

RESTRICTED

Telephone: 012 312 2304
Fax: 012 312 2291
Enquiries: Lieutenant Colonel
S.J. Nel



AIR COMD/DAS/R/319/5/7

Air Command
(Directorate Aviation Safety)
Private Bag X199
Pretoria
0001
02 June 2010

Ms Ravisha Ajodhapersadh / Ms Karen Jodas
Savannah Environment (Pty) Ltd
P.O. Box 148
Sunninghill
2157

Fax: 086 684 0547

Dear Madam

SOUTH AFRICAN AIR FORCE OBSTACLE DATA REQUIREMENTS FOR THE PROPOSED ESTABLISHMENT OF A WIND FARM ON THE FARM UYEKRAAL NEAR VREDENBURG IN THE WESTERN CAPE

1. The South African Air Force (SAAF) complies with the South African Civil Aviation Authority (SACAA) Regulations and Technical Standards as well as International Civil Aviation Organisation standards and recommended practices for controlling and/or restricting potentially hazardous obstacles. The SAAF is responsible to assess new obstacles and developments around military aerodromes and within military airspace to ensure the safety of air operations and its mission sustainability. Wind turbines are defined as significant structures in terms of their height and considered as obstacles hazardous to aviation.
2. Documented studies have shown that wind turbines and wind farms have an impact on the performance of aerodrome radio Communication, Navigation and Surveillance (CNS) equipment, especially radar. The SAAF complies with the SACAA policy that no wind farm should be closer than 35 kilometres of an aerodrome. This is to ensure protection from potential interferences of wind turbines on CNS equipment.
3. The SAAF will however consider proposed wind farm developments closer than 35 kilometres on a case-to-case basis provided that such developments do not adversely affect the flight operations conducted at the aerodrome and/or will not degrade or compromise the operational performance of the CNS equipment.
4. A proposed wind farm development on the Farm Uyekraal near Vredenburg will be in close proximity to AFB Langebaanweg and entirely within its air traffic control zone. Directorate Aviation Safety (DAS) is concerned that the establishment of a wind farm at Uyekraal might impact on the flight operations conducted at the base and negatively affect the performance of the CNS equipment. DAS is also concerned about the collective effect of all the proposed wind farm developments, within the Langebaanweg area, on the performance of the CNS equipment at AFB Langebaanweg.
5. In order to conduct a detailed obstacle assessment and determine the collective effect of all proposed wind farms within the area concerned, DAS requests that the developer supply the preliminary positions and vertical extent (inclusive of blade length) of the proposed wind turbines, as soon as possible, according to the requirements of Table 1.

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Table 1: Obstacle Geographical Positions and Vertical Extent

Point	Latitude	Longitude	Structure Height	Sub-Structure Height	Site Elevation	Structure Elevation
<i>a</i>	<i>dd mm ss.ssss</i>	<i>ddd mm ss.ssss</i>	<i>Meters</i>	<i>Meters</i>	<i>Meters</i>	<i>Meters</i>

NOTE: In addition, electronic files in ESRI GIS shape file format (.shp) can also be provided.

6. The developer will probably be required to do an electromagnetic assessment to determine the impact of such a development on the CNS equipment at AFB Langebaanweg. An accredited company specialising in such services must do the assessment and provide the SAAF with a report in this regard. The developer shall finance the cost of such an assessment. The SAAF will confirm whether or not such an assessment is required once a formal request for the establishment of the Uyekraal Wind Farm has been received and a detailed obstacle assessment has been completed by DAS

7. Developers are also reminded that it is a legal requirement to obtain prior approval from SACAA before erecting any structure that may constitute an obstruction or potential hazard to aircraft. They should also be consulted regarding the impact of the proposed wind farm on civilian flying activities in the area concerned.

8. For any further information do not hesitate to contact me.

Yours Sincerely



PP (LIEUTENANT COLONEL S.J. NEL)
GENERAL OFFICER COMMANDING AIR COMMAND: MAJOR GENERAL

SJN/SJN

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From the desk of Karen Jodas
E-mail: karen@savannahSA.com



25 August 2010

Charles Orbach & Company Corporate Finance (Pty) Ltd
PO Box 355
Melrose Arch
2076
Gauteng

Attention: Hendrik Louw

**ENVIRONMENTAL IMPACT ASSESSMENT PROCESS:
PROPOSED UYEKRAAL WIND ENERGY FACILITY AND ASSOCIATED
INFRASTRUCTURE ON A SITE NEAR VREDENBURG, WESTERN CAPE**

**Re: Summary of interaction with the South African Air Force Base
Langebaanweg and the South African Airforce to date**

Dear Hendrik

An Environmental Impact Assessment (EIA) process has been initiated (in July 2010) by Savannah Environmental for the proposed Uyekraal Wind Energy Facility and Associated Infrastructure on a site near Vredenburg in the Western Cape, South Africa. The purpose of this letter is to provide a summary of the input and comments raised by the South African Air Force (SAAF) on the proposed wind energy facility due to its proximity to the Air Force Base Laangebaanweg.

The Air Force Base Laangebaanweg lies approximately 7km south-east of the proposed wind energy facility. It is home to the SAAF's flying school as well as playing host to visiting squadrons on air/air and air/ground exercises. The airfield at Somersveld, approximately 42km south-east of Langebaanweg, is used for overflow basic flying training.

The SAAF have raised general concerns regarding the proximity of wind energy facilities to their installations. However, through consultation with the SAAF Headquarters, as well as the parties at the base itself, it has not been directly indicated that the location of the proposed Uyekraal site is in direct conflict with the operations at Langebaanweg, and it has not been formally stated that the success of the project is at risk, despite the project being within the CAA-prescribed 35km exclusion zone.

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PO BOX 143, SUNNINGHILL, 2157, GAUTENG
TEL: +27 (0)11 234 6621 • FAX: +27 (0)86 684 0547 • E-MAIL: INFO@SAVANNAHSA.COM
WWW.SAVANNAHSA.COM

DIRECTORS: KM JODAS • J THOMAS • M MATSABU
COMPANY REGISTRATION NO.: 2006/000127/07
VAT REGISTRATION NO.: 4780226736

EIA Process

An EIA process for the above-mentioned project is being undertaken in line with the National Environmental Management Act (NEMA) 107 of 1998 and the related EIA Regulations. NEMA requires that environmental, social and economic impacts be considered through an EIA in order to assist the environmental authorities with decision-making (whether to authorise a project or not) on proposed developments. The involvement of interested and affected parties and stakeholders is a crucial component of the EIA process. The SAAF was identified early in the process as a key stakeholder. Consultation began with the SAAF prior to the inception of the EIA process due to the proximity of the wind energy facility (6.8 km south-east) to Laangebaanweg. Furthermore, during the separate basic assessment process for the wind monitoring masts, SAAF was also consulted. It was critical to understand if the proximity of the site to the air force base was considered a fatal flaw for the site.

Consultation with SAAF

In order to engage with SAAF on the proposed development and to get their input on the potential for constraining factors against the proposed project, there has been substantial correspondence via telephone, letters and meetings in order to understand if there are any issues or specific requirements from SAAF pertaining to the proposed development. Lieutenant Colonel S. J Nel from the SAAF: Directorate Aviation Safety and Colonel T.P King from the Air Force Base Laagebaanweg have been the main contact persons from SAAF. Key occasions in the consultation process are highlighted below:

- » Meeting and presentation to SAAF at the Air Force Base Laagebaanweg in July 2009 on the proposed wind energy facility.
- » Meeting and presentation to SAAF at the SAAF Headquarters in November 2009 on the proposed wind energy facility.
- » Draft letter received from SAAF in November 2009 highlighting Air Force Base Laagebaanweg obstacle restrictions and control and their requirements.
- » Letter received on the proposed wind monitoring mast in May 2010 from SAAF stating the wind monitoring mast is acceptable provided that certain basic requirements are met.
- » Finalised letter from SAAF in June 2010 regarding information needs to consider the location of the wind energy facility and if any issues will arise.
- » Provision of the preliminary turbine layout, turbine co-ordinates and other information as requested by SAAF via letter in June 2010.
- » Various telephone calls and emails between SAAF, Savannah Environmental and CRENERSOL between 2009- 2010.

From discussions between the various parties, the following key points were discussed with specific regards to the location of the proposed wind energy facility site in relation to Langebaanweg:

- » The Langebaanweg airstrip is orientated in a north-south direction. The proposed site is located ~7 km to 11 km to the west of the installation.
- » Assuming a common angle of the military radar of 1.2 degrees, as taken from the radar towards the project development, calculations yield that the closest turbines only (T3, T4) are below the ATC radar (see attachment 1).
- » There is topographic relief (a small hill with a height up to 70 m) located between Langebaanweg and the site. This topographic obstruction shields their radar partially from the proposed wind energy facility.
- » The geographic angle covered by the development and as seen towards the west-southwest from the airbase radar is about 30%, meaning that less than 10% of the full 360° radar view would potentially be affected (see attachment 2).
- » Langebaanweg's radar could also partly shield in this westerly direction by one of their hangars.
- » The occurrence of the gas terminals to the south west of the site could restrict flying to the west of Langebaanweg already.

Feedback from the SAAF

Initial comment from the SAAF on the proposed wind energy facility has been received. The correspondence received from the SAAF has not indicated that the SAAF consider this site to be fatally flawed at this time in terms of its location. Final comment is awaited as the EIA process unfolds during the period of 2010 - 2011. The requirements and issues regarding the wind energy facility will need to be taken forward by CRENERSOL and issues raised will be incorporated into the EIA process for the wind energy facility.

In summary, the primary concerns raised by the SAAF are a) the effect that the proposed wind energy facility could have on flight operations as well as b) the radio communications, navigation and radar equipment of Langebaanweg, considering that the wind energy facility is in close proximity to the military installation. In order to adequately address these concerns, the following is required to be provided for SAAF's consideration:

1. Details pertaining to preliminary turbine positions and vertical extent (blade height) of the turbines in order for a detailed obstacle assessment to be undertaken.
2. Electromagnetic assessment to determine the impact of the development on the CNS equipment at Langebaanweg.

A summary of the issues raised by the SAAF is as follows:

- » The proposed site is within military controlled airspace.
- » If a development is closer than 35 km to an aerodrome, it can only be approved by the SAAF if evidence of the safety of the Air Traffic Services components will not be compromised. However, SAAF will consider wind energy facilities that are closer than 35 km on a case-to-case basis.
- » Protection areas of the AFB Laangebaanweg extend over the proposed development site. However adjustments to the Instrument Flight Procedures (IFP) could be adjusted to accommodate the development.
- » Requirements include marking and lighting, which must be approved by SAAF and the Civil Aviation Authority.
- » The proposed wind energy facility occurs within Laangebaanweg's air traffic control zone and as such, the facility may impact on the flight operations of the base and negatively affect the performance of CNS equipment.

Way Forward for SAAF and CRENERSOL

Following the issues and recommendations made by SAAF that are highlighted above, CRENERSOL would be required to engage with the SAAF on this information, and how any issues will be addressed and the necessary obstacle approval process to be followed. SAAF feedback is anticipated to be received as the EIA process for the project unfolds (between August 2010 – early 2011).

Should you have any further queries, please contact me.

Kind regards



Karen Jodas

Attachments to this letter:

Attachment 1: Turbine height assessment

Attachment 2: Overview sector coverage Langebaanweg airport – Uyekraal windpark

Ravisha Ajodhapersadh

From: ShawnJohnston <swjohnston@mweb.co.za>
Sent: 04 November 2010 06:28 AM
To: Shawn Johnston; Ravisha Ajodhapersadh; francois.williams@sake24.com; fwilliams@wcdm.co.za; glewis@capenature.co.za; iabvanderwesthuizen@wcdm.co.za; info@capebiosphere.co.za; info@eyeon-newmedia.co.za; jaco.nel@vodamail.co.za; jakavulaz@caa.co.za; jamesf@saldanhabay.co.za; jbonthuy@dieburger.com; Johan.bornman@exxaro.com
Subject: Proposed CRENERSOL Uyekraal Wind Energy Facility near Saldanha Bay
Attachments: 10949 Savannah Afr.pdf; Untitled attachment 00055.htm; Uyekraal WEF Reply Form.pdf; Untitled attachment 00058.htm; CRENERSOL Uyekraal WEF Stakeholder Letter 28 Oct 2010.pdf; Untitled attachment 00061.htm

Geagte Belanhebende Party,

Vind aangeheg die agtergronds dokumente vir die voorgestelde CRENERSOL Uyekraal Windplaas naby Saldanhaai.

Die uwe

Dear Stakeholder,

Please find attached the background information documents for the proposed CRENERSOL Uyekraal wind energy facility near Saldanha Bay.

Sincerely,

Ravisha Ajodhapersadh

From: ShawnJohnston <swjohnston@mweb.co.za>
Sent: 04 November 2010 06:28 AM
To: Shawn Johnston; Ravisha Ajodhapersadh; Carla.Strydom@exxaro.com; charlesb@saldanhabay.co.za; Cliff.timlin@exxaro.com; darryl.hunt@telkomsa.net; dconradie@kv3.co.za; dkotze@wcdm.co.za; Janette du Toit; Alana Duffel-Canham; ebrahim@sanbi.org; electricity@saldanhabay.co.za; elsenburg.landcare@elsenburg.com
Subject: Proposed CRENERSOL Uyekraal Wind Energy Facility near Saldanha Bay
Attachments: CRENERSOL Uyekraal WEF Stakeholder Letter 28 Oct 2010.pdf; Untitled attachment 00067.htm; Uyekraal WEF Reply Form.pdf; Untitled attachment 00070.htm; 10949 Savannah Eng.pdf; Untitled attachment 00073.htm

Geagte Belanhebende Party,

Vind aangeheg die agtergronds dokumente vir die voorgestelde CRENERSOL Uyekraal Windplaas naby Saldanhabaai.

Die uwe

Dear Stakeholder,

Please find attached the background information documents for the proposed CRENERSOL Uyekraal wind energy facility near Saldanha Bay.

Sincerely

Ravisha Ajodhapersadh

From: ShawnJohnston <swjohnston@mweb.co.za>
Sent: 04 November 2010 06:28 AM
To: Shawn Johnston; Ravisha Ajodhapersadh; abuckle@media24.com; adamane@pgwc.gov.za; Aggabrie@pgwc.gov.za; Martin Albertus; aldrick@saldanhabay.co.za; Alet.Fabricius@tuev-nord.co.za; andy@wessa.co.za; atlanticfireserv@gmail.com; Jacques Marais Saldanha Bay Municipality Bay Municipality; berchtwald@rode.co.za; Vincent Adriaan Bergh
Subject: Proposed CRENERSOL Uyekraal Wind Energy Facility near Saldanha Bay
Attachments: 10949 Savannah Eng.pdf; Untitled attachment 00079.htm; Uyekraal WEF Reply Form.pdf; Untitled attachment 00082.htm; CRENERSOL Uyekraal WEF Stakeholder Letter 28 Oct 2010.pdf; Untitled attachment 00085.htm

Geagte Belanhebende Party,

Vind aangeheg die agtergronds dokumente vir die voorgestelde CRENERSOL Uyekraal Windplaas naby Saldanhaai.

Dear Stakeholder,

Please find attached the background information documents for the proposed CRENERSOL Uyekraal wind energy facility near Saldanha Bay.

Die uwe/Sincerely,



**SUSTAINABLE
FUTURES ZA**

P.O. Box 749 Rondebosch 7701 Cape Town South Africa

Tel: ++27(0)833259965 Fax 0865102537

E-mail: swjohnston@mweb.co.za

October 2010

Dear Stakeholder

**PROPOSED ESTABLISHMENT OF THE
UYEKRAAL WIND ENERGY FACILITY
ON A SITE NEAR VREDENBURG, WESTERN CAPE PROVINCE
(DEAT Ref No. 12/12/20/1737)**

**NOTICE OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND
INVITATION TO REVIEW THE DRAFT SCOPING REPORT**

Creative-Renewable-Energy-Solutions (Pty) Ltd ("CRENERSOL") is proposing to establish a commercial wind energy facility and associated infrastructure (referred to as the Uyekraal Wind Energy Facility) on a site located approximately 10km south-east Vredenburg in the Western Cape Province. An area which falls within the Saldanha Bay Local Municipality has been identified for consideration within an Environmental Impact Assessment (EIA). It is proposed for a cluster of up to 22 wind turbines to be constructed over an area of approximately ~5.41 km² in extent.

The wind energy facility is proposed on Portion 4 of the Farm Langeberg 187 and Portion 1 of the Farm Uyekraal 189, which lie ~10 km south-east of Vredenburg and ~15 km east of Saldanha Bay. MITTAL Saldanha Steel Smelter is located ~4.5km to the south of the site, with the EXARRO Namaqua Sands Smelter and Namaqua Substation ~4.5km north of the site. The Laangebaanweg Air Force Base is located ~7 km - 11 km to the north-east of the study site.

The proposed wind energy facility will consist of up to **22 wind turbines** with a generating capacity of up to 66 MW (each turbine having a generating capacity of up to **3MW**).

As the performance of the turbines is determined by disturbances to the wind resource, they must be appropriately spaced within the facility. The overall aim of the design and layout of the facility is to maximise electricity production through **exposure to the wind resource**, while minimising infrastructure, operation and maintenance costs, and **social and environmental impacts**. The proposed turbines would be appropriately located on the identified site, which covers an area of ~5.41 km². The broader site is proposed to accommodate both the wind turbines as well as the associated infrastructure which is required for such a facility including:

- » **Wind turbines** (up to 100 m hub height) and **concrete foundations** to support them. At present, the turbines being considered for use at this wind energy facility will each be up to 3MW in capacity.
- » **Cabling** between the turbines, to be laid underground where practical.
- » On-site **substation** to facilitate the connection between the wind energy facility and the grid.
- » New overhead **power line** to connect to Eskom's existing Bloukrans Substation
- » **Internal access roads** to each turbine.
- » **Workshop area** for control, maintenance and storage.

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

In terms of the EIA Regulations published in terms of Section 24(5) of the National Environmental Management Act (NEMA, No 107 of 1998), CRENERSOL (Pty) Ltd requires authorisation from the National Department of Environmental Affairs (DEA) (and in consultation with the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP)) for the undertaking of the proposed project. In terms of sections 24 and 24D of the National Environmental Management Act (No 107 of 1998), as read with the EIA Regulations of GN R385 (Regulations 27–36) and R387, a Scoping and EIA are required to be undertaken for this proposed project. In order to obtain authorisation for this project, comprehensive, independent environmental studies must be undertaken in accordance with the EIA Regulations. This project has been registered with National DEA under Application Reference number **12/12/20/1737**.

CRENERSOL has appointed **Savannah Environmental**, as independent consultants, to undertake a Scoping and Environmental Impact Assessment to identify and assess all potential environmental impacts associated with the proposed project for the area as identified, and propose appropriate mitigation measures in an Environmental Management Plan (EMP). As part of these environmental studies, I&APs will be actively involved through the public involvement process being undertaken by **Sustainable Futures**.

You and/or the organisation/department which you represent have been identified as an Interested and Affected Party (I&AP). Should you have an interest in this project, please register yourself as an I&AP and note your formal comments by sending written correspondence in this regard. All comments received will form part of the Comments and Response Report that will be included in the EIA Report which is submitted to the DEA. By submitting your details and comments to Sustainable Futures ZA, you are ensured that your comments, concerns or queries will be noted.

To obtain further information and register on the project database, please submit your name, contact information and interest in the project to the contact person below.

INVITATION TO REVIEW THE DRAFT SCOPING REPORT

In accordance with the EIA Regulations, a Draft Scoping Report is being compiled and will be available for public review and comment by Interested and Affected Parties (I&APs) and stakeholders. You are invited to review and comment on the draft report at the following locations:

www.savannahSA.com	Laangebaan Library
Vredenburg Public Library	

The 30-day period for review is from **12 November 2010 to 12 December 2010**. Please submit written comment to Sustainable Futures ZA no later than 12 December 2010. All comments received will be included in the Final Scoping Report, which will be submitted to DEA (and the Western Cape DEA&DP as commenting authority) for their consideration and decision.

Comments can be made as written submission via fax, post or e-mail.

Please submit your comments to
Shawn Johnston of Sustainable Futures ZA PO Box 749, Rondebosch, Cape Town, 7701 Fax: 086 510 2537 E-mail: swjohnston@mweb.co.za
The due date for comments on the Draft Scoping Report is 12 December 2010

PUBLIC MEETING

In order to facilitate comments on the draft Scoping Report, a public meeting will be held during the review period. All interested and affected parties are invited to attend a public meeting:

DATE: **Wednesday, 17 November 2010**
TIME: **18:00 - 20:00**
VENUE: **Malgas Room, Protea Hotel, Saldanha Bay**

The aim of the public meeting is to provide you with more information regarding the proposed project (including technical details, project process and timeframes etc), to provide a summary of the findings of the environmental scoping studies undertaken, to invite comment on the proposed project, and to further discuss possible issues of specific concern to you which may need to be investigated and managed through the EIA process.

Please do not hesitate to contact us should you require additional information and/or clarification regarding the proposed project. Our team welcomes your participation and looks forward to your involvement throughout this process.

Yours sincerely,

Shawn Johnston
Process Facilitator

**ENVIRONMENTAL IMPACT ASSESSMENT PROCESS: PROPOSED UYEKRAAL
WIND ENERGY FACILITY NEAR VREDENBURG, WESTERN CAPE**

PUBLIC INVOLVEMENT PROCESS REPLY FORM

Return completed reply form to: **Shawn Johnston** of **Sustainable Futures ZA**

Fax: **086 510 2537**

Phone: **083 325 9965**

E-mail: **swjohnston@mweb.co.za**

Postal Address: **PO Box 749, Rondebosch, Cape Town, 7701**

Please provide your complete contact details:

Name & Surname:

Organisation & Designation:

Postal Address:

Telephone:

Fax:

Cellphone:

E-mail:

Would you like to register as an interested and affected party (I&AP)? YES

(please tick the relevant box)

NO

Note: You are required to register as an I&AP to receive further correspondence regarding the EIA process for the project.

Please state your interest in the project (add additional pages if necessary):

Please list your questions, views or concerns regarding the project (add additional pages if necessary):

Please provide contact details of other persons who you regard as a potential interested or affected party:

Name & Surname:

Organisation & Designation:

Postal Address:

Telephone:

Fax:

Cellphone:

E-mail:

What is your preferred language of correspondence? (please tick the relevant box)

English

Afrikaans



(Sien keersy vir Afrikaans)

