

**VREDENBURG WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE ON A SITE LOCATED ON THE
VREDENBURG PENINSULA IN THE WESTERN CAPE PROVINCE**

PRE-APPLICATION MEETING WITH DEA: NOTES FOR THE RECORD

Meeting Date: 11 May 2017

Time: 10:00

Venue: Department of Environmental Affairs, Pretoria

Attendees (attendance register attached):

NAME	ORGANISATION
Coenrad Agenbach	Department of Environmental Affairs
Mmamohale Kabasa	Department of Environmental Affairs
Karen Jodas	Savannah Environmental
Thalita Botha	Savannah Environmental
Thomas Siepelmeyer	IDP Power
Maishe Maponya	IDP Power
Roy Maponya	IDP Power / EES
Lerato Gunguluza	IDP Power / EES
Vusi Thabalala	EES
Jonathan Visser	Enercon

Both the Developer and the EAP prepared presentations to cover the items as listed in the agenda. These points were presented included:

1. Background to the Vredenburg Wind Energy Facility Project
2. Nature and extent of proposed project
3. Rationale for the proposed project on this site
4. Consideration of findings from specialist studies already undertaken for this area
5. Bird and bat monitoring programmes completed

These are attached to the Notes for completeness.

Notes:

The purpose of the meeting was to provide the applicant with an opportunity to provide a synopsis of the background to the proposed Vredenburg Wind Energy Facility project to the DEA, and enable all parties to fully understand the history of the project. It was noted that Terramanzi Group (Pty) Ltd had commenced a previous EIA process for the project. The Scoping Report was accepted on 27 July 2016 and the application lapsed thereafter. Significant work has already been completed by specialist consultants for this proposed site. This puts the Developer in a unique position that they are already able to design a facility which responds to already identified environmental constraints. Savannah Environmental outlined the EIA process that will be undertaken for the project. The DEA was requested to provide input on the EIA process and raise any specific requirements and expectations regarding the application. The following was stated and noted for the record:

- » The grid connection for the project will be very short, approximately 2km to connect at West Coast One. The Eskom line constructed will accommodate the connection of additional projects in this area.
- » The applicant confirmed that the South African Civil Aviation Authority (SACAA) and South African Air Force (SAAF) had been consulted during the previous EIA process undertaken for the project. During this process, the SACAA and SAAF were asked to provide input on what distance would be suitable to reduce impacts to radar installations and air traffic in the Vredenburg area. It was proposed that an 18.5km exclusion zone be implemented around the Air Force Base Langebaanweg located on the Saldanha Peninsula. The planned facility falls outside of the SAAF exclusion zone. Forty-five turbines have been approved by the SACAA and SAAF.
- » It was noted that Aurora Wind Power provided comments during the previous EIA process. Their primary concern was the potential of interference from the new turbines on the existing turbines. The turbines proposed for the Vredenburg Wind Energy Facility would experience wake effects caused by the existing turbines. DEA recommended that consultation with Aurora Wind Power should be continued to avoid an appeal later in the process.
- » The turbine specifications are confirmed to be up to 3MW generation capacity per turbine with a rotor diameter of approximately 103m and a height of approximately 165m. These specifications are within the specified SACAA and SAAF limit. DEA requested that a range of turbine specifications be provided in the EIA for consideration.
- » The applicant confirmed that the existing bird monitoring data recorded at the West Coast One Wind Farm had been requested from BirdLife but was advised that no monitoring data is currently available within the public domain. It was noted that bat and bird monitoring is being undertaken during the operation phase for the West Coast One Wind Farm.
- » It was confirmed that a full year of pre-construction bat and bird monitoring as well as radar monitoring has been undertaken for the Vredenburg Wind Energy Facility. Pre-construction bat and bird monitoring was concluded in June 2015. The monitoring included all four seasons of the year. The specialists confirmed that the monitoring is still valid in terms of the Birds and Wind-

Energy Best-Practice Guidelines of 2015 and the South African Good Practice Guidelines for Surveying Bats of 2016.

- » Savannah Environmental has reviewed the specialist studies which were completed during the previous EIA process undertaken by Terramanzi Group. Savannah Environmental completed a gap-analysis to identify deficiencies within the reporting. It was noted that the same specialists will be used during the new EIA process. The specialist reports will be updated to consider the revised layout, ensure compliance with the Amended EIA Regulations of 2014 and be updated in accordance with Savannah Environmental's assessment methodology.
- » The Scoping Report from the previous EIA process was accepted on 27 July 2016 and the application lapsed thereafter. According to Regulation 21, subregulation 2(a), in cases where a Scoping Report was accepted as part of a previous application for environmental authorisation and the application has lapsed, subject to Regulation 46, and if the findings of the Scoping Report is still valid and the environmental context has not changed, the submission of the Scoping Report as contemplated in subregulation 1 need not be complied with. The DEA advised that since the applicant has chosen to appoint a different EAP to undertake the new EIA process, it is considered not to be feasible to not repeat the Scoping phase, and that in this instance the EIA process for the Vredenburg Wind Energy Facility will have to comply with Regulation 21, subregulation 1. This should be considered further before being acted on.
- » DEA stated that the appointed EAP must check the Regulations in terms of what can be done prior to the submission of an Application for Authorisation, and what must be done after the submission of the application.
- » As a new EIA process will be undertaken for the Vredenburg Wind Energy Facility, a new public participation process will also need to be undertaken in accordance with the Amended EIA Regulations of 2014.
- » In terms of authority consultation, DEA advised that they would prefer to conduct a site visit after reviewing the Draft Scoping Report but before the Final Scoping Report is submitted. Other relevant authorities such as the Western Cape Department of Environmental Affairs and Development Planning would also be required to be invited for the DEA site visit.
- » Consultation with the Western Cape Department of Agriculture and National Department of Agriculture, Forestry and Fisheries (DAFF) should be on-going throughout the process as all turbines are located within cultivated land. Evidence of this consultation must be provided in the submission to DEA. The developer stated that existing roads and tracks will be used as far as possible to minimise the potential for impact.
- » It should be noted that the cumulative impact assessment for all the specialist studies would form a critical part in the EIA assessment and needs to be adequately assessed. Other facilities within a 30km radius from the site must be considered. It is recommended that comments from DEA received during the previous process should be considered in the new process.

- » It was noted that the Applicant must still make final decisions regarding the way forward on the project following this meeting, and that the expected timeline for the submission of an Application for Authorisation would be minimum 2-months.

It was agreed that the notes from the meeting would be available to all parties, and include the presentations which had been prepared but not projected at the meeting. The way forward is for the developer to confirm the project description and process to be followed, and to engage with Interested and Affected Parties (I&AP) and prepare the relevant reporting before submitting an application to DEA.

Prepared by:

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VREDENBURG WIND ENERGY FACILITY, VREDENBURG PENINSULA IN THE WESTERN CAPE

PRE-APPLICATION MEETING

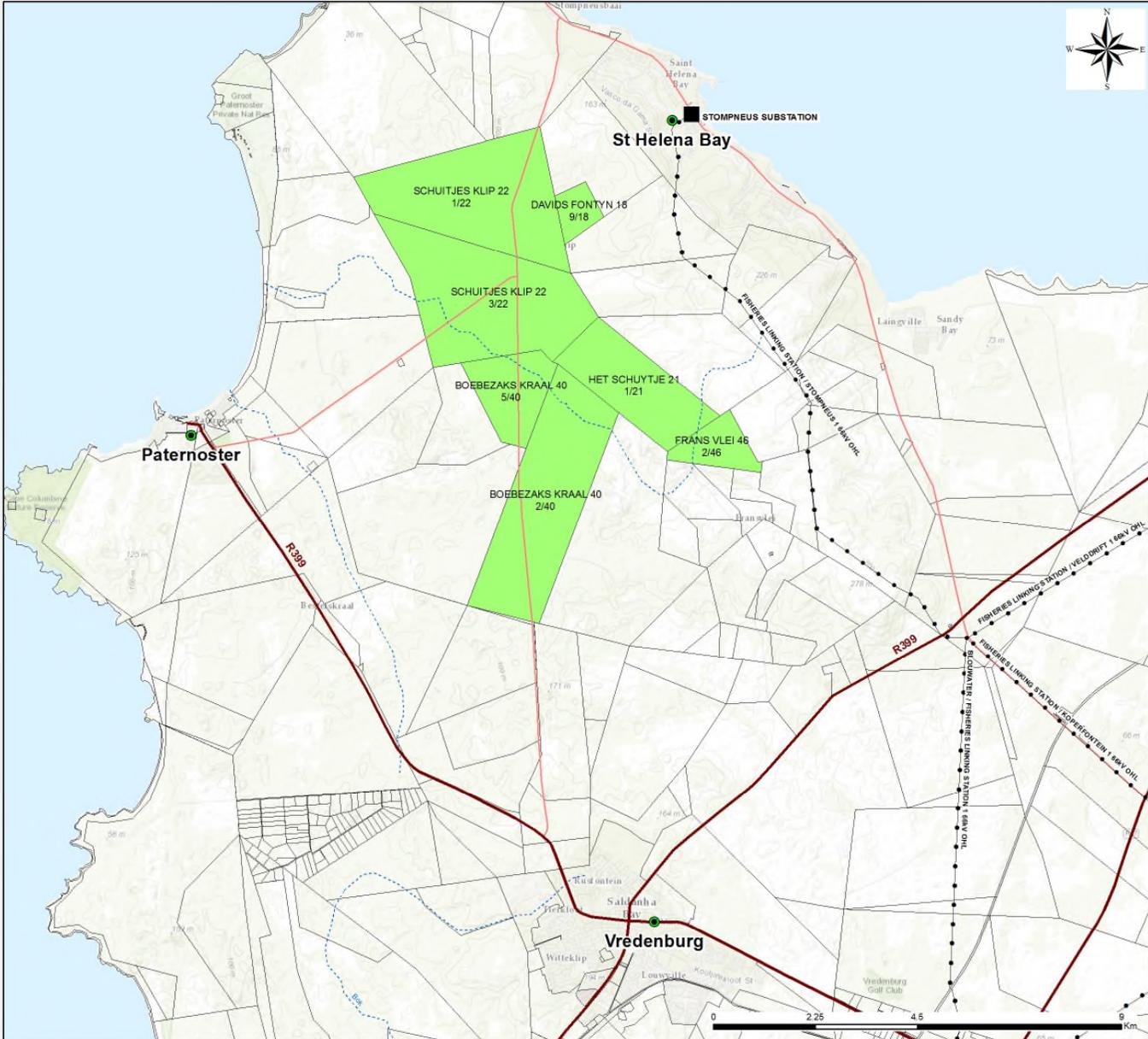
11 May 2017

MEETING AGENDA

1. Introduction to the applicant, the project development team and appointed EAP
2. Background to the Vredenburg Wind Energy Facility Project
 - 2.1. Nature and extent of proposed project
 - 2.2. Rationale for the proposed project on this site
 - 2.3. Consideration of findings from specialist studies already undertaken for this area
 - 2.4. Bird and bat monitoring programmes completed
3. EIA process and associated timeline
4. DEA comments
 - 4.1. DEA comments regarding planned EIA process rationale for the proposed project on this site
 - 4.2. Defining DEA requirements for the EIA process for a wind farm application
 - 4.3. Need for a DEA site inspection and timing of this site visit
5. Way forward and closure

SITE ASSESSMENT

- Larger study area - subject to assessments by specialists, which has informed the placement of the planned development site to be considered within this Application:
- Specialist assessments:
 - Agricultural and Soil Stability
 - Botanical
 - Birds
 - Bats
 - Heritage
 - Palaeontology
 - Noise
 - Socio-Economic
 - Visual
 - Surface Water Resources
 - Wetland



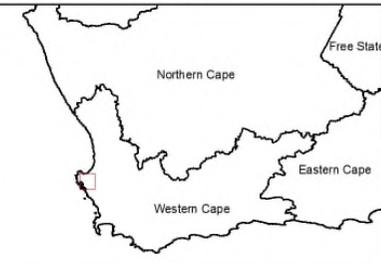
Vredenburg Wind Farm, Western Cape Province

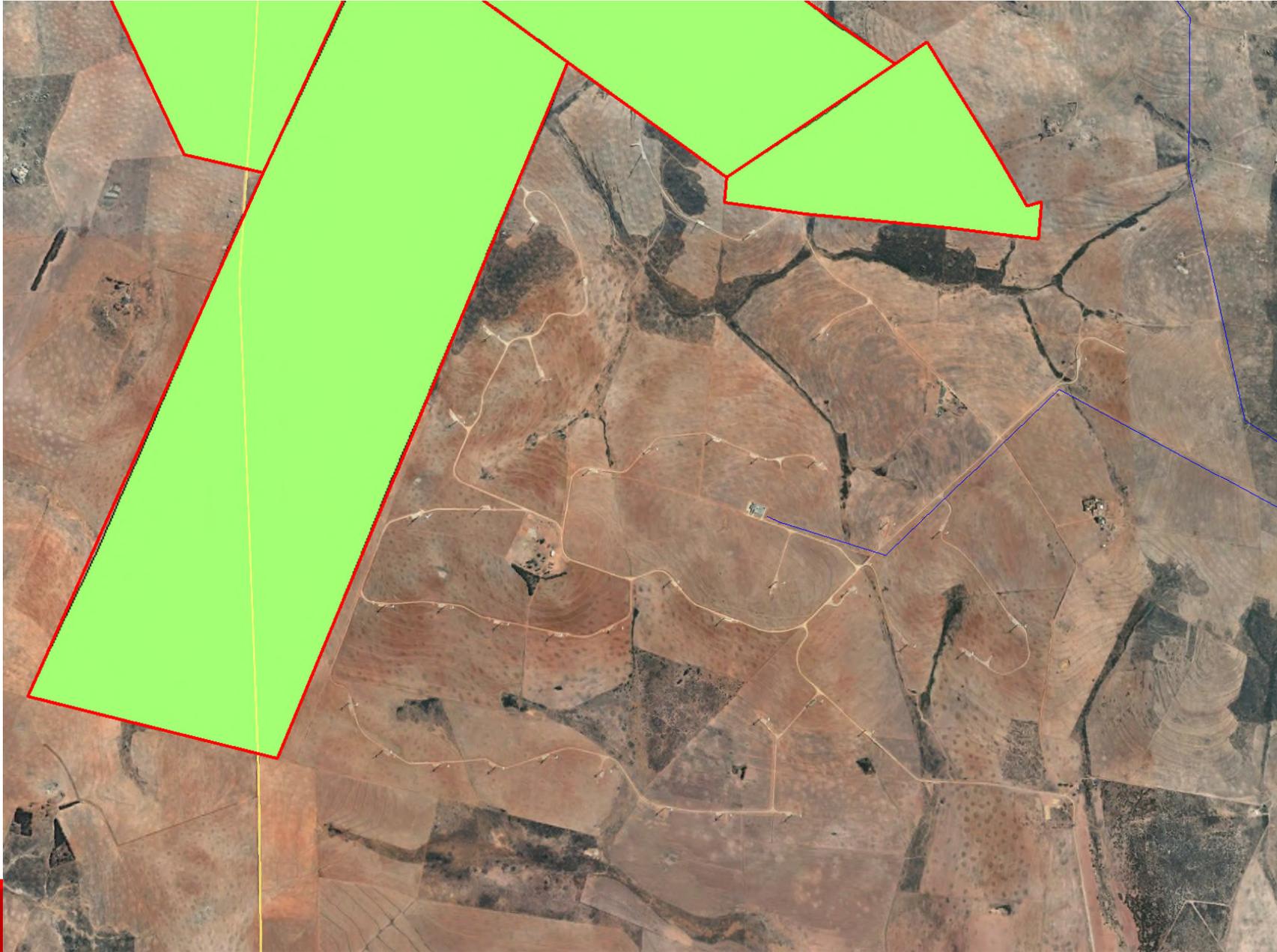
Locality Map

Legend

- Towns
- Existing Substation
- Existing Power Line
- Regional Road
- Main Road
- Non-perennial river
- Project Site
- Farm Portions

savannah environmental
 Scale: 1:80 000
 Projection: GCS_WGS_1984_L017
 Map ref: Vredenburg Windfarm Locality Map_07.03.2017





INITIAL FINDINGS

STUDY	FINDINGS
Agricultural and Soil Stability	<ul style="list-style-type: none"> Minimise impact on agricultural practises. Minor negative impact.
Birds	<ul style="list-style-type: none"> 12-month pre-construction monitoring completed Lower blade tip to have a minimum height of 60m - to minimise the risk of collision by elevating the rotor swept area above the movement flux of most of the bird species observed in the area. No-go areas identified for exclusion – high sensitivity (avoidance). Medium bird sensitivity area.
Bats	<ul style="list-style-type: none"> 12-month pre-construction monitoring completed Lower blade tip to have a minimum height of 60m No-go areas identified for exclusion – high sensitivity (avoidance). Large variation in activity between bat micro-habitats on site Bat activity is moderate to high.
Botanical	<ul style="list-style-type: none"> Very low negative impacts.
Surface Water Resources and wetlands	<ul style="list-style-type: none"> Limited negative impact.

INITIAL FINDINGS

STUDY	FINDINGS
Heritage	<ul style="list-style-type: none">• Field assessment concluded• LSA sites are medium to low significance.• A farm cemetery is a no-go area.• Agreement with HWC on buffers required
Palaeontology	<ul style="list-style-type: none">• Low fossil potential.
Noise	<ul style="list-style-type: none">• Low risk of noise impacts.
Socio-Economic	<ul style="list-style-type: none">• Benefits and negative impacts.• Supported by interviews with locals• No fatal flaws associated with project
Visual	<ul style="list-style-type: none">• 45 turbine layout - Medium to High visual impact.• Visual impact not considered a fatal flaw.

PRE-CONSTRUCTION MONITORING

- **Monitoring:** 12-month monitoring concluded for both birds and bats.
- **Birds:** Surveys conducted between June 2014 and May 2015.
 - Included a total of 10 visits to the site,
 - Covered the project area
 - 12 months monitoring that included the four seasons.
 - Included walked transects and vantage point surveys,
 - Validity of monitoring has been confirmed by Specialist.
- **Bats:** Monitoring from June 2014 to July 2015 using acoustic detection.
 - Static, long-term bat activity monitoring took place at 7 locations.
 - Active monitoring of bat activity at other locations, roost surveys and a thorough assessment of bat habitat features on site conducted in all seasons.
 - Monitoring data determined the bat species composition and their long-term spatial and temporal activity patterns.
 - Validity of monitoring has been confirmed by Specialist.

EIA PROCESS

- Scoping report was accepted as part of a previous application that lapsed – Scoping accepted in July 2016
- Regulation 21(2)(a) – relating to submission of a Scoping Report. Applicability to this project?
- Update Specialist reporting – consider revisions to layout and ensure compliance with Regulations
- Public and stakeholder consultation – written correspondence and meetings; incl 30 day review period
- EIA reporting
- Authority consultation and site visit.

QUESTIONS / DISCUSSION



VREDENBURG WINDFARM Pty (Ltd)

presenting

Vredenburg Wind Energy Facility (WEF)

Investment into Renewable Energy Wind Projects

Deliver a meaningful amount of RE electricity to South Africa and its citizens

Change the industry from fossil fuel based energy to renewable energy which is crucial for a sustainable economy

Vredenburg Windfarm (Pty) Ltd.

is a joint German-South African developer of renewable energy (RE) projects registered in South Africa and owned by IPD Power (Pty) Ltd. (50 %) and three German RE companies: Enercon, Saertex and Energiequelle (16.67 % each).

Vredenburg Windfarm (Pty) Ltd. is responsible for the project and – according to current plans – later also for the operations of the installations.

The Project is situated about 140 km north of Cape Town, Western Cape, South Africa. The farms where the WEF is proposed to be built are owned by three commercial farmers. The area is approximately 2,700 ha for the establishment of a Wind Project up to 140 MW

Davertwind GmbH

(main shareholder of IPD Power Pty Ltd.)

- Established 1997 and headquartered in Muenster, Germany
- Development and construction of wind and solar farms
- RE Project Consulting experience in Germany, South Africa, Namibia, Argentina, Poland, Turkey, Belorussia – special emphasis on wind turbine foundation investigations and structural safety; Repowering Projects; “Small Scale Projects”
- E.g. participation in the discussion of “green” and “white” books on RE and environmental topics with the S. A. government
- Mining and Environmental Consulting in South Africa and other southern African countries; South America (Argentina, Bolivia, Columbia) - competent person according to National Instrument NI 43-101 for mineral resources classification (Canada)



Wind-Energy ENERCON South Africa

ENERGY FOR THE WORLD



- Subsidiary of ENERCON GmbH, which is based in Aurich, Germany
- ENERCON GmbH was founded in 1984 and has grown into one of the largest wind turbine manufacturers in the world.
- Famous for its gearless direct-drive generator concept adopted in 1991
- ENERCON have installed close to 44GW world wide, made up of nearly 27000 wind turbine installations.
- Technology is considered to be constant innovation, high quality, high reliability and high aerodynamic and electrical efficiency
- Recently established in South Africa, plans to be part of the renewable energy industry domestically, participating in the DoE's REI4P programme and other renewable energy opportunities.

Energiequelle GmbH

For the benefit of the environment and future generations

- Established in 1997; 200 employees worldwide
- Development, turn-key installation and operation of wind, solar and biogas power installations and grid operations.
- Customer satisfaction: 98.8 %
- Over 1,200 MW wind power installed
- 67 MWp solar power installed
- 1,680 MVA grid operations
- 10 MW controlling power (Germany's largest battery storage facility in cooperation with ENERCON)



Saertex GmbH

- Established in 1982
- Production of technical reinforcing materials in the form of stitch-bonded fabrics
- Customers in the wind, aircraft and shipbuilding industry
- Production facilities in Germany, France, Portugal, USA, India, China, Brazil and South Africa with 1,200 employees worldwide
- SAERTEX South Africa established in 1997 with manufacturing facility for technical fabrics in Paarl, WC



Saertex Paarl

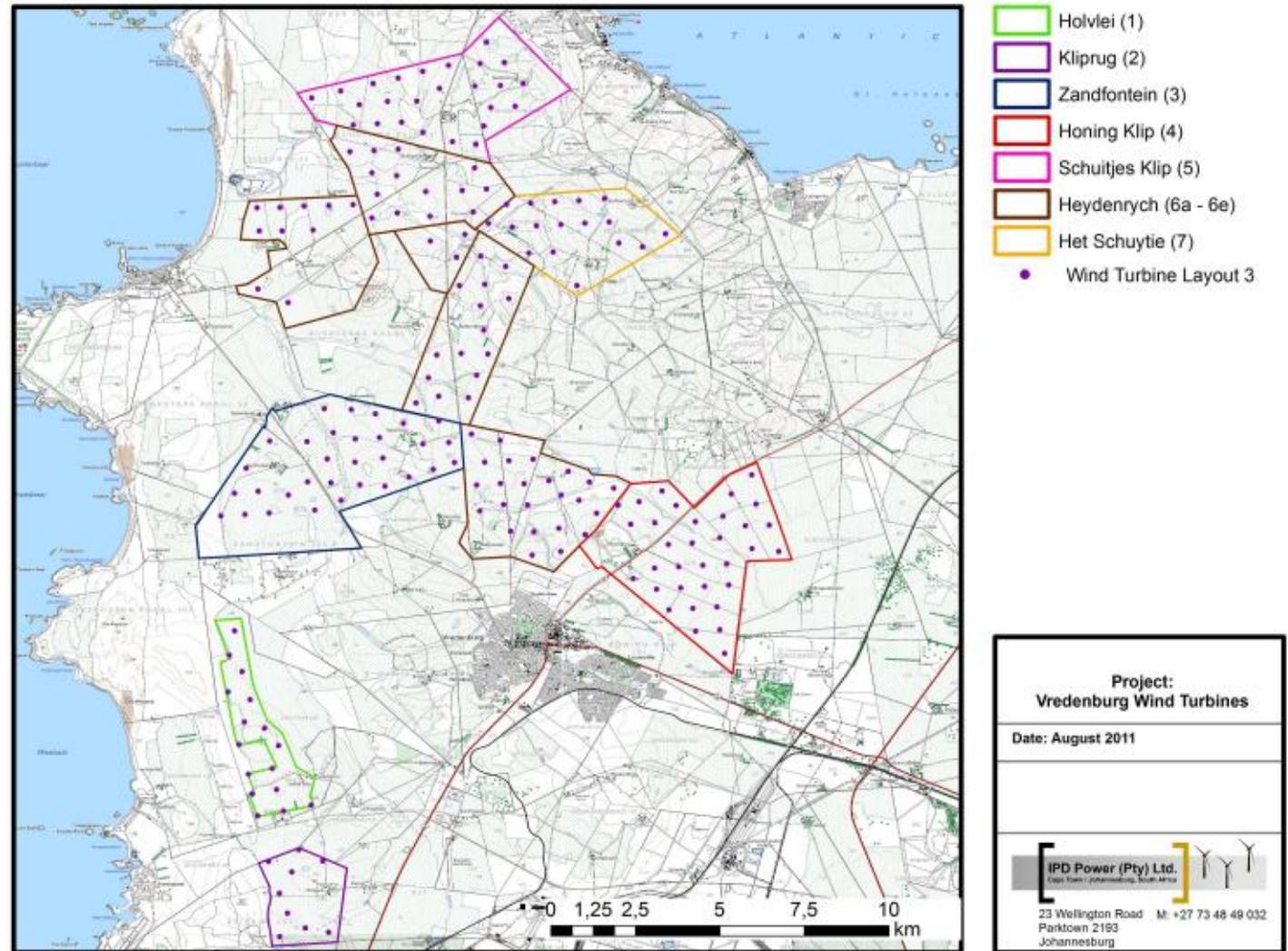
Why the Vredenburg area?

- The area is very well suited for wind energy production - proven by several wind measurements (wind masts) over more than one year. The wind assessment resulted in appr. 3,600,000 kWh per year per MW installed and provides a very good economic outlook for the project.
- The area is a direct neighbour to the constructed West Coast One Wind Farm.
- A double circuit 132 KV Eskom power line runs directly from the neighbouring wind farm West Coast One to the Aurora substation which makes access to and feed-in of electricity into the grid very easy and cost-effective. Eskom built this line 3 years ago in anticipation of more RE projects in the area, with a total capacity of 400 MW.
- Very well developed infrastructure to deliver turbines and other material and equipment – Saldanha Bay port only 20 km south. The whole area is designed by national and provincial government IDP's to become an energy, transport and production hub for S.A. and even parts of the African Atlantic coast northwards. Wind energy generation and the future production of wind turbines fit very well into these plans.

History of the Project

- First contacts with local farmers in the Vredenburg area in 2010
- Wind assessments and initial EIA procedures showing favourable site conditions
- First layout for appr. 500 MW of wind power generation
- CAA / SAAF objection to the project in 2012
- Resumed project work in 2013 after CAA / SAAF clearance was provided
- Revised project layout for 280 MW
- EIA findings on several levels call for further concentration of turbine sites
- Revised layout in 2016 for 60 turbines with 140 MW of wind power generation
- Further optimization to address visual constraints leads to current layout for 45 turbines with 140 MW of wind energy generation

Project Map – Initial Layout



Project Map – Current Layout

- 45 turbines
- Feed-in into Aurora Substation via double circuit 132 KV line (yellow)
- Distributor: Eskom Holdings



Engagement with local Community and Stakeholders

Community, exsp. Paternoster on visual effects and impacts, turbine design, synchronising lighting to existing wind park WC 1, job and business advantages for local community

Re. (District) Municipality discussing feasibility with IDP and other plans

Re. Heritage engagement with HRW with the help of Prof Sadr, Wits University

Agricultural Sector

Engaging with farmers directly and indirectly – effects of current drought etc.

Creating additional income for local farming community through RE leases to secure farming business on very poor soils (so-called “second” or “third” leg of income beside agriculture and (eco-) tourism)

Contacts

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SAVANNAH ENVIRONMENTAL (PTY) LTD		ATTENDANCE REGISTER	
Project	Vredenburg Wind Farm	Meeting	Pre-application meeting with DEA
Date	11/05/2017	Time	10:00
		Venue	DEA Environment House – Boardroom A1-2-17

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3 Vusi Tshabalala Designation EES ROY MATONYA		Tel : 082 788 7890 Fax : Cell : E-mail :	
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9	DEA Designation Case officer	Mmamohale Kabasa	Tel : 012 399 9420 Fax : Cell : E-mail :	
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