

**ENVIRONMENTAL IMPACT ASSESSMENT**  
**Background Information Document**  
**Banna ba pifhu Wind Energy Project**  
**Broadlands and Saragossa Farms**  
**Humansdorp, Kouga Local Municipality**

DEA Reference Number: 12/12/20/2289

May 2011



## **PROJECT OVERVIEW**

WKN Windcurrent SA (Pty) Ltd (WKN Windcurrent), a joint venture company between Windcurrent SA (Pty) Ltd. and WKN Windkraft Nord AG (WKN), is proposing the construction of a 50 MW wind energy facility on the following farms: Remainder of Farm 688, Portion 2 and 15 of Farm 689 and Portion 1 of Farm 868, Humansdorp, Kouga Municipality, Eastern Cape Province.

WKN Windkraft Nord AG is one of the leading vertically integrated full service providers for wind farm projects in Europe and the US. WKN's turnkey services range from acquisition, development, planning, design, financing and construction to the operation, technical and commercial management of wind farms. WKN currently has over 1050MW of realised capacity in Europe and the United States of America. Windcurrent SA (Pty) Ltd is a local company which has been developing renewable energy projects since 2009 in South Africa.

The Eastern Cape does not generate bulk power and is thus reliant on electricity imports from other provinces (e.g. Mpumalanga). The existing transmission capacity to the province is fully utilised, which restricts the province from realising its industrial and rural development potential. Due to the length of the Eskom power lines from the power stations to the Kouga area and the inherent characteristics of the Kouga network, the area experiences power quality and voltage instability. This results in secondary agricultural processing companies, both small and commercial scale farmers, experiencing an intermittent and sometimes unreliable supply of electricity. The project could thus assist in stabilising energy supply to the Eastern Cape and in particular the Kouga Municipal area.

## **WHAT DOES THIS DOCUMENT TELL YOU?**

This document provides you, as an interested and or affected party (I&AP) with background information on the proposed project as well as the Environmental Assessment and Public Participation process that will be undertaken for the project. It indicates how you can become involved in the project, receive information and raise issues that may interest and/or concern you. 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 environmental assessment process from the outset. The input received from I&APs together with scientific investigations assists the responsible authority, in this instance the National Department of Environmental Affairs (DEA), with their decision-making.

## **PROJECT LOCATION AND DETAIL**

The Banna ba pifhu Wind Energy Project is located on the Broadlands and Saragossa Farms in the Kouga Municipal Area, approximately 3.5 km south of the town of Humansdorp, on the following farms:

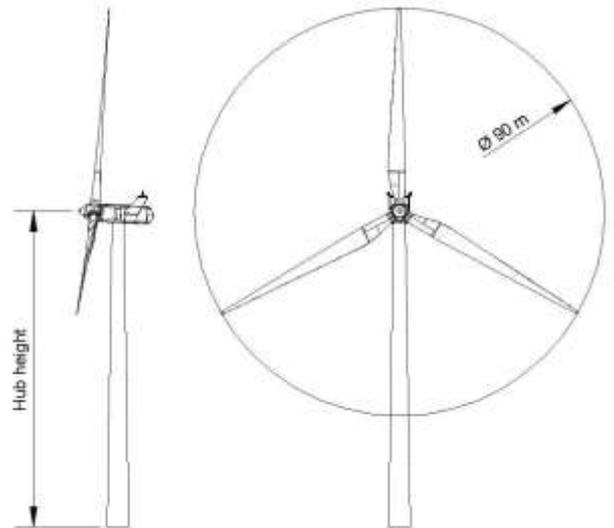
- Remainder of Farm 688
- Portion 2 and 15 of Farm 689
- Portion 1 of Farm 868

The locality map included with this Background Information Document provides an overview of the erven included in this application. The Banna ba pifhu Wind Energy Project is proposed to be developed in one phase, which is covered in this EIA.

The key infrastructure components of the project will include the following:

- The installation of approximately 14 to 25 wind turbines of approximately 2 to 3.5 MW each with a hub height of between 80 to 105 meters and a blade diameter between 80 and 120 meters
- Construction of concrete foundations to support the wind turbines;
- Two wind monitoring masts of up to 100 m high;

- Internal access roads to the turbines, with the intent being to upgrade existing roads as far as possible;
- Underground internal electrical cabling between the wind turbines;
- An on-site substation for connection to the Eskom grid;
- Construction of hard standing areas for use by cranes during construction. Some of these areas will be retained for future maintenance use; and
- An Operation and Maintenance facility, including a storage building, security office and car park area.



Construction is undertaken 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 a period of 8 to 12 months. The operational life span of the wind turbines is expected to be a minimum of 20 years which can be extended through regular maintenance and/or upgrades in technology. The project is implemented in such a manner 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.

#### ENVIRONMENTAL ASSESSMENT PROCESS

An application for Environmental Impact Assessment was submitted to the National Department of Environmental Affairs and DEA has allocated the following reference number to this application 12/12/20/2289.

In terms of the National Environmental Management Act (Act no 107 of 1998), as amended (NEMA), and the 2010 EIA regulations published in Government Notice R 543, 544, 545 and 546 on the 18 June 2010 in Government Gazette 33306 (as amended), Scoping and Environmental Impact Assessment Process is required as the project includes the following listed activities;

Additional listed activities are as follows:

GN R544: Activity 10. (i)

GN R546: Activity 4. (a) (ii) (ee); 13. (a); 14. (a) (i); 16. (iii) (iv) (ff).

<b>Activities listed in GN R 544, which require a Basic Assessment</b>
10. The construction of facilities or infrastructure for the transmission and distribution of electricity - (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or
<b>Activities listed in GN R 545, which require Scoping and EIR</b>
1. The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more.
15. Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more;
<b>Activities listed in GN R 546, which require a Basic Assessment</b>
4. The construction of a road wider than 4 metres with a reserve less than 13,5 metres. (a) In Eastern Cape...: (ii) Outside urban areas, in: (ee) Critical biodiversity areas (Type 1) as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;
13. The clearance of an area of 1 hectare or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, except where such removal of vegetation is required for:

(a) Critical biodiversity areas and ecological support areas as identified in systematic biodiversity plans adopted by the competent authority.
14. The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation, except where such removal of vegetation is required for: (a) In Eastern Cape...: (i) All areas outside urban areas;
16. The construction of: (iii) buildings with a footprint exceeding 10 square metres in size; (iv) infrastructure covering 10 square metres or more  where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.  (a) In Eastern Cape, ii. Outside urban areas, in: (ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;

The listed activities require authorisation from the National Department of Environmental Affairs (DEA). The environmental assessment needs to show the responsible authority, DEA, and the project proponent, WKN Windcurrent SA (Pty) Ltd, what the consequences of their choices will be in biophysical, social and economic terms. The CSIR has been appointed by the Joint Venture to undertake the Environmental Assessment (EIA) required for the project and Public Process Consultants will manage the public participation component of the EIA. Public involvement forms an important component of this process, by assisting in the identification of issues and alternatives to be evaluated.

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

#### **Stage 1: Environmental Scoping (May 2011 until September 2011)**

This Scoping process is being planned and conducted in a manner that is intended to provide sufficient information to enable the authorities to reach a decision regarding the scope of issues to be addressed in the EIA, and in particular to convey the range of specialist studies that will be included as part of the Environmental Impact Reporting Phase of the EIA, as well as the approach to these specialist studies. Within this context, the objectives of this 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 being considered;
- Through a process of broad-based consultation with stakeholders, conduct an open, participatory and transparent participation process and facilitate the inclusion of stakeholders' concerns in the decision-making process; and
- Identify and document the key issues to be addressed in the forthcoming Environmental Impact Reporting Phase of the EIA.

#### **Stage 2: Environmental Impact Assessment (late 2011)**

The purpose of this stage of the EIA is to undertake specialist investigations to address the issues of concern identified through the Scoping Process. This includes the assessment of alternatives, identification of impacts and the determination of the significance of impacts. Specialists will, where appropriate, formulate mitigatory measures to maximise positive benefits or avoid/minimise potential negative impacts. The following specialist assessments have been identified, at this stage, to form part of the environmental assessment phase of the project:

- Ecological Assessment (flora and terrestrial fauna) – Jamie Pote (Private Consultant)
- Avifauna Assessment (Birds) – Chris van Rooyen, Chris van Rooyen Consulting
- Bats Assessment – Stephanie Dippenaar (Private consultant) (reviewer: Dr Samantha Stoffberg)
- Visual Impact Assessment – Henry Holland, Mapthis Trust
- Noise Impact Assessment – Brett Williams, Safetech
- Archaeology Assessment – Dr Johan Binneman, Albany Museum
- Palaeontology – Dr John Almond

## **PUBLIC PARTICIPATION PROCESS**

Public Participation forms an integral component of the scoping and environmental impact assessment process. The following outlines the steps in the public participation process which will be undertaken to run in parallel to stage one and two of the EIA process.

### **Step 1: Notify Authorities of Environmental Impact Assessment Process**

An application for Scoping and EIA was submitted to the National Department of Environmental Affairs and DEA EIA reference no 12/12/20/2289 allocated to this application.

### **Step 2: Notification to I&APs and Identification of Issues**

Step two entails providing notification to I&APs of the project proposal as well as the identification of any issues/concerns they may have. I&APs are provided with a Background Information Document (BID) on the project, including a locality map and a comment form. One on one meetings will be conducted with relevant stakeholders, where required, during this phase of the process. I&APs will be provided with a minimum of a 30-day period within which to raise any issues of concern for inclusion in the Draft Scoping Report.

### **Step 3: I&AP Review of the Draft Scoping Report**

All issues and concerns raised by I&APs are compiled into an Issues and Responses Trail for inclusion in the Draft Scoping Report which is released for a 40-day comment period. This report will also include the *Plan of Study for EIA*. All I&APs on the project database will be notified in writing of the opportunity to comment on the report, which will include an executives summary of the Draft Scoping Report and comment form. Copies of the report can be downloaded from the website [www.publicprocess.co.za](http://www.publicprocess.co.za) In order to assist I&APs with their understanding of the project and to facilitate the identification of issues and concerns for inclusion in the Final Scoping Report, it is proposed that a public meeting, to which all I&APs are invited, is held during the review period.

### **Step 4: Final Scoping Report**

The comments received from I&APs during the review process are considered in the compilation of the Final Scoping Report before it is submitted to the 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) and will be informed of any additional comment period.

The Final Scoping Report will include the Plan of Study for EIA (PoS EIA) and Terms of Reference for specialist studies to be undertaken as part of the EIA process. The PoS EIA is subject to the approval of the authorities and may require amendment.

### **Step 5: Draft Environmental Impact Assessment and EMP**

When the DEA accepts the Final Scoping Report and PoS EIA, the environmental assessment phase may commence. The purpose of the EIA is to:

- Address issues that have been raised through the Scoping Process;
- Assess reasonable and feasible alternatives that form part of the proposed activity (including the No Go Option);
- Assess potential impacts; and
- Recommend management actions to enhance benefits or avoid/minimise potential negative impacts.

This stage in the process entails the compilation and release of a Draft Environmental Impact Assessment for a 40-day I&AP review period. A key component of the EIA process is documenting and responding to the comments received from I&APs and authorities. The comments received through meetings held or via written correspondence are compiled into a Comments and Responses Trail for inclusion in the Final Environmental Impact Assessment. 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, in the project design or EMP for the project.

### **Step 6: Final Environmental Impact Assessment and Draft EMP**

The Final Environmental Impact Assessment, including the Comments and Responses Trail and draft EMP will be compiled for submission to the authorities for decision making (DEA). All I&APs on the pro-

ject database will be notified in writing of the submission of the Final EIA as well as any additional comment period if applicable.

### **Step 7: Notification of Environmental Decision and Appeal Period**

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

### **HOW CAN YOU GET INVOLVED?**

1. By responding to our invitation for your involvement advertised in local newspapers.
2. By mailing or faxing a comment form to the participation consultant indicated below.
3. By telephonically contacting the participation consultant if you have a query, comment, or require further project information.
4. By reviewing the various reports within the comment periods provided.
5. 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.

### **Sandy Wren, Public Process Consultants**

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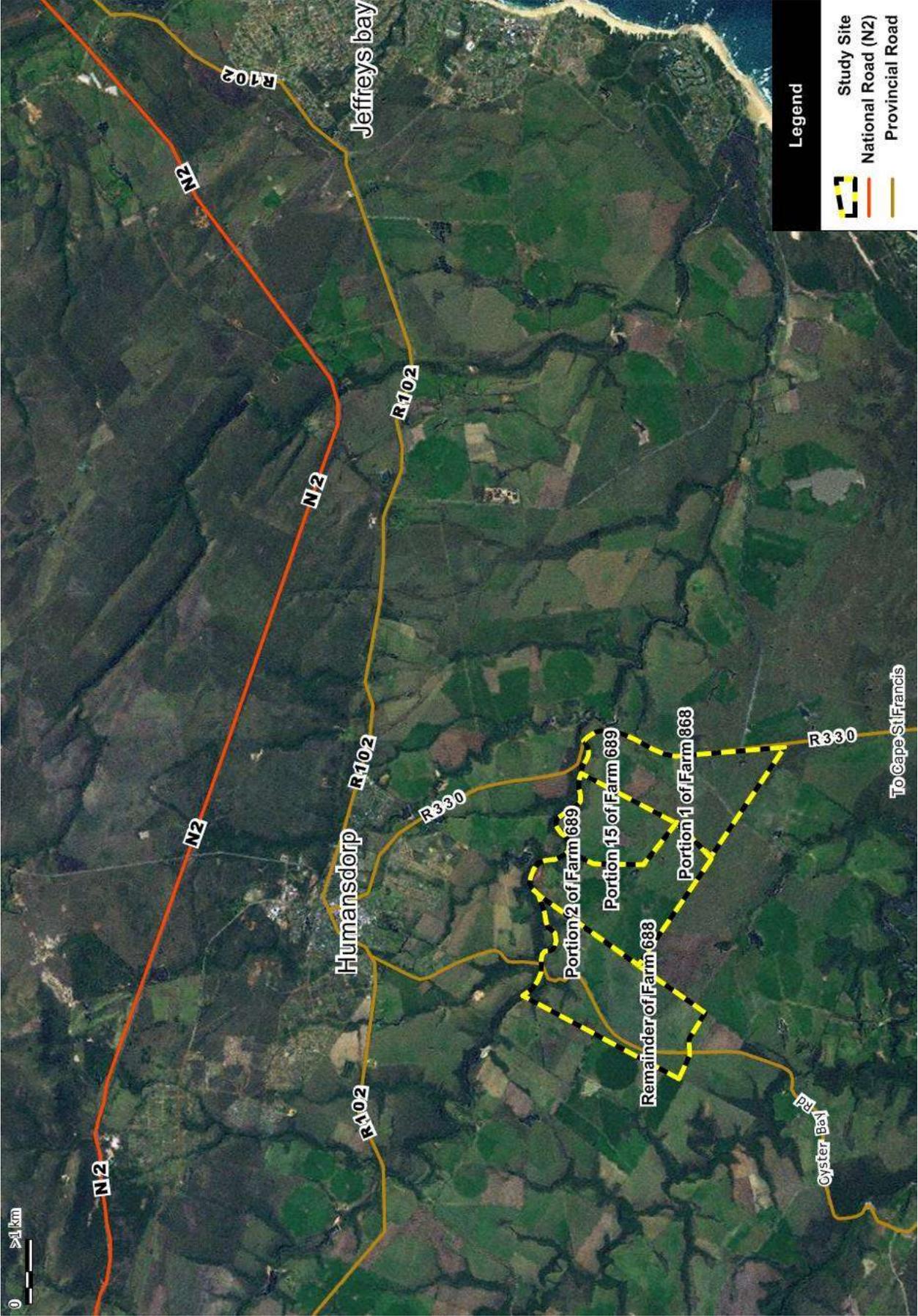
Cell 082 4909 828

Email [sandy@publicprocess.co.za](mailto:sandy@publicprocess.co.za)

Information on this project can  
be accessed through the website:

[www.publicprocess.co.za](http://www.publicprocess.co.za)





0 >1 km

Legend

- Study Site
- National Road (N2)
- Provincial Road

To Cape St Francis