

# PROPOSED ALBANY WIND ENERGY FACILITY NEAR MAKHANDA (GRAHAMSTOWN), EASTERN CAPE PROVINCE.

## BACKGROUND INFORMATION DOCUMENT (BID) & INVITATION TO COMMENT

### AIM OF THIS DOCUMENT

The purpose of this document is to ensure that people that are interested in or affected by the proposed Albany Wind Energy Facility (WEF) are provided with information about the project, the process being followed and provided with an opportunity to be involved in the Scoping and Environmental Impact Assessment (EIA) Process for the Albany WEF near Makhanda, in the Eastern Cape Province.

Registering as an Interested and/or Affected Party (I&AP) provides individuals or groups with the opportunity to contribute ideas, issues, and concerns relating to the project. I&APs also have an opportunity to review all the reports and submit their comments on those reports. All the comments which are received during this process will be included in the final reports, which will then be submitted to the relevant Competent Authority

### THE ENVIRONMENTAL CONSULTANTS



ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES

*Please find Ms Caroline Evans' (contact person) contact details on the last page of this document.*

### THE APPLICANT

ALBANY WIND POWER (PTY) LTD.

### ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

According to the National Environmental Management Act (NEMA, Act No. 107 of 1998 and subsequent amendments) Environmental Impact Assessment (EIA) Regulations (2014 and subsequent 2017 amendments), the potential impacts on the environment will have to be assessed in terms of the listed activities. These environmental listed activities, initially published on 21<sup>st</sup> of April 2006, were amended in 2010, 2014 and again on the 7<sup>th</sup> of April 2017, as Government Notice (GN) Numbers R. 983 (GN R. 327), R. 984 (GN R. 325), and R. 985 (GN R. 324) which define the activities which require, respectively, a Basic Assessment (GN R. 983 and GN R. 985 listed activities which apply to activities with limited environmental impacts), or a Scoping and Environmental Impact Assessment (GN R. 984 listed activities which apply to activities which are significant in extent and duration). The proposed Albany WEF requires a Scoping and EIA Process due to the Listing Notice 2 (GN R. 984) activities. The application for Environmental Authorisation (EA) and associated reports will be submitted to the Competent Authority, the National Department of Environmental Affairs (DEA).

## PROJECT DESCRIPTION

Albany Wind Power (Pty) Ltd. plans to develop, construct and operate a Wind Energy Facility (WEF) approximately seven kilometres east of Makhanda in the Eastern Cape Province. The project site is situated in Makana Local Municipality (LM) which forms part of the Sarah Baartman District Municipality (DM). According to the data recorded by Albany Wind Power in the area, this project site appears to have favourable wind conditions to operate a wind farm.

The proposed Albany WEF will consist of up to 66 turbines each capable of generating approximately 4.5 Mega Watts (MW) of power. The WEF will also include a short powerline and switching station in order to connect the WEF to the existing Eskom substation (this powerline will be applied for in a separate environmental application process which will run parallel to WEF application). The current layout allows for a maximum generating output of up to 297 MW, but the final design may be reduced dependant on the outcome of the specialist studies undertaken during this Environmental Impact Assessment Process. The turbine footprints and associated facility infrastructure (internal access roads, substations, construction compound, batching plant and operations building) will cover a maximum area of approximately 46.19 ha (post rehabilitation) depending on the final layout design should the project proceed to the construction phase.

CES has been appointed by Albany Wind Power as the Environmental Assessment Practitioner (EAP) to conduct the necessary EIA Process and secure the required Environmental Authorisation (EA) for the project in terms of the National Environmental Management Act (NEMA, Act No. 107 of 1998 and subsequent amendments) EIA Regulations (2014 and subsequent 2017 amendments).

In summary the Albany WEF includes:

- Up to sixty-six (66) turbines with a generation capacity of up to 4.5 MW each resulting in a nominal power output of up to 297 MW;
- The proposed WEF will include turbines with a rotor diameter of up to 170 m, a hub height of up to 130 m and blade length of up to 85 m;
- Internal access roads of between 8 m (during operation) and 14 m (during construction, to be partly rehabilitated) wide to each turbine;
- Existing roads will be used as far as possible. However, where required, internal access roads will be constructed between the turbines;
- Three (3) connecting substations (switching stations):
  - Two (2) Switching stations to connect the WEF to the powerline (powerline to be assessed in separate application); and
  - WEF IPP 132/33 kV Substation.
- Foundations with an area of up to 550 m<sup>2</sup> for each turbine;
- A primary laydown area of approximately 3 900 m<sup>2</sup> adjacent to each turbine;
- Temporary infrastructure including a site camp and a laydown area of approximately 30 m<sup>2</sup> per turbine (all to be rehabilitated post construction);
- A 25 m<sup>2</sup> area for switchgear and/or transformer at each turbine;
- Medium voltage cabling between turbines and the switching stations, to be laid underground where technically feasible;
- An up to 100 000 m<sup>2</sup> for the substation, battery storage and site office area; and
- Batching plant, temporary laydown area and construction compound area of approximately 90 000 m<sup>2</sup>.

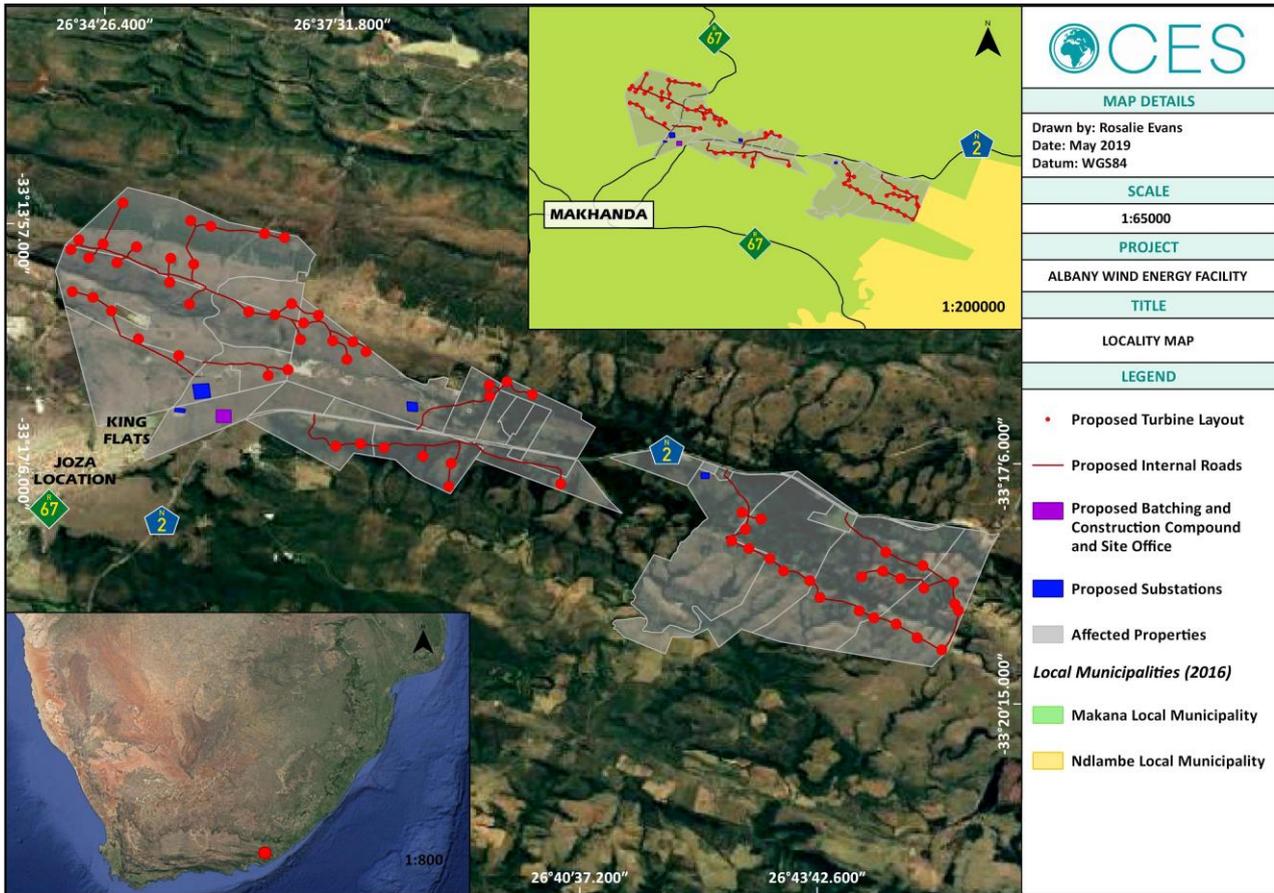


Figure 1: Locality Map of the Proposed Albany WEF.

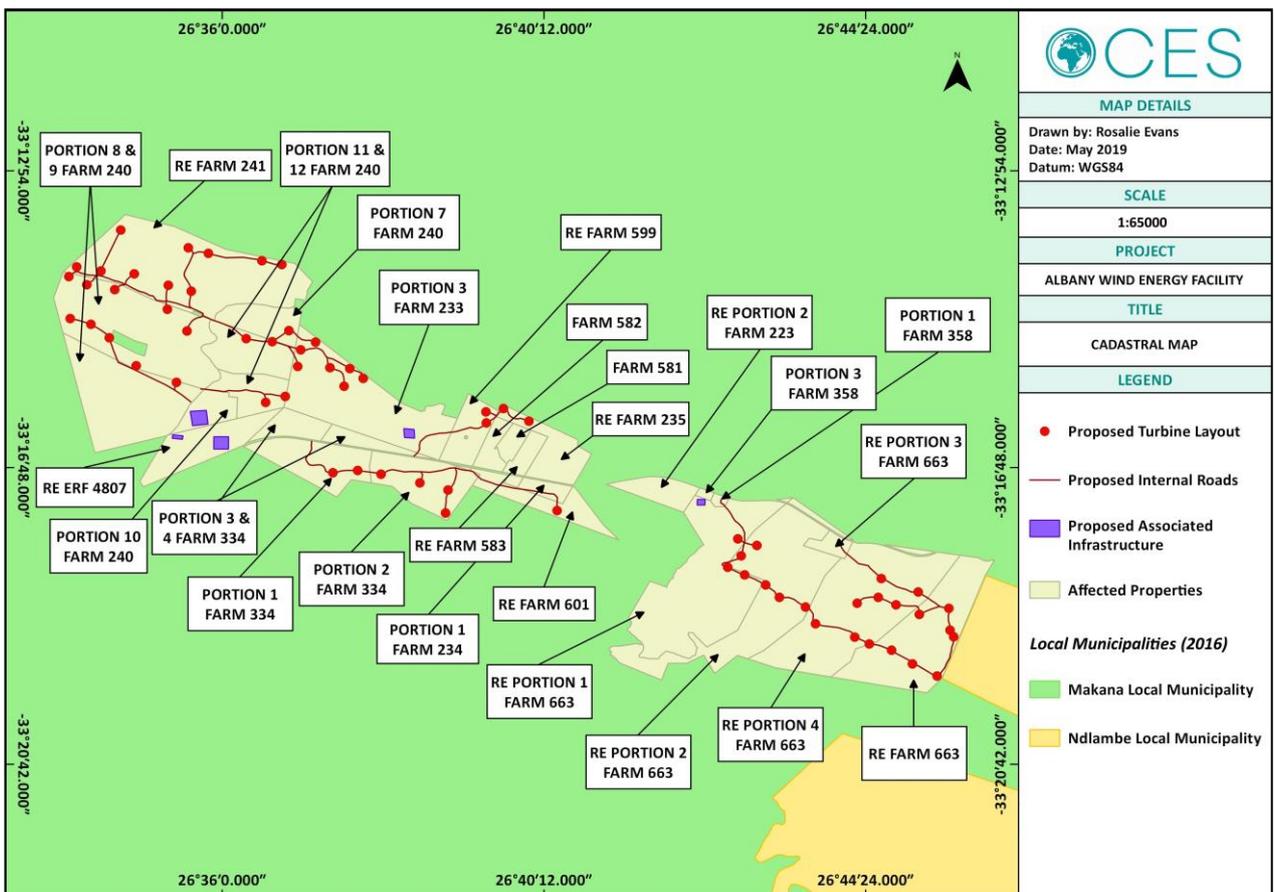


Figure 2: Cadastral Map of the Proposed Albany WEF.

**Table 1: Listed Activities which are likely to be triggered by the proposed Albany WEF.**

ACTIVITY NUMBER	ACTIVITY DESCRIPTION	DESCRIPTION OF PROJECT ACTIVITY THAT TRIGGERS LISTED ACTIVITY
<i>GN R. 983 (Listing Notice 1 - BASIC ASSESSMENT)</i>		
11	<p>The development of facilities or infrastructure for the transmission and distribution of electricity–</p> <p>(i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts.</p>	<p><i>33kV underground electrical cables will be laid to transmit electricity generated by the wind turbines to the onsite switching stations.</i></p>
12	<p>The development of –</p> <p>(ii) Infrastructure or structures with a physical footprint of 100 square metres or more.</p> <p>Where such development occurs–</p> <p>(a) Within a watercourse;</p> <p>(b) In front of a development setback; or</p> <p>(c) If no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.</p>	<p><i>This relates to the proposed switching station, laydown areas and construction compound area which may be constructed within 32m of watercourse. The final siting of this infrastructure will be refined throughout the process, during which this listed activity may become redundant.</i></p>
14	<p>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic meters.</p>	<p><i>This relates specifically to aspects such as storage of transformer oil at the switching station sites and at the maintenance storage facility during operations. Also small volumes of other chemicals may be stored during construction (including diesel and petrol) which may trigger this activity.</i></p> <p><i>The final layout will determine the volumes needed on site, but at this stage a rough estimate can be calculated as follows: the construction period is expected to last for approximately 24 months, during this time approximately 175m<sup>3</sup> of chemicals which can be classified as dangerous goods will be used. The operational phase is expected to require approximately 200m<sup>3</sup> of chemicals which can be classified as dangerous goods. This equates to a total of approximately 375m<sup>3</sup> of dangerous goods for the lifespan of the proposed WEF.</i></p>
19	<p>The infilling or depositing of any material of more than 10 cubic meters into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse.</p>	<p><i>This relates specifically to low level crossings that may be required during road construction or upgrading throughout the WEF road network.</i></p>
24	<p>The development of a road–</p> <p>(ii) A road with a reserve wider the 13.5 metres, or where no reserve exists where the road is wider than 8 metres.</p>	<p><i>The road network will need to be developed and upgraded (using all technically feasible existing farm roads where possible) in order to ensure that the delivery of turbine parts is possible and to ensure that maintenance teams are able to access each individual turbine throughout the lifespan of the project. Roads will be 14m wide during the construction phase and will be rehabilitated to have a final operational</i></p>

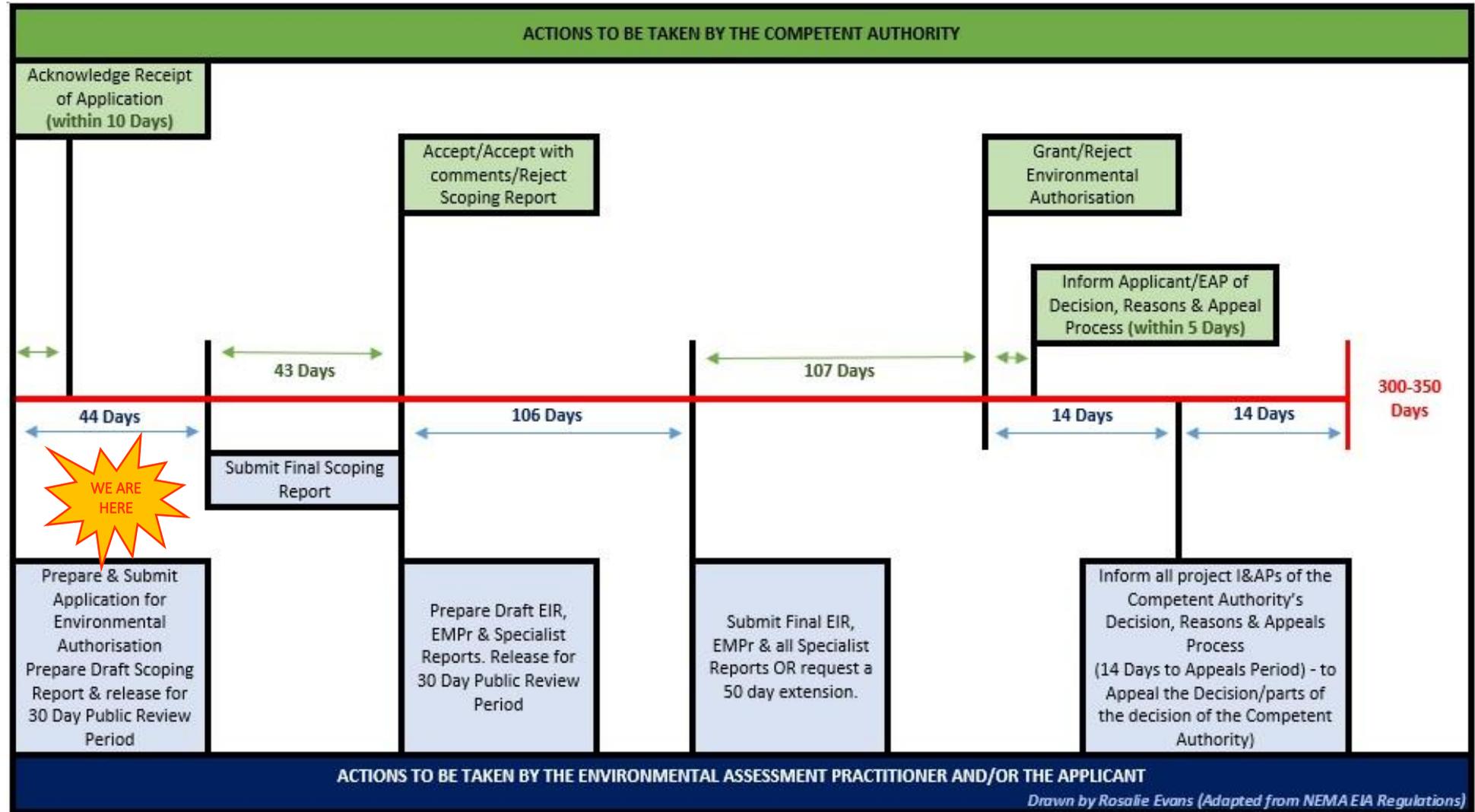
ACTIVITY NUMBER	ACTIVITY DESCRIPTION	DESCRIPTION OF PROJECT ACTIVITY THAT TRIGGERS LISTED ACTIVITY
		<i>footprint of 8m.</i>
28	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development: (ii) Will occur outside an urban area, where the total land to be developed is bigger than 1 hectares.	<i>The proposed development will entail the rezoning of land from agriculture to special industrial. The total footprint of the proposed WEF (at this stage) will be approximately 46ha in extent (post-mitigation).</i>
47	The expansion of facilities or infrastructure for the transmission and distribution of electricity where the expanded capacity will exceed 275 kilovolts and the development footprint will increase.	<i>Existing infrastructure may be used (where technically feasible) as connection points from turbines to switching stations. Where this is the case the footprint of the existing infrastructure may be increased.</i>
56	The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre– (ii) Where no road reserve exists, where the existing road is wider than 8 metres	<i>The road network will need to be developed and upgraded (using all technically feasible existing farm roads where possible) in order to ensure that the delivery of turbine parts is possible and to ensure that maintenance teams are able to access each individual turbine throughout the lifespan of the project. Roads will be 14m wide during the construction phase and will be rehabilitated to have a final operational footprint of 8m.</i>
<b>GN R. 984 (Listing Notice 2 – FULL SCOPING AND EIR)</b>		
1	The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more.	<i>The proposed Albany WEF will include the construction of approximately 66 turbines with an output capacity of up to 4.5MW each, resulting in a total output capacity of up to 297MW. This wind energy facility is classified as a renewable energy facility.</i>
9	The development of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex.	<i>Connecting powerlines (connecting the turbines to switching stations) may need to be stepped up to more than 275kV in places. This listed activity may become redundant once the final layout has been informed by specialist input.</i>
15	The clearance of an area of 20 hectares or more of indigenous vegetation.	<i>The proposed development will include the clearing of indigenous vegetation. The total footprint of the proposed WEF (at this stage) will be approximately 55ha in extent (pre-mitigation) and 46ha in extent (post-mitigation).</i>
<b>GN R. 985 (Listing Notice 3 - BASIC ASSESSMENT)</b>		
4 a. i. (ee) (gg)	The development of a road wider than 4 metres with a reserves less than 13.5 metres. (a) <u>In Eastern Cape:</u> i. Outside urban areas, in: (ee) Critical biodiversity areas as identified in systematic biodiversity plans	<i>The road network will need to be developed and upgraded (using all technically feasible existing farm roads where possible) in order to ensure that the delivery of turbine parts is possible and to ensure that maintenance teams are able to access each individual turbine throughout the lifespan of the project. Roads will be 14m wide during the construction phase and will be rehabilitated to have a final operational</i>

ACTIVITY NUMBER	ACTIVITY DESCRIPTION	DESCRIPTION OF PROJECT ACTIVITY THAT TRIGGERS LISTED ACTIVITY
	<p>adopted by the competent authority or in bioregional plans (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas.</p>	<p><i>footprint of 8m.</i></p> <p><i>The proposed site is situated in CBA areas.*** (please see note at the end of this table) The proposed WEF is located adjacent to Thomas Baines Nature Reserve: Beggars Bush Section.</i></p>
<p>10 a. i. (ee) (gg)</p>	<p>The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres.</p> <p>(a) <u>In Eastern Cape:</u></p> <p>i. Outside urban areas, in:</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans***</p> <p>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas.</p>	<p><i>This relates specifically to aspects such as storage of transformer oil at the switching station sites and at the maintenance storage facility during operations. Also small volumes of other chemicals may be stored during construction (including diesel and petrol) which may trigger this activity.</i></p> <p><i>The final layout will determine the volumes needed on site, but at this stage a rough estimate can be calculated as follows: the construction period is expected to last for approximately 24 months, during this time approximately 175m<sup>3</sup> of chemicals which can be classified as dangerous goods will be used. The operational phase is expected to require approximately 200m<sup>3</sup> of chemicals which can be classified as dangerous goods. This equates to a total of approximately 375m<sup>3</sup> of dangerous goods for the lifespan of the proposed WEF. This will be refined as the layout is refined during the EIA process.</i></p> <p><i>The proposed site is situated in CBA areas. *** The proposed WEF is located adjacent to Thomas Baines Nature Reserve: Beggars Bush Section.</i></p>
<p>12 a. ii.</p>	<p>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>(a) <u>In Eastern Cape:</u></p> <p>ii. Within critical biodiversity areas identified in bioregional plans.</p>	<p><i>The proposed development will include the clearing of indigenous vegetation. The total footprint of the proposed WEF (at this stage) will be approximately 45ha in extent.</i></p> <p><i>The proposed site is situated in CBA areas.***</i></p>
<p>14 ii. a. i. (ff) (hh)</p>	<p>The development of–</p> <p>ii. Infrastructure or structures with a physical footprint of 10 square metres or more</p> <p>Where such development occurs–</p> <p>(a) Within a watercourse;</p> <p>(b) In front of a development setback; or</p> <p>(c) If no development setback has been</p>	<p><i>This relates to the proposed switching station, laydown areas and construction compound area which may be constructed within 32m of watercourse. The final siting of this infrastructure will be refined throughout the process, during which this listed activity may become redundant.</i></p> <p><i>The proposed site is situated in CBA areas. *** The</i></p>

ACTIVITY NUMBER	ACTIVITY DESCRIPTION	DESCRIPTION OF PROJECT ACTIVITY THAT TRIGGERS LISTED ACTIVITY
	<p>adopted, within 32 metres of a watercourse, measured from the edge of a watercourse.</p> <p>(a) <u>In Eastern Cape:</u></p> <p>i. Outside urban areas, in:</p> <p>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans</p> <p>(hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas.</p>	<p><i>proposed WEF is located adjacent to Thomas Baines Nature Reserve: Beggars Bush Section.</i></p>
<p>18 a. i. (ee) (gg)</p>	<p>The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</p> <p>(a) <u>In Eastern Cape:</u></p> <p>i. Outside urban areas, in:</p> <p>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans</p> <p>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas.</p>	<p><i>The road network will need to be developed and upgraded (using all technically feasible existing farm roads where possible) in order to ensure that the delivery of turbine parts is possible and to ensure that maintenance teams are able to access each individual turbine throughout the lifespan of the project. Roads will be 14m wide during the construction phase and will be rehabilitated to have a final operational footprint of 8m.</i></p> <p><i>The proposed site is situated in CBA areas. *** The proposed WEF is located adjacent to Thomas Baines Nature Reserve: Beggars Bush Section.</i></p>

**\*\*\*NOTE:** Please note that the newly revised and updated ECBCP has not been formally gazetted at this stage, but it is likely to be formalised within the next few months. Due to the fact that this will now be a formal Biodiversity Plan for the Eastern Cape we have included it as part of the listed activities

## THE SCOPING AND EIA PROCESS



## POTENTIAL IMPACTS AND BENEFITS

The potential impacts and benefits will be identified during the Scoping Phase and assessed in detail in the Environmental Impact Report (EIR) and associated specialist reports. The initial issues include, *but are not limited to*:

- Visual and noise impacts;
- Ecological impacts (including flora, fauna and surface water);
- Avifaunal (bird) impacts;
- Chiroptera (bat) impacts;
- Archaeological impacts;
- Palaeontological impacts;
- Agricultural impacts; and
- Socio-economic impacts.

## HOW CAN YOU BE INVOLVED?

A **Public Participation Process (PPP)** is being conducted as part of the EIA Process for the Proposed Albany WEF. The aim of the PPP is to allow everyone who is interested in, or likely to be affected by the proposed development to provide input into the processes. The PPP includes, *but is not limited to*, the placement of advertisements, onsite signage, and circulation of the BID (*this document*) to all registered I&APs, comments periods, a public meeting (if required) and the review of the Draft Scoping Report as well as the Draft EIR, associated specialist reports and the Environmental Management Programme (EMPr) by registered I&APs.

If you consider yourself an interested and/or affected person/party, it is important that you become and remain involved in the PPP. To do so, please follow the steps below:

1. **STEP 1:** Please register by responding to our notification and invitation, with your name and contact details (details provided below). As a registered I&AP, you will be informed of all report review periods and project developments throughout the EIA Process of the Proposed Albany WEF.
2. **STEP 2:** Register by contacting Ms Caroline Evans with your name and contact details via post, e-mail, phone or fax.

CES is required to engage with all private and public parties that could be interested and/or affected by the Albany WEF in order to distribute information for review and comment in a transparent manner.

In the same light, it is important for I&APs to note the following:

1. For CES to continue engaging with you, please ENSURE that you register on our database by contacting Ms Caroline Evans.
2. As the EIA Process is regulated by specific review and comment timeframes, it is your responsibility to submit your comments within these timeframes.

Please contact **Ms Caroline Evans** to register as an I&AP for the Albany WEF, for enquiries and/or for the submission of your written comments:

<b>CONTACT PERSON:</b>	Ms Caroline Evans
<b>COMPANY:</b>	CES
<b>ADDRESS:</b>	67 African Street, Grahamstown, 6140
<b>TELEPHONE NUMBER:</b>	+27 (0)46 622 2364
<b>FAX NUMBER:</b>	+27 (0)46 622 6564
<b>E-MAIL ADDRESS:</b>	<a href="mailto:c.evans@cesnet.co.za">c.evans@cesnet.co.za</a>
<b>WEBSITE:</b>	<a href="http://www.cesnet.co.za">www.cesnet.co.za</a>