1 July 2019

Referrals Gateway
Environment Assessment Branch
Department of the Environment
GPO Box 787
Canberra ACT 2601

By email: epbc.referrals@environment.gov.au

Dear Sir/Madam

Re: EPBC 2019/8468: ELECTRANET PTY LIMITED (the Proponent)/Energy Generation and Supply (renewable)/Multiple lots/South Australia/SA-NSW Energy Interconnector, Robertstown to NSW Border, SA (the Project)

Thank you for the opportunity to comment on the referral.

BirdLife Australia is an independent science-based conservation organisation with over 140,000 supporters throughout Australia. We are a partner of BirdLife International, the world’s largest nature conservation partnership.

BirdLife Australia is recognised as a leader in the conservation of threatened birds of the Murray Mallee. We were instrumental in the development of a Threatened Mallee Birds Conservation Action Plan (CAP) for six nationally-listed species (Boulton and Lau, 2015) and have coordinated the efforts of the CAP Steering Committee since its inception in 2015.

This submission was developed by Dr Jenny Lau, BirdLife Australia’s Preventing Extinctions Program Manager, and Dr Rebecca Boulton, former Chair of the Black-eared Miner Recovery Team and Chair of Threatened Mallee Birds CAP Steering Committee. Dr Boulton has over 20 years’ experience working with the endangered Black-eared Miner and other threatened mallee birds in the Murray Mallee.

We urge the Federal Minister for Environment to declare the Project Clearly Unacceptable due to likely significant impacts on listed Critical Habitat and matters of national environmental significance (MNES).

BirdLife Australia finds that the Project is highly likely to have unacceptable, significant impacts on the Black-eared Miner which is listed as Endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and listed Critical Habitat for that species through:
1. Direct impact to the Black-eared Miner through clearing and fragmentation of its Critical Habitat that will increase the risk of genetic introgression with the Yellow-throated Miner.

2. Degradation of Critical Habitat through clearing and increased risk of weed incursions.

The Project is also likely to have significant impacts on additional EPBC-listed threatened species including Red-lored Whistler (Vulnerable), Regent Parrot (Vulnerable) and Malleefowl (Vulnerable), and for the declining Mallee Striated Grasswren which is likely to meet criteria for EPBC-listing as Endangered (G. Ehmke pers. comm.). Impacts on these MNES are likely to arise from clearing and fragmentation of habitat, increased predation through the creation of linear corridors, increased risk of habitat degradation and increased collision risk associated with the powerline for Regent Parrot.

We also find that the Proponent has not adequately considered:

1. Future value of Critical Habitat and habitat for MNES in the Project area;
2. The extent of habitat fragmentation during all phases of the Project; and
3. Feasible alternatives that minimise impacts on MNES

We find the documentation provided in support of the referral to be of a poor quality and that the Proponent is therefore likely to be underestimating impacts on MNES. The Proponent’s assessment is largely based on desk top studies that do not reflect current expert understanding of the biology and ecology of Black-eared Miner, other EPBC-listed threatened mallee birds and the ecology of mallee ecosystems. The impact of this is that the referral is highly likely to:

- Underestimate the amount of clearing (and associated impacts on MNES) required to complete the Project. In particular, the likely obligation under legislation or at common law for the Proponent to clear the powerline easement to protect a significant public asset;
- Dismiss the current and future value of habitat to be impacted by the Project for listed threatened species;
- Overstate the benefits of the Project for fire management;
- Underestimate the level of disturbance to soils and vegetation in the Project area, and therefore the consequences of this for MNES;
- Understate the increased risk of fire caused by the Project.

BirdLife Australia holds that this project should be declared Clearly Unacceptable. However, should the Minister declare the Project a Controlled Action we assert that it must be assessed by EIS. The poor quality of the referral documentation means a rigorous assessment cannot be made based on referral information or on preliminary documentation.
As a minimum any EIS must include:

- Detailed analysis of any feasible alternatives to the action, including avoiding listed Critical Habitat;
- Comprehensive, seasonal field surveys for listed threatened and migratory species in the Project area to determine their current extent and abundance;
- Modelling of the predicted distribution of suitable habitat for MNES in the Project area over the life of the Project to determine current and future impacts;
- Rigorous assessment of the extent of clearing required to complete the Project, including to construct roads greater than five metres in width and in the scenario that the easement will need to be cleared to:
  1. mitigate the increased risk of fires caused by the construction and operation of the powerline; and
  2. mitigate the risk to the powerline from bushfires in the vicinity of the Project.
- Seasonal studies (breeding and non-breeding season) of the movement of Regent Parrot between breeding sites along the River Murray and foraging habitat in the Riverland Biosphere to determine the risk and likely significance of collisions with the powerline;
- Likely fragmentation impacts on MNES associated with vegetation clearance for the Project, over the life of the Project. This must include an analysis of direct impacts to the Black-eared Miner through clearing and fragmentation of its Critical Habitat resulting in increased risk of genetic introgression with the Yellow-throated Miner.
- The risk and likely impacts of increased predation by cats and foxes on MNES over the life of the Project.
- Rigorous examination of the risk of weed incursions during construction and operation of the powerline, and the long-term consequences of any weed incursions (e.g. Buffel grass) for MNES affected by the Project;
- Determination of the risk of bushfire ignition due to the presence and operation of the powerline, including during construction activities (e.g. sparks from welding and the use of machinery, discarded cigarette butts) and from any maintenance activities in proximity to the powerline (e.g. slashing of vegetation); and
- The extent and severity of any likely impacts to the Riverland Ramsar site and to listed threatened and migratory species utilising the Ramsar site over the life of the Project.
The Proponent must seek input and advice from recognised threatened and migratory species’ experts on both current knowledge of species’ ecology and on the design of any ecological studies. It is evident that species’ experts were not consulted during the development of the referral documents.

Yours sincerely

[Signature]

Samantha Vine
Head of Conservation
Background

BirdLife Australia Mallee program

Following large-scale fires in 2014 that wiped out key populations of the Black-eared Miner and Mallee Emu-wren, BirdLife Australia brought together representatives from State and Commonwealth governments, as well as fire and threatened mallee bird experts from universities, natural resource management agencies and zoos, to develop a Threatened Mallee Birds Conservation Action Plan (CAP) for six nationally-listed species (Boulton and Lau, 2015).

Since 2014, this group, known as the Threatened Mallee Birds CAP Steering Committee, has been working together to implement the CAP to recover threatened mallee birds including Black-eared Miner, Regent Parrot (eastern), Mallee Emu-wren, Red-lored Whistler, Malleefowl and Western Whipbird (eastern).

In 2018, a seventh species, the Mallee Striated Grasswren was included in the CAP following analyses showing that the species had undergone a significant decline and was likely to meet criteria for listing as threatened under the EPBC Act (G. Ehmke, pers. comm., July 2018).

BirdLife Australia’s Gluepot Reserve, located in the Riverland Biosphere Reserve to the north and east of Taylorville and Calperum, respectively, is the research and education centre for the Threatened Mallee Bird Program, providing protected habitat for the Black-eared Miner and other birds in the region.

Significance of the area

The threatened status of these mallee bird species is largely the result of the extensive vegetation clearance and degradation in the Murray Mallee region since European settlement in the 1860s. The remaining fragments and contiguous tracts of mallee are threatened by wildfire, a natural and fundamental process that shapes the mallee vegetation community. However, because most mallee birds have no special adaptations to cope with fire, either perishing or fleeing to unburnt areas, the importance of conserving large contiguous tracts of mallee is crucial. Without these areas, recolonization from surrounding areas is not possible and species with specific time-since-fire response curves can be eliminated from the environment while waiting for habitat to reach suitability.

Conserving the diversity of mallee ecosystems in the context of fragmented landscapes requires a landscape approach that protects and manages all remnant vegetation, increases ecological connectivity where appropriate, and integrates nature conservation and management of threatening processes across land tenures. Consequently, the mallee in this region has been identified as a Key Biodiversity Area (KBA) by international non-government organisations including BirdLife International, a Biosphere by UNESCO and listed as Critical Habitat for the Black-eared Miner under the EPBC Act. These titles and listing reiterate the
importance of the contiguous mallee for local biodiversity. The fine-scale fragmentation of these remaining mallee tracts, inaccurately stated as ‘insignificant’ by the Proponent, directly impacts MNES.

**Rationale for declaring project ‘Clearly Unacceptable’**

*Project’s likely significant impacts on Matters of National Environmental Significance*

The Project is likely to have significant ecological impacts during both the construction and operational phases of the Project. These impacts are grossly underestimated in the referral documents.

1. **Importance of contiguous habitat for Black-eared Miner**

Prior to the discovery of Black-eared Miners on Calperum Station in 1995, the species was thought to be extinct in South Australia and very nearly so in Victoria. The discovery of the South Australian population quickly led to the purchase of Gluepot Reserve by BirdLife Australia and a few years later the Commonwealth Government and the Australian Landscape Trust acquired neighbouring Taylorville Station to secure the last major area of Black-eared Miner habitat outside a reserve for conservation.

In 2005, given 95% of the species entire range fell across these three properties, **all intact mallee in the Riverland Biosphere Reserve was listed as critical habitat for the Black-eared Miner under the EPBC Act.**

The importance of this mallee in the Riverland Biosphere is its lack of fragmentation and its extent. Any clearance, even through the southern section of Critical Habitat, is likely to have a significant negative impact on Black-eared Miner.

In the past, clearance and fragmentation of the mallee habitat saw the direct decline of the Black-eared Miner while introducing, what is now one of the major threats to the species, hybridisation with the Yellow-throated Miner. Clarke et al. (2001) found that the two species were separable on phenotypic characteristics prior to extensive modification of the mallee habitat after 1950, with the Yellow-throated Miners preferring more open mallee. The establishment of artificial watering points throughout this historic pastoral country led to higher grazing pressure and created conditions suitable for Yellow-throated Miners (Cale, 2012).

A key action in the Black-eared Miner recovery effort has been to **help restore these areas to recreate intact, dense mallee throughout the Black-eared Miners habitat**, chiefly through the closing of artificial watering points (Baker-Gabb, 2003). **Fragmentation and opening the mallee due to any amount of clearance is inconsistent with the National Recovery Plan for Black-eared Miner** as it significantly influences the suitability of habitat in the area for Black-
eared Miners, making it more suitable for Yellow-throated Miners, increasing the risk of further encroachment and future hybridisation.

The Proponent argues that hybridisation is already well advanced. While hybridisation has certainly occurred in the Project area, we have limited evidence that hybridisation has increased throughout the region during 20 years of recovery effort, with colony phenotype appearing stable in core colonies (RL Boulton, pers. comm.). Here, it appears the Proponent is arguing to ignore a threat because it has already occurred, a nonsensical argument when the recovery team, and both State and Federal governments have both invested significantly in reducing this threat – and are currently spending Regional Landcare Partnership funding in the area for this very reason.

2. Proponent’s failure to acknowledge future habitat and impacts on MNES

Stating that the project area has been burnt and therefore does not constitute important habitat is absurd and highlights the Proponents either do not understand or have deliberately disregarded the ecological requirements of the Black-eared Miner and the other threatened mallee birds in this landscape, and the purpose of Critical Habitat listing – which protects current and future habitat.

In fact, we now know that Black-eared Miners will forage in recently burnt mallee (Raap et al., 2015), can occupy sites 6 years post-fire (Cale, 2012) and breed in mallee 10 years post-fire (RL Boulton pers. comm.). While the abundance of Black-eared Miners within recent firescars might be slightly less than long unburnt mallee they are nonetheless extremely important areas for the species and obviously provide future habitat - a fact the Proponent has completely ignored.

The value of habitat for MNES likely to be present in the Project area can be estimated by comparing suitability maps in Connell et al. (2017) with the proposed route (J. Connell pers. comm.). Taking into consideration the 2014 fire and species time-since-fire response curves.

- The route through Hawks Nest would run through mallee vegetation now 13 years post fire.
- Habitat suitability maps were prepared for fire history as at 2011. Taking into account species’ time-since-fire response curves (from Connell et al. 2017), and extrapolating from these original maps (i.e. 8 years onwards) indicates the area around Hawks Nest is already likely to be of relatively high habitat suitability for the Major Mitchell’s Cockatoo, Shy Heathwren, Chestnut Quail-thrush and Crested Bellbird.
- Planning forward: This habitat is likely to become of increasing importance for a suite of threatened and declining mallee birds, which were found to show preference for vegetation of intermediate age (>20 years post-fire, according to their time-since-fire response curves). This includes the Malleefowl, Major Mitchell’s Cockatoo, Regent Parrot, Striated Grasswren, Shy Heathwren, Black-eared Miner, Southern Scrub-robin, Chestnut Quail-thrush, Crested Bellbird and Gilbert’s Whistler.
• Local habitat context: Inspection of fire history maps (both from Connell et al. 2017 and fire history maps provided by JBS&G, e.g. Fig. 3) shows there are currently very few patches of intermediate and older mallee age classes available in the region (e.g. given the 2014 fire removed large tracts of old growth mallee). Consideration must be given not only to the provision of suitable successional vegetation now, but management of future age-class distributions – protecting this ‘emerging’ habitat of intermediate age is important for all those species listed above.

This supports recent surveys and draft outputs for habitat value modelling organised by the Threatened Mallee Birds CAP Steering Committee indicating that the preferred route intersects with areas likely to be of high quality habitat for Black-eared Miner, Mallee Striated Grasswren and Red-lored Whistler in less than 10 years. Recent surveys have already located grasswrens in Hawks Nest, an area in a large depression. Verdon et al. (in press) found time-since-fire and elevation interact to affect the fire-response of Mallee Emu-wren. They postulate that the effect of low elevation is mediated by increased soil nutrient and water availability. As such, areas of low elevation may represent more productive parts of the mallee landscape. This effect is likely to be present for other species and areas of lower elevation, including sites in Hawks Nest and Stoney Pinch, may be important drought refugia that are likely to become more important for a range of mallee species under climate change.

• Continuation of the route through Calperum Station runs through intermediate (40-60 years) to old mallee vegetation (>60 years postfire). Habitat suitability maps identify this as relatively or highly important habitat for a number of threatened and declining mallee bird species: the Malleefowl, Regent Parrot, Black-eared Miner (highly), Southern Scrub-robin, Chestnut Quail-thrush (highly), Crested Bellbird (highly), Red-lored Whistler (highly) and Gilbert’s Whistler.

• Local habitat context: Given the 2006 and 2014 fires removed large tracts of old growth mallee, protection of remaining remnants in this region is paramount.

Consideration must be given not only to the provision of suitable successional vegetation now, but management of future age-class distributions – protecting this ‘emerging’ habitat of intermediate age is important for all those species listed above. Given the life of the powerline is 48 years, all of the habitat in the proposed area will be of very high significance for all threatened mallee species.

3. Impacts on other EPBC-listed mallee birds: Red-lored Whistler, Regent Parrot and Malleefowl

The contiguous mallee in the proposed area provides important habitat for the Red-lored Whistler, Malleefowl and the declining Mallee Striated Grasswren and likely provides one of the preferred foraging routes used by Regent Parrot dispersing away from breeding sites on the Murray River into mallee foraging habitat. The area holds the largest South Australian population of both the Red-lored Whistler and Mallee Striated Grasswren, any risk associated with loss of habitat and fragmentation further threatens these declining species. The Red-
lored Whistler population in the Riverland Biosphere is likely to be very much less than the 1000 stated by the Proponent (RL Boulton, pers. comm.). All current and future high-quality habitat will be important for the species’ recovery.

Malleefowl and other ground dwelling species (Southern Scrub-robin, Shy Heathwren, Chestnut Quail-thrush) are vulnerable to predation by red foxes and feral cats. Creating and maintaining linear easements through this landscape promotes incursion of these feral animals as they are known to use linear features, such as roads, to move throughout the landscape (Doherty et al., 2015; Read et al., 2015; Towerton et al., 2011).

Referral likely underestimates levels of clearing and disturbance, and other risks associated with the Project.

The Project Description (Referral Attachment 1) makes it clear that construction of the powerline will involve the movement of large numbers of workers to and from work sites, the use of 40 metre long semi-trailers to transport infrastructure, the potential for construction material to be ‘dragged’ along the road by bulldozers and heavy cables being laid across mallee vegetation during the stringing of powerline.

The Proponent has not provided evidence that this can be achieved using a five metre wide ‘track’ through this remote area of South Australia. It is highly likely the Proponent will need to construct a significantly wider road, requiring greater vegetation clearance and increased fragmentation impacts.

Any route through Calperum and Taylorville is likely to encounter significant areas of sand that will need to be stabilised (capped) to support heavy traffic and allow the passage of large trucks (semi-trailers) during the construction phase. Soils in the area are known to become un-trafficable when wet. Without significant capping of road surfaces, even small amounts of rain (~2mm) will cause significant problems for the passage of large vehicles. Once stuck, efforts to extract large heavy vehicles will likely cause significant damage to soils and vegetation.

The importation of capping material and soil disturbance are potential source of weeds in this sensitive, fire-prone landscape. Even with good vehicle hygiene, the unacceptable risk of introducing wind-borne invasive species into highly disturbed soils will remain. Many highly invasive weeds (e.g. buffel grass) are known to increase amounts of dry fuel, increasing the risk of fire, and the intensity and frequency of natural fire regimes.

The Proponent attempts to minimise the significance of vegetation clearance by stating that it represents ‘approximately 0.003% of the overall area defined as Critical Habitat’. From an ecological perspective, the nature and location of the clearing is important to consider alongside the total area to be cleared. A 12 km long, five metre wide track punctuated by
larger areas of clearing represents more than 25 km of habitat edges that increase permeability of the landscape to predators, weeds and Yellow-throated Miners.

Any area-based perspective of impacts also assumes that all areas of vegetation are of equal habitat value to mallee birds, which is clearly incorrect (e.g. Connell et al (2017)).

While the Proponent has detailed the length of roads that will need to be cleared through Hawks Nest and Calperum, they have underestimated the length of road that will need to be cleared through listed Critical Habitat on Taylorville.

*Likely requirement to clear under powerlines to reduce risk of wildfire interrupting South Australia’s power supply*

One of the key stated objectives of the Project is to secure South Australia’s power supply, meaning the powerline will become significant infrastructure for the state that must be protected from threats such as fire. It is likely that there will be increased pressure, or even a legal requirement, to clear vegetation under the powerline to reduce the risk of large wildfires beneath the powerline impacting on power supply.

To secure South Australia’s power supply it is preferable that the powerline is located in already cleared, easily accessible areas rather than in the remote, difficult to access reaches of mallee habitat.

*Unacceptable increase in risk of wildfire associated with Project*

The Proponent states that the increased fire risk associated with the powerlines is a very low possibility. Given the catastrophic nature of fire in this landscape for these threatened mallee birds, and the Black-eared Miner, a low possibility is a risk conservation managers are unwilling to make. Although the Proponent outlines risk reduction measures, the only sure way of reducing the risk of fire from powerlines is to avoid high-risk areas, such as the mallee, or to undertake extensive vegetation clearance along the easement (see above).  

*Unsubstantiated statements about fire management benefits of the Project*

The Proponent makes unsubstantiated claims that the five metre wide track will provide fire management benefits for the area. For example, ‘Powerline easements can assist in regional fire management by duplicating as physical, maintained fire breaks and assist in providing alternative access for emergency vehicles’ (Referral, pg 27). ‘A number of stakeholders provided feedback that the initial corridor identified may create a much-needed fire break for land to the south of Calperum and Taylorville Stations’ (Attachment 5b, pg 10). The number of stakeholders and their level of qualification in holding this view is not stated.

The concept that a five metre wide track will provide a fire break or aid fire management is counter to evidence from recent large fires in the Murray Mallee and at odds with current fire management practices.
• In 2014, a 100 metre wide easement under high tension powerlines had no impact in stopping a wildfire that burnt more than 95% of Victoria’s Bronzewing Flora and Fauna Reserve, wiping out its only Black-eared Miner colony. Similarly, in 2014 a fire on the western side of South Australia’s Billiatt Conservation Park jumped Billiatt Road (a sealed, two-lane road) and burnt more than 90% of that Park.

• In Victoria’s Murray-Sunset National Park, fire managers have created a series of 3 km wide, strategic fuel-reduced breaks, as a form of passive fire suppression technique on the basis that very wide breaks are required to reduce the likelihood of ignition from airborne embers (Sandell et al 2006). Elsewhere in the Victorian mallee, planned burning is used to establish fuel-reduced areas tens to hundreds of metres wide adjacent to internal tracks and roads, and fire breaks along public/private boundaries typically consist of a 50-100 metre wide area of chained native vegetation, often backed by an ~100 metre wide area that is burnt to reduce fuel load.

During dry summer thunderstorms the region is hit by numerous lightning strikes. The Proponent’s argument that the powerline easement will attracting lightening and reduce fire potential is unfounded and unlikely to be effective.

Lack of evidence regarding the feasibility of alternate routes

It is unclear why the Proponent did not regard listed Critical Habitat as a Tier 1 constraint.

The Referral documents contain unsubstantiated claims that there is no feasible alternative to the current Project (Section 8) including comments regarding: ‘the number of potentially impacted landholders and visual amenity issues’ (Attachments 5a and 5b); that routes that avoid Critical Habitat would have greater environmental impacts; or that alternative routes are cost prohibitive.

It appears the major reason why the Proponent prefers the route through Calperum and Taylorville is because it involves a single landholder and they have assumed that Critical Habitat listing would not provide an impediment to the Project.

Lack of consultation

The Proponent makes unsubstantiated statements about the quality and extent of stakeholder consultation. Referral attachment 5b provides very little quantitative information on the outcomes of community engagement activities. There is scant information on who was consulted, how many people and a single page of dot points on key feedback under four themes. This does not constitute evidence of comprehensive and robust community engagement.

BirdLife Australia has numerous strong links within the Riverland Biosphere. Our Gluepot Reserve lies to the north of Taylorville Station and we have a Threatened Mallee Birds
Conservation Program focussed on the Murray Mallee. 

Yet BirdLife Australia only became aware of the Project when contacted by the Trustees of the Australian Landscape Trust via email on 19 May 2019.

References


