



**SOUTH AFRICAN HERITAGE RESOURCES AGENCY**  
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FOR ATTENTION: **PHRA: Eastern Cape**

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## **REVIEW COMMENT ON ARCHAEOLOGICAL AND PALAEOONTOLOGICAL IMPACT ASSESSMENTS**

**BY ARCHAEOLOGY, PALAEOONTOLOGY AND METEORITES UNIT OF THE SOUTH AFRICAN HERITAGE RESOURCES AGENCY**

*South Africa has a unique and non-renewable archaeological and palaeontological heritage. Archaeological and palaeontological sites are protected in terms of the National Heritage Resources Act (Act No 25 of 1999) and may not be disturbed without a permit. Archaeological Impact Assessments (AIAs) and Palaeontological Impact Assessments (PIAs) identify and assess the significance of the sites, assess the potential impact of developments upon such sites, and make recommendations concerning mitigation and management of these sites. On the basis of satisfactory specialist reports SAHRA or the relevant heritage resources agency can assess whether or not it has objection to a development and indicate the conditions upon which such development might proceed and assess whether or not to issue permission to destroy such sites.*

*AIAs and PIAs often form part of the heritage component of an Environmental Impact Assessment or Environmental Management Plan. They may also form part of a Heritage Impact Assessment called for in terms of section 38 of the National Heritage Resources Act, Act No. 25, 1999. They may have other origins. In any event they should comply with basic minimum standards of reporting as indicated in SAHRA Regulations and Guidelines.*

*This form provides review comment from the Archaeologist of the relevant heritage resources authority for use by Heritage Managers, for example, when informing authorities that have applied to SAHRA for comment and for inclusion in documentation sent to environmental authorities. It may be used in conjunction with Form B, which provides relevant peer review comment.*

- A. PROVINCIAL HERITAGE RESOURCES AUTHORITY: **Eastern Cape** .....
- B. AUTHOR(S) OF REPORT: **Dr Johan Binneman**
- C. ARCHAEOLOGY CONTRACT GROUP: **Eastern Cape Heritage Consultants**
- D. CONTACT DETAILS: **PO Box 689, Jeffreys Bay, 6330, Tel: 042962096**
- E. DATE OF REPORT: **August 2011**
- F. TITLE OF REPORT: **A Phase 1 Archaeological Impact Assessment for The Proposed Tsitsikamma Community Wind Energy Facility, Kouga Local Municipality, Humansdorp District, Eastern Cape Province**
- B. AUTHOR(S) OF REPORT: **Dr John Almond**
- C. ARCHAEOLOGY CONTRACT GROUP: **Natura Viva CC**
- D. CONTACT DETAILS: **PO Box 12410 Mill St, Cape Town, 8010**
- E. DATE OF REPORT: **August 2011**
- F. TITLE OF REPORT: **Proposed Tsitsikamma Community Wind Energy Facility near Humansdorp, Kouga Local Municipality, Eastern Cape Province**

- G. Please circle as relevant: Archaeological and Palaeontological components of **EIA** / EMP / HIA / CMP/ Other (Specify) DSR .....
- H. REPORT COMMISSIONED BY (**CONSULTANT** OR DEVELOPER): **Savannah Environmental**
- I. CONTACT DETAILS: **Mr John von Mayer, PO Box 148, Sunninghill, 2157, Tel: +2711 234-6621, Fax: +2786 684 0547, Cell: 084 404 3673, email: john@savannahsa.com**
- J. COMMENTS: .....  
*Please see comment on next page* .....

## **REVIEW COMMENT ON ARCHAEOLOGICAL AND PALAEOLOGICAL IMPACT ASSESSMENTS**

**Dr J. Binneman**

**Dated: August 2011, Received: September 2011**

**A Phase 1 Archaeological Impact Assessment for The Proposed Tsitsikamma Community Wind Energy Facility, Kouga Local Municipality, Humansdorp District, Eastern Cape Province**

**Dr J. Almond**

**Dated: August 2011, Received: September 2011**

**Proposed Tsitsikamma Community Wind Energy Facility near Humansdorp, Kouga Local Municipality, Eastern Cape Province**

### **INTRODUCTION**

Exxaro is proposing a wind energy facility on eight farms located about 10 km northwest of Oyster Bay between the N2 and the coastline. This energy facility is proposed on an area with 6 and 8 m/s. The facility will comprise 31 turbines with a total energy generating capacity of up to 100MW. Infrastructures which will be necessary for the establishment and running of the facility are access roads up to 6m wide, underground cables, one substation and a 132kV overhead power line either 25 or 8 km long according to which substation it will be linked to and a maintenance/workshop building of 100m<sup>2</sup>. Each turbine will have a concrete base of 15x15x3m and a laydown area of about 25 x 50m.

Most of the area is now used for farming activities.

### **DISCUSSION**

A palaeontologist undertook a desktop study for the properties earmarked for the development, whereas an archaeologist surveyed the area taking into special consideration its proximity to areas such as Thyspunt and its cultural, archaeological and historical significance and other important archaeological sites in the area, namely the Klasies River cave system.

From a palaeontological perspective the site is underlain by Early to Middle Palaeozoic rocks of the Cape Supergroup and in particular the Table Mountain sandstone and Bokkeveld Group mudrock. Three marine formations in these two groups are of significance, amongst these: the Cederberg and Baviaanskloof Formations of the TM Group and the Gydo Formation of the Bokkeveld Group. It is not certain how much of these formations are exposed in the area and are going to be affected should the development go ahead. The impact on important fossil material may be up to medium if not properly assessed and mitigated.

The field survey, undertaken on foot by two archaeologists, was partially jeopardised by persistent rain which affected the accessibility to the sites, moreover surface visibility was hampered by short and dense grass and by dense alien vegetation. During the field survey the archaeologists identify a few Early and Middle Stone Age quartzite stone tools in secondary context. The paucity of the archaeological material recovered on this property may derive from the disturbed character of the context.

While no archaeological material of significance was identified in the footprint of the proposed wind energy facility, the wider landscape is characterised by few important Middle Stone Age sites, such as Klasies River cave system and Geelhoutboom fossil dunes, these latter probably remaining of an ancient dune system possibly continuing into the Thyspunt landscape.

While SAHRA agrees that the integrity of the landscape at both Klasies River Cave System and Geelhoutboom must be protected, it does not consider necessary that a buffer zone of two km is maintained between the southernmost turbine and the coastline.

### SAHRA RECOMMENDATIONS

Another five wind energy facilities are proposed in this 350km<sup>2</sup> and most of them have already received environmental authorization.

It is important to note that if all energy facilities are implemented, the sense of place of the area will be irrevocably changed altering the rural and natural landscape currently existing into an industrial landscape visually dominated by wind turbines.

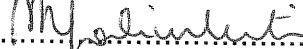
If each of the single wind energy facilities is considered independently, the effect of each of the farms on the landscape is not going to be as intrusive as if considering them all together. SAHRA believes that this should be taken into consideration and a reasonable number of turbines can be agreed upon for this area. The cumulative visual impact on the sense of place must be mitigated as much as possible.

A palaeontological field survey must be undertaken when the final position of the turbines and related infrastructure is decided. A report must be then submitted to SAHRA for assessment and further comments.

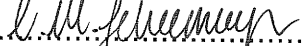
### CONCLUSION

SAHRA requires that a Palaeontological Impact Assessment inclusive of a field survey is submitted to SAHRA for comments before any activities start.

Issues regarding the sense of place of the area must be considered in the light of all other wind energy facilities approved so far in the Kouga Local municipality.

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SIGNATURE OF SAHRA HEAD ARCHAEOLOGIST: .....  .....

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NAME OF HERITAGE RESOURCES AGENCY: SAHRA .....

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PLEASE NOTE THAT SAHRA IS NOW RESPONSIBLE FOR GRADE I HERITAGE RESOURCES (AND EXPORT) AND THE PROVINCIAL HERITAGE RESOURCES ARE RESPONSIBLE FOR GRADE II AND GRADE III HERITAGE RESOURCES, EXCEPT WHERE THERE IS AN AGENCY ARRANGEMENT WITH THE PROVINCIAL HERITAGE RESOURCES AUTHORITY.