



December 09 2011

John von Mayer  
Savannah Environmental (Pty) Ltd

Dear John

**Avian impact statement re the application to increase the hub height and rotor diameter of turbines to be used at the proposed Deep River Wind Energy Facility, Eastern Cape.**

Firefly Investments 222 (Pty) Ltd (previously: VentuSA Energy Pty Ltd) obtained an authorisation for the construction of a wind energy facility and associated infrastructure on the Deep River site near Humansdorp in August 2011. In terms of this environmental authorisation, the project description referred to installation of up to 50 wind turbines with a hub height of up to 80 m in height. Following the assessment of 12-month's wind data it has become evident that in order for the wind energy facility to produce at an Economic Viable Rate, Firefly Investments must increase the maximum hub of the wind turbines from 80m to a maximum hub height of up to 120m and increase the rotor diameter from 90m to a maximum of 116m.

The avian impact study for this project rated the significance of anticipated post-mitigation impacts for components of this development as follows:

Construction (Disturbance) – Medium-Low  
Construction (Habitat Loss) – Medium-Low  
Operation (Disturbance) - Medium  
Operation (Mortality) - Medium

While the relationship between wind turbine height and collision risk for birds is not clearly understood, simple logic suggests that the proposed 50% increase in turbine height and nearly 30% increase in rotor diameter inherent in the VentuSA application will increase the significance of ALL impacts on birds. The overall size of the development, construction time, the quantities of materials required and the net physical and disturbance footprints of the construction process will all increase substantially, as will the noise and movement created by the operating wind farm, and the total area of airspace swept by the rotors.

In light of these suggested changes to the project, I would estimate that the post-mitigation impact ratings as expressed in the original AIR would be revised as follows:

Construction (Disturbance) – Medium  
Construction (Habitat Loss) – Medium  
Operation (Disturbance) – Medium-High  
Operation (Mortality) – Medium-High

Note that these are post-mitigation ratings, which require the applicant to fully comply with the mitigation recommendations listed in the AIR.

Yours sincerely

Andrew Jenkins