



Contact: James Archdale
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Mr Andrew Durran
Executive Director
Epuron Pty Ltd
Level 11
75 Miller Street
NORTH SYDNEY NSW 2060

Our ref.: 10/23653

Dear Mr Durran

Subject: Director-General's Requirements for Liverpool Range Wind Farm (MP 10_0225)

The Department has received your application for the above project.

I have attached a copy of the Director-General's Requirements (DGRs) for the preparation of an Environmental Assessment for the project. These requirements have been prepared in consultation with relevant government authorities. I have also attached a copy of the government authorities' comments for your information.

The DGRs have been prepared based on the information you have provided to date. Please note that under section 75F(3) of the *Environmental Planning and Assessment Act 1979*, the Director-General may alter these requirements at any time. If you do not submit an Environmental Assessment for the project within 2 years, the DGRs will expire.

Prior to exhibiting the Environmental Assessment that you submit for the project, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government authorities in making this decision. Please provide 6 hard copies and 6 electronic copies¹ of the Environmental Assessment to assist this review.

If the Director-General considers that the Environmental Assessment does not adequately address the DGRs, the Director-General may require you to revise the Environmental Assessment. Once the Director-General is satisfied that the DGRs have been adequately addressed, the Environmental Assessment will be made publicly available for at least 30 days.

If your project is likely to have a significant impact on matters of National Environmental Significance, it will require an approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This approval would be in addition to any approvals required under NSW legislation and it is your responsibility to contact the Department of Sustainability, Environment, Water, Population and Communities to determine

¹ File parts must be no greater than 5Mb each. File parts should be logically named and divided.

if an approval under the EPBC Act is required for your project (<http://www.environment.gov.au> or 6274 1111).

Your contact officer for this proposal, James Archdale, can be contacted on 9228-6236 or via email at James.Archdale@planning.nsw.gov.au. Please mark all correspondence regarding the proposal to the attention of the contact officer.

Yours sincerely,

SHaddad

Sam Haddad
Director-General
Department of Planning

31/3/2011

ATTACHMENT 1
Director-General's Requirements
Section 75F of the *Environmental Planning and Assessment Act 1979*

Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Project	Construction and operation of a new wind farm and associated infrastructure located across 4 shires on the New England Tableland region of New South Wales. The project is proposed to comprise approximately 550 turbines and a new transmission line connecting the wind farm to Transgrid's 330kV Wollar to Wellington transmission line located 30-40 kilometres south of the site.
Site	A development area covering approximately 40km (east to west) by 50km (north to south) in the New England Tableland region of New South Wales. The site is primarily located in the Warrumbungle & Upper Hunter Shires, between the township of Coolah and Cassilis approximately 370km north of Sydney. Additional turbines would be located in the Liverpool Plains Shire, with transmission line connections south of the site located in the LGA of Mid Western Regional Council.
Proponent	Epuron Pty Ltd
Date of Issue	####
Date of Expiration	####
General Requirements	<p>The Environmental Assessment (EA) must include:</p> <ul style="list-style-type: none"> • an executive summary; • a detailed description of the project (both the wind farm and associated infrastructure) including: <ul style="list-style-type: none"> → construction, operation and decommissioning details; → the location and dimensions of all project components including the wind turbines (including map coordinates and AHD heights), underground/ overhead cabling between turbines, electrical substation and transmission line linking the wind farm to the grid, temporary concrete batching plant(s), construction compounds, access roads/road upgrades (including internal access tracks) and obstacle lighting; → a timeline identifying the proposed construction and operation of the project components including staging, their envisaged lifespan and arrangements for decommissioning; → supporting maps/plans clearly identifying existing environmental features (e.g. watercourses, vegetation), infrastructure and landuse (including nearby residences and approved residential developments or subdivisions, if any) and the location/ siting of the project including associated infrastructure in the context of this existing environment; and → resourcing requirements (including, but not limited to, water supply and gravel). • consideration of any relevant statutory provisions including the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i> (i.e. Section 5 of the Act) and any relevant development control plans; • an assessment of the key issues outlined below, during construction, operation and decommissioning (as relevant). The Environmental Assessment must assess the worst case as well as representative impact for all key issues; • consideration of any cumulative impacts as relevant, taking note of proposed wind farms in the locality; • demonstration that the wind farm will be capable of meeting relevant Building Code of Australia (BCA) standards and other relevant codes / manufacturers' specifications for the construction of wind farms; • a draft Statement of Commitments detailing measures for environmental mitigation, management and monitoring for the project; • a conclusion justifying the project taking into consideration the environmental, social and economic impacts of the project; the suitability of the site; and the public interest; and • certification by the author of the EA that the information contained in the Assessment is neither false nor misleading.

	<p>The EA should present, with respect to each relevant transmission line impact, a considered overview of potential impacts along the length of the line, to identify areas of potentially significant impact for further, more detailed assessment. In addition to detailed assessment of areas of potentially significant impact, other areas along the length of the line should be assessed in a more general manner, with a particular focus on the development of frameworks for the mitigation, management and monitoring of more minor and generic environmental issues.</p>
<p>Key Assessment Requirements</p>	<p>The EA must include assessment of the following key issues for both the wind farm and transmission line:</p> <ul style="list-style-type: none"> • Strategic Justification - the EA must: <ul style="list-style-type: none"> → include a strategic assessment of the need, scale, scope and location for the project in relation to predicted electricity demand, predicted transmission constraints and the strategic direction of the region and the State in relation to electricity supply, demand and electricity generation technologies, and its role within the Commonwealth's Renewable Energy Target Scheme. The EA must clearly demonstrate that the existing transmission infrastructure has sufficient capacity to accommodate the project; → include a clear demonstration of quantified and substantiated greenhouse gas benefits, taking into consideration sources of electricity that could realistically be replaced and the extent of their replacement, with reference to the Department of Environment, Climate Change and Water <i>NSW wind farm greenhouse gas savings tool</i> (http://www.environment.nsw.gov.au/climatechange/greenhousegassavingstool.htm); → include an analysis of the suitability of the project with respect to potential land use conflicts with existing and future surrounding land uses (including rural residential development, building entitlements and subdivision potential, land of significant scenic or visual value, land of high agricultural value, mineral reserves (particularly Petroleum Exploration Licence 433 held by Eastern Star, Petroleum Exploration Licence 456 held by Santos/ApolloGas/Dart, mining lease A286 held by Industry and Investment and Exploration Licence 7597 held by Australian Bauxite), forestry, Crown land and conservation areas including Coolah Tops and Goulburn River National Parks), taking into account local and strategic landuse objectives and the potential for social and economic impacts on the local community. In particular justification should be provided regarding the suitability of the transmission line route through Durrigere State Conservation Area. Consideration should be given to any potential conflicts with the proposed Coolah to Newcastle gas pipeline and any operating or proposed extractive industries. The analysis of site suitability shall consider any Environmentally Sensitive Area Mapping held by Liverpool Plains Shire Council, Warrumbungle Shire Council, Upper Hunter Shire Council and Mid-Western Regional Council; and → describe the alternatives considered (location and/or design) for all project components, and provide justification for the preferred project demonstrating its benefits on a local and strategic scale and how it achieves stated objectives and any measures to offset residual impacts (for example community enhancement programmes). • Visual Impacts - the EA must: <ul style="list-style-type: none"> → provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project, including an assessment of the significance of landscape values and character in a local and regional context. This should describe community and stakeholder values of the local and regional visual amenity and quality, and perceptions of the project based on surveys and consultation; → assess the impact of shadow "flicker", blade "glint" and night lighting from the wind farm; → identify the zone of visual influence of the wind farm including consideration to night lighting (no less than 10 kilometres) and assess the visual impact of all project components on this landscape; → include an assessment of any cumulative visual impacts from transmission line

infrastructure;

- include photomontages of the project taken from potentially affected residences (including approved but not yet developed dwellings or subdivisions with residential rights), settlements and significant public view points, and provide a clear description of proposed visual amenity mitigation and management measures for both the wind farm and the transmission line. The photomontages must include representative views of turbine night lighting if proposed; and
- provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented.

- **Noise Impacts** - the EA must:

- include a comprehensive noise assessment of all phases and components of the project including: turbine operation, the operation of the electrical substation, corona and / or aeolian noise from the transmission line, construction noise (focusing on high noise-generating construction scenarios and works outside of standard construction hours), traffic noise during construction and operation, and vibration generating activities (including blasting) during construction and/ or operation. The assessment must identify noise/ vibration sensitive locations (including approved but not yet developed dwellings), baseline conditions based on monitoring results, the levels and character of noise (e.g. tonality, impulsiveness, low frequency etc) generated by noise sources, noise/ vibration criteria, modelling assumptions and worst case and representative noise/ vibration impacts;
- in relation to wind turbine operation, determine the noise impacts under operating meteorological conditions (i.e. wind speeds from cut in to rated power), including impacts under meteorological conditions that exacerbate impacts (including varying atmospheric stability classes and the van den Berg effect for wind turbines). The probability of such occurrences must be quantified;
- include monitoring to ensure that there is adequate wind speed/profile data and ambient background noise data that is representative for all sensitive receptors;
- provide justification for the nominated average background noise level used in the assessment process, considering any significant difference between daytime and night time background noise levels at background noise levels higher than 30 dB(A);
- identify any risks with respect to tonal, low frequency or infra-noise;
- clearly outline the noise mitigation, monitoring and management measures that would be applied to the project. This must include an assessment of the feasibility, effectiveness and reliability of proposed measures and any residual impacts after these measures have been incorporated;
- if any noise agreements with residents are proposed for areas where noise criteria cannot be met, provide sufficient information to enable a clear understanding of what has been agreed and what criteria have been used to frame any such agreements; and
- include a contingency strategy that provides for additional noise attenuation should higher noise levels than those predicted result following commissioning and/or noise agreements with landowners not eventuate.

The assessment must be undertaken consistent with the following guidelines:

- Wind Turbines - the South Australian Environment Protection Authority's *Wind Farms - Environmental Noise Guidelines* (2003);
- Substation – *NSW Industrial Noise Policy* (EPA, 2000);
- Site Establishment and Construction – *Interim Construction Noise Guidelines* (DECC, 2009);
- Traffic Noise – *Environmental Criteria for Road Traffic Noise* (NSW EPA, 1999); and
- Vibration – *Assessing Vibration: A Technical Guideline* (DECC, 2006).

- **Ecological Impacts** – the EA must include an ecological assessment considering terrestrial and aquatic ecosystems (as relevant), including groundwater dependent ecosystems, consistent with *Guidelines for Threatened Species Assessment* (DEC, 2005); The EA must:
 - identify threatened species, populations and communities listed under both State and Commonwealth legislation that have the potential to occur on site;
 - map existing vegetation by vegetation/ community type and include details on existing site conditions, including whether the vegetation comprises a highly modified or over-cleared landscape and the types and quality of habitat resources available. Vegetation mapping should consider any Environmentally Sensitive Area Mapping held by Liverpool Plains Shire Council, Warrumbungle Shire Council, Upper Hunter Shire Council and Mid-Western Regional Council.
 - provide details of the survey methodology employed including survey effort and representativeness for each species targeted and clear justification for species that were discounted from requiring field surveys or further assessment;
 - demonstrate a design philosophy of impact avoidance on ecological values, and in particular, ecological values of high significance;
 - provide a worst case estimate of vegetation to be cleared (in hectares), including quantifying impacts (in hectares) by vegetation type and threatened species habitat (as relevant);
 - assess the significance of impacts to native vegetation, listed threatened species, populations and communities and their habitats with consideration to local and region-based ecological implications, including habitat connectivity and distribution of species. The assessment must consider impacts to in-stream and riparian ecology from works close to waterways and/ or waterway crossings. In addition, impact of the project on birds and bats from blade strikes, low air pressure zones at the blade tips (barotrauma), and alteration to movement patterns resulting from the turbines must be assessed, including demonstration of how the project has been sited to avoid and/ or minimise such impacts;
 - include details of how flora and fauna impacts would be managed during construction and operation including adaptive management, rehabilitation/ regeneration measures and maintenance protocols;
 - demonstrate how the project (with the incorporation of all proposed measures to avoid, mitigate and/ or offset impacts) achieves a biodiversity outcome consistent with "maintain or improve" principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project and to secure these measures in perpetuity; and
 - address the risk of weed spread and identify mitigation measures.
- **Heritage Impacts** – the EA must include an assessment of impacts on Aboriginal and historic heritage. The EA must:
 - include sufficient information to demonstrate the likely impacts of the project on Aboriginal heritage values/items (archaeological and cultural) and outline proposed mitigation measures (including consideration of the effectiveness and reliability of the measures) in accordance with the Draft *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (DEC, 2005). The assessment must be undertaken by suitably qualified heritage consultants and demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures (including the final proposed measures); and
 - provide sufficient information to demonstrate the likely impacts of the project on historic heritage values (including heritage vistas) and, where impacts to State or local historic heritage items are proposed, outline proposed mitigation and management measures (including consideration of the effectiveness and reliability of the measures) generally consistent with the guidelines in the NSW Heritage Manual. Where impacts to State or local historic heritage items are

proposed, a statement of heritage significance must be included.

- **Traffic and Transport** – the EA must assess the construction and operational traffic impacts of the project including:
 - details of traffic volumes (both light and heavy vehicles) and transport routes during construction and operation;
 - assess the potential traffic impacts of the project on road network function (including intersection level of service) and safety;
 - assess the capacity of the existing road network to accommodate the type and volume of traffic generated by the project (including over-dimensional traffic) during construction and operation, including full details of any required upgrades to roads, bridges, site access provisions (for safe access to the public road network) or other road features;
 - details of measures to mitigate and/or manage potential impacts, including construction traffic control, road dilapidation surveys and measures to control soil erosion and dust generated by traffic volumes;
 - details of access roads within the site including how these would connect to the existing public road network (i.e. site access) and ongoing operational maintenance requirements for on-site roads; and
 - consideration of relevant Council traffic/road policies.
- **Hazard/Risks**– the EA must include an assessment of the potential impacts on aviation safety, including the need for aviation hazard lighting, considering nearby aerodromes and aircraft landing areas, defined air traffic routes, aircraft operating heights, approach/departure procedures, radar interference, communication systems, and navigation aids. Aerodromes within 30km of the turbines should be identified and impacts on obstacle limitation surfaces addressed. In addition, the EA must assess the impact of the turbines on the safe and efficient aerial application of agricultural fertilisers and pesticides in the vicinity of the turbines and transmission line. Possible effects on telecommunications systems must be identified. Potential hazards and risks associated with electric and magnetic fields and bushfires/use of bushfire prone land must also be assessed.
- **Water Supply, Water Quality and Hydrology** – The EA must:
 - identify water demands, and determine whether an adequate and secure water supply is available for the project;
 - identify water sources (surface and groundwater), water disposal methods and water storage structures in the form of a water balance;
 - include the statutory (licensing) context of the water supply sources;
 - assess potential environmental impacts associated with the use of the identified water sources including impacts on groundwater and implications for existing licensed users/basic landholder rights;
 - assess the potential to intercept groundwater, including predicted dewatering volumes, zone of drawdown and associated impact, water quality and disposal methods;
 - where the project involves crossing or works close to waterways, identify likely impacts to the waterways, how the waterways are proposed to be crossed and be designed in accordance with the NSW Office of Water Guidelines for Controlled Activities (August 2010);
 - describe the measures to minimise hydrological, water quality, aquatic and riparian impacts;
 - identify how works within steep gradient land or highly erosive soil types will be managed during construction and operation; and
 - consideration is to be given to water sharing plans and ground water and surface water access embargoes, as relevant.
- **Waste** – The EA must identify, quantify and classify the likely waste streams to be generated during construction and operation, and describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.

	<ul style="list-style-type: none"> • General Environmental Risk Analysis – notwithstanding the above key assessment requirements, the EA must include an environmental risk analysis to identify potential environmental impacts associated with the project, proposed mitigation measures and potentially significant residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of the additional key environmental impact(s) must be included in the EA.
Consultation Requirements	<p>The Proponent must undertake a consultation programme as part of the environmental assessment process, including consultation with, but not necessarily limited to, the following parties:</p> <ul style="list-style-type: none"> • Liverpool Plains Shire Council; • Warrumbungle Shire Council; • Upper Hunter Shire Council; • Mid-Western Regional Council; • Department of Environment, Climate Change and Water; • NSW Office of Water; • Industry and Investment NSW; • NSW Roads and Traffic Authority; • NSW Rural Fire Service; • Land and Property Management Authority; • Central West Catchment Management Authority; • Hunter Central Rivers Catchment Management Authority; • Namoi Catchment Management Authority; • Commonwealth Department of Defence; • Civil Aviation Safety Authority; • Airservices Australia; • Aerial Agricultural Society of Australia; • relevant service providers; • relevant minerals stakeholders (including exploration and mining title holders); and • the local community and landowners (including “associated” and “non-associated” properties). <p>The consultation process shall include measures for disseminating information to increase awareness of the project as well as methods for actively engaging stakeholders on issues that would be of interest/concern to them. The EA must:</p> <ul style="list-style-type: none"> → demonstrate effective consultation with stakeholders, and that the level of consultation with each stakeholder is commensurate with their degree of interest/concern or likely impact; → clearly describe the consultation process undertaken for each stakeholder/group including details of the dates of consultation and copies of any information disseminated as part of the consultation process (subject to confidentiality); and → describe the issues raised during consultation and how and where these have been addressed in the EA.

Relevant Guidelines - For Reference

General

Wind Energy Facilities draft Environmental Impact Assessment Guidelines (Planning NSW, June 2002)

Draft EIS Guideline "Network Electricity Systems and Related Facilities" (Planning NSW, February, 2002)

Best Practice Guidelines for Implementation of Wind Energy Projects in Australia (Auswind, 2006)

Visual

Wind Farms and Landscape Values: National Assessment Framework (Australian Wind Energy Association and Australian Council of National Trust, June 2007).

Ecology

Cumulative Risk for Threatened and Migratory Species (Commonwealth Department of Environment and Heritage, March 2006).

Wind Farms and Birds: Interim Standards for Risk Assessment, (Auswind, July 2005).

Assessing the Impacts on Birds – Protocols and Data Set Standards (Australian Wind Energy Association).

Threatened Biodiversity Survey and Assessment – Guidelines for Developments and Activities (Working Document) (DEC, 2004).

Aviation Hazard

Advisory Circular 139-18(0) Obstacle Marking and Lighting of Wind Farms (Civil Aviation Safety Authority, July 2007). Note: this advisory is currently withdrawn however a replacement has to date not been issued.

Windfarm Policy (Aerial Agricultural Association of Australia, December 2009)

Powerlines Policy (Aerial Agricultural Association of Australia, December 2009)

Information Sheet – Airport Related Development (AirServices Australia)

Water Quality

National Water Quality Management Strategy: Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZECC 2000).

The NSW State Groundwater Quality Protection Policy (DLWC, 1998).

The NSW State Groundwater Dependent Ecosystems Policy (DLWC, 2002).

Department of Water and Energy's Guidelines for Controlled Activities (February 2008):

- Watercourse Crossings;
- Instream Works;
- Laying Pipes and Cables in Watercourses;
- Outlet Structures; and
- Riparian Corridors.

Managing Urban Stormwater: Soils and Construction, Volume 1, 4th edition (Landcom, 2004).

Managing Urban Stormwater: Soils and Construction, Volume 2C Unsealed roads (DECC).

Office of the Director General

Contact: James Archdale
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Email: James.Archdale@planning.nsw.gov.au

Mr Andrew Durran
Executive Director
Epuron Pty Ltd
Level 11
75 Miller Street
NORTH SYDNEY NSW 2060

Our ref.: MP10_0225

Dear Mr Durran

Subject: Supplementary Director-General's Requirements for Liverpool Range Wind Farm MP10_0225

I refer to the Director-General's requirements which were issued for the above project on 31 March 2011.

These requirements specify that the community must be consulted during the preparation of the Environmental Assessment and relevant issues must be addressed in the document.

It is clear from submissions being received by the Department that many members of the community are not satisfied with the level and nature of consultation being undertaken by proponents during the preparation of wind farm environmental assessment documents.

I wish to emphasise the importance of effective and genuine community consultation and the need for proposals to proactively respond to the community's concerns.

Accordingly, under section 75F(3) of the *Environmental Planning and Assessment Act*, I am issuing supplementary requirements which must be addressed in the preparation of your Environmental Assessment. These requirements are:


1. a comprehensive, detailed and genuine community consultation and engagement process must be undertaken. This process must ensure that the community is both informed of the proposal and is actively engaged in issues of concern to them, and is given ample opportunity to provide its views on the proposal. Sufficient information must be provided to the community so that it has a good understanding of what is being proposed and of the impacts. There should be a particular focus on those non wind farm associated community members who live in proximity to the site;
2. the Environmental Assessment must clearly document and provide details and evidence of the consultation process and who was consulted with;
3. all issues raised during the consultation process must be clearly identified and tabulated in the Environmental Assessment; and

4. the Environmental Assessment must state how the identified issues have been addressed, and how they have informed the proposal as presented in the Environmental Assessment. In particular, the Environmental Assessment must state how the community's issues have been responded to.

I wish to emphasise that the Department will review compliance with these, and other, requirements during its adequacy review of the Environmental Assessment. If it does not adequately respond to these requirements it will not be accepted as adequate for public exhibition.

Your contact officer for this proposal, James Archdale, can be contacted on 9228-6236 or via email at James.Archdale@planning.nsw.gov.au. Please mark all correspondence regarding the proposal to the attention of the contact officer.

Yours sincerely,



Sam Haddad
Director-General

16/8/2011



Contact: Neville Osborne
Phone: (02) 9228 6337
Fax: (02) 9228 6355
Email: neville.osborne@planning.nsw.gov.au

Mr Andrew Durran
Executive Director
Epuron Pty Ltd
Level 11, 75 Miller Street
NORTH SYDNEY NSW 2060

Our ref: 10/23653
Your ref:

Dear Mr Durran

Proposed Liverpool Range Wind Farm (MP 10_0225) – Supplement to the Director-General's Requirements

I refer to the Director-General's requirements (DGRs) issued for the above project on 31 March 2011 and the supplementary requirements issued on 16 August 2011 in relation to community consultation.

As you are aware, the project has been transitioned to the Government's new State Significant Development (SSD) assessment system, as formally advised on 19 March 2014. The issuing of DGRs have been accredited under the SSD process and are taken to have been completed.

Additionally, the project was declared a Controlled Action under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 17 March 2014, for likely impacts on listed threatened species and communities. Therefore, in accordance with section 75F(3) of the NSW *Environmental Planning & Assessment Act 1979*, I have enclosed the Commonwealth's requirements for the assessment.

I also confirm that the administrative procedures in relation to the bilateral assessment process will apply to the assessment of this project under the EPBC Act, so that the Agency can undertake an environmental impact assessment of the project to satisfy the requirements of both NSW and Commonwealth legislation.

You must ensure that the Environmental Assessment / Environmental Impact Statement adequately addresses the DGRs issued on 31 March and 16 August 2011, and the supplementary requirements attached to this letter.

If you have any enquiries about these requirements, please do not hesitate to contact Neville Osborne on the above contact details.

Yours sincerely



25.3.14

Karen Jones
**Director
Infrastructure Projects
as delegate for the Director-General**



Neville Osborne
Senior Planner, Infrastructure Projects
NSW Department of Planning and Infrastructure
GPO Box 39
Sydney NSW 2001

**Environmental assessment requirements (Matters of National Environmental Significance Terms of Reference) for bilateral assessment process
Liverpool Range Wind Farm, NSW (EPBC 2014/7136)**

Dear Mr Osborne

I refer to your email of 20 March 2014 requesting the Department of the Environment's input into the Director-General's requirements (under the NSW *Environmental Planning and Assessment Act 1979*) for environmental assessment for the above proposal, deemed a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 17 March 2014.

The proposed action involves the construction of up to 288 wind turbine generators, a 330kV overhead powerline, electrical reticulation, connection substations, maintenance facilities and access tracks on the Liverpool Range between Coolah and Cassilis, 370km northwest of Sydney, NSW.

The action is likely to have a significant impact on the following matters of National Environmental Significance (MNES):

- Listed threatened species and communities (s18 & 18A).

In particular, the proposed action is likely to cause impacts to the critically endangered *White Box Yellow Box Blakely's Red Gum Grassy Woodland and Derived Native Grassland* ecological community (WBGW) and habitat for threatened species including (but not limited to) the Swift Parrot (*Lathamus discolor*) and the Regent Honeyeater (*Anthochaera phrygia*).

The area of WBGW that will be removed ranges from 3.9ha (preferred option) to 14ha (first alternative option) or 23ha (second alternative option).

Information provided to the Department indicates that up to 436ha of woodland and forest vegetation communities, that may be used as foraging habitat by EPBC listed bird species, will be cleared. In addition to the direct loss of habitat, the proposed action is likely to ecologically devalue remaining habitat areas through fragmentation, edge effects and the potential for weed invasion.

The main ongoing risk that the wind farm poses to the Swift Parrot and Regent Honeyeater is collision with turbine blades, including direct mortality and injury. Blade strike is not well studied or understood in Australia, particularly in relation to woodland birds, however, the Department notes that the Swift Parrot and Regent Honeyeater are known to fly at rotor height and may occasionally encounter turbines during migration or while moving between patches of habitat.

In accordance with the bilateral assessment process for this project, I have attached the Environment Assessment requirements (Matters of National Environmental Significance Terms of Reference) under the EPBC Act for input into the Director-General Requirements. The Director-General is required to notify the proponent of these requirements. I also note that the administrative procedures in relation to the bilateral assessment processes are being prepared and will apply to this assessment process once finalised.

The assessment must include enough information about the action and its relevant impacts to allow the Minister for the Environment to make an informed decision on whether or not to approve the action under the EPBC Act.

Please note that that the table at Attachment 1 to the MNES Terms of Reference should only be completed if the EIS does not contain a separate chapter addressing MNES.

If you have any questions about the enclosed requirements, please contact, Mark Jenkins, by email to mark.jenkins@environment.gov.au, or telephone 02 6274 1558 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

Mahani Taylor
Director
NSW Section
South-Eastern Australia Environment Assessments Branch
March 2014

Matters of National Environmental Significance Terms of Reference

References:

- *Environment Protect and Biodiversity Conservation Act 1999* - section 51-55, section 96A(3)(a)(b), 101A(3)(a)(b), section 136, section 527E;
- *Environment Protect and Biodiversity Conservation Regulations 2000* - Division 3.2, 3.02(a)(b)(ii)(iii), Division 5.2, Schedule 4;
- *Bilateral Agreements* - Item 18.1, Item 18.5, Schedule 1; and
- *Policy - Environment Protect and Biodiversity Conservation Act 1999 Environmental Offsets Policy* October 2012

1 THE ACTION

The Environmental Impact Statement (EIS) must describe in detail all construction, operational and (if relevant) decommissioning components of the action. This must include the precise location of all works to be undertaken (including associated offsite works and infrastructure), structures to be built or elements of the action that may have impacts on matters of national environmental significance (MNES).

The description of the action must also include details on how the works are to be undertaken (including stages of development and their timing) and design parameters for those aspects of the structures or elements of the action that may have relevant impacts.

The EIS must also include how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action.

2 THE ENVIRONMENT INCLUDING MNES

The EIS must include a description of the environment and management practices of the proposal site and the surrounding areas and other areas that may be affected by the action. Include the relevant MNES protected by controlling provisions of Part 3 of the EPBC Act:

- (a) Listed threatened species and communities (including suitable habitat) that are or are likely to be present in the vicinity of the site, including the following details:
 - i. Details of the scope, timing/effort (survey season/s) and methodology for studies or surveys used to provide information on the listed species/community/habitat at the site (and in areas that may be impacted by the project). Include details of:
 - o best practice survey guidelines are applied; and

- o how they are consistent with (or a justification for divergence from) published Australian Government guidelines and policy statements.

3 IMPACTS

- (a) The EIS must include a description of all of the relevant impacts of the action on MNES (identified in Section 2). Impacts during the construction, operational and (if relevant) the decommissioning phases of the project must be addressed, and the following information provided:
 - i. a description of the relevant impacts of the action;
 - ii. a detailed analysis of the nature and extent of the likely direct, indirect and consequential impacts relevant to MNES, including likely short-term and long-term impacts;
 - iii. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
 - iv. any technical data and other information used or needed to make a detailed assessment of the relevant impacts;
- (b) The EIS should identify and address cumulative impacts, where potential project impacts are in addition to existing impacts of other activities (including known potential future expansions or developments by the proponent and other proponents in the region and vicinity).
- (c) The EIS should also provide a detailed assessment of any likely impact that this proposed action may facilitate on the relevant MNES at the local, regional, state, national and international scale.

4 AVOIDANCE AND MITIGATION MEASURES / ALTERNATIVES

Avoidance and Mitigation Measures

The EIS must provide information on proposed avoidance and mitigation measures to manage the relevant impacts of the action on MNES.

The EIS also must take into account relevant agreements and plans that cover impacts on MNES including but not limited to:

- any recovery plan, conservation advice for the species or community;
- any threat abatement plan for a process that threatens the species;
- any wildlife conservation plan for the species; and
- any Strategic Assessment.

The EIS must include, and substantiate, specific and detailed descriptions of the proposed avoidance and mitigation measures, based on best available practices and must include the following elements:

- (a) A consolidated list of avoidance and mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action on MNES, including:
 - i. a description of proposed avoidance and mitigation measures to deal with relevant impacts of the action, including mitigation measures proposed to be taken by State/Territory governments, local governments or the proponent;
 - ii. assessment of the expected or predicted effectiveness of the mitigation measures, including the scale and intensity of impacts of the proposed action and the on-ground benefits to be gained through each of these measures;
 - iii. a description of the outcomes that the avoidance and mitigation measures will achieve;
 - iv. any statutory or policy basis for the mitigation measures; and
 - v. the cost of the mitigation measures.
- (b) A detailed outline of a plan for the continuing management, mitigation and monitoring of relevant MNES impacts of the action, including a description of the outcomes that will be achieved and any provisions for independent environmental auditing.

Where appropriate, each project phase (construction, operation, decommission) must be addressed separately. It must state the environmental outcomes, performance criteria, monitoring, reporting, corrective action, contingencies, responsibility and timing for each environmental issue.

- (c) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.

Alternatives

The EIS must include any feasible alternatives to the action to the extent reasonably practicable, including:

- (a) if relevant, the alternative of taking no action;

- (b) a comparative description of the impacts of each alternative on the NES matters protected by controlling provisions of Part 3 of the EPBC Act for the action; and
- (c) sufficient detail to make clear why any alternative is preferred to another.

Short, medium and long-term advantages and disadvantages of the options must be discussed.

5 RESIDUAL IMPACTS / OFFSETS

The EIS must provide details of:

- (a) the likely residual impacts on MNES that are likely to occur after the proposed activities to avoid and mitigate all impacts are taken into account.
 - i. Include the reasons why avoidance or mitigation of impacts is not reasonably achieved; and
 - ii. Identify the significant residual impacts on MNES.

Offset Package (if relevant)

The EIS must include details of an offset package to be implemented to compensate for the residual significant impact of the project, as well as an analysis about how the offset meets the requirements in the Department's *Environment Protect and Biodiversity Conservation Act 1999* Environmental Offsets Policy October 2012 (EPBC Act Offset Policy).

The offset package can comprise a combination of direct offsets and other compensatory measures, so long as it meets the requirements of the EPBC Act Offset Policy. Offsets should align with conservation priorities for the impacted protected matter and be tailored specifically to the attribute of the protected matter that is impacted in order to deliver a conservation gain.

Offsets should compensate for an impact for the full duration of the impact.

Offsets must directly contribute to the ongoing viability of the MNES impacted by the project and deliver an overall conservation outcome that improves or maintains the viability of the MNES as compared to what is likely to have occurred under the status quo, that is if neither the action nor the offset had taken place.

Note offsets do not make an unacceptable impact acceptable and do not reduce the likely impacts of a proposed action. Instead, offsets compensate for any residual significant impact.

Offsets required by the State/Territory can be applied if the offsets meet the Department's EPBC Act Offset Policy.

The EIS must provide:

- (a) Details of the offset package to compensate for significant residual impacts on MNES; and
- (b) An analysis of how the offset package meets the requirements of the EPBC Act Offsets Policy.

Further details of information requirements for EPBC Act offset proposals are provided at Attachment 2.

6 ENVIRONMENTAL RECORD OF PERSON(S) PROPOSING TO TAKE THE ACTION

The information provided must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- (a) the person proposing to take the action; and
- (b) for an action for which a person has applied for a permit, the person making the application.

If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

7 ECONOMIC AND SOCIAL MATTERS

The economic and social impacts of the action, both positive and negative, must be analysed. Matters of interest may include:

- (a) details of any public consultation activities undertaken, and their outcomes;
- (b) details of any consultation with Indigenous stakeholders.
- (c) projected economic costs and benefits of the project, including the basis for their estimation through cost/benefit analysis or similar studies;
- (d) employment opportunities expected to be generated by the project (including construction and operational phases).

Economic and social impacts should be considered at the local, regional and national levels. Details of the relevant cost and benefits of alternative options to the proposed action, as identified in Section 4 above, should also be included.

8 INFORMATION SOURCES PROVIDED IN THE EIS

For information given in the EIS, state:

- (a) the source of the information;
- (b) how recent the information is;
- (c) how the reliability of the information was tested;
- (d) what uncertainties (if any) are in the information; and
- (e) what guidelines, plans and/or policies did you consider.

9 CONCLUSION

An overall conclusion as to the environmental acceptability of the proposal on MNES, including:

- (a) a discussion on the consideration with the requirements of the EPBC Act, including the objects of the EPBC Act, the principles of ESD and the precautionary principle (Attachment 3);
- (b) reasons justifying undertaking the proposal in the manner proposed, including the acceptability of the avoidance and mitigation measures; and
- (c) if relevant, a discussion of residual impacts and any offsets and compensatory measures proposed or required for significant residual impacts on MNES, and the relative degree of compensation and acceptability.

ATTACHMENT 2

Information requirements for EPBC Act offset proposals

- Details in relation to the proposed offsets package, including:
 - the location and size, in hectares, of any offset site(s);
 - maps clearly showing for each offset site:
 - the relevant ecological features;
 - the landscape context; and
 - the cadastre boundary.
 - the current tenure arrangements (including zoning and ownership) of any proposed offset sites;
 - confirmed records of presence (or otherwise) of relevant protected matter(s) on the offset site(s); and
 - detailed information regarding the presence and quality of habitat for relevant protected matter(s) on the offset site. The quality of habitat should be assessed in a manner consistent with the approach outlined in the document titled *How to use the offset assessment guide* available at:
<http://www.environment.gov.au/epbc/publications/environmental-offsets-policy.html>.
- Provide information and justification regarding how the offsets package will deliver a conservation outcome that will maintain or improve the viability of the protected matter(s) consistent with the *EPBC Act environmental offsets policy* (October 2012) including:
 - management actions that will be undertaken that improve or maintain the quality of the proposed offset site(s) for the relevant protected matter(s). Management actions must be clearly described, planned and resourced as to justify any proposed improvements in quality for the protected matter(s) over time;
 - the time over which management actions will deliver any proposed improvement or maintenance of habitat quality for the relevant protected matter(s);
 - the risk of damage, degradation or destruction to any proposed offset site(s) in the absence of any formal protection and/or management over a foreseeable time period (20 years). Such risk assessments may be based on:
 - presence of pending development applications, mining leases or other activities on or near the proposed offset site(s) that indicate development intent;
 - average risk of loss for similar sites; and
 - presence and strength of formal protection mechanisms currently in place.
 - the legal mechanism(s) that are proposed to protect offset site(s) into the future and avert any risk of damage, degradation or destruction.
- Provide information regarding how the proposed offsets package is additional to what is already required, as determined by law or planning regulations, agreed to under other schemes or programs or required under an existing duty-of-care.
- The overall cost of the proposed offsets package; including costs associated with, but not limited to:
 - acquisition and transfer of lands/property;
 - implementation of all related management actions; and
 - monitoring, reporting and auditing of offset performance.

ATTACHMENT 3

THE OBJECTS OF THE *ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999*, PRINCIPLES OF THE ECOLOGICALLY SUSTAINABLE DEVELOPMENT AND THE PRECAUTIONARY PRINCIPLE

3 Objects of the Act

- (a) to provide for the protection of the environment, especially those aspects of the environment that are matters of national environmental significance; and
- (b) to promote ecologically sustainable development through the conservation and ecologically sustainable use of natural resources; and
- (c) to promote the conservation of biodiversity; and
 - (ca) to provide for the protection and conservation of heritage; and
- (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and indigenous peoples; and
- (e) to assist in the co-operative implementation of Australia's international environmental responsibilities; and
- (f) to recognise the role of indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and
- (g) to promote the use of indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.

3A Principles of Ecologically Sustainable Development

The following principles are principles of ecologically sustainable development.

- (a) Decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations.
- (b) If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- (c) The principle of inter-generational equity – that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.
- (d) The conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making.

(e) Improved valuation, pricing and incentive mechanisms should be promoted.

Precautionary principle

The ***precautionary principle*** is that lack of full scientific certainty should not be used as a reason for postponing a measure to prevent degradation of the environment where there are threats of serious or irreversible environmental damage.