APPENDIX 4

Director-General's Requirements
and Supplementary Director-General's Requirements

Department of Planning NSW

NSW GOVERNMENT
Department of Planning

Contact: Mary Mikulandra
Phone: (02) 9228 6378
Fax: (02) 9228 6366
Email: mary.mikulandra@planning.nsw.gov.au

Our ref: S08/01479

Mr Adrian Maddocks
Development Manager
Wind Prospect CWP Pty Ltd
PO Box 1708
NEWCASTLE NSW 2300

Dear Mr Maddocks

Proposed Sapphire Wind Farm, Inverell and Glen Innes Severn Local Government Areas (Application Reference - MP 09_0093)

The Department has received your major project application for the proposed Sapphire wind farm 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 following the Planning Focus Meeting held on 19 November 2008 and in consultation with the relevant government agencies. I have also enclosed a list of relevant guidelines that you may wish to refer to during the preparation of the Environmental Assessment.

It should be noted that the DGRs have been prepared based on the information provided to date. Under section 75F(3) of the Act, the Director-General may alter or supplement these requirements if necessary and in light of any additional information that may be provided prior to the Proponent seeking approval for the project.

I would appreciate it if you could contact the Department at least two weeks before you propose to submit the Environmental Assessment for the project to determine:

- the fees applicable to the application;
- relevant land owner notification requirements;
- consultation and public exhibition arrangements that will apply;
- options available in publishing the Environmental Assessment via the Internet; and
- number and format (hard-copy or CD-ROM) of the Environmental Assessment that will be required.

Prior to exhibiting the Environmental Assessment, the Department will review the document to determine if it adequately addresses the DGRs. The Department may consult with other relevant government agencies in making this decision. If the Director-General considers that the Environmental Assessment does not adequately address the DGRs, the Director-General may require the Proponent to revise the Environmental Assessment to address the matters notified to the Proponent. Following this review period, the Environmental Assessment will be made publicly available for a minimum period of 30 days.

If your project includes any actions that could have a significant impact on matters of National Environmental Significance, it will require an additional 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 the Environment, Water, Heritage and the Arts to determine if an approval under the EPBC Act is required for your project (http://www.environment.gov.au or 6274 1111).

Please note that the Commonwealth Government has accredited the NSW environmental assessment process for assessing impacts on matters of National Environmental Significance. As a result, if it is determined that an approval is required under the EPBC Act, please contact the Department immediately as supplementary Director-General's requirements will need to be issued.

If you have any enquiries about these requirements, please contact Ms Mary Mikulandra, Major Infrastructure Assessments on 9228 6378 or via email (mary.mikulandra@planning.nsw.gov.au).

Yours sincerely

29.5.09

Chris Wilson
Executive Director
Major Projects Assessment
as delegate of the Director-General

Director-General's Requirements

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

Project	Construction and operation of an approximately 356-485 megawatt wind farm including up to 178 wind turbines, and associated infrastructure.
Site	Approximately 28 kilometres east of Inverell and 18 kilometres west of Glenn Innes, in the Inverell and Glen Innes Severn local government areas.
Proponent	Wind Prospect CWP Pty Ltd
Date of Issue	29 May 2009
Date of Expiration	29 May 2011
General Requirements	The Environmental Assessment (EA) must include: • an **executive summary**; • a **detailed description** of the project including: → construction, operation and decommissioning details including envisaged lifespan and staging details; → the location and dimensions of all project components including, but not limited to, the wind turbines (including map coordinates and AHD heights), the transmission connection to the existing 330 kilovolt (kV) Transgrid Queensland-to-NSW Interconnector (QNI) transmission line, electrical substation, cabling between turbines and to the substation, on site control room and equipment storage, temporary concrete batching plant(s), construction compounds and access roads; → resourcing requirements (including, but not limited to, water supply and gravel); and → supporting maps/plans clearly identifying existing environmental features (e.g. watercourses, vegetation), infrastructure and landuse (including nearby residences and approved residential developments or subdivisions) and the location/ siting of the project (including associated infrastructure) in the context of this existing environment; • consideration of any **relevant statutory provisions** including the consistency of the project with the objects of the *Environmental Planning and Assessment Act 1979;* • an **assessment of the key issues** outlined below, during construction, operation and decommissioning (as relevant). The proposal should assess the worst case and representative impact for all key issues and also consider cumulative impacts; • a **draft Statement of Commitments** detailing measures for environmental mitigation, management, offset 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.
Key Assessment Requirements	The EA must include assessment of the following key issues: • **Strategic Justification** - the EA must: → 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; → 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; and → include an analysis of the suitability of the project with respect to potential land use conflicts with existing and future land uses (including existing and approved rural-residential development, known development proposals in the surrounding area of a sensitive land use, land of significant scenic or visual value, land of high agricultural value, mineral reserves, and conservation

areas), taking into account local and strategic landuse objectives; and

→ describe the alternatives considered (location and/or design) for all project components, and provide justification for the preferred project demonstrating its benefits including community benefits on a local and strategic scale and how it achieves stated objectives.

- **Visual Impacts** - the EA must:
  - → provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project. 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 on residents and road users;
  - → identify the zone of visual influence (no less than 10 kilometres) and assess the visual impact of all project components on this landscape;
  - → include photomontages of the project taken from potentially affected neighbouring residences (both existing and approved dwellings) where the occupant is assessed as likely to experience a high level of visual impact, and of settlements and significant public view points;
  - → provide a clear description of proposed visual amenity mitigation and management measures and provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented; and
  - → assess the cumulative visual impacts of the project in terms of any existing and approved wind farms in the region and the Transgrid QNI.

- **Noise Impacts** - the EA must:
  - → include a comprehensive noise assessment of all phases and components of the project including, but not limited to, turbine operation, the operation of the electrical substation, construction, and traffic noise. The assessment must identify noise 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 etc) generated by noise sources, noise criteria, modelling assumptions and worst case and representative noise 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). 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;
  - → in relation to overhead transmission lines, assess the risk of corona noise at nearest sensitive receivers;
  - → include an assessment of vibration impacts associated with the project;
  - → 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;
  - → 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; 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 (or as otherwise agreed with the DECC):

→ Wind Turbines - the South Australian Environment Protection Authority's *Wind Farms - Environmental Noise Guidelines*, 2003 (consideration should also be given to *Wind Farms - Environmental Noise Guidelines (interim)*, 2007 on advice from DECC who are currently reviewing their appropriateness for NSW);

→ Electrical Substation – *NSW Industrial Noise Policy* (EPA, 2000);

→ Traffic Noise – *Environmental Criteria for Road Traffic Noise* (NSW EPA, 1999);

→ Site Establishment and Construction - *Environmental Noise Control Manual* (EPA, 2004); and

→ Vibration – *Assessing Vibration: A Technical Guideline* (DECC, 2006).

- **Flora and Fauna** - the EA must:
  - → include an assessment of all project components on flora and fauna and their habitat consistent with the *Draft Guidelines for Threatened Species Assessment* (DEC, 2005), including demonstrating how the project design has avoided impacts where possible and clearly identifying the existing condition and extent of vegetation and habitat on site;
  - → specifically consider impacts to: threatened species and communities listed under both State and Commonwealth legislation that have been recorded on the site and surrounding land; native vegetation (including fragmentation impacts and impacts to biodiversity corridors); and habitat types (including riparian and/or instream habitat in the case of disturbance of waterways);
  - → document and map each of the ecosystems (vegetation communities) that will be impacted, quantify the impacts, and assess the significance of the impact within the context of the landscape and region in which ecosystem is located, including the location, intensity and areal extent of impact;
  - → assess the impact of the project on birds and bats from blade strikes, low air pressure zones at the blade tips, and alteration to movement patterns, roost sites and nesting areas resulting from the turbines and any above ground transmission lines, including demonstration of how the project has been sited to avoid and/or minimise such impacts. If any of the bat and bird species likely to be impacted by the wind turbines are also listed species under State and Commonwealth legislation, then the significance assessment for each of these species must consider impacts from the wind turbines as well as impacts from habitat loss;
  - → provide details of how flora and fauna impacts would be managed during construction and operation of all project components, including adaptive management and maintenance protocols and monitoring programs; and
  - → describe the measures to avoid, mitigate or offset impacts associated with the construction and operation of all project components consistent with "improve or maintain" principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project.

- **Indigenous Heritage** - the EA must include an assessment of the potential impact of the project components on indigenous heritage values (archaeological and cultural). The EA must demonstrate effective consultation with indigenous stakeholders during the assessment and in developing mitigation options (including the final recommended measures) consistent with the draft *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005). The EA must describe the actions that will be taken to avoid, mitigate or offset impacts.

- **Traffic and Transport** – the EA must assess the construction and operational traffic impacts of the project including:
  - → details of the nature of traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads, bridges and intersections,

	including any proposed road upgrades and repairs; and → details of site access roads including how these would connect to the existing road network and any operational maintenance or handover requirements. • **Hazard/Risks**– the EA must include an assessment of the potential impacts on aviation safety considering nearby aerodromes and aircraft landing areas, defined air traffic routes, aircraft operating heights, radar interference, communication systems, and navigation aids. 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. Potential hazards and risks associated with electric and magnetic fields and bushfires must also be assessed. • **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** – the Proponent must undertake a community consultation program as part of the environmental assessment process. Consultation must be undertaken with, but not necessarily limited to, the following parties during the preparation of the EA: → Glen Innes Severn Council; → Inverell Shire Council; → Department of Environment and Climate Change NSW; → Department of Water and Energy; → NSW Department of Primary Industries; → NSW Roads and Traffic Authority; → Transgrid; → NSW Rural Fire Service; → Border Rivers-Gwydir Catchment Management Authority; → Commonwealth Department of Defence; → Civil Aviation Safety Authority; → Airservices Australia; → Aerial Agricultural Society of Australia; → titleholders of mineral exploration leases and mining licences within the project area; and → the local community and landowners. 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: → 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).

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.

Water Quality

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.

NSW GOVERNMENT | Planning

Contact: Toby Philp
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Our ref.: 08_0252

Mr Adrian Maddocks
Senior Development Manager
Wind Prospect CWP Pty Ltd
PO Box 1708
45 Hunter Street
Newcastle NSW 2300

Dear Mr Maddocks

Subject: Revised Director-General's Requirements for Sapphire Wind Farm (Application Reference: MP 08_0252)

I refer to your request of 16 February 2011 for the date of expiration of the Sapphire Wind Farm Project Director General's Requirements (DGRs) to be extended by 12 months. The Department understands that you are in the final stages of completing the Environmental Assessment (EA) for the Project, however are seeking an extension to avoid any complications that may arise during this finalisation process. The DGRs expiry date has been extended, as requested, on the basis that there has been no change to the proposal since the project application.

Please note that the Department has also amended the DGRs to make reference to the *Wind Farm Greenhouse Gas Savings Tool* developed by DECCW; the *surrounding proposed wind farms for the cumulative assessment*; and included a section on *water supply, water quality and hydrology*.

I have attached a copy of the amended DGRs. Please note that if you do not submit an EA for the project by the revised date, the DGRs will expire.

Prior to exhibiting the EA 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.

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

Your contact officer for this proposal, Toby Philp, can be contacted on 9228-6343 or via email at Toby.Philp@planning.nsw.gov.au. Please mark all correspondence regarding the proposal to the attention of the contact officer.

Yours sincerely,

21/2/11

Daniel Keary
Director
Infrastructure Projects

Director-General's Requirements

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

Project	Construction and operation of an approximately 356-485 megawatt wind farm including up to 178 wind turbines, and associated infrastructure.
Site	Approximately 28 kilometres east of Inverell and 18 kilometres west of Glenn Innes, in the Inverell and Glen Innes Severn local government areas.
Proponent	Wind Prospect CWP Pty Ltd
Date of Issue	29 May 2009
Date of Expiration	29 May 2012
General Requirements	The Environmental Assessment (EA) must include: • an **executive summary**; • a **detailed description** of the project including: → construction, operation and decommissioning details including envisaged lifespan and staging details; → the location and dimensions of all project components including, but not limited to, the wind turbines (including map coordinates and AHD heights), the transmission connection to the existing 330 kilovolt (kV) Transgrid Queensland-to-NSW Interconnector (QNI) transmission line, electrical substation, cabling between turbines and to the substation, on site control room and equipment storage, temporary concrete batching plant(s), construction compounds and access roads; → resourcing requirements (including, but not limited to, water supply and gravel); and → supporting maps/plans clearly identifying existing environmental features (e.g. watercourses, vegetation), infrastructure and landuse (including nearby residences and approved residential developments or subdivisions) and the location/ siting of the project (including associated infrastructure) in the context of this existing environment; • consideration of any **relevant statutory provisions** including the consistency of the project with the objects of the *Environmental Planning and Assessment Act 1979;* • an **assessment of the key issues** outlined below, during construction, operation and decommissioning (as relevant). The proposal should assess the worst case and representative impact for all key issues and also consider cumulative impacts from surrounding approved or proposed wind farms (Ben Lomond, Glen Innes and White Rock), as relevant; • a **draft Statement of Commitments** detailing measures for environmental mitigation, management, offset 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.
Key Assessment Requirements	The EA must include assessment of the following key issues: • **Strategic Justification** - the EA must: → 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; → 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. Reference should be made to the *Wind Farm Greenhouse Gas Savings Tool* developed by the Department of Environment, Climate Change and Water (DECCW); → include an analysis of the suitability of the project with respect to potential land

	use conflicts with existing and future land uses (including existing and approved rural-residential development, known development proposals in the surrounding area of a sensitive land use, land of significant scenic or visual value, land of high agricultural value, mineral reserves, and conservation areas), taking into account local and strategic landuse objectives; and → describe the alternatives considered (location and/or design) for all project components, and provide justification for the preferred project demonstrating its benefits including community benefits on a local and strategic scale and how it achieves stated objectives. • **Visual Impacts** - the EA must: → provide a comprehensive assessment of the landscape character and values and any scenic or significant vistas of the area potentially affected by the project. 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 on residents and road users; → identify the zone of visual influence (no less than 10 kilometres) and assess the visual impact of all project components on this landscape; → include photomontages of the project taken from potentially affected neighbouring residences (both existing and approved dwellings) where the occupant is assessed as likely to experience a high level of visual impact, and of settlements and significant public view points; → provide a clear description of proposed visual amenity mitigation and management measures and provide an assessment of the feasibility, effectiveness and reliability of proposed mitigation measures and any residual impacts after these measures have been implemented; and → assess the cumulative visual impacts of the project in terms of any existing and approved wind farms in the region and the Transgrid QNI. • **Noise Impacts** - the EA must: → include a comprehensive noise assessment of all phases and components of the project including, but not limited to, turbine operation, the operation of the electrical substation, construction, and traffic noise. The assessment must identify noise 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 etc) generated by noise sources, noise criteria, modelling assumptions and worst case and representative noise 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). 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; → in relation to overhead transmission lines, assess the risk of corona noise at nearest sensitive receivers; → include an assessment of vibration impacts associated with the project; → 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; → 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; 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 (or as otherwise agreed with the DECC): → Wind Turbines - the South Australian Environment Protection Authority's *Wind Farms - Environmental Noise Guidelines*, 2003 (consideration should also be given to *Wind Farms - Environmental Noise Guidelines (interim)*, 2007 on advice from DECC who are currently reviewing their appropriateness for NSW); → Electrical Substation – *NSW Industrial Noise Policy* (EPA, 2000); → Traffic Noise – *Environmental Criteria for Road Traffic Noise* (NSW EPA, 1999); → Site Establishment and Construction - *Environmental Noise Control Manual* (EPA, 2004); and → Vibration – *Assessing Vibration: A Technical Guideline* (DECC, 2006). • **Flora and Fauna** - the EA must: → include an assessment of all project components on flora and fauna and their habitat consistent with the *Draft Guidelines for Threatened Species Assessment* (DEC, 2005), including demonstrating how the project design has avoided impacts where possible and clearly identifying the existing condition and extent of vegetation and habitat on site; → specifically consider impacts to: threatened species and communities listed under both State and Commonwealth legislation that have been recorded on the site and surrounding land; native vegetation (including fragmentation impacts and impacts to biodiversity corridors); and habitat types (including riparian and/or instream habitat in the case of disturbance of waterways); → document and map each of the ecosystems (vegetation communities) that will be impacted, quantify the impacts, and assess the significance of the impact within the context of the landscape and region in which ecosystem is located, including the location, intensity and areal extent of impact; → assess the impact of the project on birds and bats from blade strikes, low air pressure zones at the blade tips, and alteration to movement patterns, roost sites and nesting areas resulting from the turbines and any above ground transmission lines, including demonstration of how the project has been sited to avoid and/or minimise such impacts. If any of the bat and bird species likely to be impacted by the wind turbines are also listed species under State and Commonwealth legislation, then the significance assessment for each of these species must consider impacts from the wind turbines as well as impacts from habitat loss; → provide details of how flora and fauna impacts would be managed during construction and operation of all project components, including adaptive management and maintenance protocols and monitoring programs; and → describe the measures to avoid, mitigate or offset impacts associated with the construction and operation of all project components consistent with "improve or maintain" principles. Sufficient details must be provided to demonstrate the availability of viable and achievable options to offset the impacts of the project. • **Indigenous Heritage** - the EA must include an assessment of the potential impact of the project components on indigenous heritage values (archaeological and cultural). The EA must demonstrate effective consultation with indigenous stakeholders during the assessment and in developing mitigation options (including the final recommended measures) consistent with the draft *Guidelines for Aboriginal Cultural Impact Assessment and Community Consultation* (DEC, July 2005). The EA must describe the actions that will be taken to avoid, mitigate or offset impacts.

- **Traffic and Transport** – the EA must assess the construction and operational traffic impacts of the project including:
  - → details of the nature of traffic generated, transport routes, traffic volumes and potential impacts on local and regional roads, bridges and intersections, including any proposed road upgrades and repairs; and
  - → details of site access roads including how these would connect to the existing road network and any operational maintenance or handover requirements.

- **Hazard/Risks**– the EA must include an assessment of the potential impacts on aviation safety considering nearby aerodromes and aircraft landing areas, defined air traffic routes, aircraft operating heights, radar interference, communication systems, and navigation aids. 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. Potential hazards and risks associated with electric and magnetic fields and bushfires 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, including the statutory (licensing) context of the water supply sources, and assess potential environmental impacts associated with use of identified sources including impacts on groundwater and implications for existing licensed users/basic landholder rights. The potential to intercept groundwater should be assessed. Where the project involves crossing or works close to waterways, the EA must identify likely impacts to the waterways and measures to minimise hydrological, water quality, aquatic and riparian impacts. The EA must identify how works within steep gradient land or highly erosive soil types will be managed during construction and operation.

- **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** – the Proponent must undertake a community consultation program as part of the environmental assessment process. Consultation must be undertaken with, but not necessarily limited to, the following parties during the preparation of the EA:
  - → Glen Innes Severn Council;
  - → Inverell Shire Council;
  - → Department of Environment and Climate Change NSW;
  - → Department of Water and Energy;
  - → NSW Department of Primary Industries;
  - → NSW Roads and Traffic Authority;
  - → Transgrid;
  - → NSW Rural Fire Service;
  - → Border Rivers-Gwydir Catchment Management Authority;
  - → Commonwealth Department of Defence;
  - → Civil Aviation Safety Authority;
  - → Airservices Australia;
  - → Aerial Agricultural Society of Australia;
  - → titleholders of mineral exploration leases and mining licences within the project area; and
  - → the local community and landowners.

  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: → 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).

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.

Water Quality

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.

NSW GOVERNMENT | Planning & Infrastructure

Contact: Toby Philp
Phone: (02) 9228 6343
Fax: (02) 9228 6355
Email: toby.philp@planning.nsw.gov.au

Our ref: MP 09_0093

Mr Adrian Maddocks
Senior Development Manager
Wind Prospect CWP Pty Ltd
PO Box 1708
Newcastle NSW 2300

Dear Mr Maddocks

Proposed Sapphire Wind Farm (MP 09_0093) – Supplement to the Director-General's Requirements

I refer to the revised Director-General's requirements issued for the above project on 21st February 2011.

As you are aware, the project was declared a Controlled Action under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) on 31st March, 2011, for likely impacts on listed threatened species and communities and listed migratory species. 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 interim administrative procedures in relation to the accredited assessment process will apply to the assessment of this project under the EPBC Act, so that the Department 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 adequately addresses the revised Director-General's requirements issued on 21st February 2011, and the supplementary requirements attached to this letter.

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

Yours sincerely

13/5/11

Daniel Keary
Director – Infrastructure Projects
as delegate for the Director-General

Supplementary Director-General's Requirements

Section 75F(3) of the *Environmental Planning and Assessment Act 1979*

The Commonwealth Minister for Sustainability, Environment, Water, Population and Communities has declared the Sapphire Wind Farm Project to be a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The controlled action is likely to have a direct and indirect impact on matters of national environment significance, in particular, threatened species and/or threatened ecological communities listed under sections 18 and 18A, and migratory species listed under sections 20 and 20A of the EPBC Act.

In accordance with the one-off accredited assessment process for this project, the environmental assessment of the impacts of the controlled action is to be assessed under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The assessment should include enough information about the controlled action and its relevant impacts to allow the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities to make an informed decision whether or not to approve the controlled action under the EPBC Act.

The following assessment requirements are to be integrated into the assessment required for Part 3A of the EP&A Act. The following matters in the EPBC Act and schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* should be considered.

General information

1. The background of the action, including:

    a. the title of the action;
    b. the full name and postal address of the designated proponent;
    c. a clear outline of the objective of the action;
    d. the location of the action;
    e. the background to the development of the action;
    f. 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;
    g. the current status of the action; and
    h. the consequences of not proceeding with the action.

Description of the controlled action

2. A description of the action, including:

    a. all the components of the action;
    b. the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
    c. how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;

d. to the extent reasonably practicable, a description of any feasible alternatives to the controlled action that have been identified through the assessment, and their likely impact, including:

    i. if relevant, the alternative of taking no action;
    ii. a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action; and
    iii. sufficient detail to clarify why any alternative is preferred to another.

A description of the relevant impacts of the controlled action

3. An assessment of all relevant impacts[1] with reference to the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines Matters of National Environmental Significance (2009)* that the controlled action has, will have or is likely to have on relevant migratory and threatened species and/or ecological communities listed under sections 18, 18A, 20 and 20A of the EPBC Act, including:

    a. White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Box-Gum Woodland);
    b. Regent Honeyeater (*Anthochaera phrygia)*;
    c. Swift Parrot *(Lathamus discolor)*;
    d. South-eastern Long-eared Bat (*Nyctophilus corbeni*);
    e. Large-eared Pied Bat (*Chalinolobus dwyeri*);
    f. Spot-tailed Quoll (*Dasyurus maculatus maculatus* (SE mainland population));
    g. Border Thick-tailed Gecko (*Underwoodisaurus sphyrurus*);
    h. Bluegrass (*Dichanthium setosum*);
    i. Austral Toadflax (*Thesium australe*);
    j. Rod's Star Hair (*Astrotricha roddii*);
    k. Finger Panic Grass (*Digitaria porrecta*);
    l. Small Snake Orchid (*Diuris pedunculata*);
    m. Hawkweed (*Picris evae*); and
    n. Heath Wrinklewort (*Rutidosis heterogama*)

4. Information must include:

    a. justification of the likelihood of occurrence within the proposed development envelope for each relevant threatened species and ecological community;
    b. a description and analysis of significance of the potential inter alia, direct, indirect, cumulative and facilitative impacts, both in the short and long term, of the action to each relevant species and ecological community, including, but not limited to:

        i. disruption to breeding, foraging or other key life-cycle stages;
        ii. habitat loss and fragmentation;
        iii. aviation lighting;
        iv. turbine collisions (i.e. blade strike) and bartotrauma (i.e. low air pressure zones around the blades); and

[1] The term "relevant impact" is defined in section 82 of the EPBC Act.

v. alienation (i.e. behavioural avoidance of species to habitat near turbines).

c. relevant technical data or other information, within the context of the proposed development site and region, for example:

i. the area of occupancy;
ii. the availability and condition of potential foraging, roosting, sheltering and breeding habitat for the species;
iii. the relative activity levels and areas of importance (e.g. roost sites) of threatened bats and birds;
iv. the abiotic (non-living) factors which may be necessary for the survival and functioning of the community, for example ground or surface water levels, soils and nutrients; and
v. a map showing the hydrology and topography within the development envelope.

d. a statement as to whether any relevant impacts are likely to be unknown, unpredictable or irreversible.

These impacts should be described for the construction and operation phases of the controlled action.

5. Where there is a potential habitat for EPBC Act listed species, surveys should be undertaken, or justification why surveys are not necessary. Any surveys must be timed appropriately and undertaken for a suitable period of time by a qualified person[2].

Proposed safeguards and mitigation measures

6. A description of feasible mitigation measures, changes to the controlled action or procedures, which have been proposed by the proponent or suggested in public submissions, and which are intended to prevent or minimise relevant impacts. Information must include:

a. a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action.
b. a description and assessment of the expected or predicted effectiveness of the mitigation measures;
c. any statutory or policy basis for the mitigation measures;
d. the cost of the mitigation measures;
e. an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;
f. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program; and

[2] Where available, species-specific survey guidelines can be obtained on the department's *Species Profile and Threats Database*: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl

Offsets

7. Should any residual impact exist that cannot be mitigated it may be necessary for offset measures to be considered in order to ensure the protection of matters of national environmental significance in perpetuity. Information required includes:

    a. a description of the proposed offset measure/s, such as how, when and where the offset will be delivered and managed;
    b. detail of how the offset/s compensate for the impact on each relevant matter of NES, resulting from the action;
    c. a description of how the offset/s will ensure the protection, conservation and management of the relevant matter of NES, in perpetuity;
    d. description of how the offset/s are consistent with relevant Commonwealth policies or advice on offsets under the EPBC Act; and
    e. the cost (financial and other) of the offset/s.

Other approvals and conditions

8. Any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. Information must include:

    a. details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:

        i. what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and
        ii. how the scheme provides for the prevention, minimisation and management of any relevant impacts;

    b. a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
    c. a statement identifying any additional approval that is required; and
    d. a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

Economic and social matters

9. A description of the short-term and long-term social and economic implications and/or impacts of the project.

Environmental record of person proposing to take the action

10. 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 proponent; and
    b. for an action for which a person has applied for a permit, the person making the application.

11. Details of the proponent's environmental policy and planning framework.

Information sources

12. For information given in an environment assessment, the draft must state:

    a. the source of the information;
    b. how recent the information is;
    c. how the reliability of the information was tested; and
    d. what uncertainties (if any) are in the information.

Consultation

13. Any consultation about the action, including:

    a. any consultation that has already taken place;
    b. proposed consultation about relevant impacts of the action; and
    c. if there has been consultation about the proposed action — any documented response to, or result of, the consultation.

14. Identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

NSW GOVERNMENT | Planning & Infrastructure

Office of the Director-General

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Mr Adrian Maddocks
Senior Development Manager
Wind Prospect CWP Pty Ltd
PO Box 1708
NEWCASTLE NSW 2300

Dear Mr Maddocks

Subject: Supplementary Director-General's Requirements for Sapphire Wind Farm MP 09_0093

I refer to the Director-General's requirements which were issued for the above project on 29 May 2009.

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, Mr Kane Winwood, can be contacted on 9228 6298 or via email at kane.winwood@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

16/8/2011