

## **P9089 – CALEDON WIND FARM, WESTERN CAPE, SOUTH AFRICA**

### **BACKGROUND**

The Caledon Wind Farm layout was initially submitted to DEDEA as a wind farm proposal consisting of 76 turbines. The initial layout was done based on cadastral, physical and topographical limitations, with the emphasis to place all turbines at the positions with the highest wind resource, while still complying to all of the later limitations.

Following environmental site assessments by external Environmental Specialists, and the identification of various Environmental sensitive or “No-Go” zones (eg vegetation types or water courses), the turbine layout was reduced and refined several times to a 46 Turbine layout (revision 9) that was presented to DEDEA as the preferred SDP layout.

Comments were subsequently raised by the Department of Agricultural on the SDP layout, which initiated a second refining process to move turbines to positions that still comply to all limitations, as well as all Environmental as well as Agricultural concerns / comments; the aim being to limit the affected land portion and impact to an absolute minimum. A revised SDP drawing (revision 10) was compiled for discussion with the Department.

P9089 - Agri Background Report.doc

### **AGRICULTURAL MICRO SITING**

Electrawinds (Me Sofie Van den Bergh) met with the Department of Agriculture (Mr Cor van der Walt) on 9 August 2012 and present the SDP layout (rev 10) as attached, to the Department. A workshop meeting was held where each turbine position and the potential impacts were discussed. Proposals were tabled the move several turbines, to minimise or negate the impact of turbines, platforms and access roads on valuable agricultural land.

Resulting from this meeting the following turbines were removed as no alternative / suitable position could be found / agreed upon (refer to attached table):

- Turbines : T43, T57, T59, T60, T67 and T73.

Resulting from this meeting the following turbines and access roads to / between these turbines were moved, to limit the impact of roads and platforms on / over valuable agricultural land (refer to attached table):

- Turbines : T12a, T13a, T15, T16, T23 to T29, T33, T35, T38 to T41, T55, T56, T58, T65, T66, T68 and T70.

A second workshop meeting was conducted on 20 August 2012 between Electrawinds (Me Sofie vd Bergh), the Department of Agriculture (Mr Cor vd Walt), Mr Francois Knight (Agricultural Specialist) and Mr Stephan Schutte (Afri Coast Engineers). The revised SDP layout (rev 11) was presented and discussed during this meeting.

It became evident that several turbine platforms will still have a considerable impact on agricultural land. All turbines were subsequently moved to the most outer boundaries of agricultural land parcels and were moved to areas where the agricultural land is already disturbed (due to small farm tracks etc.) or to move turbines to small agricultural land parcels which are not economical arable, hence to impact to loose such an agricultural land portion in favour of a wind farm platform is minimal or negated totally.

It was further proposed to reduce the turbine platforms to an absolute minimum to limit the impact / loss of any valuable agricultural land – see attached detail drawing: P9089-PLA-DET-01. The turbine platform dimensions during construction stage will be 50 x 30m plus the concrete foundation area, with a proposed 5m environmental buffer around. The concrete foundation will be covered with 150mm topsoil after construction (once the crane has moved off site). Parts of the turbine platform will be ripped and also spread with topsoil. The only hard surface platform area that will remain (which will not be ripped) will be a 20 x 20m crane pad for future maintenance, which will also be covered with topsoil after construction stage.

Resulting from the second meeting the following turbines and access roads to / between these turbines were moved again, to reduce the impact of roads and platforms on / over valuable agricultural land (refer to attached table):

Turbines : T15, T16, T23 to T26, T29, T33, T35, T38, T39, T55, T56 and T65.

The attached tables list the various turbine positions (based on the SDP Layout (rev 12) with the co-ordinates (in degrees, minutes and seconds), as well as the various land classifications at each turbine position. Only 37 turbines remain from the original application.

Electronic Google files are also attached, showing the detail turbine positions, platforms and access roads.

Based on the above layout drawings and information, it is clear that the refining Micro-siting process was carefully sought after and that the final impact of the Caledon Wind Farm will be minimal on the Environment as well as on any valuable agricultural land.

END