese Ontledingsproses word vereis vir die voorgestelde projek, veral omdat onder andere die volgende gelyste aktiwiteit ter sake is in Goewermentskennisgewing No 386 van 2006:

(14) "Die bou van maste van enige materiaal of soort, en van enige hoogte, met inbegrip van die gebruik vir telekommunikasieuitsending en radiouitsending, maar uitsonderende -

- (a) maste van 15 meter en laer wat uitsluitlik gebruik word
- (i) deur radiamateurs; of
- (ii) vir beligtingdoeleindes
- (b) vlagpole; en
- (c) weerliggeleierpole*.

Bogenoemde gelyste aktiwiteite in die Omgewingsimpak Beplanning en die Basiese Bestekopname proses benodig goedkeuring vanaf die Nasionale Departement van Water en Omgewingsake (DWEA). Twee aansoeke om omgewingsmagtiging vir bg prosesse is by DWEA ingehandig. Die CSIR is aangestel as die onafhanklike omgewingskonsultant om die aansoeke te behartig.

Bogenoemde prosesse gaan ook uitgevoer word om te voldoen aan die vereistes van:

- die Nasionale Erfenis Hulpbronne Wet, 1989 (Wet No. 25 van 1989); en
- die Grondgebruiksbeplanning-ordinasie, 1985 (Ordinasie No. 15 van 1985).

Geloenheid om betrokke te raak
Indien u enige verdere inligting verlang aangaande die projek of indien u enige kommentaar wil lewer betreffende die Omgewingsimpak Beplanning en/of die Basiese Ontledingsproses, nooi die CSIR u uit om te registreer as 'n Geïnteresseerde en Geaffekteerde Party (G&AP) teen **19 Februarie 2010**. Ten einde te registreer, moet u asb. die volgende inligting aan die onderstaande omgewingsimpak konsultant verskaf: volle naam, posadres, telefoonnummers, en/of e-pos adres. Noem ook die rede vir u belangstelling in die projek. CSIR kontakpersoon: Minnie Leventhal, CSIR, Posbus 320, Stellenbosch, 7539; Tel.: 021 - 888 2495/2460; Fax: 021 - 888 2693; e-pos: mleventhal@csir.co.za.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

E.4(B) ADVERTISEMENTS PLACED IN THE LANGEBERG BULLETIN (FARM UITKYK, SWELLENDAM)

29/01/2010	LANGEBERG BULLETIN	~11~
<p> </p> <p>PUBLIC PARTICIPATION PROCESS NOTICE OF AN ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND A BASIC ASSESSMENT PROCESS</p> <p>ENVIRONMENTAL IMPACT ASSESSMENT</p> <p>This serves as notification that an Environmental Impact Assessment (EIA) is being conducted by the CSIR acting on behalf of BioTherm Energy (Pty.) Ltd. on behalf of BioTherm Wind Holdings (Pty.) Ltd (an entity yet to be formed) for the construction and operation of a wind energy facility. The facility would utilise wind turbines of 2 to 3 MW each, with a combined generation capacity of approximately 110 MW. The facility will be erected on the following sites within the Swellendam Municipal area:</p> <ul style="list-style-type: none">• Farm Uitkyk, Remaining portion of Farm 434;• Farm Excelsior, Portion 6, a portion of the Farm Goereesoe No. 432;• De Kop Plas 'Aangrensende' Farm Vryheid No 435/0; and• Farm Klaas Kaffer Heuwel 438/1. <p>In terms of the regulations GNR 385, 386 and 387 promulgated under Chapter 5 of the National Environmental Management Act (Act 107 of 1998) in Government Gazette 28753 published on 21 April 2006 an Environmental Impact Assessment is required, as the project includes, amongst others, the following listed activities in GNR 387:</p> <p>1. "The construction of facilities or infrastructure, including associated structures or infrastructure, for –</p> <p>(a) the generation of electricity where –</p> <p>(i) the electricity output is 20 megawatts or more; or</p> <p>(ii) the elements of the facility cover a combined area in excess of 1 hectare."</p> <p>BASIC ASSESSMENT</p> <p>Further notice is hereby given that a Basic Assessment (BA) process is being conducted by the CSIR on behalf of BioTherm Energy (Pty.) Ltd. on behalf of BioTherm Wind Holdings (Pty.) Ltd (an entity yet to be formed). The BA is for the construction and operation of a wind monitoring mast on the remaining portion of Farm Uitkyk no 434, near Swellendam in the Western Cape. It will be erected at approximate position 34°14'05.5"S, 20°12'52.6"E; site elevation at 303m.</p> <p>In terms of Government Regulations 385 and 386 promulgated under Chapter 5 of the National Environmental Management Act, the need for a Basic Assessment is triggered by the inclusion of, but not limited to, the following listed activity in GNR 386</p> <p>14. "The construction of masts of any material or type and of any height, including those used for telecommunication, broadcasting and radio transmission, but excluding –</p> <p>(a) masts of 15 metres and lower exclusively used</p> <p>(i) by radio amateurs; or</p> <p>(ii) for lighting purposes</p> <p>(b) flag poles; and</p> <p>(c) lightning conductor poles.</p> <p>The listed activities mentioned in the EIA and BA processes above require authorisation from the National Department of Water Affairs and Environment (DWEA). Two applications for environmental authorisation to undertake the EIA and BA have been submitted to the DWEA. The CSIR has been appointed as the independent Environmental Assessment Practitioner to manage the EIA and BA Applications.</p> <p>The EIA and BA processes are also designed and conducted to meet the requirements of the National Heritage Resources Act (Act 25 of 1999) and the Land Use Planning Ordinance, 1985 (Ordinance No 15 of 1985) ("LUPO"), should the project trigger activities listed under these Acts.</p> <p>Opportunity to be involved</p> <p>Should you wish to obtain further information on the project or to provide any comments on the EIA and/or BA process, the CSIR invites you to register as an Interested and/or Affected Party. Please provide your full name, full postal address, phone numbers, and/or email address and state your matter of interest and/or area of concern. Please submit the information requested to the consultant indicated below by 19 February 2010: Minnelise Levendal, CSIR, PO Box 320, Stellenbosch, 7599; Tel.: 021 – 888 2495/2661; Fax: 021 – 888 2693; e-mail: mlevendal@csir.co.za.</p>	<p> </p> <p>OPENBARE DEELNAME PROSES KENNISGEWING VAN 'N OMGEWINGSIMPAK STUDIE EN 'N BASIESE BESTEKOPNAME PROSES</p> <p>OMGEWINGSIMPAK BEPALING</p> <p>Kennis word hiermee gegee van 'n Omgewingsimpak Bepaling wat tans onderneem word deur die CSIR namens BioTherm Energy (Edms) Bpk namens BioTherm Wind Holdings (Edms) Bpk (onderneming moet nog gevestig word) vir die oprigting van 'n wind energie fasiliteit. Die fasiliteit sal wind turbines gebruik van 2-3MW, met 'n gesamentlike opwekkingskapasiteit van ongeveer 110MW. Die projek sal oppgerig word op die volgende plase naby Swellendam in die Wes-Kaap.</p> <ul style="list-style-type: none">• Plaas Uitkyk, Oorblywende gedeelte van Plaas 434;• Plaas Excelsior, Gedeelte 6, 'n gedeelte van die Plaas Goereesoe No. 432;• De Kop Plas 'Aangrensende' Plaas Vryheid No 435/0; en• Plaas Klaas Kaffer Heuwel 438/1. <p>In terme van Regulasies in Goewermentskennisgewing 385, 386 en 387, wat gepubliseer is in Hooftstuk 5 van die Nasionale Omgewingsbestuurswet (NEMA, Wet 107 van 1998), wat in die Staatskoerant 28753 op 21 April 2006 verskyn het, word 'n Omgewingsinvloedbeoordelings studie vereis aangesien dit die volgende gelyste aktiwiteite onder andere bevat in Goewermentskennisgewing No. 387 van 2006:</p> <p>(1) "Die bou van fasiliteite of infrastruktuur, met inbegrip van verwante strukture of -infrastruktuur, vir –</p> <p>(a) die opwekking van krag waar –</p> <p>(i) die kragopbrengs 20 megawatts of meer is; of</p> <p>(ii) die elemente van die fasiliteit 'n gekombineerde gebied groter as 1 hektaar dek".</p> <p>BASIESE BESTEKOPNAME PROSES</p> <p>Kennis word verder gegee dat 'n Basiese Bestekopname proses ook tans onderneem word deur die CSIR namens BioTherm Energy (Edms) Bpk namens BioTherm Wind Holdings (Edms) Bpk (onderneming moet nog gevestig word). Die Basiese Bestekopname proses is vir die voorgestelde oprigting van 'n wind monitiesingsmas op oorblywende gedeelte van Plaas 434, Plaas Uitkyk naby Swellendam in die Wes Kaap (ligging ongeveer: 34°14'05.5"S, 20°12'52.6"E; hoogte van 303m).</p> <p>'n Basiese Ontledingsproses word vereis vir die voorgestelde projek, veral omdat onder andere die volgende gelyste aktiwiteit ter sake is in Goewermentskennisgewing No 386 van 2006:</p> <p>(14) "Die bou van maste van enige materiaal of soort, en van enige hoogte, met inbegrip van die gebruik vir telekommunikasie-uitsending en radiouitsending, maar uitsluitende –</p> <p>(a) maste van 15 meter en laer wat uitsluitlik gebruik word</p> <p>(i) deur radioamateurs; of</p> <p>(ii) vir beligtingdoeleindes</p> <p>(b) vlagpole; en</p> <p>(c) weerligafleierpale".</p> <p>Bogenoemde gelyste aktiwiteite in die Omgewingsimpak Bepaling en die Basiese Bestekopname proses benodig goedkeuring vanaf die Nasionale Departement van Water en Omgewingsake (DWEA). Twee aansoeke om omgewingsmagtiging vir bg prosesse is by DWEA ingehandig. Die CSIR is aangestel as die onafhanklike omgewingskonsultant om die aansoeke te behartig. Bogenoemde prosesse gaan ook uitgevoer word om te voldoen aan die vereistes van:</p> <ul style="list-style-type: none">• die Nasionale Erfenis Hulpbronne Wet, 1999 (Wet No. 25 van 1999); en• die Grondgebruiksbeplannings-ordinsansie, 1985 (Ordinsansie No. 15 van 1985). <p>Geleentheid om betrokke te raak</p> <p>Indien u enige verdere inligting verlang aangaande die projek of indien u enige kommentaar wil lewer betreffende die Omgewingsimpak Bepaling en/of die Basiese Ontledingsproses, nooi die CSIR u uit om te registreer as 'n Geïnteresseerde en Geaffekteerde Party (I&AP) teen 19 Februarie 2010. Ten einde te registreer, moet u asb. die volgende inligting aan die onderstaande omgewingsimpak konsultant verskaf: volle naam, posadres, telefoonnummers, en/of e-pos adres. Noem ook die rede vir u belangstelling in die projek.</p> <p>CSIR kontakpersoon: Minnelise Levendal, CSIR, Posbus 320, Stellenbosch, 7599; Tel.: 021 – 888 2495/2460; Faks: 021 – 888 2693; e-pos: mlevendal@csir.co.za.</p>	

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

E.5(A) ISSUES RAISED AND COMMENTS RECEIVED FROM I&APs PRIOR TO THE RELEASE OF THE DRAFT BASIC ASSESSMENT REPORT (FARM NACHT WACHT, BREDASDORP)

10/02/2010 12:47

028-4254351

OC AFB OVERBERG

PAGE 02/02



**BASIC ASSESSMENT (BA) FOR A PROPOSED WIND
MONITORING MAST AT UITKYK FARM NO. 434, NEAR SWELLENDAM AND
NACHT WACHT NEAR BREDASDORP
REGISTRATION AND COMMENTS FORM**

FEBRUARY 2010

*Please register me as an Interested and Affected Party to receive ongoing communication about
the Basic Assessment (BA) process and the proposed project:*

Name: LT COL M.A V/D HEEVER	Telephone: 028 425 4111 / 4174
Organisation: SA AIR FORCE	Fax: 028 425 4351
Designation: AIR-WING COORDINATOR	E-mail address: efdc@talkansa.net
Address: PRIVATE BAG X14 BREDASDORP	
Comments and issues of concern:	
BOTH SIDES ARE WITHIN THE PROCLAIMED FLYING AREA OF AFB OVERBERG AND MAY HAVE AN IMPACT ON THE OPERATIONS OF THE SA AIR FORCE IN THIS AREA.	
Please provide names and contact details for any other Interested and Affected Parties that should be added to the register for this EIA process.	

Please submit the Registration & Comments form to:

Minnelise Levendal
CSIR, PO Box 320, Stellenbosch 7599
Phone 021 – 888 2495
Fax 021 – 888 2693
Email: mlevendal@csir.co.za



10/02 '10 WED 13:10 [TX/RX NO 8609]

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

12-FEB-2010 08:49 From: C A Municipality

To: 02375#0218882693

Page: 1/1



**BASIESE BESTEKOPNAME VIR DIE VOORGESTELDE OPRIGTING VAN 'N
WIND MONITERINGSMAS OP PLAAS NACHT WACHT NO. 159, BREDASDORP**

REGISTRASIE EN KOMMENTAAR VORM

FEBRUARIE 2010

Registreer my asb as 'n Geïnteresseerde en Geëffekteerde Party ten einde korrespondensie te
ontvang aangaande die proses en die projek.

Noom:	Bertus Haywood	Telefoon:	028 425 5500
Organisasie:	Koop Agulhas Nasionaal	Telefoon:	028 425 1019
Posisie:	Best. Stadsbeplanning	E-pos adres:	bertush@capeagulhas.com
Adres:	Postbus 51 Bredasdorp 7280		

Kommentaar en rede vir die belangstelling in die projek:

Vanuit 'n stadsbeplanning standpunt
sal ek graag in vergelyking
aanbeveling wil ontvang. Die aanbeveling
moet duidelik die ekonomiese en
verskeie impact, sonel as die
werklike hardswaart aanspreek.

Verskaf asb name en kontak besonderhede van enige ander Geïnteresseerde
en Geëffekteerde Partye wat geregistreer moet word vir hierdie proses.

Overberg Integrated Conservation	(Gruup)
Francois Kotze, ADM	082499928
Cape Nature	
ABIOC	Tertius Carinus 0829082794

TVOS Stuur asb die Registrasie en Kommentaar vorm terug aan:

Minnelise Levendal
Landbou CSIR, Posbus 320, Stellenbosch 7599
Onliggende Telefoon 021 – 888 2495
eienaars Faks 021 – 888 2693
E-pos: mlevendal@csir.co.za

Sharon Brink - CSIR Bredasdorp / Napier
Beharing
Heritage Western Cape

12/02 '10 FRI 09:17 [TX/RX NO 8620]

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

Page 1 of 1

Minnelise Levendal - 168 - Bredasdorp

From: "Smit, Jan" <JanS@elsenburg.com>
To: "Layman, Brandon" <BrandonL@elsenburg.com>, "Smit, Jan" <JanS@elsenburg.com>,
"Herselman, Paul" <PaulH@elsenburg.com>
Date: 3/11/2010 05:26 PM
Subject: 168 - Bredasdorp
CC: "Hugo, Ferde" <FerdeH@elsenburg.com>, <mlevendal@csir.co.za>

CSIR

Your ref: NA

Att: M Levendal

**BASIC ASSESSMENT: PROPOSED BIOTHERM ENERGY PROJECT
PORTION 3 OF THE FARM NACHT WACHT NO 159 DIVISION BREDASDORP**

Your letter of 2 February 2010 has reference.

The Department of Agriculture: Western Cape has no objection in terms of land use for the purpose of agriculture to the proposed construction of a wind monitor mast on the above-mentioned property on the proposed site at the following co-ordinates.

Latitude: 34° 31' 43" S
Longitude: 20° 05' 29.5" E

Please note:

- Kindly quote our reference number in any future correspondence in respect of the application.
- The Department reserves the right to revise initial comments and request further information based on the information received.

Yours sincerely

A Roux

file://C:\Documents and Settings\MLevendal\Local Settings\Temp\XPgrpwise\4B992... 2010/03/17

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

(2010/03/17) Minnelise Levendal - Public Participation Process Biotherm Wind Holdings

Page 1

From: Heyne & Sharon Brink <hsbrink@telkomsa.net>
To: MLevendal@csir.co.za
Date: 1/30/2010 6:44 PM
Subject: Public Participation Process Biotherm Wind Holdings

Dear Minnelise Levendal

I would like to register the Southern Overberg Branch of the Botanical Society of South Africa as an interested and affected party in the PPP of Biotherm Wind Holdings in the Cape Agulhas Municipal area.

Our concern is the impact of the erection of the wind turbines on the hard dunes which is home to critical limestone fynbos. Our concern is also extended to the access roads, power lines and construction process as well as the area covered by the turbines themselves. This would also include the integrity of the limestone formation.

Please forward all relevant data and include us in PPP meetings

Yours sincerely
Sharon Brink

--

Sharon Brink: Chairman
Southern Overberg Branch
Botanical Society of SA
1 Fletcher Street
Bredasdorp
7280

<http://overbergecoexpo.yolasite.com>
<http://heuningbergnaturereserve.yolasite.com>

Tel: 028 425 1050
Fax: 086 541 4842
Cell: 082 878 0543
Email: hsbrink@telkomsa.net

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

(2010/03/17) Minnelise Levendal - Bredasdorp windfarm

Page 1

From: "Anton Odendal" <birding@overberg.co.za>
To: MLevendal@csir.co.za; birding@overberg.co.za
CC: vjharch@kingsley.co.za; advocacy@birdlife.org.za; andi@authenticlife.co....
Date: 2/1/2010 1:44 PM
Subject: Bredasdorp windfarm

Dear Minnelise,

It would be appreciated if you could register myself and BirdLife Overberg as an I&AP in the same way as the one on Swellendam below.

In this case we would appreciate an addition under INTEREST AND AREA OF CONCERN: Nachtwacht is the best bird-watching destination in the Bredasdorp region and a wind farm there could potentially impact on the masses of birds found there, as well as impact on the tourism potential of this vastly underrated birding destination. I drive past Nachtwacht at least once a week and can produce a comprehensive overview of the birds of the area.

Kindly let me know if this form of registration is not acceptable.

Would you kindly inform us directly about any other wind farm projects in the Western Cape province that you or other consultants might be involved in ?

Electronic copy of your announcement please.

With appreciation and kind regards.

Anton Odendal

----- Original Message -----

From: Anton Odendal
To: mlevendal@csir.co.za
Cc: Kristina du Plessis
Sent: Sunday, January 31, 2010 6:04 AM
Subject: Swellendam windfarm

Dear Minnelise,

It would be appreciated if you would register me as an Interested and Affected Part for the Swellendam windfarm project. Would you kindly do this both in my personal capacity and on behalf of BirdLife Overberg, an NGO that I chair. I will also be reporting on this matter on www.westerncapebirding.co.za on a regular basis. Would you kindly also forward me an electronic copy of your announcement in word format for website purposes.

INTEREST AND AREAS OF CONCERN:

1. The potential negative impact that this development could have on birds and in particular the following species: Blue Crane, White Stork, Denham's Bustard, Southern Black Korhaan, Karoo Korhaan and all of the raptor species that occur in the Swellendam area;
2. The same applies to all bat species that might occur in the Swellendam district
3. Visual impacts are of concern as the sense of landscape is one of the Overberg's main tourism attractions;
4. It would be appreciated if the procedures that are followed during the EIA and the BA will be implemented according to the letter of the law. This applies particularly to announcements about public meetings and the like that should be put out timeously so as to allow I&AP's to prepare their submissions. Some consultants involved in windfarm assessment studies have developed the reputation of trying to pull "fast ones" on the public.

CONTACT DETAILS:

Dr. Anton Odendal
PO Box 256,
Onrusrivier 7201
Tel & Fax: 028 - 3161105
Mobile: 0825503347
E-mail: birding@overberg.co.za

Regards,
Anton Odendal

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

E.5(B) ISSUES RAISED AND COMMENTS RECEIVED FROM I&APs PRIOR TO THE RELEASE OF THE DRAFT BASIC ASSESSMENT REPORT (FARM UITKYK, SWELLENDAM)

03/03/2010 13:08 0218085092

LANDCARE WEST CAPE

PAGE 01



BASIC ASSESSMENT (BA) FOR A PROPOSED WIND MONITORING MAST AT UITKYK FARM NO. 434, NEAR SWELLENDAM REGISTRATION AND COMMENTS FORM

FEBRUARY 2010

Please register me as an Interested and Affected Party to receive ongoing communication about
the Basic Assessment (BA) process and the proposed project:

Name: <i>P. HERZELMAN</i>	Telephone: <i>021-8085092</i>
Organisation: <i>N.C. D.O.A.</i>	Fax: <i>021-8085092</i>
Designation: <i>Land Use</i>	E-mail address: <i>peuth@elvenburg.com</i>
Address:	
Comments and issues of concern:	
<i>NIE EIA</i>	
<i>+</i>	
<i>BA</i>	
<i>PROCESSE LINDS VAY.</i>	
<i>REGISTER THU OFFICE FOR BATH, PSE.</i>	
Please provide names and contact details for any other Interested and Affected Parties that should be added to the register for this EIA process.	

Please submit the Registration & Comments form to:

Mihnelise Levendal
CSIR, PO Box 320, Stellenbosch 7599
Phone 021 – 888 2495
Fax 021 – 888 2693
Email: mlevendal@csir.co.za



09/03 '10 TUE 13:38 [TX/RX NO 8700]

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

(2010/03/17) Minnelise Levendal - Swellendam windfarm

Page 1

From: "Anton Odendal" <birding@overberg.co.za>
To: MLevendal@csir.co.za; birding@overberg.co.za
CC: tina.duplessis@gmail.com
Date: 1/31/2010 6:05 AM
Subject: Swellendam windfarm

Dear Minnelise,

It would be appreciated if you would register me as an Interested and Affected Part for the Swellendam windfarm project. Would you kindly do this both in my personal capacity and on behalf of BirdLife Overberg, an NGO that I chair. I will also be reporting on this matter on www.westerncapebirding.co.za on a regular basis. Would you kindly also forward me an electronic copy of your announcement in word format for website purposes.

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Dr. Anton Odendal
PO Box 256,
Onrusrivier 7201
Tel & Fax: 028 - 3161105
Mobile: 0825503347
E-mail: birding@overberg.co.za

Regards,
Anton Odendal

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

(2010/03/17) Minnelise Levendal - FW: Swellendam Windfarm

Page 1

From: "Carli Venter" <carliv@sanparks.org>
To: MLevendal@csir.co.za
Date: 2/11/2010 11:38 AM
Subject: FW: Swellendam Windfarm
Attachments: Proposed Swellendam Windfarm.TIF

Good day Minnelise,

Kindly register South African National Parks (specifically Bontebok National Park) as in Interested and Affect Party on the Basic Assessment and EIA process for the proposed wind energy facility in Swellendam as advertised in the local newspaper.

Please send me any additional further information, including maps, etc. if available. Also please advise of any dates for public participation meetings. Once I have more info, I will be in a position to phrase our concerns formally.

Regards,

Carli Venter
Park Manager: Bontebok National Park

South African National Parks (SANParks)

E-Mail: carliv@sanparks.org <blocked::mailto:carliv@sanparks.org>
Tel: +27 (0) 28 514 2735
Fax: +27 (0) 866 102 301

Mobile: +27 (0) 82 774 2990

Please visit www.sanparks.org <blocked::http://www.sanparks.org> and experience your natural heritage.

This email communication and any attachments are confidential and are intended only for the individual (s) or entity named above and others who have been specifically authorized to receive it. If you are not the intended recipient, please do not copy, use or disclose the contents of this communication to others. Please notify the sender that you received this e-mail in error by replying to the e-mail or by telephoning the sender. Please then delete the e-mail and any copies of it. This information may contain private, confidential or privileged material. Thank you.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

E.6(A) COMMENTS AND RESPONSE REPORT (FARM NACHT WACHT, BREDASDORP)

Commentator:	Issue	Response from the CSIR
<i>Bertus Hayward; Swellendam Munisipaliteit</i>	Impact on land use. An application for consent use is required.	<i>Noted.</i> An application for consent use shall be submitted to the Cape Agulhas Municipality.
<i>Lt Col MV vd Heever; SA Air Force</i>	Impact on aviation: Sites are both within the proclaimed flying area of AFB Overberg and may have an impact on the operations of the SA Airforce in this area.	<i>Noted.</i> BioTherm is currently undertaking a specialist aviation study. An application for the proposed wind monitoring mast has been submitted to the SA Civil Aviation Authority.
<i>Lizell Ströh South African Civil Aviation Authority (SACAA)</i>	Impact on aviation: An application needs to be lodged with the SACAA.	<i>Noted.</i> BioTherm submitted an application for the proposed monitoring mast to the SACAA.
<i>Mr Zwelibanzi Shiceka; Heritage Western Cape</i>	Impact on Heritage. Please make sure that the heritage section (Section 7) is duly completed by an appropriately qualified and experienced heritage practitioner, who is familiar with the area as this triggers Section 38(1) of the National Heritage Resources Act (Act 25 of 1999).	<i>Noted.</i> The relevant heritage section will be completed and submitted to Heritage Western Cape. The Draft Basic Assessment Report will also be submitted to them for comment.
<i>Sharon Brink The Botanical Society of South Africa (Southern Overberg Branch)</i>	Impact on vegetation: Concern is raised regarding the impact of the wind farm development on the hard dunes which is home to critical limestone fynbos. Their concern is also extended to the access roads, power lines and construction process as well as the area covered by the turbines themselves.	<i>Noted.</i> The concerns raised pertain to the actual wind farm development which forms part of a separate EIA application to the National Department of Environmental Affairs. However, Mrs Brink, confirmed that these concerns pertain to the wind monitoring mast as well as the wind turbines. The project team takes cognisance of the sensitivity of the limestone fynbos in the area. The single wind monitoring mast itself will have a very limited footprint (1m ² or 16m ² if the self-supporting lattice mast will be used) and utilise the existing gravel track for access to the mast during construction and operations. The anticipated impact on the vegetation is therefore regarded as being of low significance. A botanical assessment was undertaken by Mr Nicholas Helme of Nick Helme Botanical Surveys to inform the screening study and the Basic Assessment. The findings of this study were included in the Draft Basic Assessment Report. A full comprehensive specialist study will be undertaken as part of the EIA process for the wind farm.
<i>Dr Anton Odendal (BirdLife Overberg and in private capacity)</i>	Impact on birds and bats and concerns about the EIA and BA processes: Requested that BirdLife SA and himself be registered as an Interested and Affected Party. He raised concerns about the impacts on birds, bats and the visual impact of the	<i>Noted.</i> A comprehensive bird and bat specialist study will be undertaken to inform the EIA for the wind farm. The CSIR is committed to undertake the EIA and BA processes in accordance with the stipulations in the NEMA Regulations.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

Commentator:	Issue	Response from the CSIR
	windfarm. Dr Anton Odendal also noted that the EIA and BA procedures must be implemented according to the letter of the law. This applies particularly to announcements about public meetings and the like that should be put out timeously so as to allow I&APs to prepare their submissions.	
<i>Paul Herselman Department of Agriculture: Western Cape</i>	Impact on agriculture: Requested that the Department of Agriculture; Western Cape be registered as an Interested and Affected Party on the project database.	<i>Noted.</i> The Department of Agriculture was registered as an Interested and Affected Party. The Draft Basic Assessment Report will be sent to them for comment.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

E.6(B) COMMENTS AND RESPONSE REPORT (FARM UITKYK, SWELLENDAM)

Commentator:	Issue	Response from the CSIR
<i>Willie Hattingh; Swellendam Munisipaliteit</i>	Impact on land use. An application for rezoning is required.	<i>Noted.</i> An application for rezoning shall be submitted to the Swellendam Municipality.
<i>Lt Col MV vd Heever; SA Air Force</i>	Impact on aviation: Sites are both within the proclaimed flying area of AFB Overberg and may have an impact on the operations of the SA Airforce in this area.	<i>Noted.</i> BioTherm is currently undertaking a specialist aviation study. An application for the proposed wind monitoring mast has been submitted to the SA Civil Aviation Authority.
<i>Lizell Ströh South African Civil Aviation Authority (SACAA)</i>	Impact on aviation: An application needs to be lodged with the SACAA.	<i>Noted.</i> BioTherm submitted an application for the proposed monitoring mast to the SACAA.
<i>Mr Zwelibanzi Shiceka; Heritage Western Cape</i>	Impact on Heritage. Please make sure that the heritage section (Section 7) is duly completed by an appropriately qualified and experienced heritage practitioner, who is familiar with the area as this triggers Section 38(1) of the National Heritage Resources Act (Act 25 of 1999).	<i>Noted.</i> The relevant heritage section will be completed and submitted to Heritage Western Cape. The Draft Basic Assessment Report will also be submitted to them for comment.
<i>Carli Venter; Bontebok National Park (SANPARKS)</i>	Visual impact & associated tourism impact. Biodiversity / Conservation concerns.	<i>Noted.</i> The visual impact and associated impact on tourism of the proposed single monitoring mast are regarded as being of low significance. The same applies to the impacts on biodiversity and conservation. The physical footprint of the mast is very small (1m ² or 16m ² if the self-supporting lattice mast will be used). A full visual specialist study will be undertaken as part of the full Environmental Impact Assessment for the wind farm. The latter comprises a separate application to the National Department of Environmental Affairs. A botanical assessment was undertaken by Mr Nicholas Helme of Nick Helme Botanical Surveys to inform the Basic Assessment and the screening study. The findings of this study were included in the Draft Basic Assessment Report.
<i>Dr Anton Odendal (BirdLife Overberg and in private capacity)</i>	Impact on birds and bats and concerns about the EIA and BA processes: Requested that BirdLife SA and himself be registered as an Interested and Affected Party. He raised concerns about the impacts on birds, bats and the visual impact of the windfarm. Dr Anton Odendal also noted that the EIA and BA procedures must be implemented according to the letter of the law. This applies particularly to announcements about public meetings and the like that should be put out timeously so as to allow I&APs to prepare their	<i>Noted.</i> A comprehensive bird and bat specialist study will be undertaken to inform the EIA for the wind farm. The CSIR is committed to undertake the EIA and BA processes in accordance with the stipulations in the NEMA Regulations.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
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UITKYK, SWELLENDAM

Commentator:	Issue	Response from the CSIR
<i>Paul Herselman Department of Agriculture: Western Cape</i>	Impact on agriculture: Requested that the Department of Agriculture; Western Cape be registered as an Interested and Affected Party on the project database.	<i>Noted.</i> The Department of Agriculture was registered as an Interested and Affected Party. The Draft Basic Assessment Report will be sent to them for comment.

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT
NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

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UITKYK, SWELLENDAM

APPENDIX F
**Information in Support of
Applications for Exemption**

Not Applicable

DRAFT BASIC ASSESSMENT REPORT FOR THE ERECTION OF A WIND MONITORING MAST AT FARM NACHT WACHT
NEAR BREDASDORP AND AT FARM UITKYK NEAR SWELLENDAM

**FARM NACHT WACHT – BREDASDORP and
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APPENDIX G
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FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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G.1(A) “LETTER OF CONSENT” FROM FARM OWNER (FARM NACHT WACHT, BREDASDORP)

LETTER OF CONSENT

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED OVERBERG WIND
PROJECT AND ASSOCIATED BASIC ASSESSMENT FOR THE PROPOSED ERECTION OF
ONE WIND MONITORING MAST UP TO 100 METRES IN HEIGHT

CONTACT INFORMATION

Name of land owner	Albertyn Familie Trust		
Trading name (if any):	Nacht Wacht Trust		
Contact person:	Dawie Albertyn		
Physical address:	Nacht Wacht, Bredasdorp		
Postal address:	PO Box 213 Bredasdorp 7280		
Postal code:	7280	Cell:	072 443 7740
Telephone:	028 424 1172	Fax:	028 424 1172
E-mail:	Albertynbroers@brd.dorea.co.za		
If there is more than one landowner, please attach a list of their contact details to this application and tick the box			
			Extra page attached

1. I/we the undersigned (*insert the name/s of the owner/s of the land*)

Albertyn Familie Trust

of identity number/registration number (*insert the owner/s ID number/s or the registration number of the legal entity*) **IT 996/94**

am/ are the registered owner/s of the property (*insert description of the property/ies and title deed numbers*)

Nacht Wacht, portions 159/3 of Farm 159; 180/0 of Farm Bo-drift 180 & 182/3 of Farm 182; Division of Bredasdorp, Province of the Western Cape. T 5654/1995

located at (*insert physical address or a brief description of the location of the property*):

property coordinates: **Nacht Wacht, District of Bredasdorp, WCP**

2. I/we hereby give consent to the applicant (*insert the name/s of the applicant/s*)

OVERBERG WIND POWER PTY LTD;



**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

of identity number/registration number (*insert the owner/s ID number/s or the registration
number of the legal entity*)

2008/018398/07

to undertake the following activity/ies on the property (*insert a brief description of the
project and identified activity/ies that will be applied for*):

CONDUCT A BASIC ASSESSMENT AND AN EIA FOR THE ERECTION OF A WIND
MAST AND DEVELOPMENT OF A WIND FARM AND ALL THE ASPECTS THAT
SUPPORT IT.

Signature of land owner or authorised representative



JOHAN DAWID ALBERTYN

ID 7311155164084

Name of authorised person if the landowner is a legal entity

Date: 23/11/2009

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

G.1(B) "LETTER OF CONSENT" FROM FARM OWNER (FARM UITKYK, SWELLENDAM)

LETTER OF CONSENT

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED OVERBERG WIND
PROJECT AND ASSOCIATED BASIC ASSESSMENT FOR THE PROPOSED ERECTION OF
ONE WIND MONITORING MAST UP TO 100 METRES IN HEIGHT

CONTACT INFORMATION

Name of land owner	JASPER DU TOIT LOUBSER		
Trading name (if any):	N/A		
Contact person:	JASPER DU TOIT LOUBSER		
Physical address:	DE KOP, Swellendam		
Postal address:	DE KOP District SWELLENDAM 7280		
Postal code:	7280	Cell:	083 226 1735
Telephone:	028 514 2702	Fax:	028 514 3068
E-mail:	toit@sdmdorea.co.za .		
If there is more than one landowner, please attach a list of their contact details to this application and tick the box			
			<input checked="" type="checkbox"/> Extra page attached

1. I/we the undersigned (*insert the name/s of the owner/s of the land*)

JASPER DU TOIT LOUBSER

of identity number/registration number (*insert the owner/s ID number/s or the registration number of the legal entity*): ID 5603085035083

am/ are the registered owner/s of the property (*insert description of the property/ies and title deed numbers*)

**The Farm De Kop Aangrensende Vryheid No. 435/0, & Gedeelte Klaas
Kaffer Heuwel No. 438/1 Division of Swellendam, Province of the Western;
T 29057/1980**

located at (*insert physical address or a brief description of the location of the property*):
property coordinates: De Kop, district of Swellendam

2. I/ we hereby give consent to the applicant (*insert the name/s of the applicant/s*);

OVERBERG WIND POWER (PTY) LTD



1

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

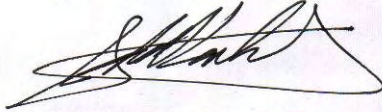
of identity number/registration number (*insert the owner/s ID number/s or the registration
number of the legal entity*)

2008/018398/07

to undertake the following activity/ies on the property (*insert a brief description of the
project and identified activity/ies that will be applied for*):

CONDUCT A BASIC ASSESSMENT AND AN EIA FOR THE ERECTION OF A WIND
MAST AND DEVELOPMENT OF A WIND FARM AND ALL THE ASPECTS THAT
SUPPORT IT.

Signature of land owner or authorised representative



JASPER DU TOIT LOUBSER

Name of authorised person if the landowner is a legal entity N/A

Date; 23/11/2009

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

**G.2 NOTICE OF INTENT SUBMITTED BY CSIR TO DEPARTMENT OF
ENVIRONMENTAL AFFAIRS (DEA)**

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM



PO Box 320 Stellenbosch 7599 South Africa
Tel: +27 21 888 2400
Fax: +27 21 888 2693

12th January 2010

ATTENTION: Mr Dumisane Mthembu

Directorate: Environmental Impact Evaluation
Department of Water and Environmental Affairs (DWEA)
Fedsure Forum Building (corner of Pretorius and Van der Walt Streets)
2nd Floor North Tower
315 Pretorius Street
Pretoria 0002

Tel: 012 - 310 3230, Fax: 012 - 320 7539
Email: dmthembu@deat.gov.za

Dear Sir,

NOTICE OF INTENT FOR A BASIC ASSESSMENT FOR THE BIOTHERM WIND ENERGY PROJECT IN THE OVERBERG, NEAR SWELLENDAM, WESTERN CAPE PROVINCE

This Notice of Intent is submitted to DWEA for the Basic Assessment process for two wind monitoring masts being proposed by Biotherm (Pty) Ltd in the Overberg region of the Western Cape Province. The CSIR has been appointed by Biotherm as the independent Environmental Assessment Practitioner, to conduct the Basic Assessment process in terms of the National Environmental Management Act (Act 107 of 1998) and its Regulations 385 and 386 (Government Gazette No. 28753 of 21 April 2006). Biotherm intends to establish two wind monitoring masts of 80m height – one mast on Nacht Wacht Farm near Bredasdorp and one mast on Uitkyk Farm near Swellendam.

In addition to yourself, the following organs of State have been notified of this Basic Assessment process, via a letter and/or email:

Organisation	Name	Postal address	Telephone / email
Western Cape Department of Environmental Affairs and Development Planning (DEADP)	Mr Anthony Barnes	Utilitas Building 1 Dorp Street Cape Town 8001; Private Bag X9086 Cape Town 8000	Tel: (021) 483 4093
Western Cape Dept of Agriculture	Mr Paul Heselman (Director: Sustainable Resource Management)	Private Bag X1 Elsenberg 7606	Tel: (021) 808 5093 Elsenburg.Landcare@elsenburg.com laymanb@elsenburg.com
Heritage Western Cape	Mr Nicholas Wiltshire	3rd Floor, Protea Assurance Building, Green Market Square, corner of Long Market street and Green Market Square, Cape Town 8001	Tel: (021) 483 9685 nwiltshire@pgwc.gov.za
Cape Agulhas Municipality	Mr Reynold Stevens (Municipal Manager)	PO Box 51 Bredasdorp 7280	Tel: (028) 425 5500
Swellendam Municipality	Mr Nico Nel (Municipal Manager)	PO Box 20 Swellendam 6740	Tel: (028) 514 8500

Ms N Shikwane (Chairperson), Prof C de la Rey, Dr N
Dr N Msomi, Dr FW Petersen, Prof MJ Wingfield, Dr S Sibisi

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

South African Civil Aviation Authority (CAA)	Ms Lizell Stroh	Private Bag X73 Halfway House 1685	strohl@caa.co.za Tel: (011) 545 1232
South African National Roads Agency Ltd (SANRAL)	Mr Cobus van der Waldt or Ms René de Kock	Building 5 Parc Du Cap Mistel Street Bellville, 7535	DeKockr@nra.co.za Tel (021) 957 4600 Fax (021) 946 1630

Please contact the Environmental Assessment Practitioners below should you have any queries.

Yours sincerely



Paul Lochner (CSIR Project Leader; Certified Environmental Assessment Practitioner – SA)
Tel.: 021 – 888 2486
Fax: 021 – 888 2693
e-mail: plochner@csir.co.za

or

Minnelise Levendal (CSIR Project Manager)
Tel.: 021 – 888 2495
Fax: 021 – 888 2693
e-mail: mlevendal@csir.co.za

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

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DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

NOTICE OF INTENT



environment & tourism

Department:
Environmental Affairs and Tourism
REPUBLIC OF SOUTH AFRICA

Notice of intent to submit an application in terms of regulation 22 (b) of Government Notice No. R 385 in terms of Chapter 5 of the National Environmental Management Act, 1998 (Act 107 of 1998). July 2006

Kindly note that:

1. The purpose of this form is to **notify** the Department of the intent to submit an application for basic assessment and to provide information to the competent authority of the proposed development.
 2. This notification should be submitted not less than 14 days prior to **initiating** the basic assessment process.
 3. Based on the information contained in this notice the competent authority may in terms of regulation 5(b) **advise** on the nature and extent of any processes to be followed.
 4. The required information 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. It is in the form of a table that can extend itself as each space is filled with typing.
 5. This notice must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Should the notice not be submitted to the correct addresses given below this may result in unnecessary delays.
 6. Should an applicant and not the Environmental Assessment Practitioner complete this notice then an application for exemption from the requirement that the notice of intent be prepared and submitted by an Environmental Assessment Practitioner must be made by completing the relevant section below.
-

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

NOTICE OF INTENT

**APPLICATION FOR EXEMPTION FROM AN ENVIRONMENTAL ASSESSMENT
PRACTITIONER FROM HAVING TO SUBMIT THE NOTICE OF INTENT TO APPLY:**

Provide a detailed motivation for not appointing an Environmental Assessment Practitioner (supporting documents, if any, should be attached to this report):	
<i>Not applicable</i>	
I declare that the above motivation is accurate and, hereby apply for exemption in terms of regulation 51 of the EIA Regulations, 2006, from having to appoint an Environmental Assessment Practitioner as required by regulation 22 (b) of the Environmental Impact Assessment Regulations, 2006.	
Signature of the Applicant:	Date:

Please note:

- The exemption applied for above only relates to regulation 22 (b) that requires that the notice of intent be prepared and submitted by an Environmental Assessment Practitioner.
- That any exemption decisions by the Department may be appealed which may result in the application process being suspended pending the outcome of the appeal process.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

NOTICE OF INTENT

1. BACKGROUND INFORMATION

Project applicant:	Biotherm Energy (Pty) Ltd		
Trading name (if any):	Biotherm Energy (Pty) Ltd		
Contact person:	Mr Werner Engelbrecht		
Postal address:	PO Box 69408 Bryanston		
Telephone:	(011) 367 4600	Postal code:	2021
E-mail:	wengelbrecht@biothermenergy.com	Cell:	082 341 7721
		Fax:	(011) 367 4601

Project Consultant (Environmental)	CSIR (providing environmental assessment services)		
Contact person:	Paul Lochner		
Postal address:	PO Box 320 Stellenbosch		
Telephone:	(021) 888 2486 / 2400	Postal code:	7599
E-mail:	plochner@csir.co.za	Cell:	
		Fax:	(021) 888 2693

Environmental Assessment Practitioner (EAP):	CSIR		
Contact person:	Paul Lochner		
Postal address:	PO Box 320 Stellenbosch		
Telephone:	(021) 888 2486 / 2400	Postal code:	7599
E-mail:	plochner@csir.co.za	Cell:	084 442 3646
		Fax:	(021) 888 2693
EAP Qualifications	B.Sc. (Civil Engineering), UCT, 1990 M.Phil (Environmental Science), UCT, 1992		
EAP Registrations/Associations	IAIA-SA, Certified Environmental Assessment Practitioner - South Africa (since July 2003)		

Landowner:	Site 1: Nacht Wacht farm: Albertyn Family Trust		
	Site 2: Uitkyk farm: Peet Steenkamp Familie Trust and Graafwater Trust		
Contact person:	Site 1: Nacht Wacht farm: Mr Dawie Albertyn		
	Site 2: Uitkyk farm: Ms Magdalena Anna Burger		
Postal address:	Nacht Wacht farm: PO Box 213 Bredasdorp 7280		
	Uitkyk farm: PO Box 300 Bredasdorp 7280		
Telephone:	028-424 1172 (Mr Albertyn) 028 452 1640 (Ms Burger)	Postal code:	See above
E-mail:	Albertynbroers@brd.dorea.co.za (Mr Albertyn) madele@vodamail.co.za	Cell:	072 443 7740 (Mr Albertyn); 082 563 8351 (Ms Burger)
		Fax:	028-424 1172 (Mr Albertyn) 086 513 2654 (Ms Burger)

Please Note: In instances where there is more than one landowner, please attach a list of landowners with their contact details to the back of this page.

Municipality in whose area of jurisdiction the proposed activity will fall:	Nacht Wacht Farm: Cape Agulhas Municipality		
	Uitkyk Farm: Swellendam Municipality		
Contact person:	Cape Agulhas Municipality Mr Reynold Stevens (Municipal Manager)		
	Swellendam Municipality Mr Nico Nel (Municipal Manager)		
Postal address:	Cape Agulhas Municipality PO Box 51 Bredasdorp 7280		

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

NOTICE OF INTENT

	Swellendam Municipality: PO Box 20 Swellendam 6740		
Telephone	028-425 5500 (Cape Agulhas Mun) 028-514 8500 (Swellendam Mun)	Postal code:	See above
E-mail:	Swellendam Municipality: info@swellenmun.co.za	Cell:	
		Fax:	028-425 1019 (Cape Agulhas Mun) 028-514 2694 (Swellendam Mun)

Please Note: In instances where there is more than one Municipality involved, please attach a list of Municipality with their contact details to the back of this page.

Project title:	Construction of a wind monitoring mast up to 80m		
Property location:	Site 1: Nacht Wacht farm near Bredasdorp: GPS coordindates: 34° 31' 43.0"S; 20° 05' 29.5"E Site elevation = 107m		
Farm/Erf name & number (incl. portion):	Site 2: Uitkyk Farm near Swellendam: GPS coordindates: 34° 14' 05.5"S; 20° 12' 52.6"E Site elevation = 303m		
SG21 Digit code:	Site 1: Nacht Wacht farm: Portion 3 of farm 159, Nacht Wacht Farm		
	Site 2: Uitkyk farm near Swellendam: Remaining portion of farm 434, Uitkyk Farm		
	Site 1: Nacht Wacht farm: Portion 3 of Farm 159 - C0110000000015900003		
	Site 2: Uitkyk farm Remaining portion of farm 434, Farm Uitkyk - C07300000000043400000		

Please Note: Where a large number of properties are involved (e.g. linear activities), attach a list of property descriptions to the back of this page.

Street address:	n/a		
Magisterial District or Town:	Nacht Wacht Farm: Cape Agulhas Municipality Uitkyk Farm: Swellendam Municipality		

Please Note: In instances where there is more than one town or district involved, please attach a list of towns or districts as well as complete physical address information for the entire area to the back of this page.

Closest City/Town:	Nacht Wacht farm: Bredasdorp Uitkyk farm: Swellendam	Distance	Nacht Wacht farm: 8km from Bredasdorp Uitkyk farm: 35km from Swellendam
Zoning of Property:	Agriculture		

Please Note: In instances where there is more than one zoning, please attach a list of zonings that also indicate which portions each use pertains to, to this application.

Is a rezoning application required?	YES	NO
Is a consent use application required?	YES	NO
Owners consent:	Letters of consent from all landowners or a detailed explanation by the applicant explaining why such letters of consent are not furnished must be attached to the back of this document as Appendix A .	

2. ACTIVITIES INTENDED TO BE APPLIED FOR

All potential listed activities for basic assessment (Government Notice R386 activities) associated with the proposed development must be indicated below.

Government Notice R386 Activity No(s):	Describe the relevant Basic Assessment Activity in writing.
14	

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

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	The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding - (a) masts of 15 metres and lower exclusively used (i) by radio amateurs; or (ii) for lighting purposes (b) flag poles; and (c) lightning conductor poles.
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Please note: Only those activities for which the applicant applies will be considered for authorization. The onus is on the applicant to ensure that all the applicable listed activities are included in the application. Failure to do so may invalidate the application.

3. ACTIVITY DESCRIPTION

3.1 Is the project a new development or an upgrade of an existing development? New development	YES	NO
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3.2 Clearly describe the activity and associated infrastructure for which you are applying as indicated in section above.

<p>The activity comprises the erection of an 80m high wind monitoring mast, with anemometers located at various heights (e.g. at 80m, 50m and 15m height). Data from the monitoring mast will be transmitted via the local cellphone network to a central receiver. During the monitoring period, power for the mast will be provided by a solar panel located on the mast.</p> <p>Two alternative mast designs are being investigated: (i) a lattice mast that sits on a concrete base with a maximum footprint of 1m x 1m and is supported by stays extending in four directions up to 65m from the base; or (ii) an unsupported lattice mast that sits on a concrete 4m x 4m base and does not require stays.</p> <p>The construction will be done in two phases: firstly constructing the base and allowing the concrete to cure; and secondly the erection of the mast. The mast will be operational for a period of approximately three years. Thereafter, the mast could be retained for performance measurement of the wind farm (should the wind farm proceed) or be decommissioned. The potential operational life of the mast beyond 3 years will be included in the full EIA for the wind farm.</p>	
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3.3 Indicate the surface area to be taken up by the proposed activity and associated infrastructure (i.e. physical footprint).	Concrete base of 1m x 1m, with stays extending up to 65m from base. Or a 4m x 4m base with self-supporting lattice mast (no stays).
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4. WASTE, EFFLUENT AND EMISSION MANAGEMENT

(a) Solid waste management

Will the activity produce any solid waste (including rubble) during the construction or operational phases? Note: Ready-made concrete will be brought onto site.	YES	NO ✓	UNCERTAIN
(ii) If yes, will it feed into a municipal waste stream?	YES	NO	UNCERTAIN
(iii) If no to (ii) above, describe the types of solid waste and how each will be treated / disposed of.			

(b) Effluent

(i) Will the activity produce sewage and or any other effluent?	YES	NO ✓	UNCERTAIN
(ii) If yes, will the sewage / effluent be treated and/or disposed of in a municipal system?	YES	NO	UNCERTAIN
(iii) If no to (i) above, briefly describe the nature of the sewage / effluent and how it will be treated and/or disposed of.			

(c) Emissions into the atmosphere

(i) Will the activity produce emissions that will be disposed of into the atmosphere?	YES	NO ✓	UNCERTAIN
(ii) If yes, describe the emissions in terms of type and concentration and how it will be treated/mitigated:			

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

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5. WATER USE

Please indicate the source(s) of water for the activity by ticking the appropriate box(es)

Municipal	Water board	Groundwater	River, Stream, Dam or Lake	Other	The activity will not use water.
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Note: Portable chemical toilets will be used during construction. Drinking water for construction workers will be taken to the site. Ready mix concrete will be used during construction. Water is therefore not needed for mixing concrete on site.

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate	
the volume that will be extracted per month: Not applicable	m ³
Please provide proof of assurance of water supply e.g. Letter of confirmation from municipality / water board, yield of borehole	
Does the activity require a water use permit / license from DWAF?	YES NO ✓

6. POWER SUPPLY

6.1 Please indicate the source of power supply e.g. Municipality / Eskom / Renewable energy source

The data recording and transmission equipment on the mast is powered by a solar panel.

6.2 If power supply is not available, where will power be sourced from?

N/A

7. LAND USE DESCRIPTION

(i) Describe the current land use of the proposed site(s) for the activity

Nacht Wacht farm: Fynbos, zoned agricultural, but currently not used for grazing. Some flower harvesting.
Uitkyk farm: Agricultural land, with extensive grazing by sheep and cattle, and wheat farming.

(ii) Describe the surrounding land uses

Nacht Wacht farm: PB lime works Quarry, owned by Overberg Agri, is situated north of the site. The Zwelitsha township (part of Bredasdorp), is to the west of the site next to the quarry. The land to the south is mostly agricultural, with wheat and barley farming as well as pastures for grazing sheep and cattle. The land to the east is vacant, as is some land to the west (towards Bredasdorp). Two 66 kV powerlines (one old and one new) traverse the property. The old powerline runs north-south of the property, and the new powerline runs west-east of the property.
Uitkyk farm: Agricultural land, with pastures used for grazing and wheat farming.

8. GROUND COVER:

NACHT WACHT FARM

Tick the types of groundcover present on the site.

Indigenous vegetation – good condition	Indigenous vegetation with scattered aliens	Indigenous vegetation with heavy alien infestation	Veld dominated by alien species	Gardens	Other:
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil	

UITKYK FARM

Tick the types of groundcover present on the site.

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

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Indigenous vegetation – good condition	Indigenous vegetation with scattered aliens	Indigenous vegetation with heavy alien infestation	Veld dominated by alien species	Gardens	Other: Indigenous vegetation with extensive grazing
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil	

9. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposed development, then you are requested to furnish this Department with written comment from the relevant Heritage authority as part of your public participation process.

Section 38 of the Act states as follows:

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-
- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
 - (b) the construction of a bridge or similar structure exceeding 50m in length;
 - (c) any development or other activity which will change the character of a site-
 - (i) exceeding 5 000 m² in extent; or
 - (ii) involving three or more existing erven or subdivisions thereof; or
 - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - (d) the re-zoning of a site exceeding 10 000 m² in extent; or
 - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

Are there any signs of culturally or historically significant elements including archaeological or palaeontological sites, on or in close proximity to the site?	YES	NO✓
	UNCERTAIN	
If YES, describe:		
Will any building or structure older than 60 years be affected in any way?	YES	NO✓
If YES, describe:		
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO✓
If yes, please submit or, make sure that the applicant or a specialist submit the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application.		
Please note: South African Heritage Resource Agency and/or any of their delegated provincial agencies comments needs to be submitted with the Basic Assessment Report.		

10. NOTICE OF EXEMPTION APPLICATIONS



Is it your intention to apply for exemption from any of the following provisions of the regulations?:		
Appointment of an Independent Environmental Assessment Practitioner	YES	NO✓
Consideration of Alternatives	YES	NO✓
Provisions requiring or regulating the Public Participation Process	YES	NO✓
Any other provisions of the regulations	YES	NO✓
Please Note: Based on the information contained in this application notice the Department may advise whether such an exemption application would be appropriate.		

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

NOTICE OF INTENT

Applicant (Full names): <i>Johannes Petrus van der Berg</i>
Date: 12 January 2010 Place: Stellenbosch
Signature 
Environmental Assessment Practitioner (Full names): Paul Andrew Lochner
Date: 12 January 2010 Place: Stellenbosch
Signature 

DEPARTMENTAL DETAILS

Postal address: Department of Environmental Affairs and Tourism Attention: Director: Environmental Impact Evaluation Private Bag X447 Pretoria 0001
Physical address: Department of Environmental Affairs and Tourism Fedsure Forum Building (corner of Pretorius and Van der Walt Streets) 2 nd 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
<i>Please note that this form must be copied to the relevant provincial environmental department.</i>

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

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

NOTICE OF INTENT

APPENDIX A

Letters of Consent

Site 1: Nacht Wacht Farm

Site 2: Uitkyk Farm

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

LETTER OF CONSENT

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED OVERBERG WIND
PROJECT AND ASSOCIATED BASIC ASSESSMENT FOR THE PROPOSED ERECTION OF
ONE WIND MONITORING MAST UP TO 100 METRES IN HEIGHT

CONTACT INFORMATION

Name of land owner	Albertyn Familie Trust	
Trading name (if any):	Nacht Wacht Trust	
Contact person:	Dawie Albertyn	
Physical address:	Nacht Wacht, Bredasdorp	
Postal address:	PO Box 213 Bredasdorp 7280	
Postal code:	7280	Cell: 072 443 7740
Telephone:	028 424 1172	Fax: 028 424 1172
E-mail:	Albertynbroers@brd.dorea.co.za	
if there is more than one landowner, please attach a list of their contact details to this application and tick the box		
		Extra page attached

1. I/we the undersigned (insert the name/s of the owner/s of the land)

Albertyn Familie Trust

of identity number/registration number (insert the owner/s ID number/s or the registration number of the legal entity) **IT 996/94**

am/ are the registered owner/s of the property (insert description of the property/ies and title deed numbers)

Nacht Wacht, portions 159/3 of Farm 159; 180/0 of Farm Bo-drift 180 & 182/3 of Farm 182; Division of Bredasdorp, Province of the Western Cape. T 5654/1995

located at (insert physical address or a brief description of the location of the property)

property coordinates: **Nacht Wacht, District of Bredasdorp, WCP**

2. I/ we hereby give consent to the applicant (insert the name/s of the applicant/s)

OVERBERG WIND POWER PTY LTD;

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

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DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

of identity number/registration number (*insert the owner/s ID number/s or the registration
number of the legal entity*)

2008/018398/07

to undertake the following activity/ies on the property (*insert a brief description of the
project and identified activity/ies that will be applied for*):

CONDUCT A BASIC ASSESSMENT AND AN EIA FOR THE ERECTION OF A WIND
MAST AND DEVELOPMENT OF A WIND FARM AND ALL THE ASPECTS THAT
SUPPORT IT.

Signature of land owner or authorised representative



JOHAN DAWID ALBERTYN

ID 7311155164084

Name of authorised person if the landowner is a legal entity

Date: 23/11/2009

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

LETTER OF CONSENT

ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED OVERBERG WIND
PROJECT AND ASSOCIATED BASIC ASSESSMENT FOR THE PROPOSED ERECTION OF
ONE WIND MONITORING MAST UP TO 100 METRES IN HEIGHT

CONTACT INFORMATION

Name of land owner	M A DE WET TRUST		
Trading name (if any):	N/A		
Contact person:	MAGDALENA ANNA (MADELÉ) BURGER		
Physical address:	UITKYK, Swellendam		
Postal address:	POSBUS 300 BREDASDORP 7280		
Postal code:	7280	Cell:	082 563 8351
Telephone:	028 452 1640	Fax:	086 513 2654
E-mail:	madele@vodamail.co.za		
If there is more than one landowner, please attach a list of their contact details to this application and tick the box			
			Extra page attached

1. I/we the undersigned (*insert the name/s of the owner/s of the land*)

M A DE WET TRUST

of identity number/registration number (*insert the owner/s ID number/s or the registration number of the legal entity*): **IT 581/1983**

am/ are the registered owner/s of the property (*insert description of the property/ies and title deed numbers*)

**The Farm UITKYK Remaining portion of farm 434; Division of Swellendam,
Province of the Western; T.16720/2000**

located at (*insert physical address or a brief description of the location of the property*):
property coordinates: **UITKYK, district of Swellendam**

2. I/ we hereby give consent to the applicant (*insert the name/s of the applicant/s*):

OVERBERG WIND POWER PTY LTD

1
MB

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

of identity number/registration number (*insert the owner/s ID number/s or the registration
number of the legal entity*)

2008/018398/07

to undertake the following activity/ies on the property (*insert a brief description of the
project and identified activity/ies that will be applied for*):

CONDUCT A BASIC ASSESSMENT AND AN EIA FOR THE ERECTION OF A WIND
MAST AND DEVELOPMENT OF A WIND FARM AND ALL THE ASPECTS THAT
SUPPORT IT.

Signature of land owner or authorised representative



MAGDALENA ANNA (MADELÉ) BURGER

Name of authorised person if the landowner is a legal entity

Date: 22/10/2009

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM
UITKYK, SWELLENDAM

**G.3 LETTER FROM THE NATIONAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS
(DEA) ACKNOWLEDGING THE NOTICE OF INTENT**

FARM NACHT WACHT – BREDASDORP and UITKYK – SWELLENDAM

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND MONITORING MAST ON FARM NACHT WACHT, BREDASDORP AND FARM UITKYK, SWELLENDAM

ENVIRONMENTAL AFFAIRS 19/01/2010 09:00:00

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environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

Ref: 12/12/20/1757

Enquiries: Ms L Grobbelaar

Tel: 012 310-3087 Fax: 012 320-7539 E-mail: L.Grobbelaar@deat.gov.za

CSIR

Attention: Paul Lochner
PO Box 320
STELLENBOSCH
7599

Fax: 021 888 2693

Dear Mr Lochner

RE: NOTICE OF INTENT TO APPLY FOR AUTHORISATION FOR THE PROPOSED CONSTRUCTION OF THE BIOTHERM WIND ENERGY PROJECT NEAR SWELLENDAM, WESTERN CAPE PROVINCE

The Department confirms having received the notice in intent to submit an application in accordance with GN R 385 (22) (b) as received by this Department on 12 January 2010 for environmental authorisation of the above project. You may proceed with the legislated process required in terms of the Environmental Impact Assessment Regulations, 2006, to submit an Application form and Basic Assessment Report (BAR).

The Department requests a copy of the BAR (circulated during the Public Participation Process) to facilitate informed decision-making upon receipt of the final BAR. You are therefore requested to submit an electronic copy (CD / DVD) of the BAR to the Director: EIE, at the above address as soon as it is made available to interested and / or affected parties for comment. Moreover, you are requested to solicit comments from the relevant Provincial Authority / ies and any other key stakeholders during the Public Participation Process, these comments can be directly forwarded to the case officer as indicated above, should they prefer.

The Department has resolved that, **should** an application for Environmental Authorisation be subject to the provisions of Chapter II, Section 38 of the National Heritage Resources Act, Act 25 of 1999, then this Department will not be able to make nor issue a decision in terms of your application for Environmental Authorisation pending a letter from the pertinent heritage authority categorically stating that the application fulfils the requirements of the relevant heritage resources authority as described in Chapter II, Section 38 (8) of the National Heritage Resources Act, Act 25 of 1999.

The applicant is hereby reminded to comply with the requirements of GN R.385 (77) with regard to the time period allowed for complying with the requirements of the regulations, and GN R. 385 (58) and (59) with regard to the allowance of a comment period for interested and affected parties on all reports submitted to the competent authority for decision-making. The reports referred to are listed in GN R. 385 (58) (3a-3g).

15/01 '10 FRI 14:31 [TX/RX NO 8516]

**FARM NACHT WACHT – BREDASDORP and
UITKYK – SWELLENDAM**

SECTION F: APPENDICES

DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED ERECTION OF A WIND
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UITKYK, SWELLENDAM

15/01/2010 14:31 [TX/RX NO 8516]

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The application has been assigned with the reference number **12/12/20/1757**. Kindly quote this reference number in any future correspondence in respect of the application.

Please note that the activity may not commence prior to an environmental authorization being granted by the Department.

Yours sincerely



Ms Lize McCourt
Chief Director: Environmental Impact Management
Department of Environmental Affairs
Letter signed by: Ms Lené Grobbelaar
Designation: Assistant Director: Parastatals
Date: 15/01/10