Minutes: Minutes of the 2<sup>nd</sup> Meeting of the Hills of Gold Windfarm Community Consultative Committee (CCC)

Wednesday, 18 September 2019

Held at the Tamworth Regional Council Office, Nundle

Members Present: Sandra Agudelo (SA) – Someva Representative, Kay Burnes (KB) – Tamworth Regional Council, Michael Chamberlain (MC) – Community

Representative, Teresa Eather (TE) – Nundle Business Tourism & Marketing Group Representative (alternate), John Krsjula (JK) – Hills of Gold

Preservation Inc Representative, Bruce Moore (BM) – Community Representative (alternate), Christine Robinson (CR) – Upper Hunter Shire Council,

Margaret Schofield (MSc) – Community Representative, Peter Schofield (PS) – Community Representative, Michael Stranger (MS) – Someva

Representative, Ian Worley (IW) – Community Representative

Apologies: Marcia Ajani (MA) – Community Representative, Donna Ausling (DA) – Liverpool Plains Shire Council, Jamie Chivers (JC) – Wind Energy Partners

Representative, Simon Chivers (SC) – Someva Representative, Megan Trousdale (MT) – Nundle Business Tourism & Marketing Group Representative

Independent Chair: David Ross (DR)

Secretary: Corinne Culbert-Rafferty (CCR)

Ager	da Items	Who to Present
1.	Welcome & Apologies	David Ross
2.	Declaration of Pecuniary or Other Interests	David Ross & All
3.	Business Arising from Previous Meeting	All
4.	Previous Minutes	All
5.	Presentation on Biodiversity Assessment	Michael Stranger & Sandra Agudelo
6.	Presentation on Heritage Assessment	Michael Stranger & Sandra Agudelo
7.	General Business a. Frequency of Meetings	All
8.	Next Meeting – TBA	All

Agenda Item	Discussion	Action/By Whom
1.	Welcome & Apologies  Meeting commenced at 6:35pm. DR advised of resignation of Marcia Ajani due to personal reasons. DR reminded that the CCC aimed to represent all views of the community and whilst doing so, to always maintain respect to each other.	DR to recommend replacement for Marcia Ajani to DPIE.
2.	Declaration of Pecuniary or Other Interests  DR advised that he was paid a fee to chair the meeting as is CCR for taking the meeting minutes.	,
3.	Business Arising from Previous Meeting After a discussion was held to clarify the information that MS and SA were presenting in relation to the agenda, MS requested to provide additional important project information of relevance to issues raised by CCC members in the previous meeting  Community Enhancement Fund While responses had previously been provided to the CCC on outstanding actions from the previous meeting, MS discussed the Community Enhancement Fund (CEF) via a slideshow presentation (page 5) (attached). Details were outlined in this document of the establishment and administration of the CEF.  A lengthy discussion was held on the fund with a CCC member expressing concern at where the money could be used. The member tabled examples of Voluntary Planning Agreements (VPAs) for wind farm projects that showed the variability across CEF's in terms of the funding made available per MW. For example, \$1,250/MW and \$3,000/turbine were offered in other proposed wind farm sites in NSW. Alternatively, a proportion may be used on road maintenance (see attached). MS outlined specific examples of ways in which CEF funding could be used in the local community and that multiple scenarios for administration were possible.  A member queried whether the figure of \$2,500/turbine offered by WEP is negotiable. MS noted that this amount is what WEP is proposing to offer to the CEF at this stage. It was confirmed by Council representatives and DR that the CEF, potentially as part of a wider VPA, would require a negotiation between the three Councils and WEP and the Department of Planning to determine the detail. Should the proposal be approved, the agreement would also identify the structure of the CEF, which could be anything from a community advisory committee through to a Trust.  Furthermore, the Councils anticipate that, should the proposal be approved, they (the Councils) would consult with the community during negotiations to gain their input into where monies could be allocated. It really is a long way off being finali	MS to organise Community Enhancement Fund Workshop in early 2020
	Site Visit	

Agenda Item	Discussion	Action/By Whom	
	November/December site visit proposed. There are requirements to gain access onto the Project site with landowners.  Job Forecasts		
	MS discussed job forecasts via a slideshow presentation (page 3) (attached).		
	A member questioned how accurate the figures were and MS advised that the figures used in calculations were from	MS to present	
	identified projects' Environmental Impact Statements (EIS) and not actual numbers. A member raised whether the jobs referred to were in fact full-time or part-time jobs? A member raised what jobs would be actually allocated in Nundle and what the actual job titles would be and whether perhaps training would be required for such jobs. MS proceeded through the presentation wherein the types of construction and operation jobs were outlined.	numbers for jobs based on recent reports of actual projects constructed and whether jobs are	
	A member questioned when construction is concluded, where do the positions go and if they were leaving a current role, would they be able to find a replacement job. MS advised that jobs could be fulfilled by locals wherever possible. He confirmed that it is a commitment of the project to create local job opportunities, and updated figures would be available in time. The member further questioned what impacts this would have on employment requirements for other businesses. DR observed that this highlighted the importance of having a CCC meeting, sometime, on socio-economic benefits and impacts associated with the proposal so these issues could be discussed in further detail. SA pointed out that the EIS will include a socio-economic impact component, which is part of the project State Environmental Assessment Requirements	full time or part time.	
	(SEAR's).		
	A member asked what the worst-case scenario would be rather than the best case. MS said he would acquire updated figures on Sapphire and White Rock projects to present at the next meeting.	MS to present actual job data on White Rock and Sapphire projects.	
4.	Previous Minutes		
	A member objected that, contrary to what DR said at the last meeting, if the primary representative of a particular stakeholder group cannot attend the CCC, DR does not choose who the alternate is. The CCC guidelines state that the stakeholder group decides.		
	DR agreed to this point but noted that, in practice, what he had said at the last meeting would still meet those needs. That is, he would be seeking an alternate that was a "like for like" replacement in consultation with that group. He had done this when MT was an apology for the present meeting.		
	The CCC endorsed the minutes as an acceptable reflection of what was discussed at the previous meeting.		
5.	Project Announcement - Engie		
	MS and SA presented information on a new commercial arrangement with ENGIE, a French energy company with 103GW of energy capacity installed and over 160,000 employees worldwide (page 11) (attached) They are a long-term owner and operator of renewable infrastructure and have recently finished construction on the Willogoleche Wind Farm project in South Australia. WEP will remain as Developer for the project and receive financial, technical and commercial support from Engie.		

Agenda Item	Discussion	Action/By Whom
6.	Presentation on Biodiversity Assessment  Sa presented on the key aspects of the Wind Farm Development Process outlining Technical, Environmental, Social and Economical aspects. A timetable was presented with the estimated timeframe to complete the SEAR's, which were issued in November 2018 (please see attached presentation).  Refer to "8. Survey" (page 25) within the attached slideshow presentation for detailed information.  The consulting firm ARUP is undertaking the necessary surveys. Spring Surveys were undertaken in November 2018 and recent Winter Surveys in August 2019, with further surveys to be undertaken. As part of the biodiversity assessment, WEP will call on the specialist consultants Biosis and their Bird Collisions Risk Data Collection – Avian Turbine Collision Risk Model to determine the risk of impacts on birds.  Under the Commonwealth Environmental Protection Biodiversity Conservation (EPBC) Act, there is a requirement to determine what listed threatened flora & fauna may exist in the area, based on individual species identification as well as the types of habitat that are present, so and assessment of impact can be made. A proposed action then needs to be referred to the Commonwealth if there is potential for significant impact. The Minister will have twenty (20) business days to make a decision.  The referral would be put on public exhibition, enabling the public to comment.  The EPBC Act is a Commonwealth Act. The Proponent has to cover requirements from the Commonwealth and State. The current provided SEARs are from the NSW Department of Planning. The information in the EPBC referral includes a preliminary biodiversity and EPBC Act Impact Assessment, which includes outcomes of previous desktop assessments and field surveys.  A member questioned how studies are being undertaken during the present drought period (since 1 January 2017) as species that could normally be there but currently are not. How are these current conditions relevant to the assessment process? MS noted that current climate	MS to advise CCC when referral is publicly available.  The tabled Flora and Fauna Report to be considered by WEP in their biodiversity assessment.

Agenda Item	Discussion	Action/By Whom	
	A member asked that the Barnard River Wild Dog Control Association Management Plan 2018 be reviewed and considered in the preparation of the surveys and impact assessment. It was prepared by the Regional Managers of State Forests and National Parks. It contains the appropriate agreed management for Wild Dogs.  A member also mentioned Crawley Pass and the thirteen (13) threatened species that had been identified there (including the Booroolong Frog).	The Barnard River Wild Dog Control Association Management Plan 2018 is to be provided to WEP.	
7.	Presentation on Heritage Assessment		
	Refer to "9. Survey" (page 28) within the <i>attached</i> slideshow presentation for detailed information.		
	A Preliminary Cultural Heritage Due Diligence Assessment was completed. A desktop Aboriginal Heritage Impact Management System (AHIMS) search was undertaken and five (5) objects have been found to be located in the study area, and these areas will be avoided. They are with respect to Aboriginal Heritage Sensitivity.		
	A review and impact assessment of non indigenous cultural heritage will be undertaken using information from a number of heritage registers, including within the Council Local Environment Plan (LEP). A member noted that there are local items considered by the public to be of heritage value that aren't captured by the various registers; for instance, the Lutana Site and Yellow Rock aren't on the list. The community will need to be consulted. MS confirmed that heritage sites important to the local community will be incorporated into the CHAR via the community consultation process.		
	A final Cultural Heritage Assessment Report (CHAR) is required as part of the heritage assessment process. Kelleher Nightingale Consulting Pty Ltd will undertake this report as sub-consultant to ARUP.		
	Transport Route Assessment		
	A Transport Route Assessment was recently completed. This assessment included potential routes from Port of Newcastle to Nundle, and Nundle to the Site Boundary. A member raised the point of traffic impact during construction on local traffic flows during school periods, etc. A Traffic Management Plan would address timing and be prepared prior to construction. MS reviewed correspondence received from residents who live on Morrisons Gap Road, and noted that Morrison Gap Road has not been confirmed as the final primary route. It is anticipated that the final route may be identified by mid-2020. Carrying capacity was also investigated as part of transport assessment. Weight will be addressed when wind farm and turbine design has been finalised.  Dust suppression will be addressed within the Environmental Impact Assessment as part of the Traffic Management Plan. WEP have not undertaken discussion with the Councils or DPIE regarding sealing of Morrison Road for the project but will consider it when assessing the preferred route and impacts to residents. Potential damage to roads caused by construction		

Agenda Item	Discussion	Action/By Whom	
	and operation would be assessed as part of the EIS and an agreement with Council made to repair any damage. If proposal is approved, with respect to roads, this would be addressed in conditions of approval with the opportunity for input from Councils. All wind farm turbine components will be addressed in the traffic management plan.		
	A CCC member relayed some correspondence from a community member questioning what compensation there would be for their local business (Air B n B) when disrupted due to road congestion. It was noted that, as these are early days and the transport route and traffic management plan will not be finalised for some time, no answers can be provided for these questions yet.		
	Project Progress – 2 x meteorological masts had been installed and commissioned in July 2019. These are designed to operate for 5 years. See page 21 of the <i>attached</i> slideshow presentation.		
8.	General Business  A member submitted the Wind Farm Commissioners Report Observations, questioning whether locating turbines on ridges is indeed the ideal location. They believed that this contradicted what was said in the previous CCC meeting by WEP. DR noted that, when the CCC believes it is appropriate, the National Wind Farm Commissioner Andrew Dyer could be invited to come along to a meeting and respond to these questions (as Andrew, himself, has offered).		
	A member advised that the majority of the Nundle Community oppose this project and was tabling forty plus questions. DR was happy to accept this document. However, he felt it was important to set the expectation with the CCC and the wider community that many of their questions may not have answers yet. These would be answered over the course of the next two years or so as the proponent continues the development process and environmental impact assessment to support DA submission.		
	DR also noted that, in the past, CCCs were set up once something had been approved – for during the construction and operation phases. It has been quite rare to involve communities so early in a proposal but Department of Planning saw much value in doing that for this proposal. Of great importance is that the CCC can provide WEP with input and feedback and shape the impact assessment will before what would otherwise have been the case. An Environmental Assessment may miss these things so it is important that this information is brought forward and considered.	DR to remove	
	Forty-two residencies have been identified as affected within a 3 km radius of the proposed project boundary. This could equate to approx. eighty people in a community of approx. 500. The previous minutes mentioned that this was "not a lot" it has been requested that this reference be removed. DR noted that while he has final say on the minutes, he confirmed that he would remove this reference.	reference to "not a lot" in previous minutes.	
		SA to create updated timetable in order to	

Agenda Item	Discussion	Action/By Whom	
	A member raised on behalf of a stakeholder group some issues that came out of the last meeting. It was requested that the frequency of the meetings be increased to a minimum of every two (2) months perhaps. DR suggested that the meeting frequency reflect when news from the proponent is available. Therefore, meetings could certainly be held more frequently, dependent on when there is information to discuss. A very broad timetable is presently in place but SA will look to create a calendar by early next year with relevant dates around various specialist studies. DR noted a conversation could then be held in order to schedule meetings for the rest of 2020 beyond simply holding quarterly meetings.	set future CCC meeting schedule	
	The member also raised the issue of why members' initials weren't included in the minutes when they raised a matter and that this should be changed. DR advised that he didn't put in initials into the previous minutes (with the exception of his and the proponents) as he wanted to create an environment in meetings where people felt comfortable that views could be shared without anyone feeling worried about what they were saying.		
	A member has lodged a complaint as they were contacted by a host land owner advising that his property is private property and this member would not be permitted access.		
	DR said this is a prime example of why initials weren't included within the minutes, in order to respect the sensitivities that may be occurring within the community as a result of the proposal. A vote was undertaken regarding initials being used within the minutes and there was a majority in agreement to not use initials within the minutes.	DR to look into whether "alternates"	
	Regarding the site trip for November/December, a member requested whether the "alternate" CCC applicants could be included for this purpose. DR to look into this.	can attend Site Visit.  DR to contact DPIE to	
	A member queried whether "alternates" could attend meetings as observers, in order to have the continuity if CCC members were apologies. DR confirmed that the DPIE had advised that alternates may not attend however will ask the Department again.	see if alternates can attend meetings they are not filling in for.	
	A member queried how are landowners in the current investigation area being informed? What actions are WEP taking to consult with the land owners. Further, should WEP be liaising with Real Estate Agents in area so that buyers are informed? MS confirmed that WEP continue to be in ongoing discussions with wind farm and transmission area landowners Information is available to be included by vendors in the sale process. WEP will consult with anyone within a 3km buffer area. WEP agrees with Wind Farm Commissioner recommendations on project information being given to a potential land buyer as part of sale due diligence.		
	It was raised by a member that this meeting went on for far too long. DR agreed noting that moving forward, there should only be one topic per meeting. He noted that, further to his prior commitment to the CCC, he would call for feedback as to his chairing of the meetings at the next meeting.		

Agenda Item	Discussion	Action/By Whom
5.	Next Meeting Date TBA	MS to advise a few date options late November/early December for Site Visit Meeting.

Meeting Closed: 10.20pm

### **Appendix 1: ACTIONS**

Page No	Action No	Description	Date Raised	Date Completed
3	1	MT to provide DR details of local media contacts so that they can be informed of the CCC's commencement.	Meeting 1 - 12 June 2019	18 Sept 2019
4	2	WEP to present at next meeting on forecast calculations.	Meeting 1 - 12 June 2019	18 Sept 2019
4	3	DR and JC to identify who administers the CEF.  Meeting 1 - 12 June 2019		Closed, addressed in Item 7.
5	4	JC to look into a site trip for our Nov/Dec meeting.  Meeting 1 - 12 June 2019		Closed, addressed in Item 8.
2	5	DR to recommend replacement for Marcia Ajani to DPIE.	Meeting 2 – 18 Sept 2019	
2	6	MS to organise Community Enhancement Fund Workshop in early 2020.	Meeting 2 – 18 Sept 2019	
3	7	MS to present numbers for jobs based on recent reports of actual projects constructed and whether jobs are full time or part time	Meeting 2 – 18 Sept 2019	
3	8	MS to present actual job data on White Rock and Sapphire projects.	Meeting 2 – 18 Sept 2019	
4	9	MS to notify CCC when EPBC Act referral is publicly available.	Meeting 2 – 18 Sept 2019	
4	10	The tabled Flora and Fauna Report to be shared with WEP and WEP to consider in their biodiversity assessment.	Meeting 2 – 18 Sept 2019	
5	11	The Barnard River Wild Dog Control Association Management Plan 2018 is to be provided to WEP.	Meeting 2 – 18 Sept 2019	
7	12	DR to remove reference to "not a lot" in previous minutes.	Meeting 2 – 18 Sept 2019	
7	13	SA to create updated timetable in order to set future CCC meeting schedule	Meeting 2 – 18 Sept 2019	
7	14	DR to look into whether "alternates" can attend Site Visit.	Meeting 2 – 18 Sept 2019	
7	15	DR to contact DPIE to see if alternates can attend meetings they are not filling in for.	Meeting 2 – 18 Sept 2019	

8	16	MS to advise a few date options late November/early December for Site Visit.	Meeting 2 – 18 Sept 2019	
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# **CCC Meeting Agenda**



- 1. Previous Minutes/Actions Review
  - Job Forecasts
  - Community Enhancement Fund
  - o Site Visit
- 2. Project Announcement
- 3. Wind Farm Development
  - Life Cycle
  - Key Aspects
  - o Timetable
  - Development Advisors
- 4. Project Progress Update
  - EPBC Act Referral Assessment Process
  - Meteorological Masts
  - o Transport Route Assessment
  - o Transport Case Study
- 5. Biodiversity Survey Methodologies
- 6. Heritage Survey Methodologies



### **Job Forecasts**

Forecasts presented in the PEA were taken from construction/operational jobs for other wind farms proposed in the New England and NSW area including:

Wind Farm	Size	Construction Jobs	Operational Jobs
Sapphire	270	150	20
White Rock	175	166	7
Glen Innes	81	85	20
Crudine Ridge	134	75	N/A
Average Jobs/MW		o.8 Jobs/MW	0.09 Jobs/MW
Hills of Gold Assumptions		o.7Jobs/MW	o.o8 Jobs/MW
Hills of Gold Job Forecasts	410	272	34



### **Job Forecasts: types of Construction Jobs**

### **Trades**

- Electrical Trades
- Mechanical Trades
- Building Trades
- o Rigging
- Mobile Plant Operator / Truck Driver
- Cleaning
- o Crane Operators
- o Labourer / Trades Assistant
- Metal Trades
- o Health & Safety
- Supervisors
- o Landscaping
- o Administration
- Health and Safety

### **Suppliers**

- o Labour
- o Sand
- Water
- o Crushed rock
- o Cement
- o Gravel
- Equipment hire(tractors, graders, etc)







### **Community Enhancement Fund**

### **Key Elements:**



1. Purpose and Objective



2. Establishment and Administration



3. Funding Eligibility Criteria



### **Community Enhancement Fund**



### 1. Purpose and Objective



 Examples: Go for Gold Festival, Nundle Great Dog Race

### Support and Build Strong Communities

 Example: Upgrading community buildings and facilities such as the Nundle Memorial Hall and Hanging Rock Community Hall

### o Preserve and Enhance Historic Places

Example: Hanging Rock Historic Places









# **Community Enhancement Fund**



# 2. Establishment and Administration

Benefits  Experience in Nundle and Hanging Rock (i.e., Hanging Rock Community Hall, Nundle Go for Gold) and transparency through existing Council guidelines  Can become legally required when submitted along with Development Application for inclusion under Conditions of Approval Currently the most common way within NSW of administering community enhancement funds  Independently run by local community representatives with active involvement in the community on behalf of Council Members must represent diverse views across the community and should be rotated at regular intervals Alternatively could be administered by the Community Consultative Committee under the guidelines  Strong governance and guidelines available covering:  Responsibilities and Appointment of Members  Meetings  Risk Management  Sustainability  Finance  Code of Conduct  Proposed to administer 2 rounds of funding per year against agreed criteria		
existing Council guidelines Can become legally required when submitted along with Development Application for inclusion under Conditions of Approval Currently the most common way within NSW of administering community enhancement funds  Independently run by local community representatives with active involvement in the community on behalf of Council Members must represent diverse views across the community and should be rotated at regular intervals Alternatively could be administered by the Community Consultative Committee under the guidelines  Strong governance and guidelines available covering: Responsibilities and Appointment of Members Meetings Risk Management Sustainability Finance Code of Conduct  Funding Rounds  Proposed to administer 2 rounds of funding per year against agreed criteria	Rackground	
Appointment of Members  Members must represent diverse views across the community and should be rotated at regular intervals Alternatively could be administered by the Community Consultative Committee under the guidelines  Strong governance and guidelines available covering:  Responsibilities and Appointment of Members  Meetings  Risk Management  Sustainability  Finance  Code of Conduct  Funding Rounds  Proposed to administer 2 rounds of funding per year against agreed criteria	Benefits	existing Council guidelines  O Can become legally required when submitted along with Development Application for inclusion under Conditions of Approval
Responsibilities and Appointment of Members  Meetings Risk Management Sustainability Finance Code of Conduct  Funding Rounds  Proposed to administer 2 rounds of funding per year against agreed criteria	Appointment of Members	<ul> <li>Members must represent diverse views across the community and should be rotated at regular intervals</li> </ul>
	Governance	<ul> <li>Responsibilities and Appointment of Members</li> <li>Meetings</li> <li>Risk Management</li> <li>Sustainability</li> <li>Finance</li> </ul>
https://www.tamworth.nsw.gov.au/Council/Community-Management-s355-Committees	Funding Rounds	Proposed to administer 2 rounds of funding per year against agreed criteria
	Further reading	https://www.tamworth.nsw.gov.au/Council/Community-Management-s355-Committees  https://epuron.com.au/documents/64/Survey-report-26-August-2016-Part1.pdf
Other structures Can be administered under Incorporated or unincorporated charities/trusts with specific charter	Other structures	Can be administered under Incorporated or unincorporated charities/trusts with specific charter



## **Community Enhancement Fund**



# 3. Funding Eligibility Criteria

Communities to Benefit



### Assessment Criteria Guide

- Within 20km of Turbines
- Specific Communities (i.e, Hanging Rock, Nundle, Crawney

### 1. Purpose and Objective

- 1. Support Existing Community Initiatives
- 2. Support and Build Strong Communities
- 3. Preserve and Enhance Historic Places

- Direct and indirect community benefit and community need
- Demographics served
- Demonstration of need for financial assistance
- Project/ program viability
- · Background of applicant
- The extent to which project or program duplicates other available facilities or programs in the area



### Community Enhancement Fund Proposed Next Steps



**Community Enhancement Fund Workshop?** 



Receive Feedback and Input into Community Enhancement Fund Design





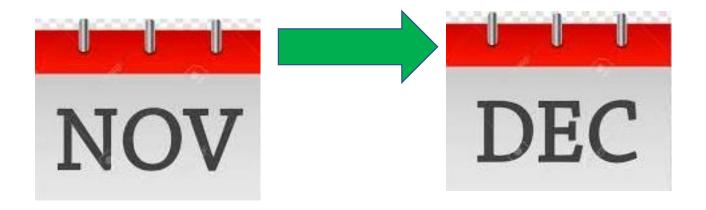
WEP Prepare Draft Community Enhancement Fund Design



### **Site Visit**

### JC to look into a site trip for our Nov / Dec meeting

- Biodiversity/ecology spring surveys scheduled for October (key CCC and community focus);
- Timing allows opportunity for presentation on survey methodologies and preliminary survey results from winter/spring surveys;
- Available anytime towards end of November and start of December



# 2. Project Announcement: ENGIE



 Providing financial, technical and commercial support to WEP to continue HOGWF development and, subject to successful project permits and financial close, would construct and operate the wind farm.



- WEP remain as Proponent/Developer
- o French energy company with over 160,000 employees worldwide
- A world leader in the zero-carbon energy transition
- o 103 GW installed worldwide, with over 25% renewables
- Long-term Owner/Operator of renewables
- ENGIE's Australian projects include:



Willogoleche Wind Farm, SA (119MW); completed construction in 2019



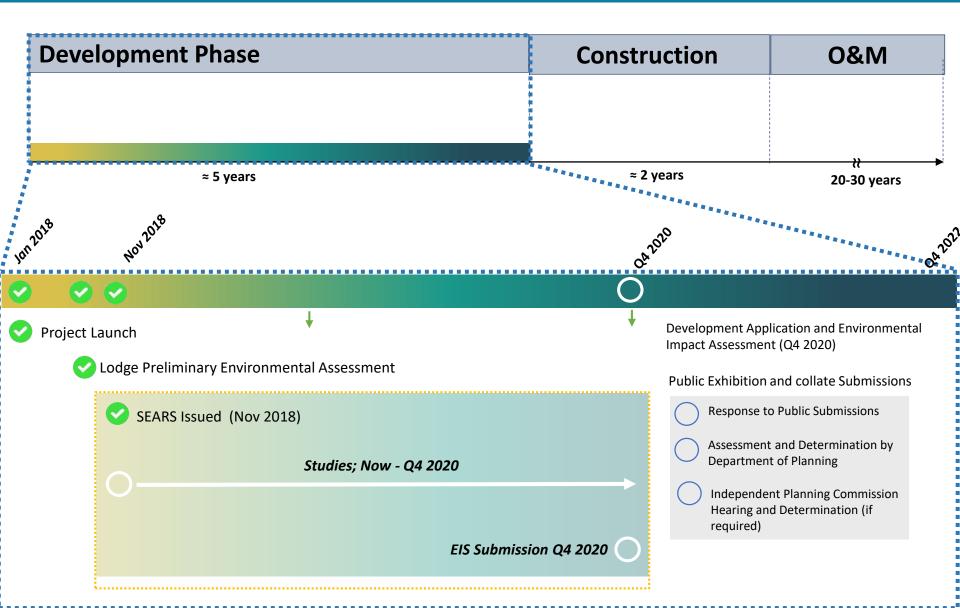
Pelican Point power station, SA (485MW)



Synergen Power peaking station, SA (396MW)

# 3. Wind Farm Development: Life Cycle





# 3. Wind Farm Development: Key Aspects





**SEARS Issued** (Nov 2018)

The Environmental Impact Statement (EIS) for the development must comply with the requirements in Schedule 2 of the Environmental Planning and Assessment Regulation 2000.

Q4 2020

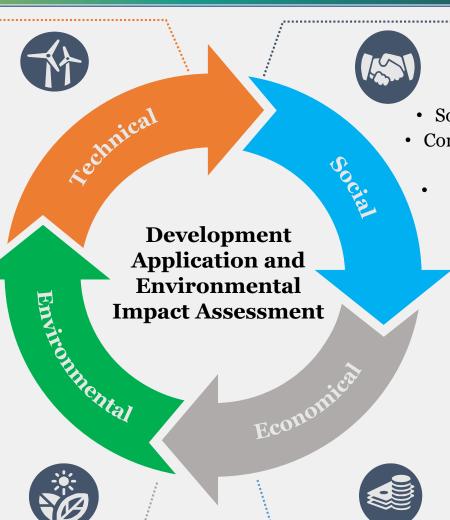


### **Technical**

- Project Infrastructure
  - Roads, TL, Substation
- Project Layout
  - # Turbines
  - · Hub Height
  - Max Tip Hight
- Geology & Topography
- Hydrology

### **Environmental**

- Landscape and visual
- Biodiversity
  - EPBC Referral Act
- Noise and Vibration
- Hazard Risk: Aviation, telecommunication, health, bushfire.
- · Soil and Water



### Social

- WF Landowners
- TL Landowner
- Social benefits/impacts
- Consultation community and local councils
  - **Traffic and Transport** 
    - Heritage

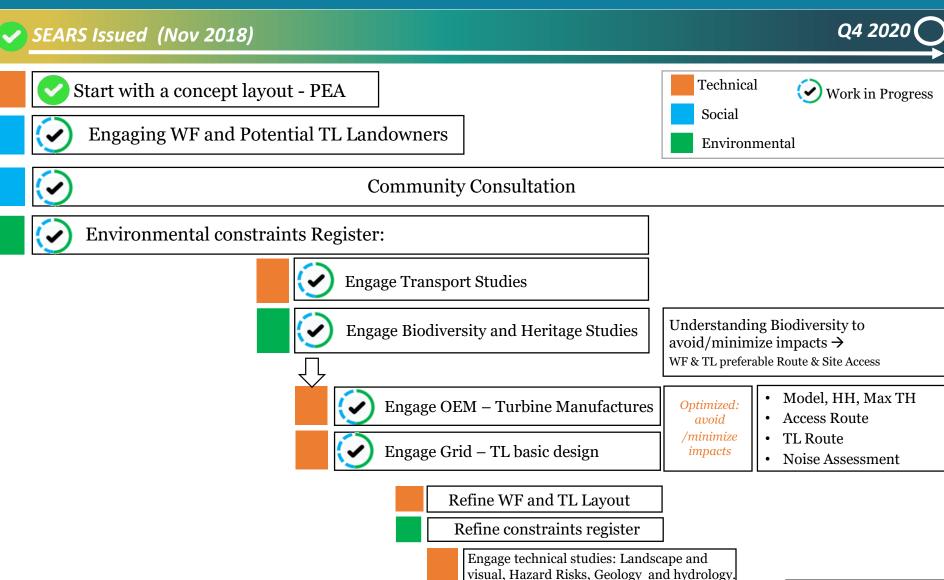
### **Economical**

- Feasibility analysis
  - CAPEX
    - OPEX

# 3. Wind Farm Development: Timetable

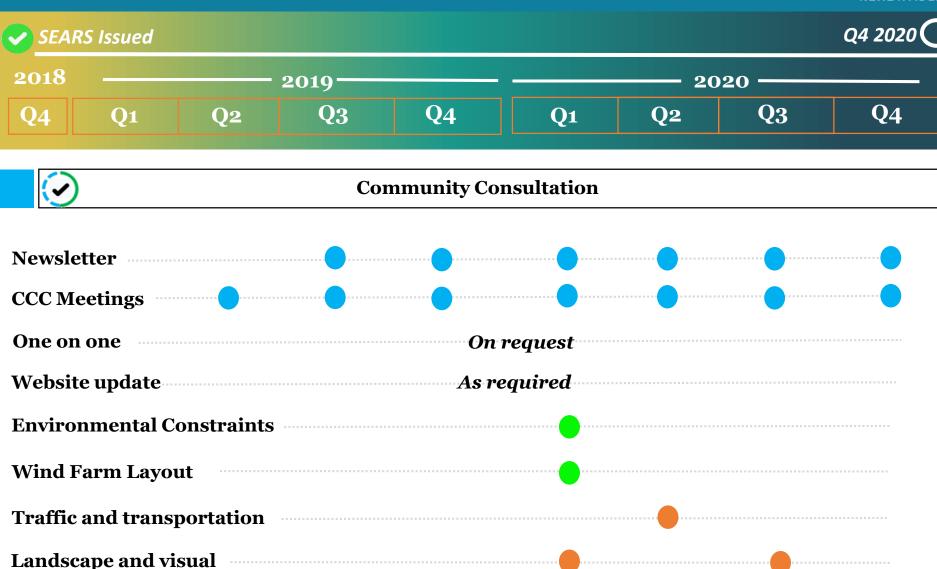


Final WF Footprint



# 3. Wind Farm Development: Community Consultation Frequency





# 3. Wind Farm Development: Advisors



	Scope	Experience	
ARUP biosis.	EPBC Referral Application Lead Environmental and Social Impact Consultant	Proven record in wind farm project experience in Australia: <ul> <li>Environmental Impact Assessment.</li> <li>Biodiversity specialists.</li> <li>Botanical and vegetation assessment specialists.</li> <li>Bird and bat strike collision risk modelling.</li> <li>Accredited assessors under the BAM.</li> </ul>	
Kelleher Nightingale Consulting Pty Ltd	Specialist flora and fauna studies	Leaders in Cultural Heritage Consulting	
DNV·GL	Wind Data and Layout Engineering Consultants	Leaders in wind farm technical engineering, wind data management and assessments.	
ART AUSTRALIAN RADIO TOWERS	Met Mast installation and maintenance	Leaders in Australia for designing, manufacturing, installing, commissioning and maintenance of wind data met masts.	

# 4. Project Progress Update: EPBC Referral Process



### Deciding if a proposed action needs to be referred

Is the proposed action likely to have a significant impact on a *matter of national environmental significance*?



# The matters of national environmental significance are:

- World heritage properties
- o National heritage places
- Wetlands of international importance
- Threatened species and ecological communities
- o Migratory species
- o Commonwealth marine areas
- o The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mines), and
- A water resource, in relation to coal seam gas development and large coalmining development.



- 1 Submit a referral to the Minister via the Department.
- The Minister decides within **20 business** days on informed of decision whether approval is required under the EPBC Act

**Control Action** 

Action is subject to the assessment and approval Process under the EPBC Act. Not Control
Action
Particular Manner

Approval is not required if the action is taken in Accordance with the Manner specified.

### Not Control Action

Approval is not required if the action is taken in accordance with the referral.

### For a full diagram please refer to:

# 4. Project Progress Update: EPBC Referral Report



Biodiversity values are being assessed using a **staged approach** aiming to:

- o To gain an early understanding of the site constraints, and
- o To inform the **EPBC Act referral**

Stage 1

Desktop assessments, preliminary field surveys, vegetation mapping and threatened species assessment.

Stage 2

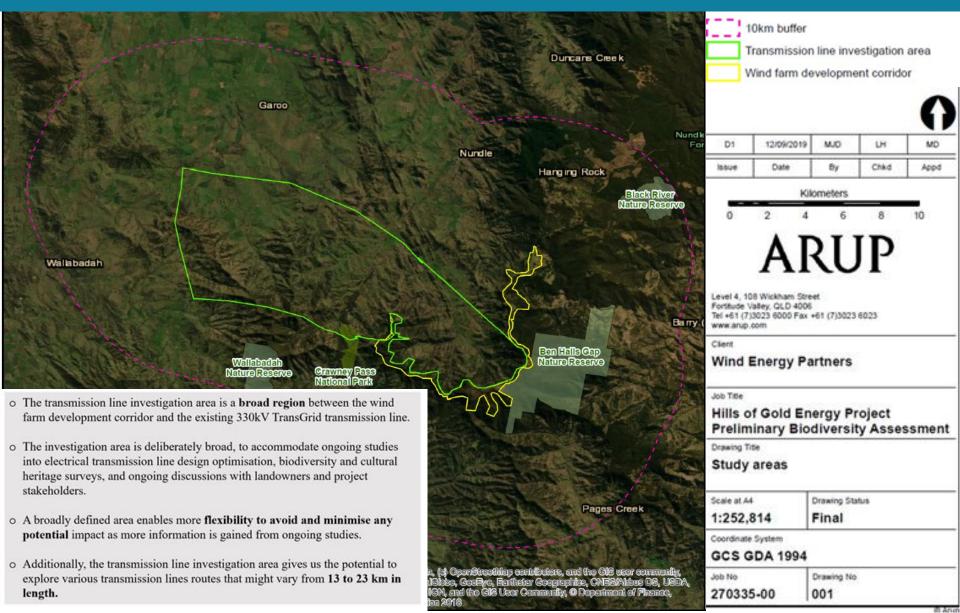
**Detailed and targeted field surveys** in accordance with the requirements of the SEARs and any supplementary SEARs covering the requirements of the DoEE (winter, spring and summer 2019 and summer and winter 2020).

### The aim of the Stage 1

- Identify vegetation communities present:
  - o **Plant Community Types (PCTs):** Delineation of vegetation zones based on condition (moderate/good or low) and ancillary code (high, medium, poor, derived grassland).
  - o Identification of any **Threatened Ecological Communities (TECs)** present within the study area.
- (2) *Habitat assessment* to determine the suitability of habitat for threatened flora and fauna species credit species and key ecosystem credit species.
- Complete a *likelihood of occurrence* assessment for listed threatened TECs and species under the EPBC Act, based on the findings of the vegetation mapping and habitat assessments.
- Complete a **significant impact assessment** under the EPBC Act guidelines to identify the potential for significant adverse impacts to listed threatened TECs and species.

# 4. Project Progress Update: EPBC Referral Report





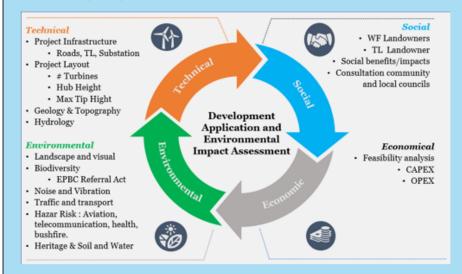
# 4. Project Progress Update: EPBC Referral Report



MNES	Wind Farm Development Corridor	Transmission Line Investigation Area				
Threatened Ecological Communities						
White Box – Yellow Box – Blakelys Red Gum Grassy Woodland (critically endangered)	Significant impact unlikely	Potential for direct impact of the TEC mapped within the transmission line investigation area				
Threatened flora species						
Bluegrass (vulnerable)	Significant impact unlikely	Significant impact unlikely				
Small Snake Orchid (endangered)	Potential for significant impact if identified within footprint	Potential for significant impact if identified within footprint				
Blackbutt Candlebark (vulnerable)	Significant impact unlikely due to limited habitat	Potential for significant impact if identified within footprint				
Fragrant Pepperbush (vulnerable)	Impact unlikely due to limited habitat	Potential for significant impact if identified within footprint				
Austral Toadflax (vulnerable)	Potential for significant impact if identified within footprint	Potential for significant impact if identified within footprint				
Threatened fauna species						
Booroolong Frog (endangered)	Significant impact unlikely, as project unlikely to directly impact on hydrology in Peel River	Significant impact unlikely				
Regent Honeyeater (critically endangered)	Significant impact unlikely	Potential to impact of suitable habitat within investigation area				
Spotted-tailed Quoll (endangered)	Significant impact unlikely	Significant impact unlikely				
Greater Glider (vulnerable)	Significant impact unlikely	Significant impact unlikely				
Brush-tailed Rock-wallaby (vulnerable)	Significant impact unlikely	Significant impact unlikely				
Koala (vulnerable)	Significant impact unlikely	Significant impact unlikely				
Grey-headed Flying-fox (vulnerable)	Significant impact unlikely	Significant impact unlikely				
Migratory species						
Fork-tailed Swift	Potential for significant impact if identified within footprint	Significant impact unlikely				
White-throated Needletail	Potential for significant impact if identified within footprint	Significant impact unlikely				
Satin Flycatcher	Significant impact unlikely	Significant impact unlikely				
Rufous Fantail	Significant impact unlikely	Significant impact unlikely				

### Box 1: Wind farm corridor and transmission line design status and optimisation process

Currently, Hills of Gold Wind Farm project is undergoing a design optimisation process. This optimisation process is a multidisciplinary exercise that is performed under the planning framework and State and Local government requirements and it considers technical, environmental, social, and economic variables.



The main goal of this exercise, it is to find the optimal project footprint for the wind farm corridor and the transmission line route that is compliant with project's planning framework, landowners' approval, and will avoids and /or minimises vegetation, flora and fauna impacts and is still feasible from technical, social and economic perspectives.

The broad transmission line investigation area was selected in order to provide flexibility to final route selection as studies and consultation progress.

Finally, the proposed surveys presented here will allow the identification and survey of listed threatened ecological communities and species that are likely to occur within the project area in order to be avoided. The survey results will play a pivotal role in the wind farm corridor and transmission line design optimisation process and in the decision-making process to avoid or minimise impacts.

# 4. Project Progress Update: Met Mast Installation



- 2 x masts installed & commissioned
   July 2019
- Purpose: better understand HOGWF wind resource
- Specialist contractors ART Renewables
- Compliant with Australian and International Standards
- o Data available online in real-time
- CASA/ASA, Tamworth council and local stakeholders notified.
- Aviation marker balls installed.



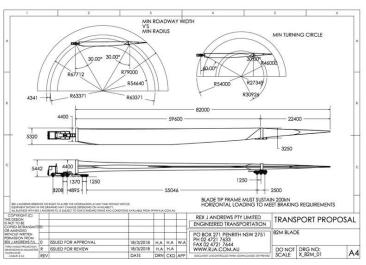
# 4. Project Progress Update: Transport Assessment



### **Transport Route Assessment**

- Desktop assessment and field survey completed 18<sup>th</sup>
   June by specialist transport contractors
- Considers transport route options:
  - Port of Newcastle to Nundle
  - Nundle to Site Boundary options:
    - Morrisons Gap Road
    - Head of the Peel Road
- Major wind turbine generator components:
  - Blades, towers, hubs, nacelles and drivetrains both dimensions and weights considered.
- Assessment includes recommendations on vehicle/trailer configurations for components under investigation
- Preliminary information on roadworks and infrastructure modifications required
- Next steps to undertaken traffic and transport assessment expected to be completed by mid 2020





# 4. Project Progress Update: Transport Assessment



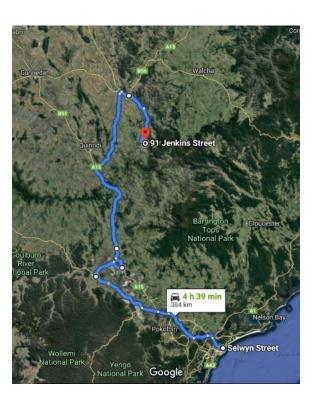
### **Main Routes : Newcastle port to Nundle**

Route 1	Blades	311 km
Route 2	Towers	384 km
Route 3	Remaining components	269 km

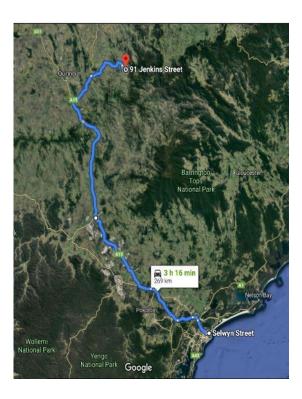
### **Route 1 - Blades**

# Barrington, Tops National Park Muswellbrook Park Wollem National Park Yengo National Park Google Selwyn Street

### **Route 2 - Towers**



### **Route 3 – Remaining components**



# 4. Project Progress Update: Transport Case Study



Transport Case Study - Goldwind Cattle Hill Wind Farm, Bothwell, Tasmania



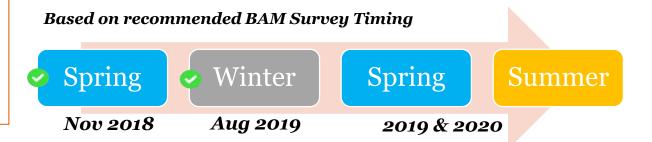
# 8. Biodiversity Survey Methodology Overview



Candidate Threatened Flora and Fauna

Biodiversity Study, EPBC Referral Act – List of Targeted flora and fauna species

- o Plants
- Amphibians
- o Birds
- o Mammals
- Reptiles





Flora and Fauna Surveys

- o Diurnal bird surveys
- Hollow-bearing trees and stick nest surveys for raptors, owls and Glossy Black Cockatoo
- o Nocturnal bird surveys for owls
- o Nocturnal mammal surveys
- o Nocturnal frog surveys
- o Camera trapping for mammals and bat detectors

- o Threatened flora surveys
- Habitat assessment
- o Vegetation condition and structure plots
- Winter, spring and summer bird activity surveys to validate collision risk models
- o Aquatic ecology surveys

- 2) Bird Collisions Risk Data Collection
  - It will be prepared in accordance with Avian Turbine Collition Risk Model (Smales et al. 2013), property of Biosis.
  - This collision risk assessment model has been large used by wind energy industry and regulators (Commonwealth of Australia).

# 8. Biodiversity Survey Methodology Overview



Recommended targeted surveys and timing

### Threatened flora species

Scientific name	Common name	BAM survey timing	Proposed survey phase		
Plants					
Acacia atrox	Myall Creek Wattle	Any time	Spring		
Asterolasia sp. 'Dungowan Creek'	Dungowan Star Bush	Any time	Spring		
Chiloglottis platyptera	Barrington Tops Ant Orchid	Sep - Oct	Spring		
Commersonia procumbens		Aug - May	Spring		
Dicanthium setosum	Bluegrass	Dec - May	Summer		
Digitaria porrecta	Finger Panic Grass	Dec - Jan	Summer		
Eucalyptus nicholii	Narrow-leaved Peppermint	Any time	Spring		
Homopholis belsonii	Belson's Panic	Dec - Apr	Summer		
Homoranthus prolixus	Granite Homoranthus	Any time	Spring		
Picris evae	Hawkweed	Sep - Feb	Summer		
Polygala linariifolia	Native Milkwort	Any time	Spring		
Pterostylis elegans	Elegant Greenhood	Dec - May	Summer		
Tasmannia glaucifolia	Fragrant Pepperbush	Any time	Spring		
Tasmannia purpurascens	Broad-leaved Pepperbush	Any time	Spring		
Thesium australe	Austral Toadflax	Sep - Feb	Summer		
Tylophora linearis		Sep - May	Summer		

### Threatened fauna species

Scientific name	Common name	BAM survey timing	Proposed survey phase		
Amphibians					
Adelotus brevis	Tusked Frog	Oct – Feb	Summer		
Litoria booroolongensis	Booroolong Frog	Nov - Dec	Spring		
Litoria daviesae	Davies Tree Frog	Sep – Jan	Spring		
Litoria subglandulosa	Glandular Frog	Oct - Dec	Spring		
Mixophyes balbus	Stuttering Frog	Sep - Mar	Summer		
Birds	<u> </u>				
Anthochaera phrygia	Regent Honeyeater	Sep – Dec	Spring		
Burhinus grallarius	Bush Stone-curlew	Any time	Summer		
Callocephalon fimbriatum	Gang-gang Cockatoo	Oct - Jan	Spring		
Calyptorhynchus lathami	Glossy Black Cockatoo	Mar - Aug	Winter		
Hamirostra melanosternon	Black-breasted Buzzard	Sep - Nov	Spring		
Hieraaetus morphnoides	Little Eagle	Aug - Oct	Winter		
Lathamus discolour	Swift Parrot	May - Aug	Winter		
Lophoictinia isura	Square-tailed Kite	Sep - Jan	Spring		
Ninox strenua	Powerful Owl	May - Aug	Winter		
Tyto novaehollandiae	Masked Owl	May – Aug	Winter		
Tyto tenebricosa	Sooty Owl	May – Aug	Winter		

# Survey Methodologies

Commonwealth of Australia - Survey Guidelines for Australia's for:

- Threatened Bats
- Threatened Birds
- Threatened Reptiles
- o Threatened Frogs
- o Threatened Mammals
- o Threatened Fish
- Threatened Orchids
- o EPBC Act referral guidelines for the vulnerable koala

- Department of Environment and Climate Change (2009) Threatened species survey and assessment guidelines: field survey methods for fauna. NSW Government, Sydney.
- Department of Environment and Conservation (2004) Threatened Biodiversity Survey and Assessment Guidelines for Developments and Activities – Working Draft. NSW Government, Sydney.
- Office of Environment and Heritage (2016) NSW Guide to Surveying Threatened <u>Plants</u>. NSW, Government, Sydney
- Office of Environment and Heritage (2017) Biodiversity Assessment Method, NSW, Government, Sydney

# 8. Biodiversity Survey Methodology Overview



### Recommended targeted surveys and timing

### Threatened fauna species Mammals Mammals Aepyprymnus rufescens Rufous Bettong Any time Spring to Myotis macropus Southern Myotis Nov - Mar Summer Summer required) Cercartetus nanus Eastern Pygmy Possum Oct - Mar Spring to Petauroides volans Greater Glider Any time Summer Summer Petaurus norfolcensis Squirrel Glider Any time Spring to Chalinolobus dwyeri Large-eared Pied Bat Sep - Mar Summer Summer Petrogale penicillata Brush-tailed Rock-wallaby Any time Spring to required) Summer Dasyurus maculatus Spotted-tailed Quoll Any time Spring to Phascolarctos cinereus Koala Any time Spring Summer and Summer Falsistrellus tasmaniensis Eastern False Pipistrelle Dec - Feb Summer (if Pteropus poliocephalus Grey-headed Flying-fox Winter Any time required) and Spring Macropus parma Parma Wallaby Any time Spring to Vespadelus troughtoni Eastern Cave Bat Nov - Jan Summer Summer Little Bentwing-bat required) Miniopterus australis Dec - Feb Summer (if required) Reptiles Miniopterus schreibersii oceanensis Eastern Bentwing-bat Nov - Feb Summer Hoplocephalus bitorquatus Pale-headed Snake Nov - Dec Summer

required)

Uvidicolus sphyrurus

# Survey Methodologies

Commonwealth of Australia - Survey Guidelines for Australia's for:

- Threatened Bats
- o Threatened Birds
- o Threatened Reptiles
- Threatened Frogs
- o Threatened Mammals
- o Threatened Fish
- o Threatened Orchids
- o EPBC Act referral guidelines for the vulnerable koala

 Department of Environment and Climate Change (2009) Threatened species survey and assessment guidelines: field survey methods for fauna. NSW Government, Sydney.

Border Thick-tailed Gecko

Nov - Mar

Summer

- Department of Environment and Conservation (2004) Threatened Biodiversity Survey and Assessment Guidelines for Developments and Activities – Working Draft. NSW Government, Sydney.
- Office of Environment and Heritage (2016) NSW Guide to Surveying Threatened <u>Plants</u>. NSW, Government, Sydney
- Office of Environment and Heritage (2017) Biodiversity Assessment Method, NSW, Government, Sydney

# 9. Heritage Survey Methodology Overview



Four Phases of assessment complying with relevant instruments and guidelines

Phases to complete Cultural Heritage Assessment Report (CHAR)

1

2 Early 2020

Early Mid 2020 4 Late 2020

Desktop and Preliminary Field Surveys

Aboriginal Community Consultation

Aboriginal Field Surveys

Cultural Heritage Assessment Report

# 9. Heritage Survey Methodology Overview



### Assessment process

- Determining if the activity will disturb the ground surface or any culturally modified trees
- Database search: Aboriginal heritage information management system (AHIMS) and known information sources

  Landscape assessment
- (3) Impact avoidance assessment
- 4 Desktop assessment and visual inspection
- The Code of Practice specifies that if the initial assessment process identifies that Aboriginal objects will be or are likely to be harmed, then further investigation and impact assessment is required

The OEH process involves "taking reasonable and practical measures to determine whether your actions will harm an Aboriginal object and, if so, what measures can be taken to avoid that harm" (OEH 2010:4).

# 9. Heritage Survey Methodology Overview



### Compliance with instruments and guidelines

Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011).

Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (OEH 2010).

Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (OEH 2010)

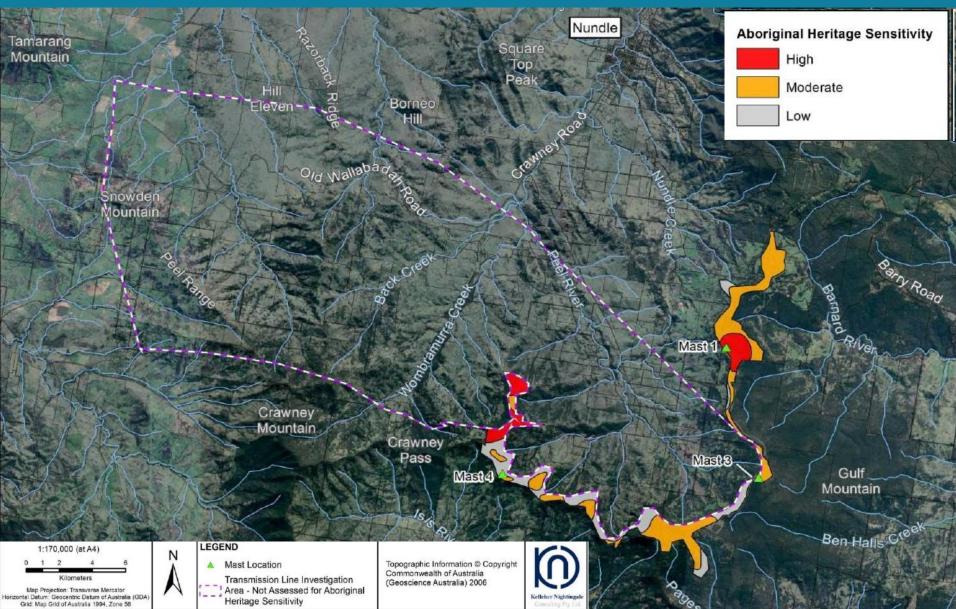
Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW, 2010). The Australia International Council on Monuments and Sites (ICOMOS) Burra Charter (Australia ICOMOS, 2013). Engage Early: Guidance for proponents on best practice Indigenous engagement for environmental assessments under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) (DoE, 2016).

Aboriginal Cultural Heritage: Standards and Guidelines Kit (NPWS, 1997). Ask First; A Guide to Respecting Indigenous Heritage Places and Values (Australian Heritage Commission, 2002).

The Burra Charter (AICOMOS 2013)

# 9. Heritage Survey Methodology Results







# COMMUNITY CONSULTATIVE COMMITTEE MEETING

## **Questions to Wind Farm Proponent from**

- If Morrisons Gap Road is the chosen access route to the proposed wind farm, what changes to the road do you envisage will be necessary, i.e. tree removal and/or lopping, easing of corners etc?
- The turbine hosts on the Malonga property have previously told some Morrisons Gap Road residents that you will be sealing the road. As dust will be a major problem during and after construction, is this your intention?

\* \* \*

CC C Representative البالم السولة How will project developers compensate my Air BNB business ( a other tourist based businesses) when impacted by road & traffic conjestion due to large vehicles carrying entrastructure and the like

# CCCRepresentative

What amount of concrete is required for each turkine! Where is the concrete production facility to be located. How much water will be required to produce concrete Where will the water be sourced! Would project developers worsider compensating Nudle residents by providing rain water tanks and phon hig

### Hills of Gold Preservation Inc 1800437

David Ross Chairman Hills of Gold Energy Community Consultation Committee

17 September 2019

Dear David

Re: Community Consultation Committee Meeting Minutes

Hills of Gold Preservation Inc members recently passed a motion to write to you asking that the minutes include the names of contributors to the discussion and when asking questions. Community members are relying on their representatives to pass on their concerns and questions and would like to be able to discuss the minutes with representatives as needed. Having names included will assist the community greatly in this process.

Yours sincerely

Toal:

Sharon Csanki

Secretary

Hills of Gold Preservation Inc

### **VPA Crudine Ridge**

The draft Crudine Ridge VPA. Rather than offering dollars per turbine, this one offers \$1250 per MW of installed capacity

file:///C:/Users/MSI-EX627/Downloads/Crudine%20Ridge%20Draft%20VPA.pdf

### **VPA Liverpool Range**

Liverpool Range VPA. Note the contribution (\$3000 per turbine, indexed)

- 5.4 Allocation of the Development Contributions The Managing Council shall allocate Development Contributions as follows: (a) It shall first allocate the Administration Allowance; (b) After subtracting the Administration Allowance from the relevant Development Contribution, it shall allocate 70% of the net balance to the Community Enhancement Fund and 30% to the Road Maintenance Fund or as otherwise agreed in writing between the Company and the Host Councils
- 5.5 Allocation of the Development Contributions between the Host Councils The Host Councils agree to allocate: (a) the Road Maintenance Fund for the purpose stated in the definition of Road Maintenance Fund, as agreed by the Host Councils; and (b) the Administration Allowance between the two Host Councils as agreed by the Host Councils. 5.6 Indexation of monetary Development Contributions

  Where this Agreement provides that an amount is to be increased by CPI, then the amount will be increased in accordance the following formula:  $A = B \times C/D$

Where: A = the indexed amount at the time the payment is to be made. B = the contribution amount or rate stated in clause 5.2 of this Agreement.

C = the CPI most recently published before the date of payment.

D = the CPI most recently published before 28 March 2020 (being the day two years after the date upon which the Development Consent was granted).

file:///C:/Users/MSI-EX627/Downloads/Enclosure%20-%20Liverpool%20Range%20Wind%20Farm%20final%20draft%20VPA%20for%20 Council%20endorsement.pdf

# Community Consultation Committee Initial Questions from members of Hills of Gold Preservation Inc

- 1. Who are all the directors and shareholders of Wind Energy Partners Pty Ltd?
- 2. When will the CCC be inspecting the project area and placement of turbines?
- 3. We request that the name Hills of Gold Energy be changed. "Hills of Gold" is a name adopted by locals decades ago to encourage tourism. Wind Energy Partners' use of the locally developed name amounts to a theft of identity, and its use for a project, that will potentially take away Nundle's magic and change its character forever, is offensive to a great number of people in our community. A location specific name is not acceptable to the community.
- 4. Now that there are 3 councils involved, how will the money be split up?
- 5. When will turbine numbers be finalised and WEP be transparent to the community?
- 6. How many turbines are needed to make the project viable?
- 7. Where will the site office, power station, battery storage facility and any other ancillary works be located? What area is typically needed for these works? Does it need to be flat land and if so, does WEP envisage needing to clear land for this purpose? How much?
- 8. Is the project running on time and what has been accomplished in this time?
- 9. What roads are planned for upgrade or to be built in order to provide access?
- 10. Will compensation for damage to roads from intense heavy vehicle use be taken from the same funding pool allocated for community compensation?
- 11. The proposal has been public for over a year now, why are there STILL adjoining landholders who have not been contacted for discussion about the project?
- 12. Division in the community... What are their proposals to bring the community together? So far there has been significant bullying, vandalism and defamation from particular people with vested interests. How do they plan to tackle this? Eg, better communication from WEP with emails, meetings, following guidelines, acknowledging community concerns, petition against the project etc?
- 13. Being an isolated area, landholders are always on high alert to trespassers, thieves, illegal hunters and poachers, particularly when there are more people around eg holidays. What measures can be put in place to protect local landholders from potential increased crime and heightened levels of anxiety?
- 14. Would the chair and committee be willing to be the first fully transparent CCC in the country?

- 15. Where and how many bird audio monitoring stations do you currently have in place? What are the terms of the study?
- 16. Should this go ahead, what guarantees are there that damages to local roads by the heavy equipment will be promptly rectified by the developer?
- 17. What guarantees are there that Nundle will handle any community funding and not Tamworth Council?
- 18. How can the compensation fund be set up to prioritise Nundle and Hanging Rock communities?
- 19. It has been found that wind coming over mountainous terrain can cause serious damage to wind turbines, reducing their commercial life to just 10 years. What would happen if the turbines became less effective or inoperable, thus reducing income to all stakeholders?
- 20. What studies will be done regarding shadow flicker and how would those results be reported back to landholders?
- 21. Will a Hydrology Report be done and by whom? Where will water be sourced for the Hanging Rock proposal?
- 22. What responsibilities does WEP have to correct misinformation circulating in the community once it becomes aware of it?
- 23. What are the main concerns and considerations for councils?
- 24. During the first meeting in February 2018 when WEP met with a few Nundle residents to advise us of the potential project, a representative of WEP told the group, (quote) 'if the majority of the community does not want this project, the project will not go ahead'. Does WEP still stand by that?
- 25. What value does WEP place on locations with existing tourism based on scenic value?
- 26. Would Wind Energy Partners Pty Ltd build the wind farm or would the project be sold to a wind farm developer?
- 27. In its March presentation Wind Energy Partners proposed the potential of 272 construction and 34 operational jobs and maintenance jobs after the construction phase. How do these jobs figures compare with similar wind farm projects?
- 28. If the owner of a wind farm goes bankrupt, the liability for decommissioning of wind turbines falls to the turbine host. If the turbine host declares bankruptcy what guarantee does the community have that the wind turbines will be removed at the end of the wind farm's life?
- 29. What will happen to the wind turbine foundations when the wind farm is decommissioned?

- 30. Sapphire Wind Farm Community Consultative Committee minutes from July 2018 state that the project is behind schedule due to weather, and work will now be 24/7 on 12 hour shifts 6am-6pm. How does WEP envisage bad weather would impact this proposal and can you guarantee this won't happen in our community causing increased commuter traffic, truck movements, and night work site lighting?
- 31. What impact does WEP think this project will have on the relaxed lifestyle in the village and tourism?
- 32. If a landholder signs a Benefit Sharing Agreement does it mean they will be seen to accept any impacts and not be assessed by the Department for visual and noise impacts?
- 33. The Victorian Government recently introduced rules for all new wind turbine developments to have noise levels checked by an independent auditor who is approved by the Environment Protection Authority (EPA) before and after construction. Do you support the NSW Government introducing similar improvements to wind turbine assessment and compliance?
- 34. What types of testing or modelling will be done to assess the "echo factor" in the valley and gullies around the area? What is it called and will individual properties be assessed if requested?
- 35. If a landholder's place of work is separate from where they live, will their place of work be assessed for noise ie sheds, yards?
- 36. In the Liverpool Range Wind Farm Determination the highest level of **construction noise** in one residence was assessed at up to 50dB and for 23 other residences up to 40-45dB. How is construction noise assessed compared to construction traffic noise and operational wind turbine noise?
- 37. How much power does a wind turbine itself need to operate?
- 38. What will happen with the soil that is removed from the ground to build the turbines?
- 39. How does the proponent envisage the profile of the mountain range will change due to excavation, movement of soil, roads and infrastructure?
- 40. Is the proponent willing to provide a 3D model to the community showing the locations of turbines on the landscape? If so, when would it be provided?
- 41. Where is all the water coming from to make all the concrete? How many mega litres will be requested as an allocation? Please provide an itemized list of how the water will be budgeted for use.
- 42. What are the processes required to investigate a water source for the project and what approvals are needed?
- 43. What width of land is required for the transmission lines? Does this need to be fully cleared land? What would this equate to in hectares?

- 44. How much area does a battery storage facility need? Does it need flat land and will excavation be carried out to achieve any flat land required? Same questions for sub station, workers' facilities and turbine pads.
- 45. What was WEP's obligation to contact and consult with landowners in the district and did WEP meet its obligations?
- 46. What powers the turbines during these long months of minimal wind? And how do they cope with sudden extremely strong gusts?
- 47. Bush fires are a major concern in the Hanging Rock. What measures would be put in place to protect landowners and ensure that emergency services could attend unhindered?
- 48. The ecosystems in the vicinity of the proposed turbines are rare, but also very diverse. Has the environmental impact assessment looked at each turbine site separately?
- 49. When would the first jobs become available? Would you please provide a timeline for employment?

36 threatened fauna species and

5 threatened flora species likely to occur in the proposed project area.

HOGPI engaged a respected local ecologist to review the PEA and he recommended:

- 1. Minimal clearing of roadside vegetation, proposed project area turbine locations and tracks, and transmission line easement to reduce loss of nesting sites, food sources, shelter, foraging areas, and species decline.
- 2. Vegetation must be mapped to identify and avoid where endangered ecological communities occur.
- 3. Before any clearing of roadside vegetation, proposed project area turbine locations, or transmission line easements, sites are to be thoroughly searched for threatened plants and animals.
- 4. 16 of the threatened animals likely to occur are dependent on tree hollows for nesting, roosting or denning.
- 5. Clearing of hollow trees is to be avoided and removing tree hollows and compensating with nesting boxes is not supported.
- 6. Conduct surveys of roadside vegetation, proposed project area turbine locations and tracks, and transmission line easements allowing seasonal timing to identify threatened species likely to occur.
- 7. Where possible the proposed project area existing and new clearing is to be regenerated to allow for connectivity and funnel birds and bats away from turbines (threatened species recorded, Flame Robins, Greated glider, Spotted-tailed quoll, Koala would benefit from increased connectivity).
- 8. Obtaining offset land remote to the proposed project area is not supported, nor is cash contribution to the government to obtain offsets.
- 9. Disturbing streams and adjoining forest must be avoided to preserve Davies Tree Frog occurring from high altitude down to 750m, and Booroolong Frog occurring in low altitude streams up to 750m.
- 10. Engage independent bat and bird experts over a minimum period of 12 months, recording unique factors at each tower location taking into account changes in topography, elevation, vegetation communities and flora and fauna species. Community to determine independent bat and bird expert, providing feedback to the community before the EIS completed.
- 11. For each bird species at each tower location study movements to determine migratory paths, seasonal foraging areas, nesting areas, flight heights and flight paths of migratory insects.

- 12. Survey raptor nesting sites, and study raptor use of wind updrafts on ridge tops and where they use updrafts.
- 13. Study which other birds use wind updrafts on ridge tops and where thy use updrafts.
- 14. For each bat species at each tower location study seasonal activity and foraging areas, roosting sites, flight heights, use of wind updrafts on ridge tops and identify migratory paths and/or commuting corridors.
- 15. For each bat species study bat foraging activity as related to wind speed.
- 16. Study insect use of updrafts on ridge tops.
- 17. Survey raptor nesting sites, and study raptor use of wind updrafts on ridge tops and where they use updrafts.
- 18. The 91m set back from 9km boundary with Ben Halls Gap Nature Reserve, with up to 20 turbines proposed on its fence line, is not supported.
- 19. Remnant open forest east and west of the proposed turbine ridgeline, and adjoining Ben Halls Gap Nature Reserve with a high abundance of threatened species should be buffered by at least a 500m setback.
- 20. It is expected that setbacks will be increased to 500m for locations of known threatened bird and bat habitat and nests of raptors and owls and bat roosts.
- 21. Researchers recommend a distance of at least 80m from the blade tip to the canopy of hollow-bearing trees to reduce blade strike risk to birds and bats.

Table 1. Threatened plants recorded in the Nundle area

Scientific Name	Common Name	NSW status	Comm. status	Records
Eucalyptus oresbia	Small-fruited Mountain Gum	V		31
Eucalyptus rubida subsp. barbigerorum	Blackbutt Candlebark	V	V	2
Chiloglottis platyptera	Barrington Tops Ant Orchid	V,P,2		1
Tasmannia glaucifolia	Fragrant Pepperbush	V	V	1
Tasmannia purpurascens	Broad-leaved Pepperbush	V		12

Table 2. Threatened fauna likely to occur in the Nundle region divided into likely habitat groups

Scientific Name	Common Name	NSW status	Comm. status	Likely Habitat
Litoria booroolongensis	Booroolong Frog	E1,P	Е	Low streams
Litoria daviesae	Davies' Tree Frog	V,P		High streams
Haliaeetus leucogaster	White-bellied Sea-Eagle	V,P	С	River - Dam
Miniopterus schreibersii	Eastern Bentwing-bat	V,P		Caves -mines
oceanensis				
Hieraaetus morphnoides	Little Eagle	V,P		Low woodlands
Lophoictinia isura	Square-tailed Kite	V,P,3		Low woodlands
Falco subniger	Black Falcon	V,P		Low woodlands
Climacteris picumnus victoriae	Brown Treecreeper	V,P		Low woodlands
Artamus cyanopterus cyanopterus	Dusky Woodswallow	V,P		Low woodlands
Melanodryas cucullata cucullata	Hooded Robin	V,P		Low woodlands
Stagonopleura guttata	Diamond Firetail	V,P		Low woodlands
Chthonicola sagittata	Speckled Warbler	V,P		Low woodlands
Petaurus norfolcensis	Squirrel Glider	V,P		Low woodlands
Nyctophilus corbeni	Corben's Long-eared Bat	V,P	V	Low woodlands
Pteropus poliocephalus	Grey-headed Flying-fox	V,P	V	Low woodlands
Lathamus discolor	Swift Parrot	E1,P,3	CE	Low woodlands
Neophema pulchella	Turquoise Parrot	V,P,3		Low woodlands
Melithreptus gularis gularis	Black-chinned Honeyeater (eastern subspecies)	V,P		Low woodlands
Uvidicolus sphyrurus	Border Thick-tailed Gecko	V,P	V	Low woodlands
Anthochaera phrygia	Regent Honeyeater	Е4А,Р	CE	Low woodlands
Glossopsitta pusilla	Little Lorikeet	V,P		Forests & woodlands
Ninox connivens	Barking Owl	V,P,3		Forests & woodlands
Tyto novaehollandiae	Masked Owl	V,P,3		Forests & woodlands
Daphoenositta chrysoptera	Varied Sittella	V,P		Forests & woodlands
Phascolarctos cinereus	Koala	V,P	V	Forests & woodlands
Calyptorhynchus lathami	Glossy Black-Cockatoo	V,P,2		High forests
Ninox strenua	Powerful Owl	V,P,3		High forests
Tyto tenebricosa	Sooty Owl	V,P,3		High forests
Pachycephala olivacea	Olive Whistler	V,P		High forests
Petroica boodang	Scarlet Robin	V,P		High forests
Petroica phoenicea	Flame Robin	V,P		High forests
Dasyurus maculatus	Spotted-tailed Quoll	V,P	Е	High forests
Petauroides volans	Greater Glider	P	V	High forests
Petaurus australis	Yellow-bellied Glider	V,P		High forests
Falsistrellus tasmaniensis	Eastern False Pipistrelle	V,P		High forests
Scoteanax rueppellii	Greater Broad-nosed Bat	V,P		High forests
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### **Wind Commissioner's Report**

### 2. Neighbour Consultation and Agreements

### 2.2 Recommendations

1.1.1. Developers of wind energy projects should, where practical, proactively identify all potential neighbours at the commencement of the development activity and implement an effective, ongoing consultation program with all contactable neighbours throughout the project's development. While it may vary by project and geography, neighbours affected may include residents that live in a proximity range of 0.0 km to 5.0 km from potential turbine locations as well as residents in close proximity to other wind farm related infrastructure, such as power transmission or supply infrastructure. This indicative distance range for consultation may need to be greater in situations where, for instance, turbines are proposed to be erected on a ridge.

### 8. Site Selection

### 8.1 Observations

Also, we have found that locating turbines on the top of hills or ridges, while optimum for capturing the wind resource, can have greater impacts on visual amenity, may lead to specific noise and shadow flicker scenarios for residents in the valley beneath and may have other impacts on the community. Access roads for hill ridge wind farms can also be obtrusive and significantly constrain the available farming land in the area.

Conversely, there appear to be minimal issues raised to date about wind farms that are located on large land holdings, or on flat or slight to moderate undulating land and sites that are well away from neighbours.

### 8.2.1 Recommendations

State and local governments should consider assessing proposed wind energy projects on a wider range of criteria (including the suitability of a location from a community impact perspective and the degree of community support) and then prioritising projects for approval or progression accordingly.