Minutes: Minutes of the 8th Meeting of the Hills of Gold Windfarm Community Consultative Committee (CCC)

Thursday, 29 October 2020

Meeting Venue: Held at the Nundle Memorial Hall

Members Present: Jamie Chivers (Wind Energy Partners); Murray Curtis (ERM); Sandra Agudelo (Wind Energy Partners) – via tele-conference; Ian Worley; Michael

Chamberlain; Megan Trousdale (Nundle Business Tourism & Marketing Group Representative); John Krsulja (Hills of Gold Preservation Inc Representative); Donna Ausling (Liverpool Plains Shire Council); Christine Robinson (Upper Hunter Shire Council); Margaret Schofield; Peter

Schofield; Kay Burns (Tamworth Regional Council)

Guests: Murray Curtis (ERM), Matt Davis via video (ARUP), Andrew Kerley via video (Engie)

Apologies: Aref Taleb (Wind Energy Partners); Bruce Moore

Independent Chair: David Ross Secretary: Debbie Corlet

Agen	da Items	Who to Present
1.	Introductions and Apologies	David Ross
2.	Declaration of Pecuniary or Other Interests	David Ross and All
3.	Business Arising from Previous Meeting	David Ross
4.	Previous Minutes	David Ross
5.	Correspondence	All
6.	Update on Proposal	WEP
7.	General Business	All
8.	Next Meeting	All

Agenda Item	Discussion	Action/By Whom
1.	Introduction and Apologies	
	Meeting commenced at 6:33 pm. David welcomed everyone to the 8 th meeting, observing that two of the advisors would be briefly attending via video.	
2.	Declaration of Pecuniary or Other Interests	
	David advised that he was paid a fee to chair the meeting as is Debbie for taking the meeting minutes.	
3.	Previous Minutes	
	It was agreed by all in attendance that the Previous Minutes were true and correct after editing an incomplete sentence that had been identified.	
4.	Business Arising from Previous Meeting	
	David observed that all actions had been responded to. Questions were raised by some CCC members in response.	Jamie and community
	Action 2 – A community member queried the photomontages, believing that the impact of the turbines was not obvious. To be discussed offline.	member to discuss photomontages further
	Action 8 – Clarified where the 3 airfields are located and clarified impact if blades have to be turned off at any time. Member sought clarification if landowner's airfield is to be used at all.	WEP to confirm if landowner's airfield
	Questions from community member still needs to be responded to regarding concrete batching plant, water and soil assessment and transmission lines & turbine power lines. A separate community member is disappointed that majority of the questions arising from the media have been unanswered. Jamie responded that WEP had tried to answer these as	will be used by anybody
	comprehensively as is possible and that the EIS would be on exhibition to provide information to community members. Community member tabled ASIC details of Engie's Hills of Gold Wind Farm Holdings Pty Ltd registered 8/10/20 with Engie executives listed.	WEP to answer questions from community member
	When considering matters arising from the meeting, a community member discussed the social and economic assessment section regarding jobs which states 31 direct jobs in the operational phase and Jamie clarified that this didn't necessarily mean from Nundle. Those jobs are not all onsite jobs, and those that are people could live within a commutable distance of say up to 1 hour away.	Engie to provide job figures for ongoing and construction phases at its operating windfarms

5. Correspondence

The only correspondence received by David recently resulted from him being CC'd into an email between community member and Aref discussing arrangements in the lead up to the planned meeting between WEP and Hills of Gold Preservation Inc.

Community member noted that they had asked DPIE if the Department would have the final say on the process of the community enhancement fund (CEF). It was confirmed by Anthony Ko (DPIE) that the Department does not have the final say. It is the Councils and the Proponent who have the final say. TABLED

A community member observed that there had been concerns within the community, raised by unbalanced media coverage regarding the coverage of the Liddell Power Station and perceptions that the Station is to close down. The member had contacted AGL who noted that: "we plan to repurpose the sites for potential energy and commercial / business uses. The sites have valuable resources and infrastructure which we hope will be attractive for new development to continue."

6. Update on Proposal

Engie Update

Jamie observed that he had promised to notify the CCC of any changes in company structure. Consequently, he advised the CCC of the change in ownership to Engie. Community member observed that the announcement of the Engie partnership with Infrastructure Capital Group is already on the Engie website.

Andrew confirmed that they have purchased the Hills of Gold Wind Farm and gave the CCC a brief introduction about himself and what can be expected. He is the General Manager responsible for finding and developing new energy assets in Australia. A brief outline of Engie was presented, noting that the company has 30+ locations across Australia and New Zealand, owning power plants with 25% of their assets being in renewable energy. The global strategy is to install more renewable energy as part of the portfolio.

Andrew advised that nothing would change in the short-term; Jamie and his team will stay on for the project development. He also observed that the partnership with Infrastructure Capital Group is not related to the acquisition of Wind Energy Partners.

A community member asked about Wind Energy Partners and Engie's policy on land clearing. Jamie advised that they would avoid clearing native vegetation and that they bring value to this project and would always try to minimise any impacts they are having.

Soil and Water Assessment

Jamie introduced Murray who has been involved in the Sapphire Wind Farm, amongst others.

Murray started with the Water and Soil Assessment (Water Sourcing / Water Demand), noting that he had looked further into the project's total water demand during construction and believed that it would be in the vicinity of 55 ML: 3.5 ML for concrete production (batching plant); 41 ML for construction of roads and hardstands; and 10.5 ML for dust suppression. It was assessed that it could be possible to permit water abstraction for the Project without impacting environmental flows.

Murray then presented on the existing soil types. The site is situated predominantly on soil types categorised as zones 7 and 8, which are not great for agricultural use. Murray declared that some land in the area is categorised as BSAL land (biophysical strategic agricultural land, which is land with high quality soil) – highlighting the difference of opinion of the quality of the soils around there. The government just asks the proposal team to put this information into the EIS as baseline information.

Murray mentioned most turbine areas he saw were relatively flat. A community member asked Murray has he visited the western end of the development. Murray noted that no, he was unable to due to weather and road access – but other staff have been there. A community member asked how this all affects the footings on the sloping ridgeline and would the mountain need to be dug out to achieve a flat footing? Murray explained that the footings would be floating and on the sloping ridgeline would be excavated to the volume required and then they would build reinforced cases around it so there would be around 600 or 700 tonnes of concrete and so you end up with a flat foundation. A community member asked Murray if footings need to be stressed or use rock anchors? Murray answered no.

Murray noted that the overall potential risks to water and soils are relatively minor. Pad sites and access road construction occur on relatively low-moderate gradient lands high up in the respective drainage catchments. This area presents a low erosion hazard considering factors such as climate, soils, and landform and that vegetated buffers lie between work areas and watercourses. Water flows are not anticipated to be affected during the construction of the project, given the localised impacts are located upstream on the top of the ridgeline. Any potential impact downstream will be effectively managed at the source of works through the implementation of a progressive Erosion and Sediment Control Plan. There will be progressive rehabilitation with good ground cover. Post construction – the biggest footprint is the access and that the topsoil would be put straight back and then it would be seeded to try and stop any erosion at the source.

Community member mentioned that they have water that comes through those gullies and that they really rely on that water for their farm. Concerned about turbidity. Murray advised that the flows would continue as they always have, and they will implement much erosion control with some silt fences etc. Community member said it was prone to land slippage and so they are generally worried about this, but Murray said any erosion would be very localised.

Cultural Heritage Assessment

Jamie talked about the development of the Cultural Heritage Assessment Report (CHAR), which required consultation to integrate cultural and archaeological knowledge and ensure registered Aboriginal stakeholders have information to make decisions on Aboriginal cultural heritage. The consultation process was described (see presentation for details).

The assessment has also considered previous archaeology investigations in the area. The survey undertaken specifically for the proposal included the whole wind farm development corridor, transport upgrades and all associated infrastructure.

The archaeological surveys resulted in the identification of seven Aboriginal archaeological sites and one area of Potential Archaeological Deposit (PAD). Three were of moderate significance and five of low significance. If the impact of the proposal is unavoidable, salvage excavation would be required for two archaeological sites and one PAD and surface artefact collection is recommended for low significance Aboriginal archaeological sites.

One Potential Archaeological Deposit with moderate significance was designed around to avoid impact.

Transport Assessment

There will be a range of trucks involved from water trucks / light trucks / heavy and semis to oversized / overweight trucks. So, the study deals with all of these things separately. Every blade has its own truck or even 2 trucks and the cell could be a different sized truck. They will be coming from the Port of Newcastle to Nundle. Consultation was undertaken with key stakeholders to understand concerns and provide improvements and mitigation.

Murray discussed the various route options from the Port of Newcastle to Nundle and advised that some of the roads will need to be widened. Some of the blade lengths will vary by 10 to 15 metres (the longest being 83 metres). Also need to consider the curves and corners that the trucks will need to get around and may need to remove signs.

Community member asked if there are planned times these trucks would be leaving or arriving in Nundle due to school buses being in the area at certain times of the day etc. Murray advised that there would be permits and plans required with how many vehicles can be on the road at certain times with flashing cars in the front and / or back and that they would definitely plan to avoid certain times (school / peak times). Murray advised that they are on tight deadlines as they need to be gone from the Port of Newcastle early and then onsite and actually unloaded from the trucks by the end of each day. So, they'll have to stop at certain points which will be identified lay overs to avoid traffic congestion.

Community member asked about when they are in Nundle in that area past Hanging Rock and if a lot of work needed to get done there. Murray confirmed that if the project is confirmed, they have committed to seal Morrison's Gap at the beginning of the project but it depends on the road condition as they need to be able to take blades and the vehicles need to be able to travel on those roads for 25 years. So, the surfaces needed to be compacted with good material.

Community member asked if there is an emergency up near Hanging Rock, how is this going to be mitigated so people aren't caught behind these massive, slow trucks? Murray explained that they would stay at the bottom of the hill as a layover before going up Barry Road just before Devil's Elbow. Generally speaking, there would be vehicles at the front to stop cars because of the size of the trucks, hopefully avoiding any issues and the trucks would need to hold back to let as many cars through as possible. There could be flashing lights to let people know that a climb is about to start.

Analysis shows that when expected traffic volumes are added to the existing traffic volumes there would be adequate capacity in the road network. During the operation of the site, the traffic volumes would be even less. A detailed Traffic Management Plan would be developed for the transportation of individual items.

Community member wanted confirmation that all these roads will always be maintained and will be built solid to start with. Jamie confirmed that they would need to be.

Community member asked about the transmission line. Murray confirmed that it comes in pieces and will be on traditional large vehicles.

Community member mentioned that they are concerned about the transport impacts and the loss of income due to less tourists coming to the town, if there are concerns resulting from disruption to the roads if tourists are always stuck behind huge trucks. Murray advised that they are quantifying this at the moment, needing to consider the volume capacity, level of service (a measure of traffic efficiency) and environmental capacity (assessing the impact on the amenity of an environment eg acceptable level of noise). They have identified the current use of the road. What are the peak times and what is the worst case over a 20-month construction period and that peak times the trucks wouldn't be in use and so there wouldn't be too much impact?

Community member advised that people thinking of going on a spontaneous trip to Nundle wouldn't think to look up traffic issues in this area. Murray advised that there will be various control plans and things that you enforce on your contractors. You can change speed limits for construction vehicles and that lots of things can be done in consultation.

Bushfire Risk Assessment

Murray went on to discuss the Bushfire Assessment if the area is bushfire prone and whether the proposal was in compliance with the guidelines. Consultation has taken place with key local and regional stakeholders to gain a better understanding of the local fire conditions and to ensure that suitable management and mitigation measures are developed. There is a standard process and part of that process is to involve management / districts of National Parks and State Forest.

It was concluded that the risk that the wind farm itself will cause a fire is minimal. A Bushfire Emergency Management and Operations Plan will be prepared in conjunction with relevant stakeholders, including NSW RFS, NSW Fire and Rescue, NPWS, NSW Forestry, adjoining property owners and employees. The access road is already located within the flame zone

and the proposed windfarm assets will not increase this existing hazard. The improved access and water sources will be an advantage to both the local RFS and the NPWS for back burning down the slopes in advance of the fire front. It is recommended that assets such as the switching station, substation, buildings are all located outside of the flame zone and have adequate defendable space all sides. These mitigation measures will be applied for the life of the project. Community member asked about the access for the emergency vehicles including the fire trucks to ensure they are able to get up there as well. Murray advised that RFS and National Parks will confirm where vehicles can go, particularly during the construction phase. Council staff asked about the damaged fire trials and access road and Murray confirmed that a lot of the existing tracks will be upgraded to ensure greater accessibility.

Community member asked if tourists have access to these roads as well and Murray advised that they are on private land and will remain private land. He also observed that fighting fires would be assisted through enhanced access points for the helicopters as the turbines can be turned off individually if required.

Photomontage Update

Photomontages have started to be provided to residents earlier in the week. Jamie can provide the missing photomontages shortly.

Community member said that most people don't have access to be able to print these photomontages to the correct size. They believed it was important for each CCC member to have a full copy. Jamie committed to providing two full copies. One of the copies will need to go to the Library and one made available outside of the library. Can also download from the website and then get printed elsewhere.

Biodiversity Assessment

Matt noted that the Scope of the Study discussed the impacts to native vegetation, including threatened ecological communities listed under State and Commonwealth legislation. Impacts of blade strike on birds and bats, with specific focus on listed threatened bats and raptors observed in accordance with Natural England Technical Information. The consultation involved State and Commonwealth Agencies, including holding a multidisciplinary 'freeze design' workshop undertaken in May 2020 with the Project ecologists, and various consultants to confirm optimal layout and ancillary infrastructure locations to avoid impacts to significant biodiversity features such as fauna habitat and microbat breeding areas. This involved evaluating the location of every single turbine and access tracks to minimise as much as possible.

Matt advised that they did field survey and mapping of vegetation and condition and structure of communities with targeted flora and fauna which included every season (winter, summer, spring, and autumn) using different methodologies. 1.0% of native vegetation in the study area is estimated to be impacted on a worst-case development footprint. This includes an estimated 271 hectares expected to be rehabilitated. Further design commitments have been included to create improvements.

Jamie to find out why two members haven't received photomontages as yet and to ensure they are physically printed as well

WEP to print 2 full copies

A total of two Threatened Ecological Communities listed under the NSW Biodiversity Conservation Act were identified including White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Ribbon Gum (also EPBC Act Listed) and Mountain Gum-Snow Gum Grassy Woodland or open forest.

The Impact Assessment follows Avoid – Minimise – Offset hierarchy. A Biodiversity Management Plan will be prepared and implemented for the mapping and protection of habitat features during detailed design and monitoring and management requirements for construction and operation. A Bird and Bat Management Plan will be prepared and implemented. Working with Jamie's team to be able to locate and avoid risks to bats and breeding areas. Essentially no-go zones and applying 100 metre buffers. Collision modelling for bats and birds was undertaken to ensure they don't collide with turbines. A fair bit of design work goes into understanding construction to understand the impact.

Community member asked if the offsets are from the same region and Jamie confirmed it is species for species. Murray mentioned that the government has mapped bio regions.

Community member asked about the survey period and the impact of the drought and has there been allowances for reduction in plants and animal life? Matt advised that to calculate the vegetation score you enter vegetation plots and input benchmark conditions into our plot data and that drives the score. We report on all of the rainfall throughout the survey period as well. Where there are good habitats like frogs. Some species weren't here but we've still applied a conservative approach.

Community member asked about the transport corridor which was included in the study as per the SEARs. Matt advised that the biodiversity assessment was all the way to the Port of Newcastle that was reviewed.

The assessment confirms that there are no serious and irreversible impacts from the project and this is because there is sufficient habitat availability in the wider landscape and study area to continue to support threatened species known to occur within the development footprint. The Project design has been refined so that the majority (58%) of vegetation impacts occur on areas that contain exotic grassland and the Project design avoids areas of breeding habitat for threatened microbats, by locating all infrastructure outside of the mapped cliffs and steep areas. Impacts to high quality vegetation communities, containing higher quality fauna habitat have been minimised through the location of infrastructure. Residual impacts associated with the project will be offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. Once these offsets are applied, no net loss to biodiversity should be achieved.

David then reminded members of the various studies that had been discussed during the meeting. He asked members if there was any further advice that they may wish to raise with Jamie or Murray. No further advice was offered.

7.	General Business	
	Community member asked Jamie if he had consulted with local real estate agents in the region. Has this been done? Are there any losses to those with agricultural businesses? Another community member asked about the community surveys that were taken which have the names blacked out and presenting the results of the survey? Jamie took this on notice.	WEP to confirm if they consulted with local real estate agents
	Community member said it was hard to find information about other wind farms in NSW to compare data to this one in regard to jobs created. Similar wind farms with 70 turbines say they have 8 to 10 full time jobs; another has 15 jobs. What is so special that this wind farm is proposing 31 jobs? Jamie advised that he's not here to defend those numbers as it is covered in the Social Economic Assessment. The community member observed that Collector WF CCC minutes stated that the bulk of its workforce came from Western Sydney and interstate.	WEP to come back about the community surveys
	Regarding the CEF, Jamie said they have a meeting with the Councils to further discuss this and they are trying to progress this through consultation with continuing work with the Councils. Donna, Christine, and Kay are all aware that it will be submitted with the Draft in the EIS. There are some good points and when the payments will actually start. Other funds are doing under a Voluntary Planning Agreement (VPA) but for the moment we'll keep calling it the CEF.	
	Community member asked who is going to administer the fund? Jamie advised that it is not yet decided but in other CEF's, they have been administered by Councils. We have three Councils here and could have split responsibility.	
	Community member asked will Engie take over prior to construction, we need to know who the ultimate owner of the CEF will be and if a contract will be signed by Councils etc that it gets honoured. Community member asked who is lodging the EIS and Jamie responded that Engie and Murray's company will be and that the EIS will be submitted in a couple of weeks.	
	David then explained that it will be highly unlikely we'll need further CCC meetings for the moment but he will keep in touch with Jamie as there may be a need to update CCC members with important dates and to ensure flow of information is maintained. David thanked everyone most sincerely for all that they've done in such a busy year.	
	A community member asked CCC members to inspect print outs of personal photomontages recently emailed to some landholders to gain insight into potential impacts of the proposal.	
8.	Next Meeting	
	No meeting scheduled for the moment. Meeting closed 9.45 pm.	

Appendix 1: Actions

Page No	Action No	Description	Date Raised
2	1	DR to attach the previous minutes with the upcoming meeting agenda (ongoing)	6 May 2020
2	2	Jamie and community member to discuss photomontages further	29 October 2020
2	3	WEP to confirm if landowner's airfield will be used by anybody	29 October 2020
2	4	WEP to answer questions from community member	29 October 2020
2	5	Engie to provide job figures for ongoing and construction phases at its operating windfarms	29 October 2020
7	6	Jamie to find out why two members haven't received photomontages as yet and to ensure they are physically printed as well	29 October 2020
7	7	WEP to print 2 full copies of photomontages	29 October 2020
9	8	WEP to confirm if they consulted with local real estate agents	29 October 2020
9	9	WEP to come back about the community surveys	29 October 2020



Agenda



- 1. Introduction and apologies.
- 2. Declaration of pecuniary or other interests.
- 3. Previous minutes.
- 4. Business arising from previous meeting.
- 5. Correspondence.
- 6. Update on proposal

	To be presented by
6.1 ENGIE Update	Andrew Kerley from ENGIE
6.2 Water and Soil Assessment (Continued from previous meeting)	Murray Curtis from ERM
6.3 Cultural and Heritage Assessment	Jamie Chivers from Someva
6.4 Traffic and Transport Assessment	Murray Curtis from ERM
6.5 Bushfire Assessment	Murray Curtis from ERM
6.6 Visual Montages	Jamie Chivers from Someva
6.7 Biodiversity Assessment	Matt Davis from ARUP
6.8 Community Enhancement Fund Update	Jamie Chivers from Someva

- 7. General Business: Where to from here?
- 8. Next meeting



4. B	usiness arising from pre	vious n	neeting	
Action No	Description	Date Raised	WEP Re	sponse

6 May 2020

24 Aug

2020

22 Sep

2020

22 Sep

2020

22 Sep

2020

22 Sep

2020

DR completed action

business.

One photomontage from DAG residence sent

through as well as one photomontage from DAG

as uploaded to the Hills of Gold Energy website.

We can confirm that agricultural businesses where

surveyed as part of the community consultation for

CCC member completed action

the social and economic study.

DR completed action

This has been completed and sent to the CCC as well

DR to attach the previous minutes with the

Jamie – To upload Q & A to the website and

David – get second media link from CCC

David to write to community member with

WEP to check what types of businesses were

upcoming meeting agenda (ongoing)

WEP to provide photo montage asap

provide to the CCC members.

1

2

3

5

member

Jamie's input

contacted

WEP to confirm if Aerial Application

Association of Australia were consulted

WEP to confirm where the 3 airfields are

WEP to provide more detailed graphs for

telecommunication impacts further south and

WEP to fix graph to explain better what the

land and soil capabilities are - explain what 1

to be turned off at any time

east of what was provided

to 8 actually means

located and clarify about impact if blades have

7

8

9

10



We can confirm that AAAA have been consulted.

below shows the location of nearby Agricultural

nm area indicating that assessment is required of these airfields. Please note that only 3 airfields are within the 3km area that required assessment, ALA1.

This has been provided on the next slide.

ALA 2 and ALA5.

website.

Airfields relative to the Project Area and a nominal 3

The graph was updated in the CCC presentation and

is available for viewing on the Hills of Gold Energy

Please see attached an image of the location of the 3 airfields assessed on the next slide. The details to the assessment of the use of airfields will be provided in the full report as part of public exhibition. The image

4. B	usiness arising from pre	vious n	neeting	S
Action No	Description	Date Raised	WEP Response	

22 Sep

2020

22 Sep

2020

22 Sep

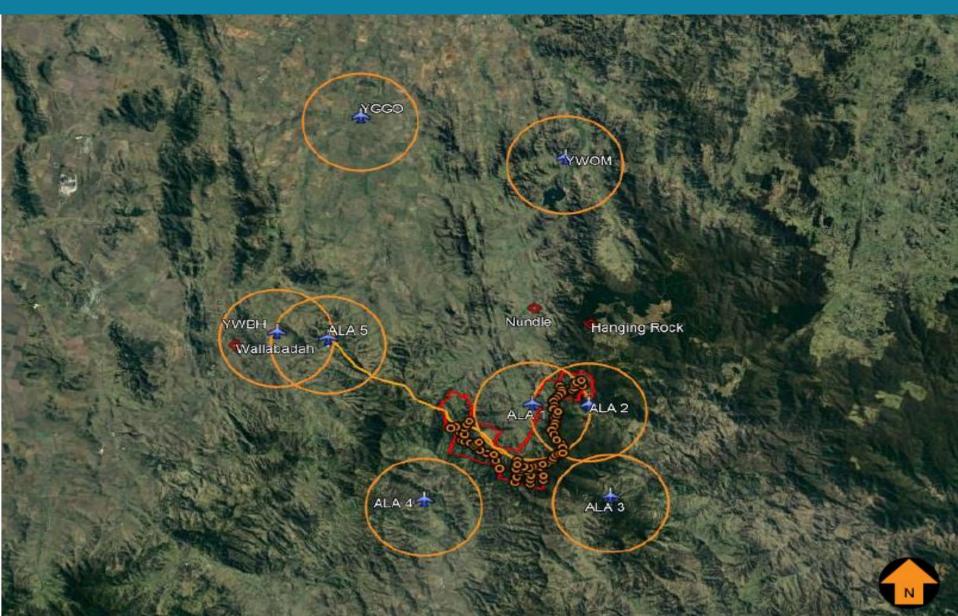
2020

22 Sep

2020

CCC Action 8



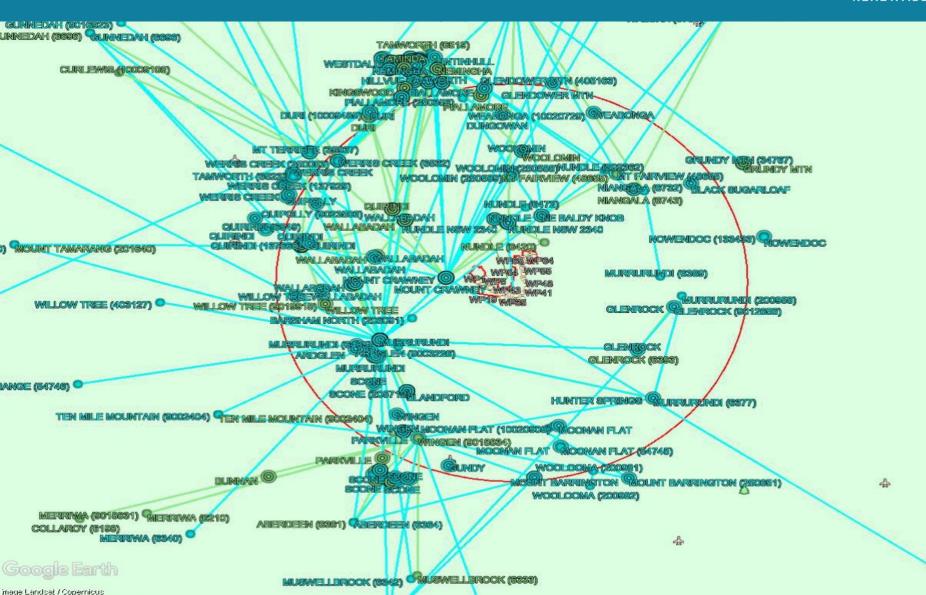


CCC Action 9

Data SIO, NOAA, U.S. Navy, NGA, GEBCO.

@2020 Google





MUSWELLEROOK (8337)

WEP to better explain the erosion and real

Community Member to provide David with

Community member to provide copy of the

Community member and Jamie to discuss

WEP and Hills of Gold Preservation

Committee to set up a meeting

article for distribution

residents seeking meeting

11

12

13

14

15

impact

the questions



A representative from ERM will be present at the 29th

This has been organised for Wednesday the 28th of

October at 5:30pm.

CCC member completed action

CCC member completed action

of October CCC and will be able to explain and

answer any questions that relate to erosion.

4. Bu	siness arising from pre	vious n	neeting		SOMEVA RENEWABLES
Action No	Description	Date Raised		WEP Response	

22 Sep

2020



Description

WEP to ensure the substation is included in

size as well as the visual / footprint

the visual impact assessment and include the

Action

No

19



WEP Response

This will be included in the Landscape and Visual

viewing when the project is on public exhibition.

Impact Assessment, which will be available for

16	WEP to provide more information about the Australian Standards in regard to bush fires	22 Sep 2020	The situation regarding the crow hitting the powerline is assessed in the Bushfire report and will be provided in the full impact assessment.
17	WEP to consider another site visit	22 Sep 2020	WEP will take this into consideration during the public exhibition period.
18	CCC member to forward missing names to Jamie	22 Sep 2020	Missing names were received from CCC member.

22 Sep

2020

Date

Raised

6. Update on Proposal



Y	Noise and Vibration Assessment	Complete
Y	Shadow Flicker Assessment	Complete
/	Hazards and Risks – Blade Throw	Complete
V	Hazards and Risks – Electromagnetic Frequency	Complete
V	Aviation	In Consultation
~	Updated Layout	Complete
	Social and Economic Assessment	Complete
	Telecommunications Assessment	Complete
Y	Water and Soil Assessment	Complete

6. Update on Proposal



Y	Biodiversity Assessment	Complete
Y	Cultural and heritage Assessment	In Consultation
~	Traffic and transport Assessment	Complete
~	Bushfire Assessment	In Consultation

6.1 ENGIE Update





ENGIE Australia & New Zealand

Our activities

- Energy Management
- Operation and development of low-carbon energy assets and delivery of tailor-made energy solutions to a broad range of business customers
- e Services

Development of energy infrastructure and delivery of innovative multi-technical services and solutions that create better, safer and more efficient environments

Retail

Over 720,000 Australian customer accounts through Simply Energy



ENGIE is present in 30+ locations across Australia & New Zealand

6.2 Water and soil Assessment Water Sourcing / Water Demand



The Project has **four viable options available** to source water, being:

- Council water supply, in agreement with the relevant Council(s);
- Extraction from an existing nearby landowner bore, in agreement to use their allocation;
- Extraction from a new groundwater bore, which will require a license in consultation with WaterNSW;
- Extraction from a surface water source (e.g. Chaffey Dam), which will require a license in consultation with WaterNSW.
- Confirmation of the proposed source will be determined following detailed design.

Project Total Water Demand during construction

Activity	Water Requirement
Concrete production (batching plant);	3.5 ML
Construction of roads and hardstands	41ML
Dust suppression	10.5 ML
Total	55 ML

(Update from previous meeting)

Given the total requirement for all Project activities is limited to the 24-month construction period is approximately 55 ML, it could be possible to permit water abstraction for the Project without impacting environmental flows.

6.2 Water and soil AssessmentAssessment / Existing Conditions

LSE - OEH 2017, BSAL - DPI 2020 ESRI World Imagery Dec 2018



ASC Soil Type Map: Ferrosols soil type. OEH eSPADE: Five soil profiles. The Soil Regolith Stability classification: Predominately R3 with small areas mapped as R1. Soil Hydrologic Groups: Type A and Type B (high and moderate infiltration rates, respectively). Hanging Rock Legend Transmission Line Overhead Line Proiect Area Major Road Minor Road Track-Vehicular Biophysical Strategic Agricultural Land Land and Soil Capability High capability land Moderate capability land Crawney Moderate-low capability land ALEXANDER OF THE PARTY OF THE P Low capability land Very low capability land Extremely low capability land F4-2 BaseData - DLPI DCDB, DTDB 2020

6.2 Water and soil Assessment Risk Assessment Results



A qualitative risk assessment suggests that <u>overall potential risks to water and soils are relatively</u> minor.

- For the most part, pad sites and access road construction occur on relatively low-moderate gradient lands high up in the respective drainage catchments.
- construction sites within the Project Area present a <u>low erosion</u> hazard considering factors such as climate, soils and landform (RUSLE equation, Erosion hazard assessment based on five factors: rainfall erosivity; soil erodibility; slope length and gradient; soil cover and management practices).
- vegetated buffers lie between work areas and watercourses.
- <u>sustainable water supply</u> options will be pursued through consultation with landowners and relevant Government agencies. Licenses would be obtained as required.
- water flows are not anticipated to be affected during the construction of the Project, given the localised impacts are located upstream on the top of the ridgeline. Any potential impact downstream will be effectively managed at the source of works (i.e. velocity controls in areas with steep slopes) through the implementation of a progressive Erosion and Sediment Control Plan (ESCP).

6.2 Water and soil Assessment Management Plan / Mitigation Strategy



Some specific construction and activities mitigation.

Pad sites

- Refer to areas that may be cleared, levelled and then stabilised.
- Pad sites will be built in accordance to Erosion Sediment Control Plan (ESCP).

Trenching

- Land disturbance minimization.
- Avoid trenching in locations concentrating water flow.
- Monitoring weather to avoid opening trenches prior to forecast rainfall.
- Topsoil and subsoil separation, topsoil is replaced on the surface.

Dewatering

- Collecting of water stored in trenches, sediment traps and low-lying depressions.
- Reuse it on site for dust suppression on unsealed access roads and watering of rehabilitated areas

Unsealed Internal Access Roads

- Maintaining good stormwater drainage.
- Limit the clearing width to the minimum that is practicable.
- Strip and stockpile topsoil separately for use in rehabilitation

Concrete batching plant

- Implementation of separate stormwater collection and drainage systems.
- Suitable washout locations.
- Monitoring stormwater discharges (pH and SS)

Site Monitoring and Maintenance

 Effective system of sediment control devices (inspection, maintenance and cleaning program)

6. 3 Indigenous Heritage





Kelleher Nightingale Consulting Pty Ltd

KNC is an Archaeological and Heritage Management that conducts both Aboriginal cultural heritage work and European cultural heritage work. KNC has worked on multiple projects in NSW and across Australia including renewable energy developments for wind and solar projects.

Overview of Guidelines

- Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (OEH 2010a);
- Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH 2011); and
- Aboriginal cultural heritage consultation requirements for proponents 2010 (OEH 2010b).

SEARs requirements

- Assess the impact to Aboriginal cultural heritage impact under guidelines.
- Provide evidence of consultation with Aboriginal communities in determining and assessing impacts, developing options and selecting options and mitigation measures.

6. 3 Cultural and Heritage



Scope of the Study

- 1 Aboriginal community consultation
- 2 Aboriginal heritage field survey
- (3) Cultural Heritage Assessment Report

Aboriginal Community Consultation Process

The aim of consultation is to integrate cultural and archaeological knowledge and ensure registered Aboriginal stakeholders have information to make decisions on Aboriginal cultural heritage.

Consultation Process

- 1 Notification of Aboriginal persons
- Advertising for registered stakeholders in local print media Northern Daily Leader
- 3 Notification of closing date for registration
- 4 Record of registration of interest
- 5 Provision of project information
- Invitation to advise on Aboriginal cultural value of the study area
- 7 Provision of draft CHAR for review

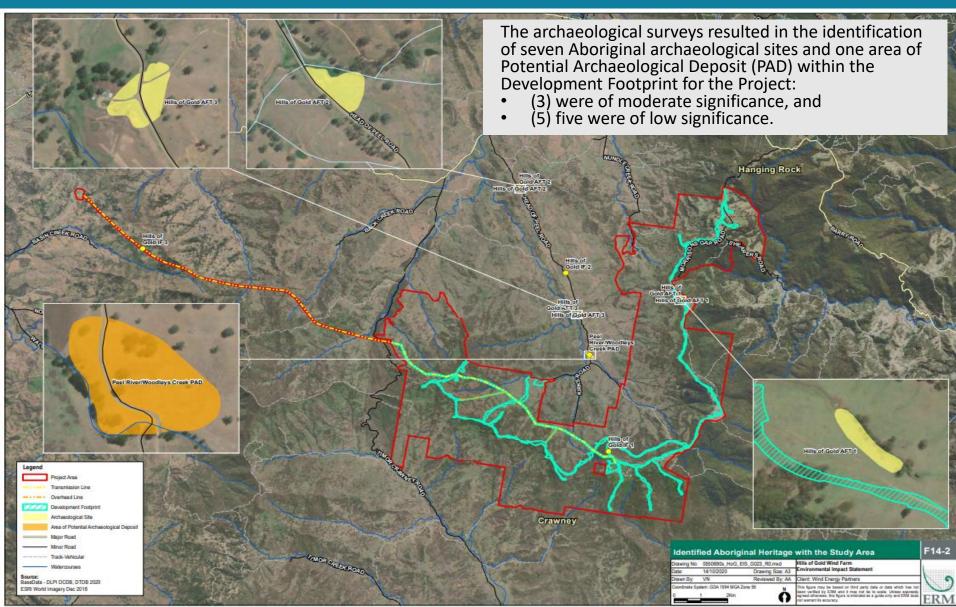
6. 3 Cultural and Heritage Previous Archaeology and Survey Approach



- 1 Previous archaeological investigations in the area have included:
 - Nundle Sawmill and Preservation Plant
 - Nundle Woolomin Optic Fiber Cable
 - Chaffey Dam Expansion
 - Chaffey Dam Safety Upgrades
- The survey included the whole wind farm development corridor, transport upgrades and all associated infrastructure.
- Based on the archaeological background and landform context of the Study Area, the survey closely inspected for:
 - Any areas of surface exposure for artefacts
 - Evidence of intact soils and subsurface archaeological potential
 - Any mature trees for evidence of Aboriginal bark removal.

6. 3 Cultural and Heritage Identify Aboriginal artefacts in the study area





6. 3 Cultural and Heritage Survey Findings and Mitigation Approach



Site Name	Significance	Mitigating Harm
Hills of Gold AFT 1	Moderate	This site has been avoided in design.
Hills of Gold AFT 2	Low	Collection of surface artefacts required prior to impact.
Hills of Gold AFT 3	Moderate	Archaeological salvage excavation c.25m ² required prior to impact.
Hills of Gold AFT 4	Low	Collection of surface artefacts required prior to impact.
Hills of Gold IF 1	Low	Collection of surface artefacts required prior to impact.
Hills of Gold IF 2	Low	Collection of surface artefacts required prior to impact.
Hills of Gold IF 3	Low	Collection of surface artefacts required prior to impact.
Peel River/Woodleys Creek PAD	Moderate	Archaeological salvage excavation c. 50m ² required prior to impact.

6. 3 Cultural and Heritage Conclusion



- The CHAR has identified that there are no existing AHIMS sites within, or near, the Project Area.
- The seven newly recorded sites and one PAD present were identified during the comprehensive field inspection of the Study Area.

If impact is unavoidable, salvage excavation would be required for two archaeological sites and one PAD

Surface artefact collection is recommended for low significance Aboriginal archaeological sites where surface artefacts were identified during the assessment

6. 4 Traffic and Transport Assessment





The Transport Planning Partnership (TTPP) was formed as a specialist traffic engineering and transport planning consultancy with the aim of providing high level specialist advice to government agencies and the private sector.

Overview of Guidelines

- Guide to Traffic Generating Developments (RMS)
- Road Design Guide (RMS) & relevant Austroads Standards
- Austroads Guide to Traffic
 Management Part 12: Traffic
 Impacts of Development

SEARs requirements

- Assess the construction and operational traffic impacts of the development;
- Provide details of traffic volumes (both light and heavy vehicles) and transport routes during construction and operation, including traffic associated with sourcing raw materials (water, sand and gravel);
- Assess the potential traffic impacts of the project on road network function including intersection performance and site access arrangements and road safety, including school bus routes;
- Assess the capacity of the existing road network to accommodate the type and volume of traffic generated by the project (including over-mass / over-dimensional traffic) during construction and operation;
- Provide details of measures to mitigate and / or manage potential impacts including a schedule of all required road upgrades, road maintenance contributions, and any other traffic control measures, developed in consultation with the relevant road authority;

6. 4 Traffic and Transport Assessment



Scope of the Study

- 1 Assessment of Existing Conditions
- 2 Assessment of Traffic Impacts
- (3) Mitigation Measures
- 4 Conclusions and Findings

Stakeholders Consulted

Consultation was undertaken with key stakeholders to understand concerns and provide improvements and mitigation.

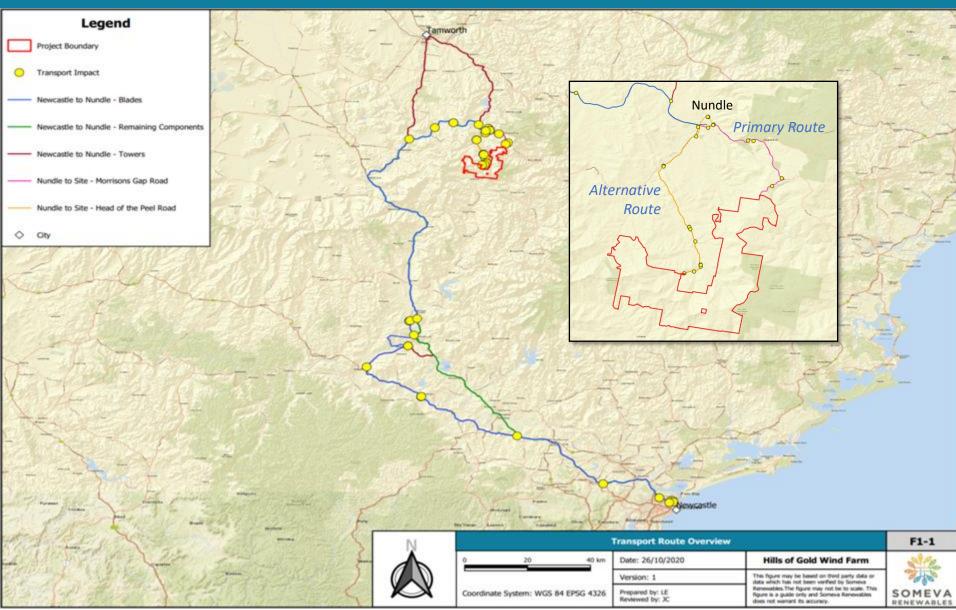
- o Tamworth Regional Council;
- Transport for NSW (TfNSW);
- Forestry Corporation NSW; and
- Muswellbrook Shire Council.

In addition, consultation was undertaken by TTPP with other local councils along the route:

- Liverpool Plains Council;
- Cessnock City Council;
- Newcastle City Council; and
- Upper Hunter Council.

6. 4 Traffic and Transport Assessment Transport Routes: From Port to Site





6. 4 Traffic and Transport Assessment



Methodology of Assessment

1 Volume Capacity measure

The volume capacity ratio indicates the level of congestion by comparing the forecast traffic volumes to the theoretical lane capacity

2 Level of service

The level of service is a measure of traffic efficiency.

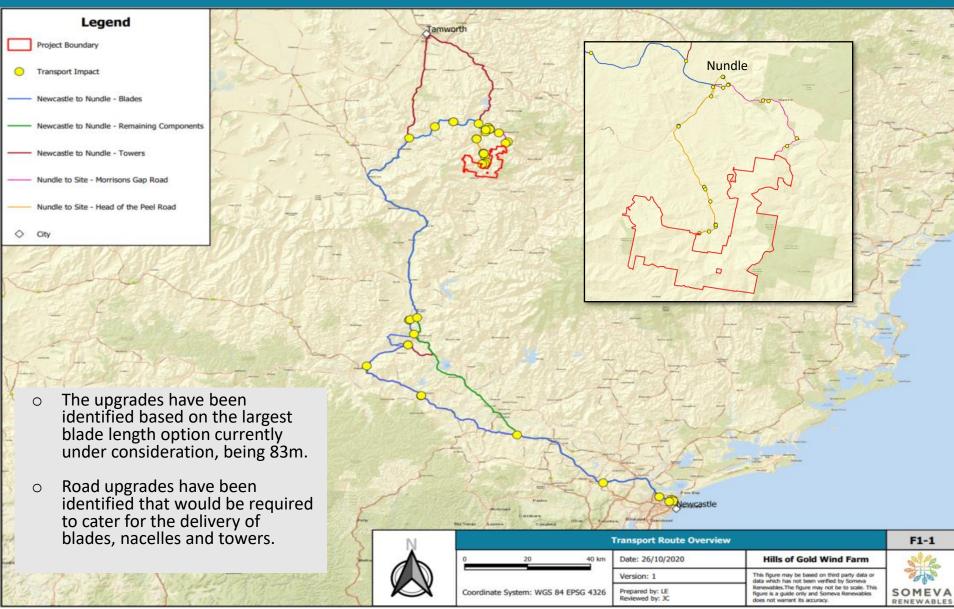
The Level of Service is a six-level rank (Level of Service A to F) which considers factors such as speed, volume of traffic, geometric features, traffic interruptions, delays and freedom to manoeuvre

2 Environmental capacity

The environmental capacity is an assessment of the impact on the amenity of an environment (e.g. acceptable level of noise)

6. 4 Traffic and Transport Assessment Roads Upgrades





6. 4 Traffic and Transport Assessment Mitigation Strategy



Oversized and over mass vehicles would will be governed by a detailed traffic management plan that will be developed before approval for transport is granted. The traffic management plan will include:

- Procedures for escorts of oversized and over mass vehicles;
- Traffic control plans for temporary road closures to allow vehicles to cross the carriageway;
- Location and use of rest stops and layovers along the journey;
- Communication strategy to affected communities;
- Notification and consultation of key stakeholders including:
- Contact details of foreman or project manager throughout operations to be shared with emergency services and road authorities;

- Timing of operations and measures to avoid commuter peaks and school peaks through populated areas;
- Consideration of cumulative impacts of other projects along the route including mine and forestry related transport;
- Upgrading the two bridges along Lindsays Gap Road would avoid the need to use Tamworth route for towers and mitigate impact along the Nundle Road;
- Layby proposed to alleviate concern for being stuck behind oversized vehicles going up Barry Road just before Devils Elbow;
- Project commitment to seal Morrisons Gap Road and improve safety along this road.

6. 4 Traffic and Transport Assessment Conclusions



- Estimates of Project related traffic generation were undertaken. Analysis shows that when these traffic volumes are added to the existing traffic volumes there would be adequate capacity in the road network.
- The forecast traffic volumes are also expected to be less than the environmental capacity goals of 200 vehicles per hour on all roads during the peak of construction. During the operation of the site, the traffic volumes would be even less.
- A detailed traffic management plan would will be developed for the transportation of individual items.
- Road upgrades form part of the Project and will create ongoing benefits to the local community in terms of improved road safety and amenity.



Scope of the Study

- Analysis of whether the Project Area is bushfire prone land and whether the Project was in compliance with guidelines;
- (2) Identification of the assets within and surrounding the Project Area requiring protection;
- Identification of the bushfire risk factors such as bushfire history and known bushfire behavior in the Project Area and within the surrounding lands;
- Consultation with key stakeholders to discuss the recent fires affecting the Project Area and immediate surrounds to gain a better understanding of the local fire conditions and to ensure that suitable management and mitigation measures are developed in consultation with the NSW RFS and the NSW NPWS;
- Identification infrastructure that may be subject to direct flame contact. Calculations of Bushfire Attack Levels (BAL) and flame length have been undertaken using Method 2 as outlined within Appendix B of AS3959; and
- 6 Produce risk mitigation and management treatments and satisfy PBP 2019 requirements.



Key Legislation and Guidelines Addressed within the Assessment

- NSW Rural Fires Act 1997
- Planning for Bushfire Protection 2019
- Australian Standard 3959 2018 Construction of Buildings in Bushfire-prone Areas (AS 3959- 2018)
- Biodiversity Conservation Act 2016
- Commonwealth Environment Protection and Biodiversity Act 1999
- Environment Planning and Assessment Act 1979



SEARs requirements

The EIS must include an assessment of the following:

 identify potential hazards and risks associated with bushfires / use of bushfire prone land, including the risks that a wind farm would cause bush fire and any potential impacts on the aerial fighting of bush fires and demonstrate compliance with Planning for Bush Fire Protection 2006 (if located on bushfire prone land)."

"include flame length modelling for all turbines, ancillary buildings, internal roads and transmission lines and identify required vegetation management practices to achieve asset protection zone standard that will prevent flame contact on the proposed infrastructure components."



Key Consultation

To inform the preparation of this bushfire risk assessment, ERM and the Proponent consulted with key local stakeholders to discuss the recent fires affecting the Project Area and immediate surrounds to gain a better understanding of the local fire conditions and to ensure that management and mitigation measures are developed to meet the needs of those on the ground

- 1 NSW National Parks & Wildlife Service
- 2 Liverpool Range Rural Fire Service (District)
- (3) Tamworth Rural Fire Service (District)
- (4) NSW Fire and Rescue
- 5 Hanging Rock Rural Fire Service (local)
- 6 NSW Rural Fire Service

6. 5 Bushfire Assessment Mitigation Strategy

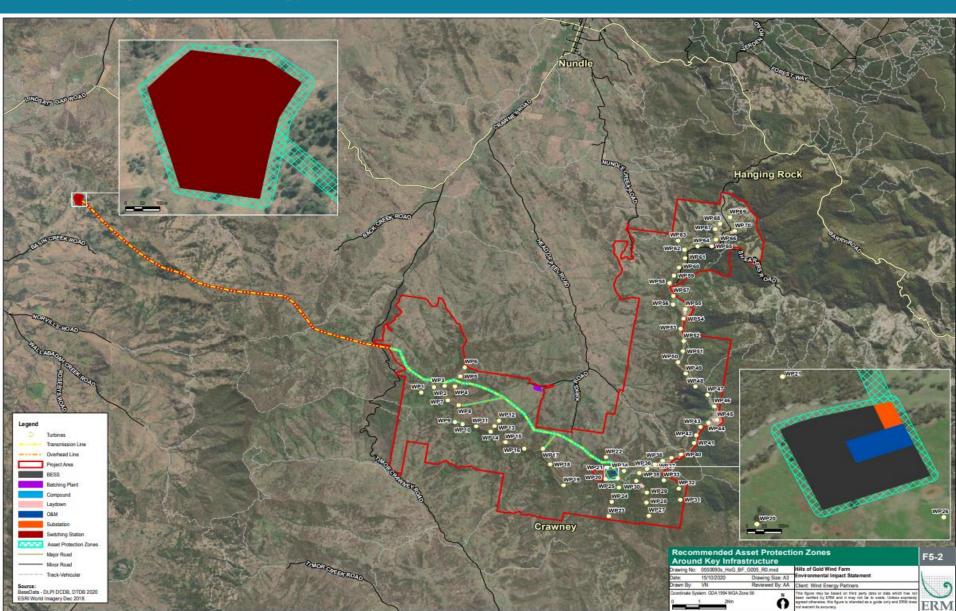


Bushfire mitigation strategies and recommendations are guided by the following factors that contribute to bushfire risk:

- Fuels, weather, topography and predicted fire behavior including the calculated flame length;
- Suppression resources (air and ground), access (roads, tracks) and water supply;
 and
- Values and assets.
- Establishment of Asset Protection Zone (APZ)
- An extended strategic Fire Advantage Zone (SFAZ)
- Some infrastructure will be microsited out of the flame zone.
- visible markers will be installed on all masts to minimise risks during aerial firefighting operations.
- Site access points will be constructed to enable safe access and egress for residents attempting to leave the area at the same time that emergency service personnel are arriving to undertake firefighting operations.
- Preparation of a Bushfire Emergency Management and Operations Plan.
- Water supply will be maintained such that existing water resources remain available to firefighting the area.

6. 5 Bushfire Assessment Mitigation Strategy: APZ





Conclusions



- The risk that the wind farm itself will cause a fire is minimal.
- A Bushfire Emergency Management and Operations Plan will be prepared in conjunction with relevant stakeholders, including NSW RFS, NSW Fire and Rescue, NPWS, NSW Forestry, adjoining property owners and employees
- Access road is already located within the flame zone and the proposed windfarm assets will not increase this existing hazard.
- The improved access and water sources will be an advantage to both the local RFS and the NPWS for back burning down the slopes in advance of the fire front as was undertaken in 2019 and successfully stopped the Pages Creek Road Fire along this ridgeline.

Conclusions



- It is recommended that assets such as the switching station, substation, BESS and O&M buildings are all located outside of the flame zone and have adequate defendable space all sides.
- The detailed mitigation measures outlined in the bushfire risk assessment have been developed in consultation with key stakeholders including NSW RFS and NPWS to ensure that the windfarm development does not present any increased risk of widespread fire across the landscape. These mitigation measures will be applied for the life of the project.



















Photomontage 05

















ARUP

Arup is a multinational professional services firm which provides engineering, architecture, design, planning, project management and consulting services for all aspects of the built environment. It has extensive experience in navigating projects through the NSW planning system including projects in the Australia Renewable Energy Sector.

- Darlington Point Solar Farm EIS, NSW
- Coffs Harbour Bypass EIS, NSW
- Cultana Pumped Hydro, SA

Overview of Guidelines

- Biodiversity Conservation Act 2016 (BC Act);
- Biodiversity Conservation Regulation 2017;
- Biodiversity Assessment Method (BAM) (OEH 2017) which applies to the Project under the transitional provisions in clause 6.31 of the Biodiversity Conservation Regulation 2017; Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act).

SEARs requirements

- Assess biodiversity values and the likely biodiversity impacts of the development.
- Provide a detailed description of the proposed regime for minimising, managing, and reporting on the biodiversity impacts of the development over time.
- Provide a strategy to offset any residual impacts of the development.
- Assess the impact of the project on birds and bats from blade strikes, low air pressure zones at the blade tips (barotrauma), and alteration to movement patterns resulting from the turbines and considering cumulative effects of other wind farms in the vicinity.
- Department of Agriculture, Water and Environment (DAWE) determined the project was a controlled action under section 75 of the EPBC Act.



Scope of the Study

- 1 Impacts to native vegetation, including threatened ecological communities listed under the BC Act and the EPBC Act
- Impacts of blade strike on birds and bats, with specific focus on listed threatened bats and raptors observed in accordance with Natural England Technical Information Note TIN051 (as advised by BCD);
- Impacts associated with development near to National Parks or State Reserves, including the adjacent Ben Halls Gap Nature Reserve in accordance with the Guidelines for Development Adjoining Land and Water Managed by DECCW (OEH, 2010);
- 4 Management of identified impacts (including details of adaptive management protocols and biodiversity offsets); and
- Measures to avoid, mitigate and offset impacts, with the objective of an overall 'improve or maintain' environmental outcome for the project.

Consultation requirements

- 1 DPI- Fisheries
- Department of Planning and Environment Biodiversity Conservation Division.
- Department of Agriculture, Water and Environment (DAWE).

Design layout process



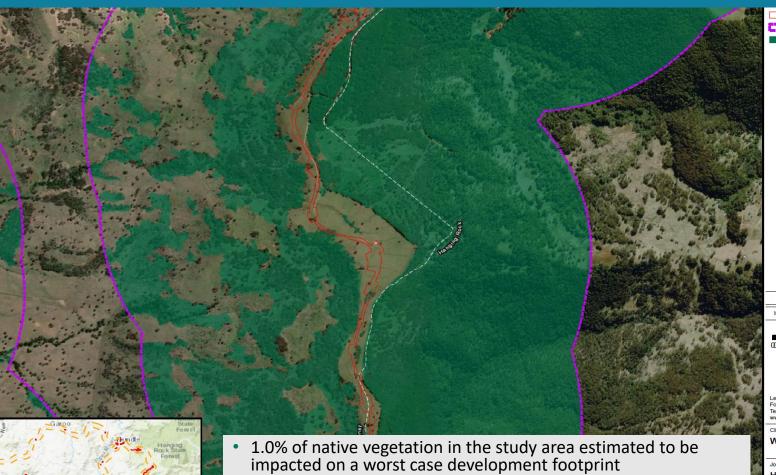
A multidisciplinary 'freeze design' workshop was undertaken in May 2020 with the Project ecologists, community consultants, civil engineers and wind modellers to confirm optimal WTG layout and ancillary infrastructure locations to avoid impacts to significant biodiversity features such as fauna habitat and microbat breeding areas

Pre-Workshop • Wanted to move pad out of PCT Habitat • Realigned road and pad to fit better into already cleared land, thereby minimising impact Post-Workshop • New layout in light blue • Pad and road have less impact on microbat 100m buffer zone and PCT Habitat mapping zones

Multidisciplinary Workshop Methodology Civil **Planning Engineering** Community Wind consultation Constraints

6.7 Biodiversity Native Vegetation Map





rehabilitated

improvements.

Development footprint
Landscape assessment
buffer (study area)
Native vegetation

- 513ha development footprint
- 21,450
 hectares native
 vegetation in
 study area.



Issue Date By Chkd Appd

Level 4, 108 Wickham Street Fortitude Valley, QLD 4006 Tel +61 (7)3023 6000 Fax +61 (7)3023 6023

Client

Wind Energy Partners

Job Titl

Hills of Gold Wind Farm

Drawing T

Location map native vegetation cover

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Drawing Status

Coordinate System

GDA 1994 MGA Zone 56

Job No 270335-00

Drawing No 004

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Further design commitments are included to further reduce in detailed design and reassess prior to construction to present

This includes an estimated **271 hectares** expected to be

.

Sources: Esri

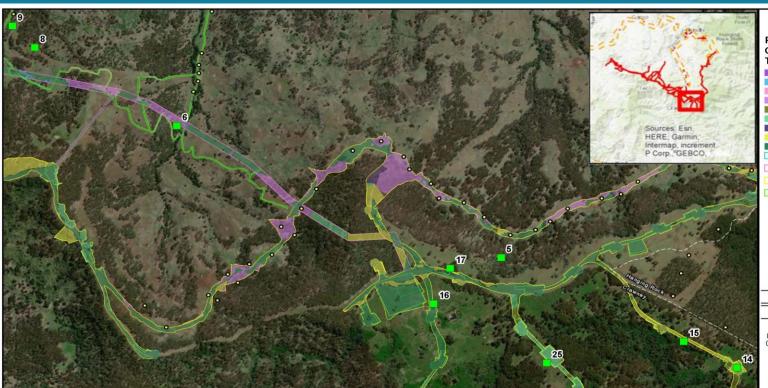
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SOMEVA RENEWABLES

Vegetation Plot

Plant Community Types and threatened species



- A total of **22 Plant Community Types (PCTs)** were identified and mapped, varying condition from derived native grasslands (15%), low (18%), moderate (36%) and high (31%) value.
- A total of <u>10 species credit species associated with PCTs</u> in the study area were determined to be present, including 8 mammals, 1 amphibian and 1 reptile;
- A total of <u>2 Threatened Ecological Communities</u> (TECs) listed under the NSW *Biodiversity Conservation Act 2016* (BC Act) were identified:
 - White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Ribbon Gum (also EPBC Act listed)
 - Mountain Gum-Snow Gum Grassy Woodland or open forest.

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Job Title Hills of Gold Wind Farm Drawing Title Plant Community Types				
Page 10				
GDA 1994 MGA Zone 56				
Drawing No Dr				

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SOMEVA RENEWABLES

Mitigation measures and Biodiversity Offset Strategy

- o Impact assessment follows Avoid → Minimise → Offset hierarchy:
 - Design workshops to locate infrastructure
 - Buffers to protected area estate
 - Buffers to bat roost sites and foraging habitat
 - Site rehabilitation and restoration for temporary impacts
 - Impact assessment adopted maximum footprint for conservative assessment
 - Commitment to further reduce impacts in detailed design and reassess impact
- A Biodiversity Management Plan will be prepared and implemented
 - Mapping and protection of habitat features during detailed design
 - Monitoring and management requirements for construction and operation
- A Bird and Bat Management Plan will be prepared and implemented
- Offset credits calculated using NSW Biodiversity Assessment Method.
 - Biodiversity Offset Strategy to be prepared to investigate options to deliver local, land-based offsets

6. 7 Biodiversity Conclusions



The impacts to biodiversity as a result of the project have been avoided and minimised as much as practicable through design phase refinements.

Further mitigation measures are outlined and proposed to be adopted to minimise biodiversity impacts during the construction and operational phases and include the provisions of biodiversity offsets, management measures and monitoring and adaptive management measures.

The BDAR confirms that there are no serious and irreversible impacts from the project and this is because:

- there is sufficient habitat availability in the wider landscape and study area to continue to support threatened species known to occur within the development footprint;
- the Project design has been refined so that the majority (58%) of vegetation impacts occur on areas that contain exotic grassland;
- the Project design avoids areas of breeding habitat for threatened microbats, by locating all infrastructure outside of the mapped cliffs and steep areas;
- Impacts to high quality vegetation communities, containing higher quality fauna habitat have been minimised through the location of infrastructure;

Residual impacts associated with the project will be offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. Once these offsets are applied, no net loss to biodiversity should be achieved

7. General Business where from here



By David Ross



HILLS OF GOLD WIND FARM HOLDINGS PTY LTD

13 October 2020

Australian Securities and Investments Commission

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