

Expanded Willogoleche Wind Farm, Hallet, South Australia

Publication of Information for Assessment of Preliminary Documentation under section 95A of the *Environment Protection and Biodiversity Conservation Act 1999*

EPBC IDENTIFICATION NUMBER:	EPBC Referral 2011/5850
PROPOSED ACTION:	Wind Farm comprising 36 turbines
LOCATION OF ACTION:	Willogoleche Hill, Hallet, South Australia
PROPONENT(S):	Willogoleche Power Pty Ltd (GDF Suez Australian Energy- <i>formerly International Power</i>)

EACH MATTER PROTECTED BY A PROVISION OF PART 3 OF THE COMMONWEALTH ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999 (EPBC ACT):

- Listed threatened species and communities (s18 & s18A) (Iron-grass Natural Temperate Grassland of South Australia ecological community)

The following document outlines Willogoleche Power Pty Ltd responses to the South Australian Government's Department of Environment, Water and Natural Resources (DEWNR) comments on the preliminary documentation provided under section 95A of the *Environment Protection and Biodiversity Conservation Act 1999*.

- **Full details and mapping of the final preferred turbine placements and associated impacts on the Iron-grass Natural Temperate Grassland community and any other species listed under the EPBC Act.**

DEWNR raised concerns regarding the difficulty in determining what the final impacts will be to the Iron-grass (*Lomandra multiflora* spp. *dura* and *Lomandra effuse*) Natural Temperate Grassland community as the final turbine layout is yet to be determined; noting that full mapping of the final preferred turbine placements and associated impacts have not been provided. DEWNR acknowledged that the preliminary documentation indicates that track cable layouts have been re-designed to minimise their impact on the threatened community and three out of seven turbines located within the community can be moved such that they will not impact due to a 100 metre micro-siting allowance. DEWNR advised that avoiding impacts where possible is preferable and supported by the department.

Willogoleche Power Pty Ltd (Willogoleche Power) aims to avoid and minimise impacts to the Iron-grass communities. Track and cable layouts have been re-designed to minimise their impact on the threatened Iron-grass community where practical. Relocating infrastructure was possible as ecologists identified that the best condition areas of Iron-grass communities are primarily located on one side of the hill slopes only, enabling infrastructure to be relocated to avoid impacts to best

condition areas. Ecologists identified that the condition of Iron-grass communities in all cases increases with elevation on the hillside. Primarily, south-western facing slopes had the extent of Lomandra grasslands and condition of these was best where soils were shallowest along the crests of the range. This is due to a lack of cover of annual grass species on the shallow soils which fail to outcompete the range of small, low growing indigenous herbaceous annual and perennial species commonly found in these areas. Higher tussock density also adds to the level of refuge sites for these species, as in many cases these are found growing tight under Lomandra tussocks where sheep find it difficult to graze. As a result of these findings Willogoleche Power were able in most cases to re-design the layout to best avoid these areas of Iron-grass communities.

- **Full details and diagrams of the locations and footprint of all infrastructure and works associated with the development, including temporary infrastructure required in the construction process (for example, portable field offices, material storage areas, parking bays, concrete batch plant, geotechnical investigations, etc)**

The siting of infrastructure required during construction and operation of the project is subject to pre-construction surveys. At this stage of the development full details and diagrams of the exact final location and footprint of all infrastructure and works associated with the development have not been provided. Consequently DEWNR are concerned that it may be difficult to determine what the final impacts will be to the Iron-grass community. They acknowledge that conditions on final infrastructure placements requiring the Department of the Environment approval can be made, however DEWNR consider information regarding impacts prior to assessment important.

Willogoleche Power has identified a proposed layout for the Willogoleche Wind Farm which has been designed to avoid and minimise impacts to the Iron-grass community. The exact final layout will be subject to a pre-construction survey and will aim to avoid impacting areas of threatened communities. Willogoleche Power will adhere to conditions of the Department of Environment (formerly the Department of Sustainability, Environment, Water, Populations and Communities) if required and will follow industry best practice guidelines in the development and construction of the wind farm.

- **Details of whether the areas surrounding the final infrastructure layout have been surveyed for nationally listed flora and fauna**

Proposed turbine locations and associated access tracks and hard stand areas have been surveyed. However DEWNR have concerns that not enough is known about the overall location and the extent and quality of communities present, particularly when the final layout is yet to be determined.

In response while undertaking surveys for additional areas to be used as Significant Environmental Benefit (SEB) offsets in the EPBC process, the wider areas was broadly surveyed. No species of national or state conservation significance were recorded during this period. It should be noted that in general land condition reduces markedly with descending altitude and it is highly unlikely that any conservation significant species occur surrounding the proposed layout. Conversely, inconspicuous species associated with Lomandra grassland areas and commonly present as scattered individuals such as *Dodonaea procumbens* could be present in the wider area, it is unlikely that these would be affected by operations associated with operation of the wind farm. These species are more likely to be degraded by threatening processes such as weed infestation and grazing. We feel it is therefore

unnecessary to survey the wider area unless some off site impacts caused by the operation of the wind farm can be shown to negatively influence surrounding vegetation outside of the 50 metre buffers initially surveyed.

- **Further details of any hydrological changes associated with the proposed action, including modification of surface drainage from access tracks and any other infrastructure, and any possible impacts on the Iron-grass Natural Temperate Grassland from these hydrological changes**

Alternative access tracks were identified as a result of hydrological assessments to mitigate impacts to the Iron-grass communities as a result of hydrological impacts. It is noted however that some of the alternative access track alignments as outlined in the hydrological assessment are located outside sections which have undergone vegetation surveys. DEWNR advises that consideration needs to be given as to whether vegetation surveys should be undertaken in these areas.

In responses Willogoleche Power has re-designed the access to minimise and avoid impacts to Iron-grass communities. None of the re-aligned access tracks pass through areas mapped as being Lomandra grasslands. The slopes on which the access tracks have been re-aligned contain largely poor condition Austrostipa and Exotic grasslands typical of downward and eastern facing slopes in the wider proposed wind farm area.

- **Details of the reinstatement works proposed for ground disturbed by the construction, but not associated with final land-take for the development, including details about revegetation of Iron-grass Natural temperate Grassland areas**

No comment from Department of Environment, Water and Natural Resources

- **Further information on the distribution and quality of the Iron-grass Natural temperate Grassland in the areas surrounding the site (information on the local context and not just the immediate area of impact), including any areas of grassland that may not satisfy criteria under the EPBC Act as part of the community, but may be potential rehabilitation sites. Additional surveys should be conducted by qualified ecologist as a suitable time of year and mapping of the vegetation should be provided.**

DEWNR have concerns that ground surveys are needed to provide accurate information on the ecological communities in the local area. They suggest that smaller scale on-site surveys of the immediate surrounding area conducted by a qualified ecologist at a suitable time of the year may have been more helpful in providing a contextual picture, particularly if classification levels are also identified and mapped.

Willogoleche Power engaged EBS Ecology to undertake an assessment of Lomandra grassland communities as a potential offset to satisfy the requirements of the Department of Environment (EBS Ecology 2012, Willogoleche Hill EPBC Offset Area Investigation). Areas of Lomandra within the vicinity of the proposal, namely the uncropped areas south of the Jamestown-Hallett Roads through to Willalo road were highlighted prior to the assessment, with the best of these assessed as potential set aside areas. Two of these were Condition Class C sites and the most suitable of these were identified for a set-aside area. Other Lomandra areas lacked the necessary cover to be assessed as the threatened ecological community (TEC) and condition of the native grasslands was

poor. The proposal does impact on the some high quality parts of the local Lomandra community but this impact has been and will be minimised and mitigated as much as possible. Presently it would be difficult to substantiate the presence and assess Lomandra communities to the north and south of the project site due to issues with access to other properties. If this could be arranged these areas could be potentially assessed to gain a clearer indication of the local extent and condition of Lomandra communities.

- **Any measures you propose to mitigate the likely impacts upon the Iron-grass Natural Temperate Grassland ecological community**

DEWNR supports Willogoleche Power's intention to demarcate threatened ecological communities on the ground with temporary fencing to ensure further protection of these areas. In addition the Department recommends a commitment to compliance checking during construction. Willogoleche Power will adhere to the recommendations of the Department of Environment and follow industry best practice guidelines during construction of the wind farm.