HILLS OF GOLD PRESERVATION INC 1800437

OBJECTION

PUBLIC SUBMISSION TO THE ENVIRONMENTAL IMPACT STATEMENT FOR HILLS OF GOLD WIND FARM PROPOSAL ID NO.SSD9679

"If the community doesn't want it [wind farm], it won't happen"

Wind Energy Partners Pty Ltd consultant John Wilcox (Inclusive Engagement), meeting with five community members, February 7, 2018

CONTENTS

Public meeting with DPIE at Nundle Memorial Hall, November 2018.

INTRODUCTION

Hills of Gold Preservation Incorporated (HOGPI) members' analysis of the Hills of Gold Wind Farm Environmental Impact Statement (EIS) identifies concerns regarding Soil, Transport, Environment, Water, Heritage, Visual Amenity, Tourism, Capital Investment Value, Decommissioning, Hazards and Risks (Aviation, Blade Throw, Hazardous Materials), Bushfire, and Socio-Economic Impact (Employment, Financial Compensation, Community Engagement). In addition, HOGPI presents an audit of Hills of Gold Wind Farm against the National Wind Farm Commissioner's Annual Report, and Feasible Alternatives to the proposal.

The proponent Wind Energy Partners Pty Ltd presents an EIS that understates the impacts and overstates the benefits of the Hills of Gold Wind Farm. Of the 70 wind turbines proposed, 53 wind turbines (75%) benefit the major host landholder or his family members, the remaining 17 wind turbines (25%) either sharing boundaries or proposed on three landholders' properties. Four landholders would host transmission lines and switching station.

Appendix EA Noise and Vibration Assessment, pg.7, lists dwellings located "in the vicinity of the wind farm" totalling 80 dwellings; 16 Associated Dwellings (20%) including turbine hosts, transmission line hosts, and Neighbour Benefit Sharing Agreement signatories, and 64 Non-Associated Dwellings (80%), including one Development Approved Dwelling. This demonstrates that the majority of dwellings in the vicinity of the wind farm do not give community consent for the proposal.

The EIS contains serious errors and omissions with significant impacts for the Nundle and Hanging Rock community and is unapprovable.

The Timor community has come together after not being adequately consulted by the proponent and feeling let down by Upper Hunter Shire Council. They will be lodging objections which also contain significant defences for not approving this Development Application.

We note that the community of Ellerston has not been consulted. Although it lies approximately 25 km from the closest turbine, its river source emanates from the same impacted ridge. The Ellerston community travel via Crawney Pass and Nundle to access essential services in Tamworth.

The EIS Soil and Water, and Appendix O are based on incorrect mapping of Class 8 soil, rainfall for Nundle not Hanging Rock, and a soil profile from outside the Project Area. Correct mapping shows the majority of the Project Area is located on Class 8 soil with high erosion risk and mass movement hazard. The Soil assessment will need to be redone to accurately assess impacts and mitigation.

The proponent fails to detail how it will transport oversize and overmass vehicles up some of the steepest gradients in the state at the northern and southern access points to the Project Area. A realignment of Devil's Elbow hairpin corners is discussed, proposing a new private road through National Estate and Tamworth Regional Council Local Environment Plan listed curtilage for Black Snake Gold Mine. There is no engineering, biodiversity, or detailed heritage studies or cost for the realignment/private road included in the EIS.

There is no detail regarding engineering or cost of access tracks within the Project Area. This includes a proposal for a Transverse Track running across the face of the mountain.

The Transport and Traffic Assessment proposes unacceptable impacts to Nundle and Hanging Rock villages, including moving oversize and overmass vehicles through the main intersection and safety hotspots of villages and quiet residential streets. It does not consider Transport and Traffic impacts to the pre-existing tourism industry.

The environmental impacts of the Hills of Gold Wind Farm include disturbing or clearing 512 hectares. The proponent states the clearing will be offset and there will be no net biodiversity

loss. It is unacceptable that old growth trees, some pre-dating European settlement and others over 100 years old, could be cut down for a renewable project. Some of the flora, including some of the tallest snow gums in existence, are extremely rare because of the elevation and overlapping of bioregions. Offsets or rehabilitation are not accepted as the climate, elevation and soil type cannot be replicated elsewhere. The unique and rare biodiversity of the area will be lost.

HOGPI is an Incorporated Association and it aims to give residents and landholders a collective voice with local, state and federal government in raising concerns about Engie's proposed Hills of Gold Wind Farm on the Great Dividing Range, from Hanging Rock to Crawney Mountain, near Nundle, NSW.

HOGPI communicates with the wider community using the following media:

Website hillsofgoldpreservation.net.au

Facebook @hillsofgold

Instagram @hillsofgoldpreservationinc

Twitter @HillsofGoldInc

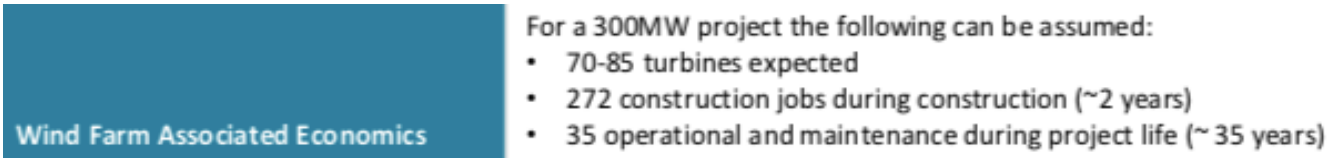
YouTube Hills of Gold Preservation

HOGPI represents the majority of the Nundle and Hanging Rock community, with more than 100 financial members, and more than 340 signatories to its petition lodged with state parliament by Member for Tamworth Kevin Anderson in November 2020. A Justice of the Peace signed a Statutory Declaration verifying that the majority of residents from Nundle and surrounds opposed the proposed Hills of Gold Wind Farm (based on the most recent Census - 2016). This was presented to the Hills of Gold Wind Farm CCC and Tamworth Regional Council in December 2019.

In addition, HOGPI submits an online petition for consideration by DPIE with more than 3000 signatures. The Nundle National Party Branch supports the majority of landholders and residents in opposing the industrial wind turbine proposal near Nundle. The majority of Nundle Business Tourism and Marketing Group Inc (NBTMG) members voted to oppose the proposal and continued to raise their concerns about heritage, transport and visual impacts on tourism at their October, 2020 meeting with the proponent. A radio poll by 88.9FM is an interesting snapshot, showing 70% of the community opposing the proposal and 30% in favour.

HOGPI was created in April 2018 out of community concern about proponent, Wind Energy Partners Pty Ltd.'s, proposal for a wind farm on the 1200-1400m elevation mountain range

highly visible from the approach to town, moving around the village and on surrounding rural roads at Hanging Rock, Crawney and Timor.



Excerpt from Someva 'Nundle Wind Farm Presentation' dated December 2017 presented to five community members by Inclusive Engagement in February 2018 depicting a proposal for 70-85 wind turbines, creating 272 construction jobs and 35 operational jobs.

NBTMG organised the first public meeting to raise awareness about the proposal in the community in March 2018. This followed a meeting between five community members and Wind Energy Partners Pty Ltd consultant John Wilcox (Inclusive Engagement) who stated, **"If the community doesn't want it [wind farm], it won't happen."** At this meeting the five community members were given a presentation titled, 'Nundle Wind Farm Presentation' with Someva branding and a December 2017 date, proposing 70-85 wind turbines. Claims that the applicant has reduced the number of turbines from 97 to 70 are misleading. The 97 figure included turbines proposed on land without the consent of non-associated landholders.

By the first meeting held to form the Hills of Gold Preservation Inc in April 2018 membership included concerned residents and landholders from Woolomin, Tamworth, Bowling Alley Point, Hanging Rock, Nundle and Crawney. This later extended to include Timor.

The upper Peel Valley has been recognised for its natural beauty for more than 100 years. A community member with an interest in heritage passed on the following quote describing the landscape from 1870:

'Although a period of nearly five years has elapsed since I climbed the summit of the "Rock," I have a vivid recollection of the delightful feelings which took possession of me on that occasion; also of the magnificent and almost unequalled scene of beauty which burst so unexpectedly upon my enraptured vision'.

Alfred Boggis, Newcastle, Maitland Mercury and Hunter River General Advertiser, January 27, 1870

As early as 1889, Hanging Rock was building its name as a tourist resort, being described as Tamworth's Katoomba and by the turn of the century north-west residents were establishing summer holiday houses at Hanging Rock to take advantage of the cooler temperatures offered by the sub-alpine elevation. An 1889 report states:

'It was not, perhaps, so rugged as the view of the mountains at Katoomba, but the extent of the country taken in by the eye was far more beautiful than many of the show places of the Blue Mountains.'

Nundle and Hanging Rock have a long established pre-existing tourism industry, which has been built over the last century, and grown exponentially in the past 20 years through attracting new tourism businesses, co-operative marketing by business owners, a strong culture of volunteering to run tourism events, and support from Destination Tamworth/Tamworth Regional Council.

Engie's Hills of Gold Wind Farm proposes taking a highly scenic valley and mountain range and degrading its natural beauty through industrialisation; trimming, removing or clearing street trees, roadside vegetation, and native vegetation for widening roads, constructing a new private road, 48km of internal access roads, and building wind farm infrastructure, concrete batching plants, handstands, wind turbine generators, operations and maintenance building, parking/storage/laydown, battery energy storage unit, substation, 18.8km of transmission lines, and switching station.

The impacts on the residents, tourists, and natural environment of Nundle, Hanging Rock, Crawney and Timor are extensive and are detailed throughout this response.

Our members consider the proposed project area and immediate neighbouring scientific reference Ben Halls Gap Nature Reserve, Crawney Pass National Park, and Crown Lands to be of such ecological significance and the environmental impacts too great to accept the mitigation, offsets, and compensation suggested by the proponent. This semi-wild location should be preserved to conserve remnant native vegetation and animals, already under stress from three years of drought and 2019-2020 black summer bushfires, and historical clearing.

Being located at the convergence of the Peel, Barnard/Manning and Hunter River catchments, the range should be protected to conserve the natural flow of surface and groundwater, contribute to the fertility of the slopes and valleys below, and most importantly contribute to conserving water quality and quantity for Mid North Coast, Hunter Valley, and Peel Valley/Murray Darling Basin communities.

The Great Dividing Range from Hanging Rock to Crawney should be preserved for future generations to enjoy and connect with nature, rather than industrialised for wind turbine power generation that doesn't need to be in an ecologically significant location.

The National Wind Farm Commissioner and Department of Planning, Industry and Environment have stated that there are enough renewables in the pipeline and for only one in three sensitively sited proposals to be approved to meet renewables targets:

"Meeting the 2020 goals of the Australian Renewable Energy Target scheme would require approximately only one in three...prospective wind farm projects...to go ahead."

National Wind Farm Commissioner 2017 Report

The proposed Project Area is not located in a Renewable Energy Zone. Some 23 projects generating 6,900MW applied for grid access to TransGrid Services New England Transmission Infrastructure Upgrade that would host 1400MW of capacity (The Northern Daily Leader 16/9/20). There are larger wind farms approved or being assessed in Renewable Energy Zones, including 3.8GW Walcha Energy Project encompassing wind, solar, pumped hydro and battery storage. Meanwhile, Upper Hunter Energy Park, near Scone, was approved in 2010 and construction has not started.

The NSW Electricity Infrastructure Roadmap, November 2020, outlines establishment of a Consumer Trustee to apply merit criteria assessment as part of project selection, balancing electricity, agriculture, heritage, visual amenity, mining and other land uses.

Following the launch of the state government's Electricity Infrastructure Roadmap Deputy Premier John Barilaro stated that, "the road map will make sure that renewables are developed where regional communities want them".

We draw your attention to the following areas and ask that you determine that the Hills of Gold Wind Farm DA/EIS be refused.

1.0 SOIL

One of the most significant areas of the EIS that appears to be overlooked is the dominance of Class 8 soil throughout the project area. HOGPI engaged SoilFutures consultant Dr Robert Banks, a Soil Scientist with over 30 years' experience in technical soil science and geomorphology in Australia and overseas. Dr Banks discussed the implications of Class 8 soils with us and corrected state government mapping of Class 8 soils referenced by the applicant in the EIS. We share Dr Banks' concern about half of the project area being on Class 8 soil with high erosion and mass movement risk. His report is attached as an **Appendix 1.0 - SOIL** for your consideration.

As part of his review of the EIS and Appendix O, Dr Banks concludes that most of the development footprint is in a "high erosion hazard area with high mass movement."

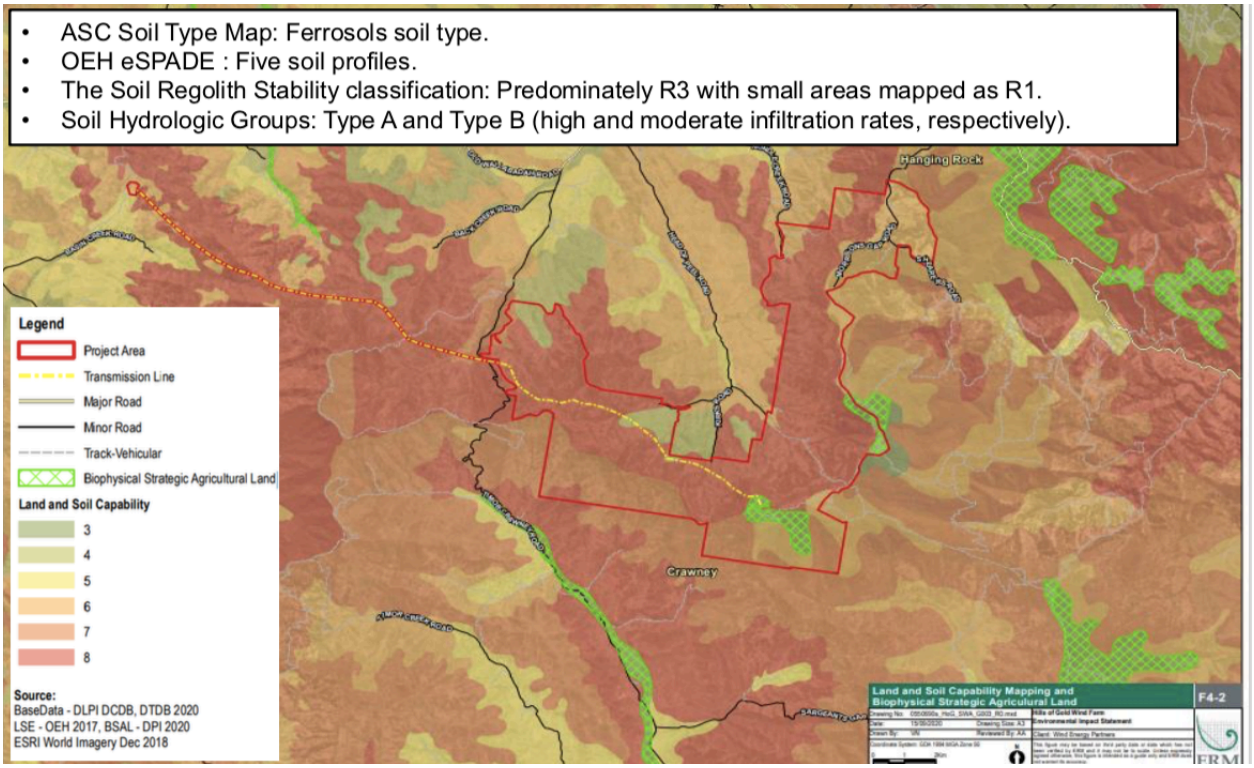
The Office of Environment and Heritage land and soil capability assessment scheme defines Class 8 Soil as "Extremely low capability land: Limitations are so severe that the land is incapable of sustaining any land use apart from nature conservation. There should be no disturbance of native vegetation."

"Class 8 land is not suitable for any agricultural production due to its extremely severe limitations. Class 8 land includes precipitous slopes (>50% slope) and cliffs, areas with a large proportion of rock outcrop (>70% area), or areas subject to regular inundation and waterlogging (swamps, lakes, lagoons, stream beds and banks)...This land is unusable for any agricultural purposes. Recommended uses are restricted to those compatible with the preservation of natural vegetation including water supply catchments, wildlife refuges, national and State parks, and scenic areas."

HOGPI members are concerned that when the Class 8 soil map was presented on screen at the Hills of Gold Wind Farm CCC on September 22nd, 2020 the legend was left off the map, and only a description of the Class 8 soil read out. A community member requested a map with a printed legend. It has since been added to the CCC minutes.

Northern end of the Hills of Gold Wind Farm project area photographed on a Community Consultative Committee site visit in February, 2020.

Historic photograph taken July 6th, 1984 from about 100m north of the photo proceeding. It shows the timber cover which existed at the time on the western side of the track. Mainly Snow Gum (E.pauciflora) and a common snowfall on the range.



Map presented to CCC on September 22, 2020

Dr Banks identified a significant error in Land Soil Capability coding, which has been corrected in the state database following necessary NSW Government protocols. It is expected to be updated online by the end of January. The LCS maps in the EIS and Appendix are incorrect. Revision of mapping gives more serious weight to erosion hazard within the project development, raising it from “low to moderate” to “high to extreme”. <u>Around half of the proposed development and 33 wind turbines are on mass movement dominated land with very high erosion risk.</u>

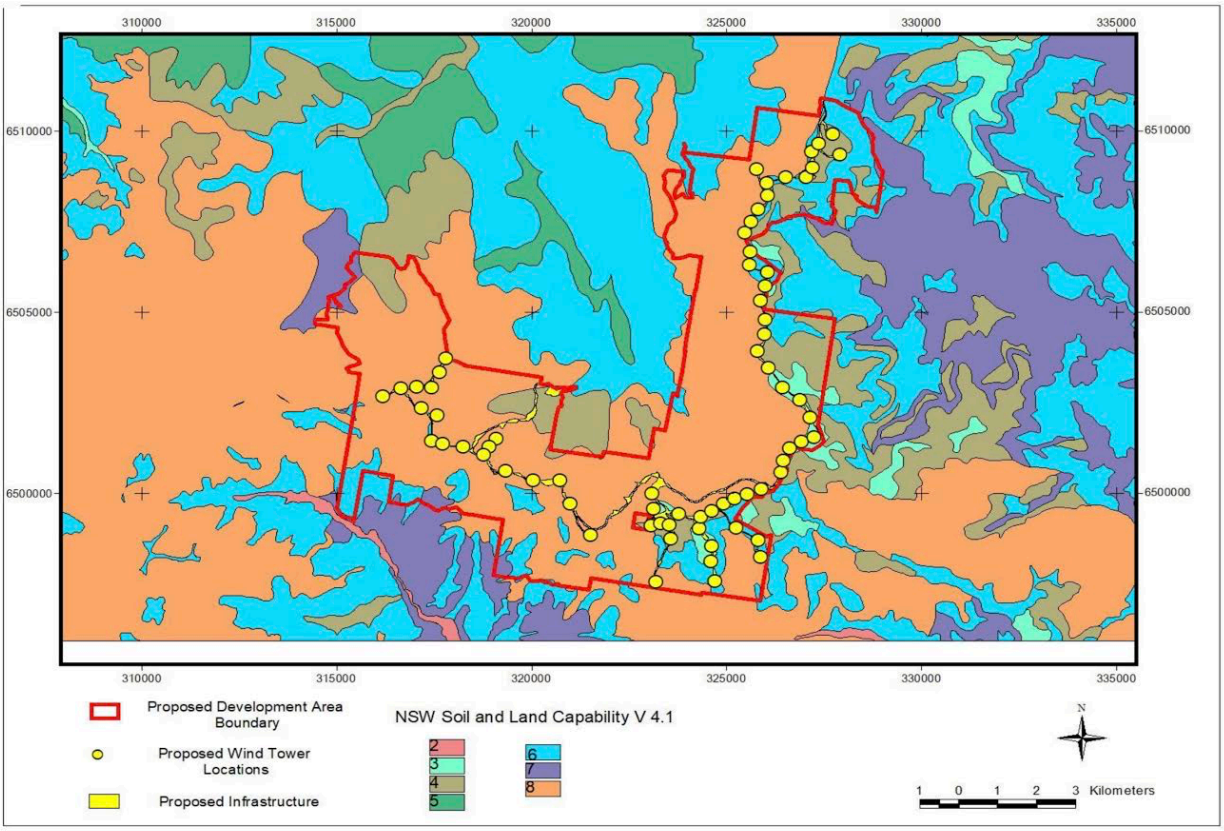


Figure 2: Corrected LSC mapping with broad development footprint provided by SOMEVA

From Appendix 1.0 - Soil, Dr Robert Banks' corrected LSC mapping

This raises concerns about the stability of the soil for industrial structures and roads, the suggestion that turbines and roads will be built on flat land, the additional risk posed by tree clearing, and the effect that disturbing such soils might have on the water quality in the catchment.

The cost of building on mass movement prone land to a high standard could add hundreds of millions of dollars and make the steeper areas prohibitive to develop.

Modelled rainfall surfaces for Nundle and surrounds indicates that the amount and intensity of rainfall within the Project Area is up to 50% higher than that provided for Nundle. Flooding of crossings used by heavy transport vehicles on the floodplain has been ignored and must be taken into account.

Areas covered in concrete pads and footings propose significant drainage and erosion hazard issues, aside from the placement of access roads.

Modelling of erosion hazards using soil information from 577km away from the proposed development is misleading, and statements and conclusions made in the EIS and Appendix O are incorrect.

There is no mention of moving soil and water-based pathogens between sites, including Ben Halls Gap Nature Reserve, and no plan for wash down facilities to avoid contamination of rare and endangered flora and fauna, weed spread, and movement of soil fungus affecting frogs.

The EIS is flawed in that it ignores the high erosion and mass movement risk of the soil and steepness of the slopes, influencing runoff velocity and complications where new roads would be required for access, preferring instead to infer that the soils are robust because Ferrosols dominate the project area.

The Class 8 soil of the proposed project area is unsuitable and unsafe for the proposed industrial wind farm development. The proposal is a risk to the environment, due to erosion concerns (especially when combined with clearing and disturbing 513 hectares), and a safety hazard to prospective employees, and surrounding landowners because of potential for mass movement and flash flooding.

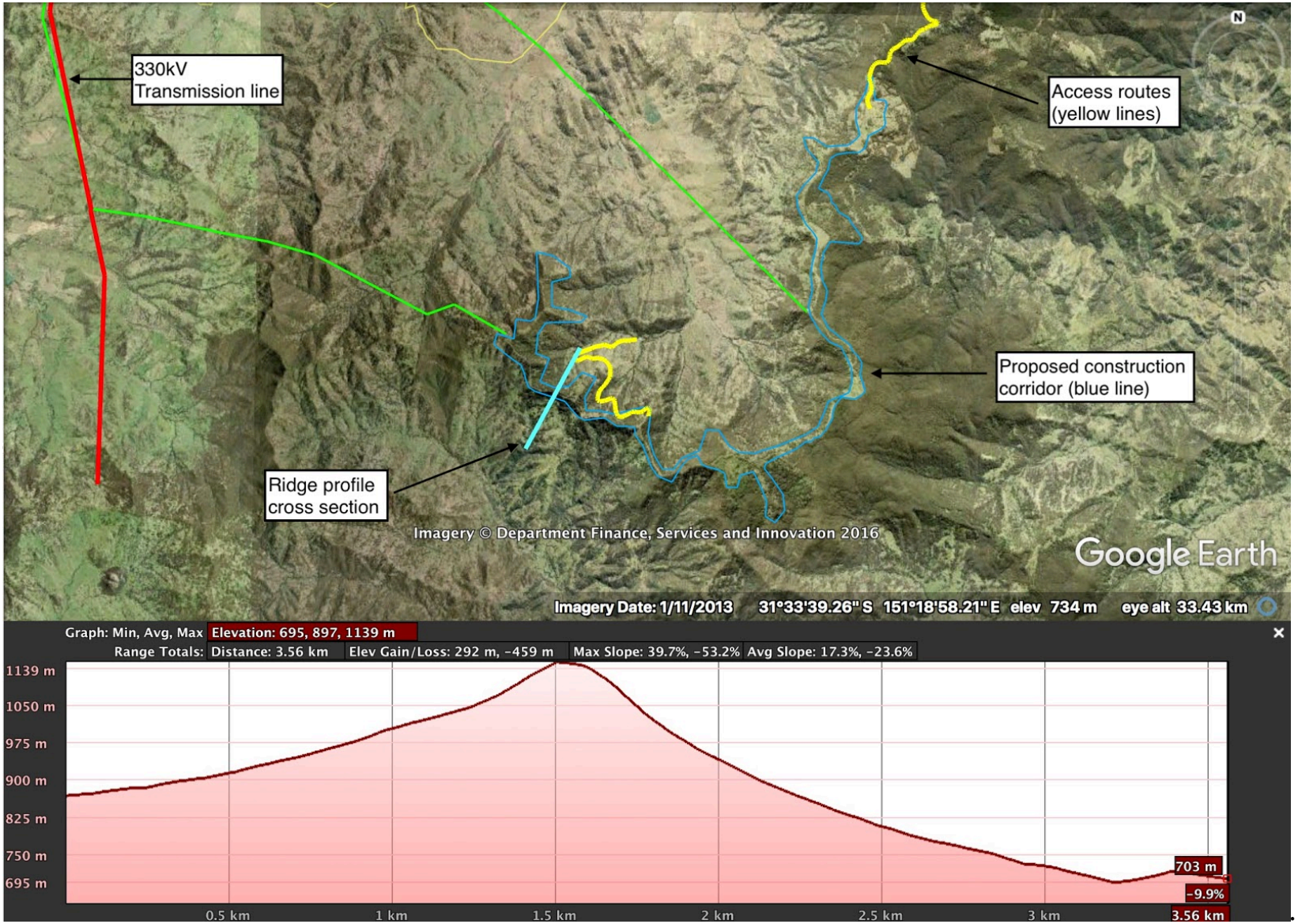
A study of the gradient of the slopes throughout the Project Area raises concerns about the earthworks, blasting, and engineering required to make the wind farm a reality. It also questions the applicant's claim that the majority of the proposal is located on flat land, and the geotechnical and engineering implications for the estimated capital expenditure, influencing the proposal's financial viability.

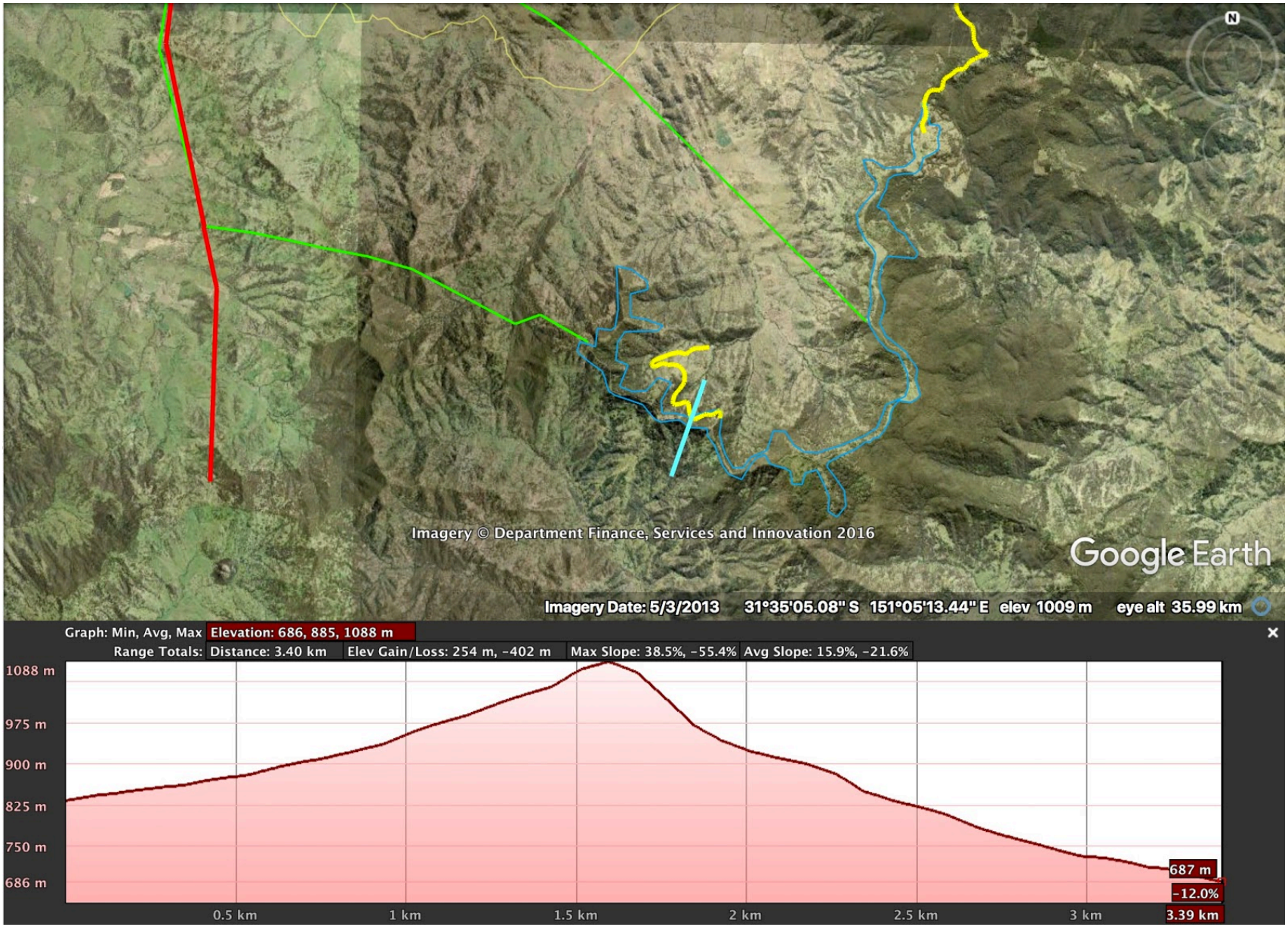
Images of multiple cross sections of the ridge are provided below, and it is evident from the data provided, that the gradient of the ridge on the Nundle side of the project ranges from 30% to 40% immediately below the crest. On the Southern (Hunter Valley) side of the project, the gradient ranges from 40% to above 50% and even 70% in one instance.

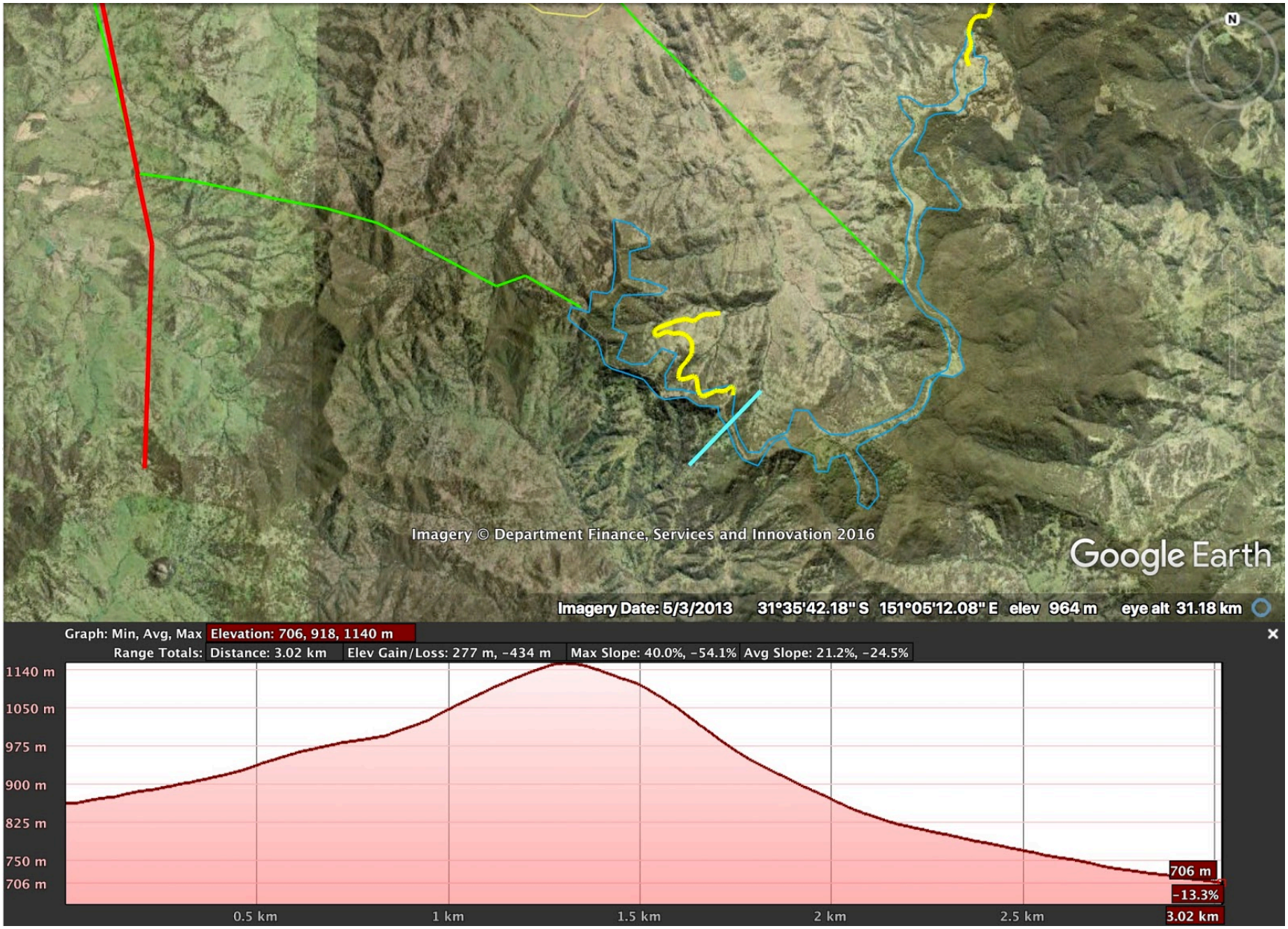
The elevation of the wind farm development corridor ranges from 1200 meters to 1400 meters ASL. The valley floor below and the elevation of Nundle is approximately 600 meters ASL.

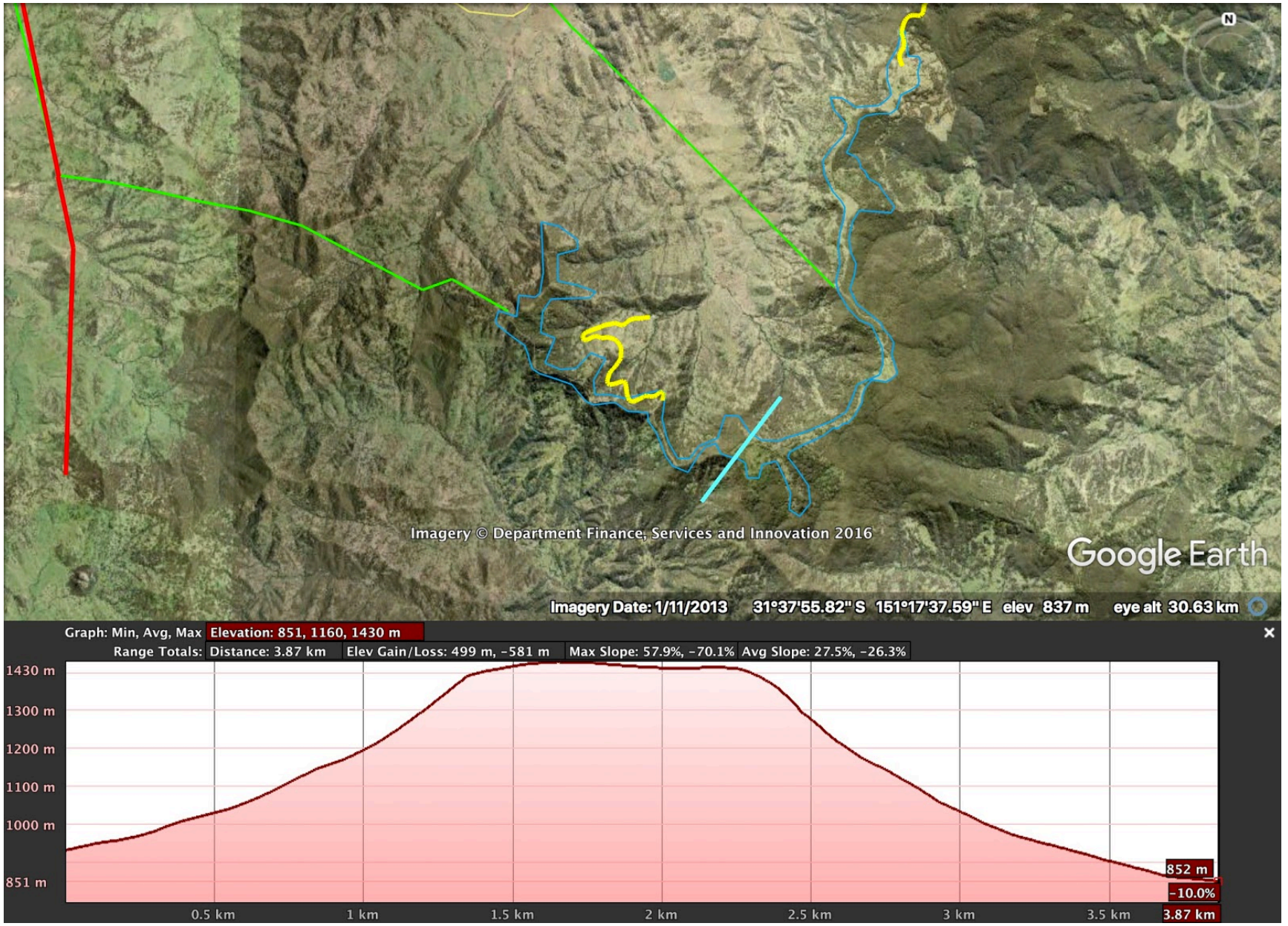
Should the proposal go ahead, the height of the turbine blades would be 800-1000m above Nundle village and surrounds and will dominate the landscape.

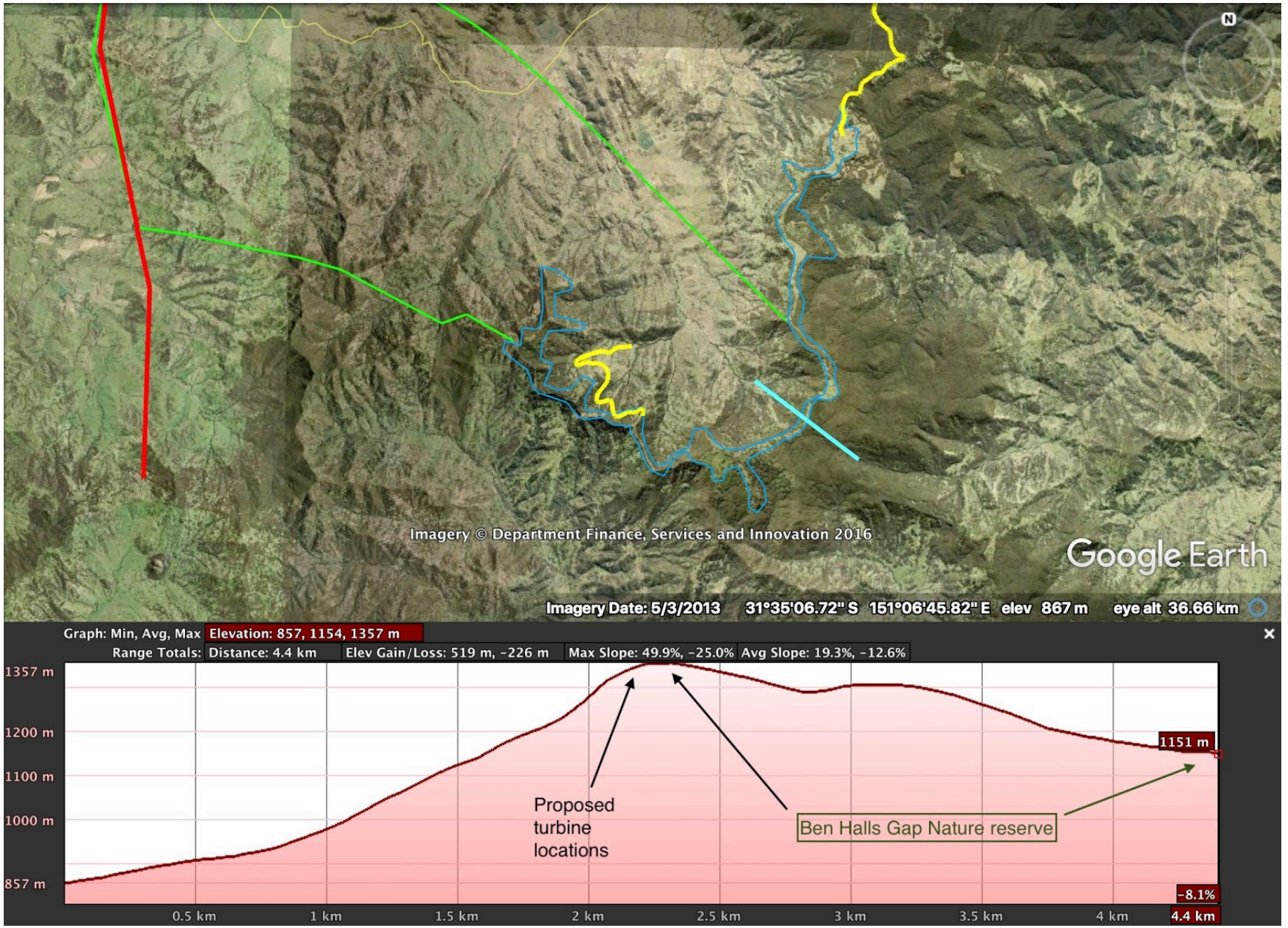
Access to the proposed Project Area is a major concern of HOGPI members, particularly roadside clearing necessary to negotiate Barry Road from Nundle to Hanging Rock, among the steepest gradient roads in NSW.


330kV
Transmission line
Access routes
(yellow lines)
Proposed construction
corridor (blue line)
Ridge profile
cross section
Imagery © Department Finance, Services and Innovation 2016
Google Earth
Imagery Date: 1/11/2013 31°33'39.26" S 151°18'58.21" E elev 734 m eye alt 33.43 km
Graph: Min, Avg, Max Elevation: 695, 897, 1139 m
Range Totals: Distance: 3.56 km Elev Gain/Loss: 292 m, -459 m Max Slope: 39.7%, -53.2% Avg Slope: 17.3%, -23.6%
1139 m
1050 m
975 m
900 m
825 m
750 m
695 m
0.5 km
1 km
1.5 km
2 km
2.5 km
3 km
3.56 km
703 m
-9.9%


N
Imagery © Department Finance, Services and Innovation 2016
Google Earth
Imagery Date: 5/3/2013 31°35'05.08" S 151°05'13.44" E elev 1009 m eye alt 35.99 km
Graph: Min, Avg, Max Elevation: 686, 885, 1088 m
Range Totals: Distance: 3.40 km Elev Gain/Loss: 254 m, -402 m Max Slope: 38.5%, -55.4% Avg Slope: 15.9%, -21.6%
1088 m
975 m
900 m
825 m
750 m
686 m
0.5 km
1 km
1.5 km
2 km
2.5 km
3 km
3.39 km
687 m
-12.0%


N
Imagery © Department Finance, Services and Innovation 2016
Google Earth
Imagery Date: 5/3/2013 31°35'42.18" S 151°05'12.08" E elev 964 m eye alt 31.18 km
Graph: Min, Avg, Max Elevation: 706, 918, 1140 m
Range Totals: Distance: 3.02 km Elev Gain/Loss: 277 m, -434 m Max Slope: 40.0%, -54.1% Avg Slope: 21.2%, -24.5%
1140 m
1050 m
975 m
900 m
825 m
750 m
706 m
0.5 km
1 km
1.5 km
2 km
2.5 km
3.02 km
706 m
-13.3%


N
Imagery © Department Finance, Services and Innovation 2016
Google Earth
Imagery Date: 1/11/2013 31°37'55.82" S 151°17'37.59" E elev 837 m eye alt 30.63 km
Graph: Min, Avg, Max Elevation: 851, 1160, 1430 m
Range Totals: Distance: 3.87 km Elev Gain/Loss: 499 m, -581 m Max Slope: 57.9%, -70.1% Avg Slope: 27.5%, -26.3%
1430 m
1300 m
1200 m
1100 m
1000 m
851 m
852 m
-10.0%
0.5 km
1 km
1.5 km
2 km
2.5 km
3 km
3.5 km
3.87 km


N
Imagery © Department Finance, Services and Innovation 2016
Google Earth
Imagery Date: 5/3/2013 31°35'06.72" S 151°06'45.82" E elev 867 m eye alt 36.66 km
Graph: Min, Avg, Max Elevation: 857, 1154, 1357 m
Range Totals: Distance: 4.4 km Elev Gain/Loss: 519 m, -226 m Max Slope: 49.9%, -25.0% Avg Slope: 19.3%, -12.6%
1357 m
1200 m
1100 m
1000 m
857 m
1151 m
Proposed turbine locations
Ben Halls Gap Nature reserve
-8.1%
0.5 km
1 km
1.5 km
2 km
2.5 km
3 km
3.5 km
4 km
4.4 km

REQUESTED ACTIONS – SOIL

- **redo Soil and Water Assessment based on correct Land and Soil Capability mapping, paying particular attention to Class 8 soil, high erosion and mass movement risk.**
- **conduct on site soil survey and use results in modelling of erosion hazards.**
- **use Hanging Rock rainfall modelling (up to 50% higher than Nundle Post Office) and use figures to inform runoff and erosion mitigation.**
- **address potential for moving soil and water-based pathogens between sites (including Ben Halls Gap Nature Reserve).**
- **incorporate wash down facilities to avoid contamination or rare and endangered flora and fauna, weed spread and fungus movement affecting frogs.**
- **address potential impacts of flooding, particularly on floodplain crossings needed for heavy transport vehicles.**
- **take into account the gradient of the site in engineering of road realignment, internal access roads, wind turbine and associated infrastructure construction.**
- **modify wind turbine and site layout based on high erosion and mass movement risk.**
- **incorporate Class 8 soil high erosion and mass movement risk implications for road and wind turbine, and other infrastructure, into Capital Investment Value Report.**

2.0 TRANSPORT

The EIS does not provide satisfactory evidence that the proponent can safely transport turbine components, overcoming the steep gradients of the range, without adverse biodiversity and heritage impacts, at the northern and southern access points of the project area. This report is flawed with inaccurate information and irrelevant data. The report does not clearly define the exact route to turbine locations and fails to prove whether Volume Capacity ratio is within NSW Transport guidelines.

There are a total of six transport routes identified in TTPP's Transport Assessment and all are causing safety and traffic flow concerns within the local community.

The hairpin bends on Devil's Elbow, Barry Road on the Hills of Gold Wind Farm proposed Transport route. "…with a gradient exceeding 10 %, this would make the procedure a very high risk…" Transport Route Assessment, page 159.

PREFERRED ROUTE 1 (NORTHERN ROUTE) DEVIL'S ELBOW BYPASS

Route 1 Preferred (northern) Route is estimated to carry 80% of traffic for standard light and heavy vehicles and NOT the primary route for blades and towers. (Appendix G pg.28 & pg.39) "The main route would be the northern route via Oakenville Street, Old Hanging Rock Road, Barry Road and Morrisons Gap Road. Upgrades required at each intersection, construction of a layby and a deviation to bypass Devil's Elbow on Barrys Road and the improvement and sealing of Morrisons Gap Road.

To negotiate the steeper sections of Barry Road may require multiple prime movers in a push pull arrangement. This may also require an area for staging the trucks or temporary closure of Barry Road to minimise impacts on existing traffic."

The Transport Route Assessment by Rex J Andrews Engineered Transportation states (page 159) "Barry Road has a section of road known as the Devil's Elbow. These hairpin corners are on a steep gradient and would not accommodate loads over 25 meters in length. There is a possibility that if the blades were placed in lifters at Nundle then transported up the range using this methodology, that they may negotiate this tight section of road, however these turns are on very tight corners with a gradient exceeding 10 %, this would make the procedure a very high risk. It is unlikely that the towers and the motors could pass through this section of road. To the west and east of the Devil's Elbows the road will need to be widened on a few corners, this would include hardstand and tree removal."

The Assessment states that the Devil's Elbow is not viable without significant realignment and modification (page 145). HOGPI members are concerned that the EIS does not provide adequate detail regarding the proposed realignment and modification, requiring a new private road involving substantial clearing of native vegetation. The map in the EIS does not clearly show where the new private road is proposed. It doesn't describe how long or wide it is, whether consent is in place by the relevant government authority, the area of land to be cleared, biodiversity impacts, detailed heritage impacts, potential blasting, the gradient it will climb, construction noise disturbance to residents at Hanging Rock or the surrounding valley. Five members of HOGPI inspected the area, and three members walked the vicinity of the realignment utilising existing tracks on Friday, January 22nd, 2021. The area is heavily timbered, difficult to walk steep country, with rock outcrops. Nearby Two Mile Walk fire trail is no longer in use due to scree from The Hanging Rock and logs covering the trail following a following a land slip.

Figure 3.32: Devil's Elbow Realignment Preferred Option

Source: TTPP Swept path

The rare Eucalyptus oresbia, a listed Threatened Species, is shown to occur in a restricted area between Nundle and Hanging Rock, the proposed location of the Devil's Elbow realignment.

What will be the impact to Hanging Rock Lookout and Log Cabin Picnic Area that are popular tourist destinations and Instagram/photography locations with images shared on @NundleNSW #NundleNSW. Yes, anything is possible, a new private road could be constructed here, but at what environmental, heritage, and potentially human cost? It is also worth noting the additional cost of a new private road is NOT included within the Capital Investment Valuation Report. With wind turbines likely to be removed due to environmental and human impacts, and the capital expenditure underestimated from the get-go with 33 exclusions, at what point does Hills of Gold Wind Farm become unviable and at risk of becoming a zombie wind farm, never to be built?

HOGPI members ask that DPIE physically inspect this proposed steep new private road to judge its viability before determination and obtain expert geotechnical and engineering assessments. The estimated construction cost of the Devil's Elbow bypass must be included in the Capital Investment Valuation Report.

ROUTE 2 (SOUTHERN ROUTES)

Route 2 Alternate (southern) is estimated to carry 20% traffic for standard and heavy vehicles and is the primary route for oversize and over mass vehicles for blades and towers. There are a total of five routes proposed:

1. "**The southern alternative route** would turn left from Oakenville Street to Jenkins Road to Crawney Road and Head of Peel Road. An additional variation to the alternative route would use Heron Street and Innes Road then turn right into Jenkins Street to avoid the centre of town, this is shown in Figure 3.4." (Appendix G pg. 29) *N.B. there are description errors on page 29. The turn from Oakenville Street should state 'right' not 'left'. Also 'Herron St' does not exist in Nundle, so we assume it should read "Herring St')*

2. "…**The route for blades and towers** uses a route that travels through Nundle on Oakenville Street, Old Hanging Rock Road, Happy Valley Road, River Road, Jenkins Street, Crawney Road and Head of Peel Road (see Figure 3.39)." (Appendix G pg.39)

3. **"Smaller heavy vehicles** would turn right directly onto Jenkins Street." (Appendix G pg.39)

4. **"Alternative to this a further option** is considered that would use Herring Street, Innes Street, Gill Street, Point Street then south on Crawney Road to Head of Peel Road (see Figure 3.45 and Figure 3.46)…"(Appendix G pg. 39)

5. **Another further alternate route for shorter trucks:** "Shorter trucks would be able to bypass the centre of the town by turning into Herring Street and Innes Street then Jenkins Street to Crawney Road and Head of Peel Road. This route is shown in Figure 3.8."(Appendix G pg.40)

HOGPI members request a realistic breakdown of the percentage of traffic each of the proposed six routes is estimated to carry on a daily basis during construction and operational period.

The Transport Assessment for traffic impact and generation has been prepared based on the following assumptions:

Assumption 1:

"2.5 Existing Volumes: Traffic volumes were provided by Tamworth Regional Council for Lindsays Gap Road from 23 August 2018 and at other locations on 18 August 2019. These dates were before the current Covid-19 restrictions and associated reduction in traffic volumes generally across the road network."(Appendix G pg.14)

Traffic volumes used to provide Existing Traffic data requires clarification. It does not state whether the data for Lindsay Gap Road was averaged over a 12 month period or taken from data for one specific date 23 August 2018. Nundle and Hanging Rock are tourism destinations and therefore data collected for Existing Traffic 'at other locations' for a one day period 'on 18 August 2019' is unacceptable. The Proponent has been given a two year period to collate this data.

Assumption 2:

"The assessment of traffic capacity has been based on the volume capacity ratio (V/C), rural road level of service and the Environmental Capacity for urban areas based on the RTA (2002) Guide to Traffic Generating Development. The V/C ratio indicates the level of congestion by comparing the forecast traffic volumes to the theoretical lane capacity. For this assessment, the rural roads are assumed to have a capacity of 1000 vehicles / hour / lane. As V/C ratios approach 0.9 it should be expected that flow would become significantly interrupted. Rural Road Level of Service - source RTA Guide to Traffic Generation Developments 2002"(Appendix G pg.20). TTPP's conclusion on Traffic Impact (Appendix G pg.92) has been based on an estimated V/C Ratio.

HOGPI members do not believe this calculation is accurate. Traffic impact assessed was based on this assumption to calculate V/C ratio for internal village roads such as Nundle Road, Oakenville Street, Barry Road and Jenkins Street. These are small rural town roads that cross through the centre of Nundle Village and are not within this "theoretical lane capacity". Crawney road has not been included in this assessment.

Assumption 3:

"To account for overtaking the level of service can be estimated based on the RTA Guide to Traffic Generating Developments table for the rural roads this is shown in Table 3.1. This is generally applicable for two-way two lane rural roads with a 100km/h speed limit." (Appendix G pg.21)

The Level of Service for this project identified in the EIS is currently Level of Service A. There is no data provided for this level in the RTA (2002) Guide to Traffic Generating Development. It is negligent that relevant transport data was not used to calculate an accurate level. The Level of Service has not been correctly assessed for the increase in traffic at the centre of town for Nundle and Hanging Rock which is not a two lane rural road with a 100km/h speed limit.

Therefore, the forecasted traffic volumes concluded by TTPP (Appendix G pg.92) for meeting the environmental capacity goals is questionable and should be reassessed using parameters that are appropriate for the location chosen for the project.

Assumption 4:

"3.3.1.1 Workers: Majority of staff would be coming from Tamworth, and it is assumed that they would mostly use the Nundle Road (90%) and 10% using Lindsay Gap Road. It is assumed that up to half of staff would be transported by 24-seater buses the rest would arrive in light vehicles (private or company). The preferred option for access to site from Nundle is to be via Barry Road and Morrisons Gap Road. Alternatively, up to 20% of people could travel to site via the alternate access route via Head of Peel Road."(Appendix G pg.24)

Travel assumption for the Workers travel unit is unrealistic and unreliable. The proposal to bus half the construction workforce from strategic accommodation in Tamworth – 60 employees – is an assumption with no rules to enforce this. How can employees be made to travel by bus? Furthermore, this concludes that these are FIFO workers. This has created a community misconception that local residents in Nundle and Hanging Rock will be employed from this project. It also gives the community a false impression that other employees will move to the area to increase economic activity and local school attendance in Nundle and Hanging Rock.

HOGPI members are concerned with the excessive increase in traffic movement during the construction period. (*N.B. The Transport Assessment estimate is based on the unrealistic assumption of busing 60 workers.)* Should the proponent insist on busing up 60 workers, HOGPI members request written contracts be provided for these workers to participate in travelling by bus with a clearly defined travel route and times for this bus service.

With questionable parameters used to assess the traffic impact (as detailed above in TTPP's Assumptions 3) and 4), HOGPI members prepared a simple calculation (Below Table 1) estimating the percentage (%) of increase in traffic movements going through Nundle and Hanging Rock Village based on figures provided in Appendix G, these results are catastrophic for the community and to the existing tourism industry:

Morning Peak Hour

Road	DIrection	Existing Volume (vph)		With Construction Volume (vph)		% of Increase in Traffic Volume One Direction (vph)	% of increase in Traffic Volume Bi-Directional (vph)
		Per direction	Bi-Directional	Per Direction	Bi-directional		
Nundle Road	Westbound	8	42	43	189	538%	450%
	Eastbound*	34		146		429%	
Oakenville Street (Barry Road)	Westbound*	17	38	47	156	276%	411%
	Eastbound*	21		109		519%	
Jenkins Street	Westbound	12	20	34	52	283%	260%
	Eastbound	8		18		225%	

Evening Peak Hour

Road	DIrection	Existing Volume (vph)		With Construction Volume (vph)		% of Increase in Traffic Volume One Direction (vph)	% of increase in Traffic Volume Bi-Directional (vph)
		Per direction	Bi-Directional	Per Direction	Bi-directional		
Nundle Road	Westbound	53	66	161	209	304%	317%
	Eastbound	13		48		369%	
Oakenville Street (Barry Road)	Westbound*	1	18	129	184	12900%	1022%
	Eastbound	17		55		324%	
Jenkins Street	Westbound	10	28	20	60	200%	214%
	Eastbound	18		40		222%	

Above Traffic volume (vph) are based on information provided in Appendix G Table 3.7 pg.31 and Figure 2.16 pg.17, Figure 2.18 pg.18)

** HOGPI recognises errors made by TTPP in Appendix G : Table 3.7 pg.31 when reviewed against Figure 2.16 pg.17 and Fig 2.18 pg.18*

HOGPI members request a new Traffic impact Assessment based on realistic road assumptions for the town. Alternatively, if the applicant intends to reconstruct the village roads to reflect the project assumptions based on this report, we ask that the cost of these road upgrades must be included in the Capital Investment Valuation Report.

There is a significant increase to existing traffic volume (as per Table 1 above) with six different proposed transport routes. The types of Wind Farm Vehicles travelling through Nundle and Hanging Rock Village identified in the EIS 3.3.4: Over Size and Over Mass (OZOM) vehicles; heavy vehicles up to 19m semi-trailers and B-Doubles (standard vehicles), 'truck and dogs', Concrete Trucks and Water Tankers. Light vehicles comprising light trucks for smaller deliveries and cars, four-wheel drives and utility vehicles attributed to Project personnel will also access the Project Area during construction and operation of the Project. It is anticipated that there will be construction traffic dispersed in all directions congesting every main street in the town centre. HOGPI members are concerned about road safety and that the ambience and

tranquillity of the village will be disrupted for a number of years while the wind farm is constructed.

Impacts of the Wind Farm Traffic plans for and on Village life.

- All Wind Farm Construction traffic will pass through the Centre of the Village
- No Transport assessments on Road Safety analysis for Nundle Village safety hotspots that include Nundle Post Office, Nundle Community Health Centre, Tamworth Regional Council Office and Public Library, Fossickers' Tourist Park, Nundle Fuel and Cafe Petrol outlet, Nundle Public School, Nundle CWA Pre-School, Nundle Friendly Grocer Food Store, Nundle Woollen Mill, Sacs on Jenkins, Odgers and McClelland Exchange Stores, Stormcrow Studio, Jenkins Street Antiques and Fine China, Nundle Craft, Old Church Boutique, Jenkins Street Guest House, Hills of Gold Motel, The Peel Inn, The Birches B&B, Mount Misery Gold Mine Cafe and Guest House, Machina Coffee and Donuts, Nundle Swimming Pool and Children's Playground, Nundle CBD crossroads and intersections, Nundle Recreation Ground, Riverside walk and cycle path, Disability parking and disability footpath ramps, Local Catholic and Presbyterian Church and to Hanging Rock village
- Wind Farm Parking restrictions will be put in place.
- Wind Farm Road Closures will be introduced.

The RTA (2002) Guide to Generating Traffic Developments emphasised under Section 1 Policies and Issues; the importance for the proponent to address "Maintaining Safety Standards" for the community. Nundle is a small village with 50km/h speed limit, no traffic lights or roundabouts. HOGPI members recognise that the proponent has failed to fulfil a key issue identified by the proponent for "Increased traffic volumes and safety for residents" (EIS Table 7.5 pg.135.), and the impacts of which have been totally ignored in the Transport Assessment of the EIS.

The School Bus route has been incorrectly identified in the EIS (EIS 12.3.4. pg.233). The Bus travel times for Nundle is morning 6.30am to 9am and afternoon 3pm to 5.30pm. Failure to identify the correct local bus operational times is negligent and does not provide accurate Transport Traffic management in providing road safety for the children in our community. The proposed peak construction times identified directly coincides with the School Bus travel times.

Postal delivery is an essential service in town. Posting and collecting mail are from Nundle Post Office (there is no letterbox delivery in Nundle village, all village mail is collected from the post office Monday-Friday on Oakenville Street, usually sorted by midday). Mail delivery travel route has not been considered in the assessment. This service operates weekdays on rural roads

surrounding Nundle and Hanging Rock and also between Nundle and Tamworth. A large percentage of local businesses rely on our postal service for their online businesses. Delays in deliveries to service clients outside the area is detrimental to viability of operating online stores.

“No parking exclusion zones” are proposed for Oakenville Street and Jenkins Street as well as extensive tree removal across the entire transport route and possible removal or lowering of median strips on Jenkins/Oakenville Street. Not enough detail has been provided for the state government to assess the impact on the local community in a key local traffic area surrounded by essential services and tourism economy.

Day Time Traffic. Traffic ‘evenly dispersed’ ‘as possible’ and ‘where possible’ outside morning and afternoon peak hours (EIS 10.4.4 pg.184) and ‘road closures’ ‘will be avoided during school peaks ‘where possible’. (EIS 12.6.3 pg. 244). Heavy Vehicles restricted to daylight hours. (EIS 12.6.3 pg.244) This is not compatible with the needs of the pre-existing tourism economy that currently trades on peace and quiet, heritage, and the rural character of the village. It does not address the needs of tourists towing caravans to enter and exit the tourist park, or park on Jenkins and Oakenville Streets.

0.0 : Oakenville Street at Nundle.

170 Metre rotor and 158 Metre rotor:

PROCEDURE: Travel directly ahead on Oakenville Street.

GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/7YM56hQq8bnCSoZy8

COMMENTS: Blades to travel directly ahead on the correct side of the road. A no parking exclusion zone will need to be placed on the left-hand side while travelling through this intersection. Two signs will also need to be made removable.

ROAD MODIFICATIONS: Small amounts of work are required.

Indication of wind turbine blade transport through main intersection on Oakenville Street, Nundle village

3.5 Km: Jenkins Street through Oakenville Street at Nundle.
170 Metre rotor and 158 Metre rotor:

PROCEDURE: Travel directly ahead on Jenkins Street.
GPS LINK FOR SECTION OF ROAD: https://goo.gl/maps/YyGbrPmDguBFQT219
COMMENTS: Blades to travel directly ahead on the correct side of the road. A no parking exclusion zone will need to be placed on the left-hand side prior to and after Jenkins Street while travelling through this intersection.
ROAD MODIFICATIONS: Small amounts of work are required.

Indication of wind turbine blade transport through the main intersection on Jenkins Street, Nundle village.

HOGPI members request a thorough and realistic Traffic Safety Plan to be prepared by the applicant with utmost considerations given in maintaining safety to residents and tourists in Nundle and Hanging Rock.

Community Consultation on the Transport and Traffic Plan has been sub-standard. Despite repeated requests at Hills of Gold Wind Farm CCC meetings for details of the Traffic and Transport Plan, it was outlined briefly in a PowerPoint presentation at the October 29th 2020

meeting. Detailed mapping and description was only available when the EIS was Publicly Exhibited on Wednesday, December 2nd, 2020. A community member requested more detail about the proposed Nundle village routes because the Nundle village map provided in the presentation was so small. There was limited opportunity for understanding and commenting on the proposed routes at the CCC meeting because detail was only provided in the online EIS. Hard copies were available at restricted times at Nundle Library, part-time applicant community hub, and HOGPI pop-up office. Section 3.5.3 Intersection Capacity states that there is spare capacity in the village intersections and intersection modelling is "not warranted". However, for the understanding of impacts by the community, intersection modelling is warranted, in fact insisted upon on behalf of the community.

Residents are calling into the HOGPI pop-up office in Jenkins Street during December 2020 and January 2021 and they are unaware of the transport routes proposed using Oakenville, Barry Rd and Morrisons Gap Rd to the north of the site, and Oakenville, Happy Valley and River Roads and Jenkins Street, (and Innes, Gill, and Point Streets) and Crawney Road to the southern site. Residents are unaware of the number of proposed vehicle movements. Some residents' properties are identified for road access, blade trespass, fence removal, and tree removal in the Traffic and Transport Assessment and they have not been contacted, or haven't given consent. There is anxiety in the community about the prospect of compulsory acquisition of land for the transport route. This was clarified with DPIE, however anxiety remains about whether Tamworth Regional Council can compulsorily acquire land to facilitate the proposal. The EIS states that Hills of Gold Wind Farm representatives have discussed realignment of roads to enable access to the project area with Council's professional staff. Does this mean Council will realign roads to facilitate a private development (even if it is at the developer's expense)?

Section 3.7.5 of the Transport Route Assessment does not clearly depict the impacts on residents at key corners, with houses on the eastern corner of Herring and Innes, and south of the Gill and Point Street intersection, obscured by the indicative blade sweep. An owner of land on the eastern intersection of Innes/Gill Streets had not been contacted by the applicant at the time of EIS lodgement.

Figure 3.46: Wind Blades Swept Paths Alternative Route South (Part 2)

Figure 3.45: Wind Blades Swept Paths Alternative Route South (Part1)

Oakenville Street, Herron Street, Innes Street and Jenkins Street, Nundle

Gill Street and Point Street, Nundle

The National Wind Farm Commissioner's Annual Report 2019 (page 25) refers to the issue of blade trespass, "where a turbine blade may need to traverse a landowner's property boundary when being transported around a bend in the road, and 'sway easements', where a powerline may sway over a landowner's property boundary. The recent increase in blade lengths has increased the possibility of 'trespass' occurring. Developers and their contractors need to be cognisant of these types of issues and ensure they have appropriate agreements in place with landowners prior to submitting permit application plans such as the transport management plan or transmission route plan."

The Transport Route and Site Access Option neglects to address the issue of Blade Trespass. It does state that the largest blades transported to date are 67m, and Engie proposes transporting blades 65.4m and 82m. HOGPI members note that in communication between

Transport of NSW (TfNSW) and TTPP on 25 September 2020 (Appendix G: Appendix C: Stakeholder Consultation: Transport of NSW); TfNSW states: "BLADE SIZE 12. The largest blade movement for a wind farm project in NSW to date has been for 67 metre long blades. These blade lengths have used the proposed route out of Newcastle Port without incident for several wind farms. The report has proposed the transportation of two different blade lengths of 65.4 metres and 82 metres. The information provided does not clearly indicate whether the Project consists of two different sized blades or whether the DA will be seeking approval to use the smaller or larger sized blades only. In that respect the final EIS, and TIA will need to clearly define the proposed blade length for the Project and be supported by a thorough Transport Management Plan (TMP)."

There are numerous pinch points along the proposed Hills of Gold Wind Farm transport route/s and Development Footprint where the applicant requires the consent of landholders to trespass their land to transport wind turbine components, or access the site. HOGPI members and supporters are among many known landholders who have refused to grant the applicant access to their properties. This action is a conscious protest against the proposal. We ask that DPIE investigate the level of landholder consent along the proposed transport routes. There is no layout or detail in the EIS about the clearing and earthworks required to transition from public to private land at the northern and southern ends of the proposed project area, or the 48km of access roads within the project area. A site visit is planned for the Hills of Gold Wind Farm CCC, however five of the 11 community members have been banned from the visit and will not have the benefit of understanding the terrain, or clearing and earth work required to upgrade roads and build infrastructure.

The Southern Route of the project concerning Head of the Peel road has not been detailed in the Transport Assessment.

HOGPI members request that landholders consent for blade and property road trespass must be given in formal agreement to the proponent prior to any further consideration of the project to proceed to the next phase of DPIE assessment. Furthermore, we request the applicant confirm the exact blade length for this project and that a thorough Transport Assessment be prepared for Head of Peel Road and associated costs must be included in the Capital Investment Valuation Report.

REQUESTED ACTIONS – TRANSPORT

- **provide satisfactory evidence for safely transporting turbine components, overcoming the steep gradients of the range, without adverse biodiversity and heritage impacts, at the northern and southern access points of the Project Area.**
- **HOGPI members ask that DPIE physically inspect the proposed steep realignment/new private road to judge its viability before determination and obtain expert geotechnical and engineering assessments.**
- **include the estimated construction cost of the Devil's Elbow realignment in the Capital Investment Valuation Report.**
- **provide a realistic breakdown of the percentage of traffic each of the proposed six routes is estimated to carry on a daily basis during construction and operational period.**
- **provide a new Traffic and Transport Impact Assessment based on realistic road assumptions for the town. Alternatively, if the applicant intends to reconstruct the village roads to reflect the project assumptions based on this report, we ask that the cost of these road upgrades must be included in the Capital Investment Valuation Report.**
- **Confirm through written contract that 60 workers will be travelling by bus.**
- **provide a thorough and realistic Traffic Safety Plan to be prepared by the applicant with utmost consideration given to maintaining safety for residents and tourists in Nundle and Hanging Rock.**
- **provide intersection modelling to enable the local community to understand the transport impact of the proposal on their main street**
- **provide landholders' consent for blade and property road trespass prior to any further consideration of the project proceeding to the next phase of DPIE assessment.**
- **confirm the exact blade length for the project.**
- **provide a thorough Transport Assessment for Head of Peel Road.**
- **Include associated costs in the Capital Investment Valuation Report.**

3.0 ENVIRONMENT

HOGPI members are concerned about the risk of the applicant's J-shaped amphitheatre of wind turbines at the head of three river catchments to threatened plants and animals, soil erosion and mass movement, and water quality and quantity.

The proposed wind farm development area is located between Crawney Pass National Park and Ben Halls Gap Nature Reserve, providing an important link and wildlife corridor between these two areas of undisturbed habitat. The biodiversity corridor is further enhanced by Wallabadah Nature Reserve, State Forests, Back River Nature Reserve and Tomalla Nature Reserve providing a link eastwards to the wilderness areas from the Hunter Valley to the Queensland Border. The Project Area is 45km from Barrington Tops National Park.

Part of the northern section of the Hills of Gold Wind Farm project area during CCC site visit in February 2020.

This is not the first time there has been a fight over whether this area is an economic or environmental resource. Ben Halls Gap Nature Reserve was gazetted in 1995 and reserved as a

scientific reference nature reserve after a campaign for its protection from logging - even involving singer songwriter John Williamson. Back then environmentalists recognised it as a unique wilderness area that should be kept untouched for future generations. Hills of Gold Preservation Inc members are continuing this fight in a different decade.

The management plans for Ben Halls Gap Nature Reserve and Crawney Pass National Park detail the environmental significance of the parks, in particular their role in protecting Threatened Ecological Communities and sub-alpine species. (Please refer to the links below)

Crawney Pass National Park Management Plan

Ben Halls Gap National Park Management Plan

Environment Climate Change and Water - National Parks and Wildlife Service

Ben Halls Gap Nature Reserve is a IUCN Category 1a - Strict nature reserve. A strict nature reserve is an area set aside to protect biodiversity and geological/geomorphological features, where human visitation, use and impacts are strictly controlled and limited to ensure protection of the conservation values. Such protected areas can serve as indispensable reference areas for scientific research and monitoring.

The EIS does not reference significant species in, or the protection required for Ben Halls Gap Nature Reserve or Crawney Pass National Park.

The EIS outlines 13 wind turbines along the boundary of Ben Halls Gap Nature Reserve. Unlike the Preliminary Environmental Assessment that specified a 91m set back from the reserve, the EIS only states that “an appropriate buffer must be maintained with the National Park Estate where practicable” (Appendix D Biodiversity Development Assessment Report pg.278). Ecologist Phil Spark suggests remnant open forest with a high abundance of threatened species should be buffered by at least a 500m setback. He expects 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.

We attach a link to a letter from OEH commenting on the determination of Bango Wind Farm application: IPCN OEH Comment on the determination of Bango Wind Farm

Of note are recommendations for:

- a buffer of 500m around Wedge-tailed Eagle nests
- a distance of at least 50m from the blade tip to the canopy of hollow bearing trees to reduce the blade-strike risk to birds and bats (likely to be between 75 and 100m direct distance between the tree and the turbine).

The ecological impacts of proposed Hills of Gold Wind Farm have been an issue since the first community meetings in February 2018. HOGPI engaged respected ecologist Phil Spark to review the Preliminary Environmental Assessment lodged in November 2018. Details of Mr Spark's review were provided to the proponent at the September 2019 Hills of Gold Wind Farm CCC meeting, and as part of a submission to the EPBC Act Referral.

Ecologist Phil Spark states "Researchers recommend a distance of at least 80m from the blade tip to the canopy of hollow-bearing trees to reduce the blade-strike risks to birds and bats". The Hills of Gold Wind Farm EIS specifies a minimum 36m clearance from the canopy top to the blade tip. HOGPI members request that the distance from blade tip to canopy is increased to at least 80m.

The southern cluster of turbines forms three fingers in an overlapping barrier of 27 turbines, placed unusually close together. This is a potentially dangerous and possibly impenetrable barrier for the raptors who nest in the Nature Reserve and hunt in the valleys below.

There is also a cluster of turbines about 1Km away from Crawney National Park (WP9-WP14) where the separation distance between blades is 100m-120m - making them even closer together than at Ben Halls Gap Nature Reserve.

The Reserve is the headwaters of three different river systems and has an important role in contributing clean waters to three different catchments, including the Peel River and Chaffey Dam (a major source of Tamworth's water supply).

HOGPI members are concerned that 513 ha will be disturbed or cleared for a renewable energy project transport route, wind farm, and transmission lines. Of this 42% or 206.7 ha is native vegetation, including obstructive trees along Nundle residential streets, Crown Reserves and Hanging Rock Recreation areas managed by TRC, rural roads, and properties, to transport wind turbine components, build 48km of internal access roads (including a logging track and transverse track across the mountain face), two concrete batching plants, hardstands for construction, wind turbine generators, operations and maintenance building, battery energy storage unit, substation, switching station, and parking/storage/laydown.

Within the transmission line route, requiring a 60m wide easement for 18.8km of transmission lines from the substation to connect to the grid and consisting of steeper terrain, 62% of native vegetation would be cleared. The applicant states that the clearing for the transmission line is temporary, however when old growth native vegetation is cleared it would take generations to replace vegetation and the biodiversity loss may never be restored in that area.

Of the native vegetation clearing, 50 hectares is koala habitat (HOGPI members have personally seen and photographed koalas on the ridgeline). The EIS states that it is not good quality koala

habitat. Shouldn't we be preserving all koala habitat for this vulnerable species? Other species impacted are microbats, Spotted Tailed Quoll, Booroolong Frog, and Greater Glider. Raptor species most at risk of collision are the Wedge Tailed Eagle, Nankeen Kestrel and Brown Goshawk.

It is concerning that the majority of native vegetation mapped is within the road upgrade areas adjoining the existing formed public roads on the transport route. The EIS identifies that curve realignments would be required on Morrisons Gap Road and Head of Peel Road to transport turbine components up existing steep roads.

It is unclear whether the proposed new private road, on Crown Land and Hanging Rock Recreation Reserve, to bypass Devil's Elbow has been assessed and included in biodiversity impacts. The rare Threatened Species E.oresbia is identified by OEH as most likely to occur in the area of the proposed private road. **HOGPI members request that the proponent provides evidence of biodiversity assessment.**

At several tight corners within the transport route, and along straight sections of road the applicant notes there will be need for trimming and tree removal. HOGPI members are concerned about the impact of trimming or removing trees to the amenity of residents and tourists. Trees within the village are a legacy of members of the former Nundle Garden Club, Upper Peel Valley Landcare, and past residents. They are enjoyed by residents and tourists and it is not acceptable to remove them. **HOGPI requests a detailed plan of tree trimming and removal across the proposed transport route.**

The EIS pg. 273 references a logging track as part of the Access Road and Road Network. No further detail is provided in the EIS regarding a logging track. **HOGPI members request further information about what the logging track is and what is required.**

The proponent states that clearing will be offset and there will be no net biodiversity loss. It is unacceptable that old growth trees, some examples pre-dating European settlement and others over 100 years old, could be cut down for a renewable energy project. Some of the flora, including some of the tallest snow gums in existence, are extremely rare because of the elevation and overlapping of bioregions. Proposed offsets, and rehabilitation do not replace old growth forest, remnant native vegetation, or threatened flora and fauna already under environmental stress. In 'Recommendations for Hills of Gold Wind Farm SEARS' ecologist Phil Spark writes, "Clearing will result in the loss of nesting sites, food sources, shelter sites, and foraging areas and cause species decline...Obtaining offset land remote to the impact area is not supported, nor is cash contribution to the government to obtain offsets."

In an extreme post drought and bushfire environment, in an environment with evidence of historical clearing, environmentalists are calling for conservation of remnant native vegetation,

making remaining habitat on the range even more important to the local ecosystem. Native vegetation extent is crucial to maintain biodiversity, further loss of extent must be avoided.

In the EIS, 8.3 Findings of Environmental Risk Assessment, pg.142 the proponent outlines an analysis of potential environmental and social risk, stating, “Biodiversity as well as landscape and visual impacts were assessed as presenting a high and very high level of risk respectively...Where appropriate mitigation and management measures have been developed to reduce the risk to as low as reasonably practical.” HOGPI members do not accept the mitigation and management measures proposed to reduce risk, preferring to preserve the old growth native vegetation which serves as habitat for threatened species and carbon sequestration.

The proponent/consultant suggests temporary impacts will be rehabilitated with native grasses, native shrubs and trees where possible (EIS 9.2.1 Study Area, page 143). HOGPI highlights that this is not replacing like for like, a suite of biodiversity would be lost as a result of the environmental impact of clearing and soil disturbance. The vegetation removed could not be replaced within many residents’ lifetimes.

HOGPI members are concerned that the five field studies conducted in November 2018, August 2019, November 2019, February 2020, and August 2020 have been conducted during the worst drought in living memory, and the final three field surveys during the most savage bushfire season in recorded history (9.1.1 Field Surveys, pg.144).

The EIS 9.1.2 Threatened Ecological Communities, pg.148, omits the known Threatened Ecological Community, Ben Halls Gap National Park Sphagnum Moss Cool Temperate Rainforest located adjacent to the Development Footprint on the western boundary of Ben Halls Gap Nature Reserve. The TEC requires additional protection from human disturbance, introduction of foreign materials carrying weeds, and increased risk of fire.

It is concerning that there is such a major discrepancy between the desktop review identifying 33 candidate threatened fauna requiring targeted surveys under the BAM and EPBC Act and the 17 threatened fauna species confirmed during the field studies (EIS 9.3.4 Threatened Fauna Species, pg.150).

Given that the five field studies were conducted in November 2018, August 2019, November 2019, February 2020, and August 2020 during the worst drought in living memory, and the final three field surveys during the most savage bushfire season in recorded history HOGPI members question their accuracy. Unlike the vegetation and flora studies, the EIS does not state the duration of the field studies.

Ecologist Phil Spark has identified 36 threatened flora likely to occur in the Nundle region. When the lists are cross referenced there are only seven species on the ARUP/BIOSIS list.

The EIS 9.3.3 Threatened Flora Species, pg.150, describes the presence of threatened flora species, Broad-leaved Pepperbush Tasmannia purpurescens. **HOGPI members request more in depth study of the north eastern section of the wind farm Project Area. Local knowledge suggests Threatened Fragrant Pepperbush (Tasmannia glaucifolia) is extensive between the northern Project Area and Morrisons Gap Road and could potentially be impacted by roadside clearing to enable access to the proposed Project Area.**

When the state government issued supplementary SEARS for proposed Hills of Gold Wind Farm it included a request for "Further information … to determine the extent of potential impacts to the following protected matters from impacts associated with transporting project components to the proposed site: Fragrant Pepperbush (Tasmannia glaucifolia) listed as vulnerable."

In a review of the Hills of Gold Wind Farm Preliminary Environmental Assessment Ecologist Phil Spark listed Broad-leaved Pepperbush Tasmannia Purpurescens (12 records) and Fragrant Pepperbush Tasmannia glaucifolia (1 record) as being observed in the Nundle area.

A Crown Lands water reserve at the head of McDivitt's Creek, from Morrisons Gap Rd to the proposed Project Area was widened by the major associated landholder in February, 2020.

Fragrant Pepperbush (Tasmannia glaucifolia)

February, 2020

A Crown Lands water reserve at the head of McDivitt's Creek was widened by the major associated landholder in February, 2020 and it is unknown what the biodiversity or environmental implications of this work were. It is unknown whether this recently widened track is proposed for access to the project area or whether a new road will be cleared and constructed. Clearing was reported to DPIE, OEH, and NRAR. It is believed Fragrant Pepperbush (Tasmannia glaucifolia) is common in this area. HOGPI members would like clarification about whether this is part of the proposed transport corridor and Fragrant Pepperbush (Tasmannia glaucifolia) is present. The southern section of Morrisons Gap Road, linking to the project area, is heavily timbered and again the community deserves to know more detail about the further clearing proposed and the threatened species at risk.

HOGPI members ask for a thorough search for Eucalyptus oresbia, listed as vulnerable in NSW, which has been observed neighbouring the proposed project area, and can sometimes look like Mountain Gum. The state government Threatened species profile identified it is "Restricted to a small area between Nundle and Hanging Rock in the southern New England Tablelands." Eucalyptus oresbia has been observed in the area proposed for the Devil's Elbow realignment.

https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10303

In 2008 Forestry Workers rediscovered specimens of the critically endangered herb species Euphrasia arguta in the Nundle State Forest (previously not collected or seen since 1904).

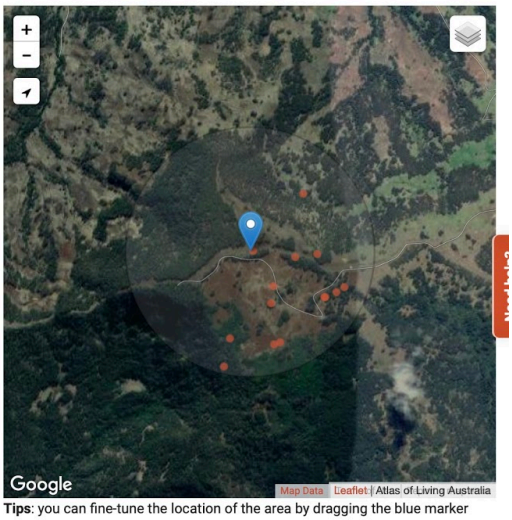
In addition, the Supplementary SEARS lists Astral Toadflax (Thesium australe), and Blackbutt Candlebark (Eucalyptus rubida subsp. barbigerorum) as likely to be significantly impacted.

Drone footage of the southern portion of the project area does show ongoing clearing on Wombramurra Mountain as recently as November and December, 2020.

Clearing is evident on Biophysical Strategic Agricultural Land and Class 8 Soil Capability Land in an area identified as the location surrounding the BESS, O&M, Met Mast Locations and Substation, and the location of Wind Turbine 21. This is before the DPIE has had a chance to assess the EIS, which would include Biodiversity Offset Requirements / Credits paid for by Engie to the NSW Government for land cleared. If a clearing permit has been issued on the basis of agricultural land use, is it then reasonable for NSW voters to accept that the cleared land is used for wind farm infrastructure? When does the tally start on Biodiversity Offset Requirements?

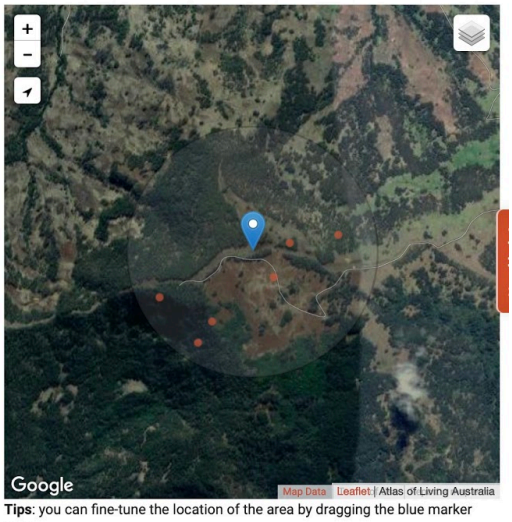
Atlas of Living Australia lists the following recorded species in the area concentrated around the proposed substation, O&M, BESS and turbine locations WP20, WP21, WP22, WP25, WP26, WP34, WP30.

Group	Species	Species : Common Name	Records
All species	79	1. *Austronomus australis* : White-striped Freetail-bat	1
Animals	**11**	2. *Chalinolobus gouldii* : Gould's Wattled Bat	1
Mammals	10	3. *Myotis macropus* : Southern Myotis	1
Birds	1	4. *Ninox (Ninox) novaeseelandiae* : Southern Boobook	2
Reptiles	0	5. *Petauroides volans* : Greater Glider	1
Amphibians	0	6. *Petaurus breviceps* : Sugar Glider	1
Fishes	0	7. *Phascolarctos cinereus* : Koala	1
Molluscs	0	8. *Pseudocheirus peregrinus* : Common Ringtail Possum	2
Arthropods	0	9. *Saccolaimus flaviventris* : Yellow-bellied Sheathtail-bat	1
Crustaceans	0	10. *Sus scrofa* : Pig	1
Insects	0	11. *Wallabia bicolor* : Swamp Wallaby	2
Plants	68		
Bryophytes	0		
Gymnosperms	0		
Ferns and Allies	1		
Angiosperms	67		
Monocots	17		
Dicots	50		
Fungi	0		
Chromista	0		
Protozoa	0		
Bacteria	0		
Algae	0		



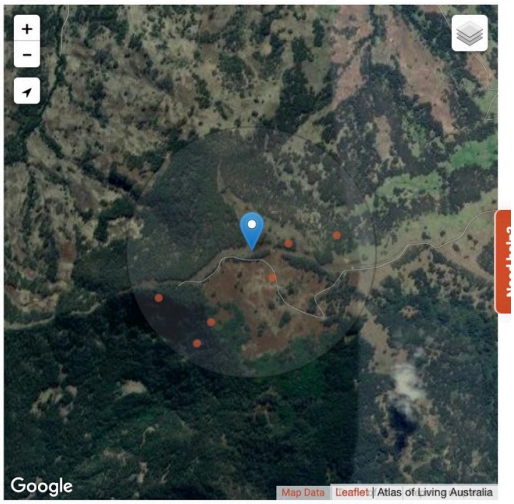
Tips: you can fine-tune the location of the area by dragging the blue marker icon

Group	Species	Species : Common Name	Records
All species	79	1. *Acaena novae-zelandiae* : bidibid	2
Animals	11	2. *Arthropodium milleflorum*	1
Mammals	10	3. *Billardiera mutabilis* : Apple Berry	1
Birds	1	4. *Brachyscome sieberi*	1
Reptiles	0	5. *Brachyscome spathulata*	1
Amphibians	0	6. *Carex incomitata*	1
Fishes	0	7. *Carex inversa*	2
Molluscs	0	8. *Cenchrus clandestinus*	1
Arthropods	0	9. *Cerastium glomeratum*	1
Crustaceans	0	10. *Chrysocephalum apiculatum*	1
Insects	0	11. *Cirsium vulgare* : Boar thistle	3
Plants	**68**	12. *Comesperma volubile*	3
Bryophytes	0	13. *Daucus glochidiatus* : Pinaki	1
Gymnosperms	0	14. *Desmodium varians*	1
Ferns and Allies	1	15. *Dianella caerulea* : Flax Lily	1
Angiosperms	67	16. *Dichondra repens* : Creeping dichondra	2
Monocots	17	17. *Dysphania pumilio*	2
Dicots	50	18. *Echinopogon mckiei*	1
Fungi	0	19. *Einadia nutans*	1
Chromista	0	20. *Einadia trigonos*	3
Protozoa	0	21. *Entolasia marginata*	1
Bacteria	0	22. *Eriochloa pseudoacrotricha*	1
Algae	0	23. *Eucalyptus nobilis*	1



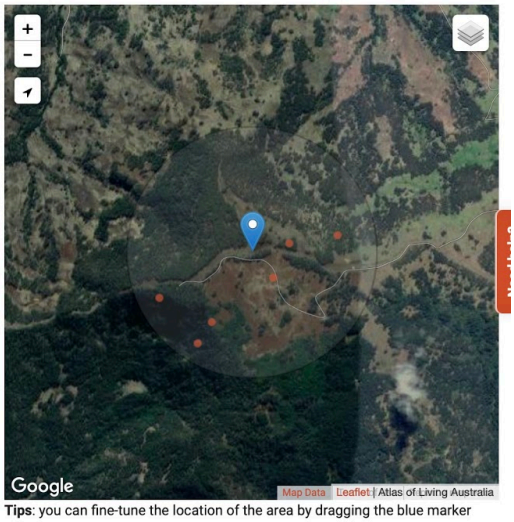
Tips: you can fine-tune the location of the area by dragging the blue marker icon

Group	Species	Species : Common Name	Records
All species	79	24. *Eucalyptus pauciflora* : Benambra Snow-gum	2
Animals	11	25. *Euchiton japonicus*	1
Mammals	10	26. *Eustrephus latifolius*	1
Birds	1	27. *Galium ciliare*	1
Reptiles	0	28. *Galium gaudichaudii*	1
Amphibians	0	29. *Galium leptogonium*	1
Fishes	0	30. *Geranium potentilloides* : Soft Crane's-bill	2
Molluscs	0	31. *Geranium solanderi var. solanderi* : Austral Crane's-bill	1
Arthropods	0	32. *Glycine microphylla*	1
Crustaceans	0	33. *Glycine tabacina*	1
Insects	0	34. *Gonocarpus micranthus* : Piripiri	1
Plants	**68**	35. *Gonocarpus teucrioides*	1
Bryophytes	0	36. *Hardenbergia violacea* : purple coral-pea	1
Gymnosperms	0	37. *Hydrocotyle laxiflora*	2
Ferns and Allies	1	38. *Hypochaeris radicata* : Catsear	2
Angiosperms	67	39. *Juncus flavidus*	1
Monocots	17	40. *Lobelia concolor*	2
Dicots	50	41. *Lobelia pedunculata*	1
Fungi	0	42. *Lomandra filiformis subsp. flavior*	1
Chromista	0	43. *Lomandra longifolia*	1
Protozoa	0	44. *Melicytus dentatus*	2
Bacteria	0	45. *Microlaena stipoides* : Pātītī	3
Algae	0	46. *Oxalis perennans*	2



Tips: you can fine-tune the location of the area by dragging the blue marker icon

Group	Species	Species : Common Name	Records
All species	79	46. *Oxalis perennans*	2
Animals	11	47. *Phytolacca octandra* : Dyeberry	2
Mammals	10	48. *Poa labillardierei var. labillardierei*	1
Birds	1	49. *Poa sieberiana var. sieberiana*	2
Reptiles	0	50. *Pteridium esculentum* : Manehu	3
Amphibians	0	51. *Rubus parvifolius*	1
Fishes	0	52. *Rumex brownii*	1
Molluscs	0	53. *Senecio prenanthoides*	2
Arthropods	0	54. *Senecio tenuiflorus*	1
Crustaceans	0	55. *Sigesbeckia orientalis* : Punawaru	1
Insects	0	56. *Smilax australis*	1
Plants	**68**	57. *Solanum chenopodioides*	1
Bryophytes	0	58. *Solanum nigrum* : Poroporo	2
Gymnosperms	0	59. *Sonchus asper* : Kautara	1
Ferns and Allies	1	60. *Stellaria pungens*	2
Angiosperms	67	61. *Swainsona galegifolia*	1
Monocots	17	62. *Thysanotus tuberosus*	1
Dicots	50	63. *Trifolium repens*	2
Fungi	0	64. *Urtica incisa* : Ongaonga	3
Chromista	0	65. *Verbascum blattaria* : Moth mullein	1
Protozoa	0	66. *Veronica calycina*	1
Bacteria	0	67. *Viola betonicifolia*	1
Algae	0	68. *Viola hederacea*	1



Tips: you can fine-tune the location of the area by dragging the blue marker icon

The EIS 9.1.4 Collision and Barotrauma Risk, pg.159 states, “The plan will include methods for monitoring bat mortality, acceptable thresholds for mortality and adaptive management regimes if thresholds are exceeded.” HOGPI members do not have confidence in the monitoring of bat mortality, or adaptive management strategies. The biodiversity of the ecosystem is a greater priority than the need for this proposal.

Phil Spark recommended research by an independent bat and bird expert over a minimum 12 month period. “...there are unique factors at each tower location that require precise locating of towers to cater for different topography, vegetation communities and flora and fauna species.” HOGPI supports this request.

It is not acceptable for the proponent to state, “impacts to biodiversity as a result of the Project have been avoided and minimised as much as practicable through design phase refinements.”

The impacts to biodiversity remain as a result of clearing for transport of components, construction of wind turbines and associated infrastructure, and transmission lines.

The biodiversity offsets, management measures and monitoring and adaptive management measures proposed by the applicant do not achieve majority local community consent. The Nundle, Hanging Rock, Crawney and Timor communities that would be directly impacted by the proposal value the environmental contribution of existing biodiversity and native vegetation.

HOGPI members do not support residual impacts associated with the project being offset in accordance with the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy.

HOGPI members do not accept the concept of "no net loss to biodiversity" once offsets are applied. The local biodiversity impacts remain.

Please see attached **Appendix 3.0 – Environment** for ecologist Phil Sparks' comments on Appendix D Wind Farm Biodiversity Assessment Development Report (B DAR)

REQUESTED ACTIONS – ENVIRONMENT

- **list significant species in, and protection measures required for Ben Halls Gap Nature Reserve and Crawney Pass National Park. Take into consideration Threatened Ecological Communities including Ben Halls Gap National Park Sphagnum Moss Cool Temperate Rainforest located adjacent to the Project Area.**
- **provide a buffer of at least a 500m setback neighbouring remnant open forest with a high abundance of threatened species, such as the boundary of Ben Halls Gap Nature Reserve.**
- **increase setbacks to 500m for locations of known threatened bird and bat habitat and nests of raptors and owls, and bat roosts.**
- **provide a distance of at least 80m from the blade tip to the canopy of hollow-bearing trees to reduce blade-strike risks to birds and bats.**
- **assess and mitigate the cluttering effect on bird and bat strike of the southern cluster of turbines forming three fingers in an overlapping barrier of 27 turbines, placed unusually close together.**
- **assess and mitigate the cluster of turbines about 1Km away from Crawney National Park (WP9-WP14) where the separation distance between blades is 100m-120m - making them even closer together than at Ben Halls Gap Nature Reserve.**
- **provide evidence of biodiversity assessment for proposed realignment of Devil's Elbow.**
- **provide a detailed plan of tree trimming and removal across the proposed transport route.**
- **provide further information about what the logging track is and why it is needed.**
- **state the duration of the five field studies in November 2018, August 2019, November 2019, February 2020, and August 2020.**
- **provide a more in-depth study of the north eastern section of the wind farm Project Area. Local knowledge suggests Threatened Fragrant Pepperbush (Tasmannia glaucifolia) is extensive between the northern Project Area and Morrisons Gap Road, and could potentially be impacted by roadside clearing to enable access to the proposed Project Area.**

- **conduct a thorough search for Eucalyptus oresbia, listed as vulnerable in NSW, which has been observed neighbouring the proposed project area, and can sometimes look like Mountain Gum**.
- **provide research by an independent bat and bird expert over a minimum 12 month period investigating "unique factors at each tower location that require precise locating of towers to cater for different topography, vegetation communities and flora and fauna species."**

Included here are illustrations of Australian flora taken from the Biodiversity Heritage Library's comprehensive catalogue.

These lithographs were made by H. C. Richter, based on drawings done by both Elizabeth and John Gould during their journey to study the birds of Australia in 1838. John Gould, an ornithologist, published the seven-volume *Birds of Australia,* he also published *A Monograph of the Macropodidae, or Family of Kangaroos* and the three-volume *Mammals of Australia*.

As we now realize, thanks in part to the work of naturalists like the Goulds, Australia's unique fauna is as fragile as it is unique. That they reside on the very ridge where the proposed turbines will be situated puts these now rare and threatened species in peril**.**

Nankeen Kestrel

"THE BIRDS OF AUSTRALIA".LONDON, PRINTED BY R. AND J. E. TAYLOR; PUB. BY THE AUTHOR,[1840]-48..

Squirrel Glider

"THE MAMMALS OF AUSTRALIA" LONDON, PRINTED BY TAYLOR & FRANCIS, PUB. BY THE AUTHOR,1863.

Eastern False Pipistrelle

"THE MAMMALS OF AUSTRALIA" LONDON, PRINTED BY TAYLOR & FRANCIS, PUB. BY THE AUTHOR,1863.

Grey-headed Flying Fox

"THE MAMMALS OF AUSTRALIA" LONDON, PRINTED BY TAYLOR & FRANCIS, PUB. BY THE AUTHOR,1863.

Spotted-tailed Quoll

"THE MAMMALS OF AUSTRALIA" LONDON, PRINTED BY TAYLOR & FRANCIS, PUB. BY THE AUTHOR,1863.

Other threatened species of note that call the range their home*:*

Red-tailed black cockatoo

"THE MAMMALS OF AUSTRALIA" LONDON, PRINTED BY TAYLOR & FRANCIS, PUB. BY THE AUTHOR,1863.

Masked Owl

"THE BIRDS OF AUSTRALIA".LONDON, PRINTED BY R. AND J. E. TAYLOR; PUB. BY T HE AUTHOR,[1840]-48..

Barking Owl

"THE BIRDS OF AUSTRALIA".LONDON, PRINTED BY R. AND J. E. TAYLOR; PUB. BY T HE AUTHOR,[1840]-48..

Turquoise Parrot

"THE BIRDS OF AUSTRALIA".LONDON, PRINTED BY R. AND J. E. TAYLOR; PUB. BY T HE AUTHOR,[1840]-48..

4.0 WATER

In the assessment of Crookwell III wind farm proposal, Water NSW raised concerns that the applicant had not demonstrated that the project would satisfy the Neutral or Beneficial Effect test on water quality. Hills of Gold Preservation Inc members believe the same can be said for Hills of Gold Wind Farm proposal.

From the beginning landholders have been warning about the potential impact of this proposal on water. For many of us the usually reliable rainfall at Nundle and Hanging Rock is one of the major reasons for buying grazing property here.

Over the past 10 years we have noticed changes in the landscape because of pressure on the environment. Clearing on the ridge has sped up the flow of water off the mountain, additional bores have been sunk and dams built. In summer 2019, for the first time in living memory, reliable creeks and springs dried up and some local families and stock ran out of water. This proposal has the potential to increase demand on the water supply, including Tamworth's water supply, listing Chaffey Dam and the Peel River as potential sources.

Rainfall event on Saturday, 25th January, 2020 demonstrating the runoff velocity and erosion potential of the upper Peel Valley catchment. Over 300mm fell across three days, blocking access to many properties. More than 100mm fell in one hour on Friday, 24th January, 2020.

HOGPI members are also concerned about the construction impacts on interconnectedness of underground and surface water. Roads, concrete foundations for wind turbines and hard stands, underground cabling, buildings and clearing for all of the above will have a cumulative impact on water flow, erosion, silting, and water holding capacity of the range. Compacting for roads is an issue, creating an impenetrable barrier, increasing runoff rather than absorption. Some of our HOGPI members, with 40 years grazing history in the area, call the range a giant sponge because it absorbs water during rainfall events and releases it into creeks and rivers even during drought. This is as important to Tamworth's water supply as it is to Nundle and Hanging Rock.

In Dr Robert Banks EIS soil review he raises the issue of 100% runoff on concrete and compacted surfaces. EIS Figure 3-15 Typical Laydowns, pg. 49 shows crane pads at 155 metres long and up to 25 metres deep below ground surface and up to 60 metres total depth needed. HOGPI members request the applicant to include hardstands and compacted surfaces such as internal access roads in runoff modelling and mitigation.

REQUESTED ACTIONS – WATER

HOGPI asks the state government to request from the applicant a:

- **basic understanding of Hydrology, "when the rain stops it is groundwater that keeps the rivers flowing".**
- **a thorough Hydrological and Geotechnical Analysis (on ground study) to determine the potential impact on groundwater flow.**
- **determine potential impact on Tamworth water supply & Hunter / Manning catchments.**
- **to insist on a thorough investigation into potential impacts on surface and groundwater flows into the Peel River, as people rely on springs for domestic & stock water.**
- **note that in the EIS flooding has not been covered at all.**
- **include hardstands and compacted surfaces such as internal access roads in runoff modelling and mitigation.**

Photograph of Upper Hunter Shire Council and Tamworth Regional Council boundary line, Crawney Road.

5.0 HERITAGE

EXCLUSIVE DECEMBER 5 2020 - 5:30AM

Nundle's Hills of Gold Wind Farm could have a 'major impact' on the 144 year-old Black Snake Mine

DISRESPECTFUL: Hills of Gold Preservation Inc member Megan Trousdale (middle) said damaging the historic mine would be "disrespectful" to the region's gold mining history. Pictured with Vicki Dempsey (left) and Ian Worley Snr (right). Photo: file

The controversial Hills of Gold wind farm project could have a "major impact" on a 144-year old gold mine outside Nundle.

The Black Snake Mine, dug in 1876, will be significantly affected by a new road constructed to service the project, according to the scheme's Historical Heritage Assessment.

Proponent ENGIE is considering constructing the new road to get their massive turbine blades around the extremely steep Devil's Elbow on the route up the mountain.

Nundle was founded after the discovery of the mineral in surrounding hills now called the Hills of Gold, in a smaller version of the Victorian goldrush.

Project opponent Megan Trousdale said the new road was "disrespectful" to the town's gold mining history.

"You think about Black Snake Gold Mine. The importance of that heritage continues today. Nundle is on the Fossickers way. We're called the Hills of Gold.

"A few years ago one of our resident musicians wrote a musical Yankee Jack all about the gold mining heritage. We have a Go for Gold festival.

"Even my own business was once a place people exchanged gold for goods. The gold mining heritage is woven into our daily lives. And you've got gold panners and fossickers who are still coming up on a weekly basis to find gold.

"To propose damaging one of the most significant parts of the Nundle goldfields is very disrespectful."

Mrs Trousdale, a member of opposition group Hills of Gold Preservation Inc, said the project has the potential to affect the century-old archaeological remains. They are listed as part of the national estate and the local environment plan, she said.

Destroying the heritage could even affect the attractiveness of the tourism-dependent community.

"Nundle has a massive stakeholder community of fossickers and gold panners. These are people who definitely have the gold fever. They are emotionally attached to Nundle. This is their haven. They respect and they honour the gold mining history of the area. I think it would really upset our local people who are descended from those gold mining findings and also our visitors who have that deep connection."

The potential heritage impact was revealed after the release of the project's DA and Environmental Impact Statement this week.

The new road is one option under consideration for gaining road access for the enormous wind turbines.

A spokesperson of the project said surveys undertaken for the renewable scheme identified a specific mine entrance, which they have avoided.

"Potential impact has been assessed and the project has committed to undertake further geophysical surveys upon detailed design to determine if any underground mines exist," he said.

"The upgraded "devils elbow" road will reduce congestion by diverting over-sized loads on the road network onto this road upgrade and allowing public traffic to use the existing road reducing any travel delays."

The Black Snake Mine is one of just ten surrounding the town.

The project's Historical Heritage Assessment shows the project's proposed transport route will have "major direct impacts" to the mine.

"The proposal would result in major impact to the listed heritage item," it says.

"Although no objects associated with the former mine have been identified along the proposed route, the proposed route will impact on the [local environment plan] listed curtilage of the Black Snake Gold Mine."

French multinational ENGIE, which announced they had purchased the project in early November, plans to build as many as 70 turbines on the Hills of Gold about 5km south of Hanging Rock, near Nundle.

Hills of Gold Preservation Inc members raise significant concern regarding the potential 'major impact' to heritage items of local significance. Clause 5.10 (Heritage Conservation) of the *Tamworth Local Environmental Plan 2010* (TLEP 2010) requires development:

1. to conserve the environmental heritage of the Tamworth Regional Council area;
2. to conserve the heritage significance of heritage items and heritage conservation areas, and associated fabric, setting and views;
3. to conserve archaeological sites; and
4. to conserve Aboriginal objects and Aboriginal places of heritage significance.

In accordance with the above objectives, development is required to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, setting and views. The Statement of Heritage Impact (SoHI) submitted with the application has only addressed the potential heritage impact to the physical fabric of one identified heritage item, the Black Snake Gold Mine (I134). The submitted SoHI has failed to address the major adverse impact of the development on the setting and curtilage of the multiple listed heritage items within the Nundle township and surrounds, including:

Item	**Address**	**Listing**	**Item No.**
Old Church Boutique Primitive Methodist Church	90-92 Jenkins Street, Nundle	TLEP 2010	I278
Nundle Memorial Hall and Library	101 Jenkins Street, Nundle	TLEP 2010	I281
Nundle Public School	93-97 Jenkins Street, Nundle	TLEP 2010	I280
Nundle Post Office	91 Jenkins Street, Nundle	TLEP 2010	I279

Peel Inn	89 Jenkins Street, Nundle	TLEP 2010	I277
Jenkins Street Guest House - Former Bank of NSW	85 Jenkins Street, Nundle	TLEP 2010	I276
Jenkins Street Antiques - Odgers and McClelland General Store	83 Jenkins Street, Nundle	TLEP 2010	I275
Odgers and McClelland Exchange Stores	81 Jenkins Street, Nundle	TLEP 2010	I274
Residence	75-79 Jenkins Street, Nundle	TLEP 2010	I273
All Saints Church of England	72 Jenkins Street, Nundle	TLEP 2010	I272
Church	65 Gill Street, Nundle	TLEP 2010	I268
St Peters Catholic Church	15 Innes Street, Nundle	TLEP 2010	I269
Nundle Shire Offices	58 Jenkins Street, Nundle	TLEP 2010	I271
Former Courthouse Museum	38-40 Jenkins Street, Nundle	TLEP 2010 Register of the National Estate (RNE)	I270
Nundle Cemetery	Nundle Creek Road, Nundle	TLEP 2010	I282

Hanging Rock Historic Cemetery	Forest Way, Hanging Rock	TLEP 2010	I137

This is a concerning omission from the SoHI and EIS and must be addressed due to the wide-reaching impacts of the development, which extend far beyond the project area.

In addition to the above, it is noted that although the village of Nundle is not an identified heritage conservation area under the TLEP 2010, it is considered that the town's historic buildings, many of which are subject to individual statutory protection, together provide a unique sense of place and harmony of scale. The existing setting of the town within the valley, surrounded by the Great Dividing Range, combined with its collection of 19th and early 20th century buildings, presents an environment of peaceful village life. The undisturbed landscape contributes enormously to the cultural landscape and is essential to the community's sense of place and the significance of the town. The construction of the proposed wind turbines, atop the existing ridgeline at 1200-1400 metres above sea level, together with associated infrastructure (including transmission lines, access tracks, underground and overhead electrical cabling, substation and clearing of vegetation), will have an extreme and irreversible detrimental impact on the character of the town.

The SoHI has not addressed the impact of the proposed development on the setting and views within the town and its collection of numerous listed heritage buildings. It has also not addressed the direct adverse impacts of road upgrades and the detrimental effect the works will have on the character of the village and the surrounding landscape.

Members of the community have provided a list of currently unlisted and unprotected heritage items to the proponent. The SoHI has not undertaken an assessment of heritage impact of these items as "none of these sites will be directly impacted by the proposed works" (ERM, page 57). However, the SoHI appears to have only considered the heritage impact of direct physical works to heritage items and has not addressed the irreversible changes to the curtilage and significant views to listed and unlisted heritage items. The SoHI has failed to address the significant indirect heritage impacts of the proposed development as a result of the detrimental impact on the significance of the surrounding cultural landscape to the heritage character of Nundle.

The SoHI has noted that no social values assessment has been undertaken to inform the preparation of the assessment of heritage impact. In accordance with the Burra Charter the management of a place must be based on an understanding of its cultural significance. It is imperative that a social values assessment be undertaken before any determination is made

that has the potential to have major adverse impacts on places of cultural significance to the local community.

The proposed development is contrary to the objectives of Clause 5.10 of the TLEP 2010, being to conserve the environmental heritage of the Tamworth Regional Council area, for the following reasons:

- The Nundle township contains numerous listed heritage items protected under the TLEP 2010, as well as numerous unlisted places of heritage significance identified by the community. The setting of the town, including its collection of heritage buildings from the 19th and 20th century and its picturesque rural landscape, are essential to the community's sense of place and the significance of the town. The industrialisation of an otherwise undisturbed landscape will have an extreme and irreversible impact on the heritage significance of the heritage items within the town and its surroundings.
- No social values assessment has been undertaken despite the community making known the importance of unlisted sites within and around the project area.
- The proposed development will have major direct impacts on identified items of local heritage significance on Schedule 5 of the TLEP 2010, including the Black Snake Gold Mine

Hills of Gold Preservation Inc members have expressed their concern about the potential "major impact" to national estate and local environment plan listed heritage item Black Snake Gold Mine as a result of clearing a new private road to bypass Devil's Elbow hairpin corners.

Devil's Elbow is mentioned in an historical context in Appendix N Historic Cultural Heritage Assessment Report, "In December 1874, a new road was completed to Hanging Rock, climbing over 500 m from Nundle to Hanging Rock village in just over 8 km and 900 m to the highest part of Hanging Rock (Photograph 4.1). This road is still in use today, and has one of the steepest grades of any road in NSW."

(page 305) Tamworth I134 Black Snake Gold Mine – Direct Impact; "As the hairpin corners at the Devil's Elbow (Barry Road) are too tight to accommodate the transport of large components, it is proposed to clear a new portion of road through the LEP listed Black Snake Mine. This will involve vegetation clearance, cut and fill activity, and road construction."

"Although no objects associated with the former mine have been identified along the proposed route, the proposed road will impact upon the LEP listed curtilage of the Black Snake Gold Mine. A Statement of Heritage Impact (SoHI) will be submitted as part of the Project assessment documentation."

"Where tunnels are identified and avoidance is possible, this should be documented in a letter report to the approval authority. The letter report would detail the location of the identified tunnel and the proposed avoidance measure. No further assessment of the archaeological item would be required at this stage.

"Where suspected tunnels cannot be avoided, archaeological inspection and archival recording should be undertaken prior to the commencement of construction works. The archival recording should be lodged with Tamworth Regional Council and potentially utilised to develop interpretive signage at an appropriate location at Black Snake Gold Mine, Nundle and/or Hanging Rock. This signage can contribute to existing historical and interpretive signage.

"If backfilling is required, the methodology for this should be developed in consultation with the proponent, construction contractors, and heritage specialists. Decisions around appropriate methodology would be made based on the type and condition of any findings."

On Page 53 we read, *"*Inspection was limited to easily accessible areas, utilising existing tracks. On the south of the inspection area, the terrain is very steep, and was not inspected due to safety concerns. On the west side of the inspected ridge, there are additional tracks leading back towards Barry Road, upon which an extant mineshaft was located. No additional features were located along the proposed route, although the terrain made it difficult to complete a more thorough inspection."

Yet the applicant is asking the state government to approve disturbance of the area when only a limited inspection has taken place.

HOGPI members consider this to be a threat to European heritage and the Black Snake Gold Mine remnants should be preserved.

On Page 31 SoHI, "It is recommended that a geophysical survey or geotechnical assessment be undertaken early in the detailed design process to determine if there are voids or other substantial features present within the proposed road corridor."

Surely this should be done before determination? Financially viable, safe, environmentally and heritage sensitive access to the project site is essential. Without it, there's no point going any further.

The EIS understates the heritage significance of Nundle and Hanging Rock villages and the surrounding landscape. Appendix N, Historic Cultural Heritage Assessment Report, states that beyond St Peter's Catholic Church, Nundle Shire Office, and Black Snake Gold Mine there are no impacts to identified historic heritage items.

The Report acknowledges the historic significance of "Wombramurra", including a photograph of Wombramurra shearing shed, page 24, in its outline of the local history. Yet it omits that Wombramurra Homestead and Shearing Shed (now The DAG Sheep Station wedding and function venue) are among properties visually impacted by proposed wind turbines.

The EIS SoHI pg. 15 mentions Hanging Rock mountain,

"In the early 1850s, William Telfer Junior described the experience of travelling the steep and dangerous route from Nundle to Hanging Rock:

At that time there was a sheep station on the Company's side of the river also one on the other side which was the property of Dr. Jenkins. Crossing the Peel River here saw the Hanging Rock mountain some two miles away proceeding along a very steep track almost perpendicular in appearance [...] the only traffic on this road was Nathan Burrows' bullock team which used to go to Tamworth about twice a year [...] some place you could scarcely discern any road and the mountain was very steep if you went a little off the track the cart would capsize and go down the mountain [...]. (Telfer, W. in R. Milliss 1980 via J. Boileau 2007:22)."

The Hanging Rock outcrop is a significant and valued natural heritage feature of the landscape, used for navigating by early European explorers, bullock teams, and gold miners travelling from the Hunter Valley over Crawney Pass, heading for the gold fields. The Hanging Rock is considered so significant by locals that it was written into the script of the play Yankee Jack by former local musician, Toni Swain, and performed by Nundle Public School. Crawney Pass and the ridgeline is the subject of paintings by local artists and Crawney Road features in a song by musicians Brendan Nawrocki and Brad Butcher. Another natural heritage feature neighbouring the proposed Project Area is Yellow Rock, identified by its horizontal yellow ribbon of sandstone. It was a popular landmark with names and dates from the late 19th Century engraved in a sandstone rock face. Hanging Rock and Yellow Rock should not be compromised by the introduction of 70 wind turbines and associated infrastructure.

The Report makes reference to the Nundle and Hanging Rock communities valuing their heritage, "It is understood that the Nundle and Hanging Rock communities greatly value their heritage and take pride in the historic buildings and locations that represent this history." Appendix B Heritage Database Search Results lists 15 properties at Nundle and Hanging Rock in the Tamworth Regional Council Area, (Tamworth Regional Local Environment Plan 2010 includes two State Heritage Register Sites, and 15 Locally Heritage Register Sites.

Appendix D Community Identified Heritage Sites includes 49 items. This indicates the significant heritage value of local sites to the community. HOGPI members are concerned that the Report does not recognise the significant impact of massive increases in traffic, including oversize and

overmass vehicles, to the experience of heritage properties for an estimated two years of construction and ongoing impacts on visual amenity for the life of the project.

The EIS does not make mention that the proposed wind farm will impact the following points of interest listed on the archival Register of the National Estate:

1. Ben Halls Gap Nature Reserve, Hanging Rock, ID17784. Also listed by the NSW National Trust as 'Ben Halls Gap old growth forest landscape conservation area.'
2. Former Courthouse, Police Station and Residence (now Nundle Courthouse Museum) Circa 1857, ID404
3. Iron Footbridge, Bowling Alley (Industrial Archaeological Site) Point, Circa 1863
4. Crawney Pass National Park, Environmental Conservation

The EIS does reference the fifth point of interest listed on the Register of the National Estate:

5. Black Snake Gold Mine, Hanging Rock, ID101052.

The Transport and Traffic route travels past the former courthouse, police station and residence on Jenkins Street, and Iron Footbridge at Chaffey Dam, Nundle Rd, Bowling Alley Point, and is located between Ben Halls Gap Nature Reserve and Crawney Pass National Park. More detail is needed about the ecological significance of the Nature Reserve and National Park to understand the potential impacts of land disturbance and clearing, construction, introduction of vehicles and people within close proximity, and operation of wind turbines.

REQUESTED ACTIONS – HERITAGE

- **address the major adverse impact of the development on the setting and curtilage of the multiple listed heritage items within the Nundle township and surrounds, including natural heritage items The Hanging Rock and Yellow Rock.**
- **address the impact of the proposed development on the setting and views within the town and its collection of numerous listed heritage buildings.**
- **address the direct adverse impacts of road upgrades and the detrimental effect the works will have on the character of the village and the surrounding landscape including nationally listed Ben Halls Gap Nature Reserve.**
- **address the irreversible changes to the curtilage and significant views to listed and unlisted heritage items.**

- **address the significant indirect heritage impacts of the proposed development as a result of the detrimental impact on the significance of the surrounding cultural landscape to the heritage character of Nundle.**
- **undertake a social values assessment to inform the preparation of the assessment of heritage impact in accordance with the Burra Charter the management of a place.**
- **conduct a geophysical survey or geotechnical assessment prior to DPIE assessment determine if there are voids or other substantial features present within the proposed road corridor.**

6.0 VISUAL AMENITY

HOGPI members request that the Landscape and Visual Impact Assessment is redone to include at least seven missing residences and development application locations. HOGPI invites DPIE representatives to visit private residences and public viewpoints and understand the potential visual impact of the proposal.

The applicant's EIS understates the potential impact on residents' visual amenity of 70 wind turbines on 24km of the Great Dividing Range from Hanging Rock to Crawney/Timor.

The EIS Appendix F Landscape and Visual Assessment pg.29 identifies 43 dwellings (including 1 DA location) within 4550m of wind turbines. Of those, 35 are Non-Associated Dwellings and 8 are Associated Dwellings.

The EIS underestimates the number of residences within 4550m-8000m of the proposed project area, including some residences and ignoring others. Residences within 4550m-8000m are missing on Splitters Gully Rd, Taylors Lane, and Barry Rd. Residents south of the proposed project area at Timor have been neglected, some not contacted at all, and at least 2 dwellings that would be visually impacted are missing from the map. In addition, there are known DA

locations missing from the assessment. One of the missing DA locations (-31.560247, 151.165401) is **325 meters** from the nearest wind turbine, and has not been assessed for Visual Amenity, Noise, Shadow flicker or other impacts. Another DA is 1760 meters from the nearest turbine. A residence known as Windy Ridge at 90 Shearers Road Hanging Rock and assumed to still be owned by the neighbouring major host landowner, has not been marked on the map at all. Our last knowledge was that it was occupied full-time. It is under 1km from the nearest turbine.

Map E1 – Page 25 identifies an overwhelming majority of Non-Associated Dwellings & structures that are surrounded by the proposal. From EIS Appendix E1 Noise and Vibration Assessment pg.7 we derive there are 80 dwellings in the vicinity of the the wind farm, 64 Non-associated Dwellings (80%) and 16 Associated Dwellings (20%), including wind turbine and transmission line hosts, and Neighbour Benefit Sharing Agreement signatories:

4 <= 1500m this being the threshold for noise compliance set by DPIE i.e. NAD_8, 11, 12, 67

7 <= 2000m previous min allowable distance in NSW guideline (2011)

18 <= 3000m

20 <= 3100m threshold for HIGH VI (three known additional properties in this category)

28 <= 4000m

34 <= 4550m threshold for MEDIUM VI

42 <= 5000m

49 <= 6000m

53 <= 7000m

57 <= 8000m

Only one of the Associated Dwelling owners hosting turbines lives permanently on their property. The remaining Associated Dwelling turbine hosts would not have to live with the daily impacts of the wind farm. How can the income provided to Associated Dwelling owners compare or be justified with the Income or land value lost from existing agricultural use of Non-associated Dwelling owners, existing tourism businesses and the value of the use of the range and assets of lifestyle holdings?

The EIS, *4.4.5, pg.80 states, "The Project Area also has relative isolation and low population density in the region which will reduce the potential for human impacts such as noise, visual and shadow flicker."* The EIS fails to acknowledge that this is why people choose to live in the area, to remove themselves from densely populated and developed towns and cities. Describing the

project area as being in “relative isolation” is grossly incorrect, given that the most remote turbine (WP16) within 4550m is still located only 4278m from a dwelling and the closest (WP65) is 765m (EIS Table 4-4, pg. 75-77, Distances from Nearest Proposed WTG to Residential Dwellings).

HOGPI members believe that while Nundle, Hanging Rock, Crawney and Timor may appear isolated to a city-based EIS author, there are 600 adults and children living in the vicinity of the proposed Hills of Gold Wind Farm. This does not include the Timor affected residents. The high scenic beauty of the range means we have an even greater stakeholder community, who visit Nundle, Hanging Rock and Timor for day-trips, weekends and extended holidays. Our community has a voice and will not be dismissed as “isolated or low-population density” because that suits the proponent’s site justification.

The proponent offers screen planting and supplementary planting as mitigation for visual impacts. The National Wind Farm Commissioners Annual Report 2019 states, “A common issue is the length of time for a newly planted tree to grow to provide sufficient screening, bringing into question the effectiveness of such mitigation.” Suggesting screening in a valley where there is a 600m difference in elevation to the range is irresponsible and disrespectful to residents current quality of life.

The applicant has requested to be able to move turbines 100m before construction, which could increase impacts to Non-Associated Dwellings.

The turbines have been grouped very close together to fit as many turbines as possible into a difficult space with little consideration for the impact it will have on the community.

The proposed wind farm would dominate the landscape for many kilometres, destroying the visual amenity of a valley highly valued for its scenic beauty, highly impacting the local community and tourists contributing to the regional economy.

The applicant’s wind turbine layout outlined in the EIS does not comply with the spirit of the Wind energy: Visual Assessment Bulletin, locating 57 turbines within 4550m of 43 non-associated dwellings (one DA location).

Wind turbines are proposed unusually close together, 13 less than 2 rotor diameters from their neighbours, 54 turbines are within three rotors, and 65 turbines within four rotors of another. This demonstrates the applicant’s intention to fit as many turbines as possible in space with little consideration of impact.

In the southern section of the proposal 17 turbines are clustered in three overlapping fingers creating multiple layers of increased visual impact.

The proposed wind farm is not only visible from the 43 Non-Associated Residences within 4550m (including 1 NAD Development Application Location) identified in the EIS, but it is clearly visible from Nundle Rd as residents and tourists move around Nundle, Hanging Rock, Crawney and Timor.

Residents more than 8km from the nearest turbine have been ignored in the EIS, assuming that the visual impact of turbines diminishes at that distance. Yet because of the topography of the upper Peel Valley and the difference in elevation from residences in the valley and turbines on the Liverpool Range, the visual impact of the wind turbines is exacerbated. The experience of residences situated higher than the project area at Hanging Rock and Timor presents different impacts again. Some NAD residents more than 8km from the nearest turbine were given photomontages, however there was no interpretation to explain potential impacts or mitigation. In most cases photomontages were taken from one location on a property, not taking into account cumulative impacts as residents enter or move around their property or from within their homes. The entire project should be assessed using the blade tip elevation of the wind turbines on the range, not just the blade tip height of the proposed wind turbines (without topography).

The Photomontage process was traumatic and distressing for HOGPI members, with the proponent, Someva and Moir representatives running late, holding people up from their work, not turning up at all, or turning up without an appointment. They repeatedly refused to take photographs from requested viewpoints due to time constraints, or took photographs looking away from the Project Area in the wrong direction. They clearly did not have an understanding of the geography or how long it would take them to travel from one location to the next. Non-internet savvy landholders did not know they could request a Visual Assessment.

On viewing the photomontages it was concerning to observe:

- the poor quality of the images, from the lack of focus, to what appears to be a washed out sky, offering a lack of contrast with the white wind turbines. The Scottish guidelines highlight that it is “essential that all baseline photographs are taken in good visibility.”

  “This will generally mean clear skies, in suitably clear air to allow sufficient contrast between the different elements within the landscape. This is particularly important for long-range views where poor light and atmospheric conditions such as haze or cloud can reduce the clarity of the view, or for views where the turbines are predominantly viewed against the sky.”

  “Enhancement and rendering cannot compensate for photographs that have been taken in poor light or weather conditions. In these circumstances, the photographs should be retaken.”

- the selection of viewpoint two, downhill from the pub intersection is a poor choice. The "worst case scenario" location would have been the crest of the hill further south. Please note there is a tree in the centre of the frame that is no longer there and the image will need to be reshot and description edited.
- with the animation technology available it would be beneficial to see at least one wind turbine in an image rotating to illustrate the potential impacts of the proposal.
- it is important to understand the visual impact of the project from Crawney Rd near The Dag Sheep Station looking north east, and from Barry Rd between Nundle and Hanging Rock travelling east and west. The Visual Impact Assessment does not take into account the visual impact of moving wind turbines.

The EIS 11.3.7 Landscape Character, pg. 215 states that "The proposed development will be located within a predominantly rural landscape that has not been identified as significant or rare... Generally, the Scenic Quality Classes of the LCU within the Study Area have been rated as moderate with some areas defined as low-moderate, and moderate - high."

"The proposed development positioned in a landscape that has remained largely unchanged and would become a feature of the visual landscape. However, it is likely the character of areas which are valued for their high landscape quality and utilised for recreation and tourism will remain intact."

The EIS uses that qualification of "Regionally" to lessen the potential visual impact on the landscape, when considered in the local context the proposal has the potential to dominate the landscape and impact the rural character.

"Of the seven LCU's identified and assessed, the Project is likely to be visible from all, to varying degrees." HOGPI members do not accept the missive that there will be limited opportunities to view the proposal in its entirety. This is not a consideration given the dominating impact of the proposal.

The EIS does not address the additional visual scarring on the Great Dividing Range created by clearing, road widening, 48.65km of access roads (including transverse track on the mountain face), concrete batching facilities, operations and maintenance building, battery energy storage system, substation, hardstands, turbine foundations, overhead cabling, and transmission lines and switching station.

HOGPI members reject that Meteorological Monitoring Masts (pg. 221) are an accepted part of the landscape. When the current met mast was erected, members could identify it on the range

and were concerned about its visual intrusion. Members at Timor were particularly impacted and complained to the then proponent.

The EIS 11.3.8 Shadow Flicker and Blade Glint, pg. 215 outlines that "Of the four (4) non-associated dwellings with potential shadow flicker, only one (NAD_8) was identified as having the potential to experience more than 30 hours per year."

HOGPI members do not accept that residents should be expected to live with the experience of Shadow Flicker or the suggested mitigation of vegetation. The assessment doesn't take into account the movement of residents around their property, which could increase the Shadow Flicker further. It also doesn't consider the impact on motorists travelling on Crawney Pass Road and the discomfort or safety hazard Shadow Flicker may create.

The assessment doesn't specify details for distance that Shadow Flicker is considered. HOGPI members are concerned that Shadow Flicker could be an issue for residents living at a distance from the proposal considering the elevation of the range and the height of the turbines to blade tip.

The Scottish Natural Heritage Visual Representation of Wind Farms estimates the Zone of Theoretical Visibility (ZTV) for a 150m+ wind turbine at 45KM (followed by the NSW Wind Energy: Visual Assessment Bulletin for photomontage standards). **(**Reference 11.3.3 Zone of Visual Influence, Page 193)

The applicant has consistently dismissed the proposal's impact at 8km from Nundle, repeatedly claiming in the media "You won't see them from Nundle" when the impact is not insignificant at all. Remember the applicant is now talking 230m to blade tip turbines. The blade tip elevation of the highest wind turbine is 1646m (reference EIS page 246, Hazards and Safety).

The EIS states that "it is possible for the Project to be visible from further than 10 km away," yet neglects to outline how far the wind turbines will be visible. In a rural community this is particularly important. With a Zone of Theoretical Visual Influence for a 150m+ wind turbine at 45km the Hills of Gold Wind Farm has the potential to impact a far greater number of landholders than assessed.

The 45km Zone of Theoretical Visual Influence is particularly relevant when considering the potential impact of obstacle night lighting. It is local knowledge that the Nundle range, including Wombramurra Mountain (part of the proposed project area) is visible from Tamworth and the New England Highway. How will this impact the likes of The Glasshouse Restaurant and Goonoo Goonoo Station accommodation and hospitality and wedding venue? HOGPI members are also concerned about potential impacts of wind turbines and obstacle lighting viewed from

popular recreation area, Chaffey Dam. How will residents and campers react when their night sky is disturbed by obstacle lighting on wind turbines.

The article 'Learning about Country' in New England Living Spring 2018 references an Indigenous astronomy evening at Hanging Rock for Quirindi High School students to connect in a deeper way with their local country and culture. The article states, "The pristine and idyllic location...was chosen for its wondrous natural environment and lack of light pollution."

HOGPI notes in the Hills of Gold Wind Farm CCC minutes, April 1, 2020, a community member presented excerpts from Sapphire Wind Farm CCC where obstacle lighting is a recurring community concern. Residents impacted by obstacle lighting near Sapphire Wind Farm have contacted HOGPI members by phone and in person to warn and complain about it. HOGPI members have visited Glen Innes and Inverell to observe obstacle lighting and do not want to live with this industrial intrusion where they currently enjoy dark skies.

From 'Learning about Country' in New England Living magazine, Spring, 2018

Similarly, night lighting of wind turbines has been observed at Capital and Woodlawn Wind Farms near Bungendore. The experience was overwhelmingly disturbing and members returned determined that their night sky will not be disturbed by the proposed Hills of Gold Wind Farm.

The example of Bialla Wind Farm has no resemblance to the topography of the proposed Hills of Gold Wind Farm, which will exacerbate the visual impact due to the elevation of the project and the height of the turbines (and Bialla Wind Farm turbines are 180m to blade tip). The Bialla example is not like for like when you consider nearly the entire 24km Hills of Gold project would be visible from Nundle Rd.

HOGPI members do not consider the suggestion of shields is a satisfactory mitigation of night lighting given the current isolation and dark night skies enjoyed by residents.

The EIS acknowledges that, “Dark sky” is a valued quality of the rural landscape due to the lack of light pollution. Aviation lighting has the potential to impact on receptors who view the landscape at night, in particular night-sky enthusiasts, photographers, star gazers, campers and some landowners.”

The impact of night lighting on ancillary infrastructure including switching stations, collector substations and facilities buildings has not been considered in the EIS. This is negligence on the part of the applicant given the significant impact this has the potential to have on residents and visitors.

In Victoria the State Government has legislated no-go zones for wind turbines in areas of high scenic beauty and environmental sensitivity, like the Yarra Valley and Mornington Peninsula.

Local government in parts of NSW are protecting their areas of high scenic beauty from industrial wind farms. Mid-Western Regional Council (Mudgee) is held up as a best practice example for its Development Control Plan aiming to sensitively site large scale renewables developments to protect residents’ quality of life and tourism industry. It is also working on an amendment to its LEP, mapping visually sensitive land. It states, "Council does not favour large expanses of ridgelines being covered with wind farms and turbines”

Upper Lachlan Shire Council’s Development Control Plan also aims for sensitive siting of large scale renewables. Council’s Plan influenced the Department of Planning Industry and Environment and Independent Planning Commission decision to reject the Crookwell III wind farm proposal. A media release states “the Project does not satisfactorily address the objectives of the E3 – Environmental Management Zone of the Upper Lachlan LEP 2010 that require the protection of aesthetic values.”

The EIS 6.2.4.4, pg. 112 notes that the Tamworth Regional Development Control Plan 2010 and the Liverpool Plains Shire Council Development Control Plan 2012 do not contain guidance on wind farm development and these DCP’s have not been considered further.

The Upper Hunter Shire Council has an assessment criteria for wind energy systems, it includes;

- "do not interfere with the health and amenity of the community within the proposed locality
- adequately consider environmental issues prior, during and in the operation phase
- achieve a built form that does not interfere with the surrounding context
- are afforded an adequate level of public consultation during the development assessment stage".

Timor residents have complained to Upper Hunter Shire Council and HOGPI about the lack of community consultation by WEP and Engle. The proponent has failed to satisfy the Council's DCP.

The EIS Table 6-6, pg.113, Wind Farm Provisions from the Upper Hunter DCP 2015 Design guidelines lists, "Ridgelines dominated with wind turbines will not be favoured."

Other councils have objected to proposed wind farms and contributed to them being rejected. In John Barilaro's electorate Jupiter Wind Farm was withdrawn and a significant factor were submissions by Goulburn Mulwaree Council commenting on potential impacts and Queanbeyan Palerang Regional Council objecting.

Tweed Shire Council's Draft Scenic Landscape Policy highlights the great benefit of scenic landscapes to its current and future community, including:

- the visual joy and source of health and well-being for our residents,
- a sense of community identity,
- the enormous tourism assets to our local and regional economies, and
- the potential to attract high value businesses to this incredible landscape.

Its draft policy aims to protect scenic landscape integrity, particularly so that new development does not become the dominant characteristic of the landscape character area, and to avoid development that penetrates the established skyline or horizon.

REQUESTED ACTIONS – VISUAL ASSESSMENT

- **resubmit the Landscape and Visual Impact Assessment to include at least seven missing residences and development application locations.**
- **DPIE representatives visit private residences and public viewpoints to understand the potential visual impact of the proposal.**
- **provide at least one animated wind turbine image rotating in a photomontage to illustrate the potential impacts of the proposal.**
- **identify all residences within 4550m – 8000m of the proposed project area.**
- **provide a photomontage of clearing, road widening, 48.65km of access roads (including logging track and transverse track on the mountain face), concrete batching facilities, operations and maintenance building, battery energy storage system, substation, hardstands, turbine foundations, overhead cabling, and transmission lines and switching station.**
- **provide evidence of Development Application for meteorological masts.**
- **assess the impact of night lighting for ancillary infrastructure including switching stations, and substations.**
- **audit Hills of Gold Wind Farm against Upper Hunter Shire Council Development Control Plan and adjust turbine layout accordingly.**
- **provide evidence that vegetation screening is a sufficient mitigation measure where affected properties are located in a valley where there is a 600m difference in elevation to the range.**

Image taken during CCC site visit, from the proposed project area ridgeline across the Peel Valley catchment.

7.0 TOURISM

Nundle is often referred to as the "jewel in the crown" of Tamworth Regional Council. The Nundle community is a stand out in regional Australia, winning the 2014 Tidy Towns for Overall NSW, the 2014 Northern Inland Innovation Awards Telstra Retail Tourism and Leisure Category, and 2016 NSW/ACT Regional Achievement Prime Super Community of the Year – Population Under 15,000.

In 2016 Nundle Woollen Mill won Gold at State and Silver at National in the Tourism Awards, Heritage and Cultural Tourism Category, and in 2015 The DAG Sheep Station was inducted into the Inland Tourism Awards Hall of Fame for Unique Accommodation. There are many more awards that could be listed as evidence of Nundle's pre-existing tourism industry.

Nundle and Crawney Mountain are part of a 5,330km Bicentennial National Trail for walking, horse riding and cycling through the Great Dividing Range from Cooktown, Qld, to Healesville, VIC. Nundle is one of nine destinations on the Fossickers Way. Established in 1973 it is the oldest and most picturesque scenic touring routes in NSW between Sydney and Brisbane. In June 2018 the Fossickers Way was identified by Visit NSW as one of the State's iconic road trips and the subject of a $2M marketing campaign.

Nundle Business Tourism and Marketing Group members (and previously Nundle Development Committee) have been working collaboratively with Destination Tamworth and its predecessor Tourism Tamworth to attract tourists from neighbouring regions within three hour's commute for two decades. Nundle attracts visitors from Newcastle and the Hunter, Central West, New England, and Mid North Coast (Waterfall Way and Thunderbolts Way), as well as travellers commuting between Sydney and Byron Bay or Brisbane on the New England Highway. Complementing accommodation offered in the village, nearby reserves including Ponderosa Park, Sheba Dams, Chaffey Dam, Teamsters Rest and Swamp Creek, provide opportunities for camping, bushwalking, hunting, fishing, water skiing, kayaking, mountain bike riding, 4WD, dirt bike riding, and swimming. Nundle regularly attracts car and motorcycle clubs enjoying the scenic journey and the town's hospitality. It has established itself as a year-round cultural destination for heritage and events including country music singer songwriter retreats, weddings, Tamworth Country Music Festival, Nundle Country Picnic, Nundle Go For Gold Festival, Christmas in July, Hats Off to Country, Nundle CWA Art Show, Nundle Lions Christmas Market, and Nundle Campdraft, as well as peak tourism long weekends, Mother's Day, Father's Day and school holidays. The town benefits as a day trip from the nearby location of gourmet destinations The Willow Tree Inn and Goonoo Goo Goonoo Station, as well as the regional city of Tamworth. Prior to COVID-19 Nundle was also on the radar of Grey Nomads doing a lap of Australia. Following the lifting of COVID-19 regional travel restrictions in June 2020 Nundle has attracted record numbers of tourists.

HOGPI members are concerned about the tourism impacts on local businesses as a result of the proposed wind farm dominating the landscape, reducing visitor experiences of Nundle's heritage and nature. In particular the visual and consequent financial impact on The DAG Sheep Station wedding and function venue will be significant. This then has flow on effects for accommodation, hospitality and retail business in Nundle because the majority of a destination

wedding of 100 people stay, shop and eat at Nundle for the weekend. Wedding receptions are usually held at night and would also be impacted by obstacle lighting.

A spectacular night sky, wedding photo taken at The DAG Sheep Station.

Members are also concerned about negative flow on visual impacts on accommodation, hospitality and retail businesses, impacts of traffic delays and congestion on tourism word of mouth, and the reduced motivation of business owners to contribute to the community or live in Nundle.

Nundle is fortunate to have among its landholders a Senior Lecturer in Tourism at the University of Technology, Sydney. In a letter to the DPIE Dr David Beirman writes, “One of the

core attractions of Nundle and its surrounding district is the unspoilt ridge to the East of the town known as the Hills of Gold. The wind farm proposal as it stands would destroy the very scenic beauty, which is a primary attraction for residents and visitors to Nundle and surrounds. I do believe that it will seriously undermine the exceptional level of tourism visitation which Nundle and surrounds currently attracts. This tourism for both short visits and attendance at Nundle's many events (100,000 visitors per annum) injects millions of dollars into the local economy - far more economic benefit than the wind farm would ever hope to generate. The wind farm proposal in its current form is more than likely to deter current visitors and compromise future growth in tourism. Anyone who seriously suggests that wind farm attract more than a microscopic level of niche tourism is living in fantasyland or are paid by power companies to produce dodgy research."

Dr David Beirman says, "International research suggests that for destinations which have a high reliance on scenic beauty (such as Nundle) wind farms seriously detract from tourism and especially visitation, length of stay and tourist spending." German research shows wind turbines repelled visitors and they chose to stay in locations without wind turbines.

"Given Nundle's high level of economic reliance on the visitor economy I would contend that the economic benefits of a wind farm to Nundle would be overwhelmed by the loss of tourism income resulting from the hills of gold being transformed into the hills of turbines."

The Hills of Gold Wind Farm Appendix P Socio Economic Impact Assessment, completely understates the value of Nundle and Hanging Rock tourism to the economy of Tamworth and neighbouring regions. The document misinterprets the value of the Visiting Family and Friends tourism segment, not recognising it as a valid tourism group. This is the Tamworth area's largest tourism segment and an important target for marketing.

The Assessment lists only two Nundle annual events, when in a non-COVID year there are as many as ten annual events. More importantly, Nundle markets itself year-round to attract visitors, and benefits the region by encouraging visitors to extend their stay.

The proposed project is located in an area of high scenic value, potentially impacting land near Nundle, Head of Peel, Crawney, Timor, and Hanging Rock, zoned rural in the Tamworth Regional Local Environment Plan 2010.

Key points of difference about Nundle are its rich agricultural and gold rush history, aesthetic natural beauty, and economic resilience. The charming, compact nature of the village, compared to the vast magnificence of the Great Dividing Range and Liverpool Range surrounds, and the number of heritage buildings and experiences available to the public combine to make it comparable to tourist destinations, Barrington Tops National Park, Gloucester, Hill End, Berry, or Bellingen.

The Nundle Community Economic Transition Plan 2012 states Nundle Business Tourism and Marketing Group Inc has been working with Tourism NSW and Destination Tamworth to understand what motivates visitors to regional NSW, and apply insight gained to marketing our town of Nundle. Heritage has been identified as key motivator for people to visit regional NSW and achieving status of State Heritage Significance for Nundle would help build on what has already been achieved in terms of preservation of private and public buildings, and help the town seek National, State and Local funding to enhance interpretation of existing heritage assets. The plan states that Nundle is,

"Situated amidst some genuinely spectacular scenery between the towering slopes of the Great Dividing Range and the Peel River."

Nundle punches above its weight in terms of attracting tourists. Nundle, Hanging Rock, Happy Valley, Bowling Alley Point and Crawney have a population of 600, and yet attract about 100,000 visitors annually to events, accommodation, camping, water attractions, boutique shopping, museums, food providers, the State Forest and Crown Lands. Even in a COVID impacted year, we have seen more tourists than ever before as travel is limited to within NSW, and more recently interstate. Our tourism businesses are booming.

Nundle is located in one of six State tourism regions, Country and Outback NSW. The Country Outback NSW Plan highlights the importance of regional locations to provide opportunities for connection to people and place.

"Bringing history to life and leaving a legacy for the next generation," identified by the plan as what visitors are looking for, is Nundle's strength. The small scale, well preserved private and Government owned buildings, and close proximity to farmland, National Parks, State Forests, and Crown Land mean it doesn't take a lot of imagination to conjure visions of pre-European landscape, or a frontier, pioneer town. Almost daily, visitors are overheard saying, "It's like stepping back in time". Yet Nundle is able to maintain this ambience and continue to evolve with new uses for heritage buildings and constructing new buildings contemporary in style but sympathetic to Nundle's architectural heritage.

Nundle's combination of heritage town and natural landscape enable it to meet the Top 5 experiences identified in the Country Outback NSW Plan:

1. 52% peaceful moment of quiet
2. 48% leaving cares behind
3. 40% reconnect
4. 37% enrich and fulfil
5. 36% indulge and reward

Inland NSW tourism consumer research identifies the following motivation for a holiday destination:

- Relax/unwind 82%
- Has amazing or unusual landscape 64%
- Great place for nature activities 54%

The Inland NSW Tourism Community Road Map, April 2014, highlights the value of regional communities linking to and leveraging country landscape and heritage, and quintessentially Australian, authentic, country experience. It states: "Lesser known Nundle is the destination's shining light when it comes to celebrating the country spirit. "The DAG, the local pub and other businesses in this small town are doing their best to create an ambience that meets the visitor expectation...Their proactive collaboration is a model for what needs to happen across the region."

Nundle Business Tourism and Marketing Group Inc members participated in the Destination Management Plan for Liverpool Plains Shire Council, Gunnedah Shire Council and Tamworth Regional Council. It outlined State Tourism research showing that, after the beach, the main reasons for visiting country NSW are Nature, Heritage, Food and Wine, and Events. In the Plan Nundle is held up as a glowing example of what other communities should be doing.

In 2012 Nundle Business Tourism and Marketing Group Inc was successful in attracting a $25,000 dollar for dollar grant from Inland NSW Tourism to fund a $50,000 12-month marketing campaign. NBTMG identified the Great Dividing Range landscape of Nundle and Hanging Rock, and 19th century Gold Rush architecture as its key assets and point of difference in attracting visitors and contributing to State tourism goals to double overnight visitation and expenditure by 2020. NBTMG Inc used the information it learnt through industry education to develop a Nundle Brand DNA in 2012. Consultant Greg Alder to lead the community in a Nundle Brand DNA process.

This innovative process involved 30 members of our community, identifying our points of difference as: Nature; Seasons; Mountain range; Food; Music; Events.

We used information about community and visitor values to develop our marketing communications. Heritage and Nature were identified as key motivators for tourists to visit Nundle Hills of Gold. An image of the mountain range is used on the nundle.com.au website homepage and in press advertising. Images of heritage properties are specifically chosen to represent Nundle Hills of Gold in magazine advertising. We feature a photograph of the Great Dividing Range south east of Nundle (part of the range proposed for the wind farm) on the homepage of our website (http://nundle.com.au/), brochure, event marketing and magazine and newspaper advertising.

REQUESTED ACTION – TOURISM

- **give greater recognition to the role of tourism to the economy of Nundle and surrounds, and the region in contributing to increased overnight stays and expenditure.**
- **require proponent to reassess the Visiting Friends and Relative (VFR) in their Socio-Economic analysis to correct misinterpretation. VFR is a strong market segment to Destination Tamworth and Country Outback NSW.**
- **require the proponent to better assess the socio-economic impacts the project will have on the existing and future tourism market., focusing particularly on visual amenity and traffic/transport.**

8.0 CAPITAL INVESTMENT VALUE REPORT

"In addition to the matters set out in Schedule 1 of the Environmental Planning and Assessment Regulation 2000, the development application must be accompanied by a signed report from a suitably qualified person that includes an accurate estimate of the capital investment value of the development (as defined in Clause 3 of the Environmental Planning and Assessment Regulation 2000)" (EIS pg.8)

The Hills of Gold Wind Farm is described as a $826 million project with a generating capacity of 420MW.

The Capital Investment Value (CIV) report by Muller Partnership (Appendix B) in support of the EIS have listed 33 "assumptions / inclusion" and 33 "exclusions" that have raised concerns by HOGPI members that the applicant has failed to accurately estimate the Capital Investment Value of the development as required by Clause 3 of the Environmental Planning and Assessment Regulation 2000.

Assumptions and Exclusions listed are found in Appendix B pg. 7-10. The following have been identified by HOGPI members which questions the accuracy of the Estimated Costs:

- "Assumed works will be undertaken in a single stage;" (pg.7)
- "Allowed provisional sum of $56,400,000 Excl GST for 400MW battery energy storage system using a forecasted 2023 price of $141 AUD/KW. Prices for battery storage

system. This forecast pricing has been provided by Jamie Chivers of Someva Renewables based on Bloomberg New Energy Finance forecasts."(pg.10)

It appears that the applicant has identified the importance to the approval process through the installation of the BESS: The applicant has identified the need to install the BESS to comply with guidelines from AEMO "A substantial pipeline of generation and storage projects will help mitigate risks associated with unserved energy, in which storage according to AEMO (AEMO, 2019) will have the greatest impact. This includes large-scale battery energy storage systems to help increase minimum demand levels (AEMO, 2020)." (pg.23) and the "aim of the NSW Government's Electricity Strategy is to improve the efficiency and competitiveness of the NSW electricity market by reducing risk, cost, government caused delays and by encouraging investment in new price-reducing generation and energy saving technology. ...The Project is consistent with the Strategy as it provides renewable energy generation and storage capacity that, together with other renewable generation projects, is expected to result in lower cost of power in comparison to wholesale prices."(EIS pg.24) but later in the document contradictory states that the BESS will be installed at a future point in time: "In addition, construction of the BESS may be included as a subsequent stage to the Project construction timeline based on market demand and the fast-changing economics of battery storage. Allowances will be made during the construction of the main wind farm Substation and O&M Facility such that the BESS can be added at a future point in time. The assessments consider a worst case assumption that the BESS is constructed within the Project schedule." (pg.56)

While the cost of the Battery Energy Storage System (BESS) has been provided as a provisional sum in the CIV, it is equally important for the applicant to include the considerable costs in installing the BESS: Energy Networks Australia Article "Does size matter? The economics of the grid-storage" states: "This year Bloomberg New Energy Finance[4] reported that a 100 MW project (which would entail a 400-megawatt-hour (MWh) battery installation) could cost around $169 million (A$220 million). When considering the price of the batteries, one must also include the costs of shipping, installation, and associated necessary hardware. These costs are significant and can amount to more than half the total cost. According to the BNEF analysis the total price, would come to about $422/kWh, or $169 million (or A$220 million)."

HOGPI members insist that the installation cost for BESS must be included by the applicant in order to correctly reflect the total estimated value in the CIV and to comply with the recognition that installation of the BESS to help mitigate risks associated with unserved energy as recommended by AEMO, 2019.

- Assumed excavation in material other than rock (NB: No Geotechnical Report provided);(pg.7)

The applicant has recognised in the EIS: "… the Project ridgeline are attributed the highest limitation class, being assessed under the LSC scheme to be rated Class 8, having extreme limitations. Class 8 land includes precipitous slopes (>50% slope) and cliffs or areas with a large proportion of rock outcrop (>70% area)."(pg.312) so why have they adopted this assumption to exclude excavation in material other than Rock without the Geotechnical data provided? **HOGPI members request that the cost of all excavation works listed in 'Estimate Detail' must be adjusted to reflect rock material with on site Geotechnical Data provided and amended in CIV.**

- Assumed existing ground levels for crane hardstand areas are level;"

The EIS states: "3.2.5 Crane Pads and Assembly Areas: A hardstand will be constructed adjacent to the base of each WTG to enable the assembly and erection of the tower, nacelle and blade components. The final design will depend on the topography of the surrounding land. Each crane pad will consist of crushed rock hardstand of an area between 0.38 ha and 0.53 ha depending on pad design (Figure 3-15)."(pg.48). The applicant has failed to appropriately assess the crane pad area and assume the areas are level. **HOGPI members request that the Estimated cost must be updated upon completion of an onsite assessment of the crane hardstand areas.**

- Allowed for 20m wide x 20m long x 2m deep reinforced concrete pad footing to wind turbines;

Regarding turbine concrete footings, the EIS states: "These are typically 3-5 m deep and 25 m in diameter. The volume can be between 500-900 m3 depending on the turbine, geotechnical conditions and other environmental factors." (pg.42) with the topography, soil types and rough terrain assessed and recognised for turbine location in the EIS, there would be a considerable difference to the construction cost of turbine footings from 2m to 5m in depth and 20-25m in width. The EIS has consistently based their assessment on a worst case scenario, therefore, **HOGPI members request that the cost to construct the turbine footing must be in line with concrete footing specifications described in the EIS.**

- Allowed for 70 No. x 5.5MW wind turbine generators;

The applicant states the project total output is estimated at 420MW: " The Project will supply approximately 420 megawatts (MW) of installed capacity renewable energy directly into the national electricity grid through a proposed connection into the existing TransGrid Liddell to Tamworth transmission line."(pg.1) and "The WTG model for the Project is yet to be selected,

with a range of models currently under consideration. Based on current technology, the selected model is expected to have a generation capacity of approximately 6.0 MW." (pg.39). The Estimated cost included in the CIV are for 70 x 5.5MW wind turbine generators, therefore at "worst case" the output would more likely sit at 385MW. HOGPI members believe that this is important in valuing the project viability based on cost/MW value. (e.g. that this project is currently assumed at $826m with 420MW output = $1.996m per mw) **HOGPI members request that the applicant either adjust the Project Specification output to 385MW or adjust the cost 70 wind turbine generators to reflect a minimum output of 6MW per wind turbine generator in the CIV.**

- Assumed existing road pavement on all other roads on the route from the port to site is in sufficient condition and does not require extensive upgrades;"

The EIS states: "upgrades to local roads and crossings required for the delivery, installation and maintenance of WTG components and associated materials and structures." (pg30)

HOGPI members would like to point out that currently the local roads within the villages of Nundle and Hanging Rock are 50km/h speed limited streets and believe that significant upgrades will be required to cater for over size and over mass (OZOM) vehicles. **HOGPI members request the applicant to identify and individually itemise all construction costs to each intersection and widening upgrade, blade trespass areas including compensation cost to consented landholders affected by blade trespass to every proposed route in the village of Nundle and Hanging Rock.**

"3.2.7 Internal Access Roads: The construction and maintenance of the Project will require construction of up to approximately 48.65 km of private access roads within the Project Area. The roads will provide ongoing access to the WTGs and other Project infrastructure including the transmission line... Included within the internal road network proposed for both construction and ongoing use is the 'Transverse Track', which provides internal road access between WTG 18 to WTG 40 to overcome topography challenges for road construction between WTG 19 and WTG 20."(pg.49) **HOGPI members request that the applicant must itemise the estimated value of the 48.64km Internal road access to clearly show the cost component (allocated to or otherwise to include) of the "transverse track" identified in the EIS (pg.49) in the CIV.**

HOGPI members would like to question why there has been no costs estimated in the CIV for the construction of new road structures mention in the EIS:

"5.5.3 Transport Route and Site Access Options

… access route via Barry Road and Morrisons Gap Road (preferred and main access route) and alternate route via Crawney Road and Head of Peel Road, an alternative route for oversize and some construction related traffic; and" (pg.93)

As the "preferred and main access route" with 80% of traffic expected to travel through during the construction period, HOGPI members request that the costs of construction to the Devil's Elbow bypass must be included to estimated cost in the CIV.

Other Exclusions in CIV Appendix B pg. 9-10 of particular attention:

- delay costs including latent conditions; (HOGPI advises importance for project delays from adverse weather conditions)
- Land / Property Acquisitions
- Treatment / disposal of unsuitable or hazardous material; (HOGPI Advises that there are no plan proposed in the EIS)
- Delays resulting from approvals such as Environmental/ Authorities;
- Groundwater control; (HOGPI advises importance due to resulting from excessive rainfall, 1 ½ to 2 times Nundle village estimates)
- Property acquisition;
- Land leases;
- Excavation in rock;
- De-watering;
- Roadwork to Morrisons Gap Road excludes any subsoil drainage, table drains or swale drains;
- Roadwork to existing roads used for the route from the port to site;
- Revegetation;

The applicant has proposed a Biodiversity mitigation process for the flora and fauna affected by the development corridor and footprint within the project area but has neglected to include estimated cost associated with this process. Furthermore, given the sensitivity of the site with topography, terrain and existing ecological systems such as soil and water, there are too many uncertainties around how the applicant intends to accurately estimate the costs on these issues.

HOGPI members insist that the above exclusions must be included in the CIV in order to satisfy the requirement in Clause 3 of the Environmental Planning and Assessment Regulation 2000.

HOGPI members are concerned the exclusions from the CIV are proposed with the effect of creating a justifiable project for renewable investment.

REQUESTED ACTIONS – CAPITAL INVESTMENT VALUE REPORT

- **include installation cost for BESS to correctly reflect the total estimated value in the CIV and to comply with the recognition that installation of the BESS to help mitigate risks associated with unserved energy as recommended by AEMO, 2019.**
- **adjust the cost of all excavation works listed in 'Estimate Detail' must be adjusted to reflect rock material with on-site Geotechnical Data provided and amended in CIV.**
- **update the Estimated cost must be updated upon completion of an onsite assessment of the crane hardstand areas.**
- **adjust cost to construct the turbine footing must be in line with concrete footing specifications described in the EIS.**
- **HOGPI members request that the applicant either adjust the Project Specification output to 385MW or adjust the cost 70 wind turbine generators to reflect a minimum output of 6MW per wind turbine generator in the CIV.**
- **HOGPI members request the applicant to identify and individually itemise all construction costs to each intersection and widening upgrade, blade trespass areas including compensation cost to consented landholders affected by blade trespass to every proposed route in the village of Nundle and Hanging Rock.**
- **HOGPI members request that the applicant must itemise the estimated value of the 48.64km Internal road access to clearly show the cost component (allocated to or otherwise to include) of the "transverse track" identified in the EIS (pg.49) in the CIV.**
- **As the "preferred and main access route" with 80% of traffic expected to travel through during the construction period, include the costs of construction to the Devil's Elbow bypass must be included to in estimated cost in the CIV.**
- **HOGPI members insist that the above exclusions must be include above exclusions in the CIV in order to satisfy the requirement in Clause 3 of the Environmental Planning and Assessment Regulation 2000.**

9.0 DECOMMISSIONING

HOGPI members and supporters are concerned about the implications of decommissioning of Hills of Gold Wind Farm. The EIS does not include detail about how decommissioning would take place, including disposal of materials in landfill that cannot be recycled. It does state that "below ground infrastructure, including the wind turbine generator foundations and hardstands, will be left in situ and covered in clean fill material, with the area adequately graded to reflect the slope of the surrounding area and to mitigate the risk of soil erosion." That's 49,000 cubic metres of concrete for wind turbine foundations and handstands left in the ground. The EIS states that the terms of long-term lease agreements with associated landholders "make express provision for the Proponent's decommissioning obligations." Yet the impacted community is not made aware of detail beyond, "Prior to the commencement of construction, final detailed design and layout plans will be submitted to DPIE." Meanwhile, decommissioning is not included in the EIS Waste Management Plan. There is currently no state government statutory obligation for wind developers to hold a bond in place guaranteeing funds for decommissioning. From Jupiter CCC number 5, we are aware of the Department's position on decommissioning responsibility should the then owner of a wind farm be financially unable to carry out its responsibilities:

"Under the current legal framework, in the event that the owners/operators of a wind farm are unable to fulfil the decommissioning and rehabilitation obligations under a planning approval, the obligation for these works could potentially reside with the owner of the land (as the development rights and obligations apply to the land which is the subject of the application)."

The current gross cost of decommissioning is estimated by Epuron to be $380,000 per turbine in their Liverpool Range and Yass Valley EISs. The current net decommissioning cost very likely exceeds the underlying nominal value of the land.

HOGPI notes that EIS Table 6-6, pg. 113, Wind Farm Provisions from the Upper Hunter DCP 2015 states the following regarding Decommissioning**:** " In the event of the wind farm or any wind turbines becoming redundant (not used for generation of electricity for a continuous period of 12 months or more), the dismantling and removal of all structures associated with the development and subsequent site rehabilitation will be required within a period of six months. Note: It is likely that if development consent is granted for the proposal, a condition of approval relating to the above will be included."

The EIS 3.6, pg. 61, Decommissioning and Rehabilitation states, "It is anticipated that the decommissioning and rehabilitation phase would take up to 18 months to complete, with the Project Area being returned, as far as practicable." This does not meet the requirements of the Upper Hunter Shire Council DCP. The proponent has failed to meet SEARS.

Since Engie (a large International corporate entity), is the owner of Hills of Gold Wind Farm, HOGPI members request that a detailed Decommissioning plan must be prepared with adequate and acceptable terms to secure an ethical Decommissioning process.

REQUESTED ACTION – DECOMMISSIONING

- **since Engie (a large International corporate entity), is the owner of Hills of Gold Wind Farm, HOGPI members request that a detailed Decommissioning plan must be prepared with adequate and acceptable terms to secure an ethical Decommissioning process.**

10.0 NOISE

HOGPI members request an independent peer review of the proponent's Noise and Vibration Assessment.

The consultant analysed noise from six residential locations and one community location. There was no noise monitoring conducted at Timor due to a landholder dispute with the installer. Noise monitoring was not conducted at a Crawney Rd property due to the landholder not receiving a proponent email. A Non-Associated Dwelling owner complained that the major turbine host weaned cattle resulting in bellowing near their noise monitor, and another Associated Dwelling neighbour left a generator running for six weeks during monitoring, potentially raising background noise. In this instance it would be ethical to redo the noise monitoring.

The EIS Appendix E.1 Noise and Vibration Assessment pg. 18 states that noise criteria may be exceeded for four Non-associated Dwellings for certain wind speeds and that curtailment would mitigate exceedances. However, this still exposes four Non-associated Dwellings to excess noise, annoyance and nuisance depending on the diligence of the operational staff. The potential for mico-siting within 100m of turbine locations introduces further risk of exceeding criteria.

The EIS Traffic and Transport Assessment pg. 35 details two blade length options for the Project, 83.5m and 65.4m. HOGPI members would like to know if the different blade lengths influence wind turbine noise?

The EIS does not take into account the impact of cumulative noise, from Barry Rd sawmill, state forest logging transport, and Hills of Gold Wind Farm component transport and construction, and the potential for annoyance or nuisance. It doesn't take into account the cumulative impact of noise from multiple turbines, particularly in the amphitheatre and three fingers of wind turbines (and associated cluttering effect) created at the southern end of the project. The study does not acknowledge that residents currently experience pre-existing agricultural noise, when Hills of Gold Wind Farm proposes introducing unwelcome industrial wind turbine, construction and traffic noise in a rural residential area dominated by Non-Associated Dwellings.

The EIS Appendix E.1 Noise and Vibration Assessment, pg. 28 outlines that during standard hours construction noise will be greater than 45 dB(A) and outside of standards hours will be potentially greater than 35 dB(A) for concrete batching (two Non-associated Dwellings) and pouring (seven Non-associated Dwellings).

Two rock crushing facilities are not assessed in the Noise and Vibration Assessment. Locations are given, associated with concrete batching plants.

It is noted that during construction of Sapphire Wind Farm outside recommended standard hours to the point where construction workers were commuting and employed through the night and the site was lit, disturbing neighbours.

In HOGPI members' experience the EPA is ineffective in resolving complaints regarding non-compliance. HOGPI members do not trust the applicant regarding self-monitoring or the EPA regarding enforcement.

The EIS states that the distance between construction and the nearest dwelling is great enough that blasting will not cause disturbance. However, there has been no geotechnical studies of the site or proposed Devil's Elbow realignment. How does the proponent know how much blasting is required and where?

Page 34 details that for 13 months of the peak construction period the number of vehicle movements would exceed recommended traffic volumes and associated noise:

"...during the peak of construction (from month 6 to 19) the number of vehicles associated with the wind farm development, using the preferred access route is predicted to exceed the above traffic volumes. During this time, morning traffic levels are expected to reach 109 light vehicle trips and 18 large vehicles within one hour. For this level of activity, a noise level of 58 dB(A) is predicted at 25m from a highway and 60 dB(A) at 10m from the road within a township."

It is not noted whether "morning" falls within the day (7am-**10pm**) or night (10pm-7am) period. It also doesn't state whether the return vehicles are within acceptable traffic volumes or noise levels.

The traffic associated with wind farms includes semi-trailers, low loaders, trucks, mobile cranes, water tankers, four-wheel-drive vehicles and passenger vehicles.

The EIS does not assess the potential impact of traffic noise on popular camping reserve, Sheba Dams, located on Barry Rd. Commercial wedding and conference venue, The DAG Sheep Station, is located within view of WTG 1-7 and the impact of construction noise has not been assessed.

HOGPI members are concerned that Nundle and Hanging Rock residents on the preferred traffic route have not been consulted or informed about potential noise disruption. On Blasting pg. 36 states, "The separation distances between any potential blasting activity associated with the wind farm and the nearest dwellings are of the order of magnitude for which ground vibration and air blast levels have been adequately controlled at other sites."

"...in the event that blasting is necessary, a monitoring regime is implemented to ensure compliance with the blasting criteria…"

There have been no geotechnical studies completed for the Hills of Gold Wind Farm, therefore the proponent does not know whether or where blasting would be required. This includes the proposed realignment of Devil's Elbow to create a new private road.

HOGPI members request detailed geotechnical analysis of the site to determine where and how much blasting would be required to construct Hills of Gold Wind Farm wind turbine foundations, hardstands, and access roads (including Transverse track and Devil's Elbow realignment), and its impact on surrounding residents. Blasting near Devil's Elbow may require closure of Hanging Rock Lookout or Barry Rd, causing additional inconvenience and safety risk to residents and tourists.

HOGPI also requests that the Noise and Vibration Assessment take into account topography. Local knowledge highlights that noise travels long distances in the Hills of Gold and Wind Turbine, Construction, Blasting and Traffic noise assessment do not take that into account.

HOGPI members ask that the Noise and Vibration Assessment take into account wildlife, that is also affected by noise and vibration like humans.

REQUESTED ACTION – NOISE

- **redo the Noise Monitoring Assessment without bellowing cattle and generator noise for one of the Non-Associated Dwellings.**
- **conduct noise assessments at Timor.**
- **clarify if the different blade lengths influence wind turbine noise?**
- **give detail of noise implications for two rock crushing facilities.**
- **provide detailed geotechnical analysis of the site to determine where and how much blasting would be required to construct Hills of Gold Wind Farm wind turbine foundations, hardstands, and access roads (including Transverse track and Devil's Elbow realignment), and its impact on surrounding residents. Blasting near Devil's Elbow may require closure of Hanging Rock Lookout or Barry Rd, causing additional inconvenience and safety risk to residents and tourists.**
- **address topography impacts in the Noise and Vibration Assessment. Local knowledge highlights that noise travels long distances in the Hills of Gold and Wind Turbine, Construction, Blasting and Traffic noise assessment do not take that into account.**
- **take into account wildlife, that is also affected by noise and vibration like humans. in the Noise and Vibration Assessment**

11.0 HAZARDS AND RISKS

11.1 AVIATION

HOGPI members identify the following risks associated with wind turbines: landing of helicopters for refuelling on the Nundle Recreation Ground (Westpac Rescue Helicopter Search and aviation firefighting), the loss of income by aviation companies, restricted agricultural use, the exclusion of the airfield located on the majority associated turbine host landholder's property, the use of low flying planes for fire fighting and the involvement and consultation with CASA, for obstacle lighting.

It is worth noting that when the ridgeline is covered in cloud visibility is reduced for low flying aircraft, similarly visibility is impacted during bushfire due to smoke. There have been three registered air crashes in Nundle's history.

The aviation assessment is not complete. The consultation in many places involves the comment- email sent, no response. This is not consultation. One of the aerial applicators who did respond stated it would impact on $80,000 annual business for his operation. This was Middlebrook Air. They responded saying they take the same stance as the AAAA.

The consultant states that there is no need for obstacle lighting yet CASA requires that any object over 150m will need obstacle lighting.

The Aerial Application Association of Australia (AAAA) is completely against wind turbines due to the impact on business. They are the representative body for agricultural pilots. The report claims consultation, then states a communication was sent and no response was received

The Local Land Services were sent two communications. As no response was received, this was considered consultation. The LLS runs the wild dog baiting program.

CASA was contacted and responded that they would only review assessments referred to them by a Planning Authority or Agency, consequently there is no comment from CASA.

The report stated that there would be no impact on the nearest agricultural airfields.

The closest airfield was left out of the report as it can't be used and is on the major host landholder's land. The three airfields reported on were stated to not be impacted, yet the turbines will need to be turned off to facilitate landing and take off. This is an impact.

There is no discussion about the impact on the application of fertilizers/spraying and whether this will still be possible due to the turbulence/wake. The report simply says that the applicator needs to consider risk. This will significantly impact on agricultural business in the area.

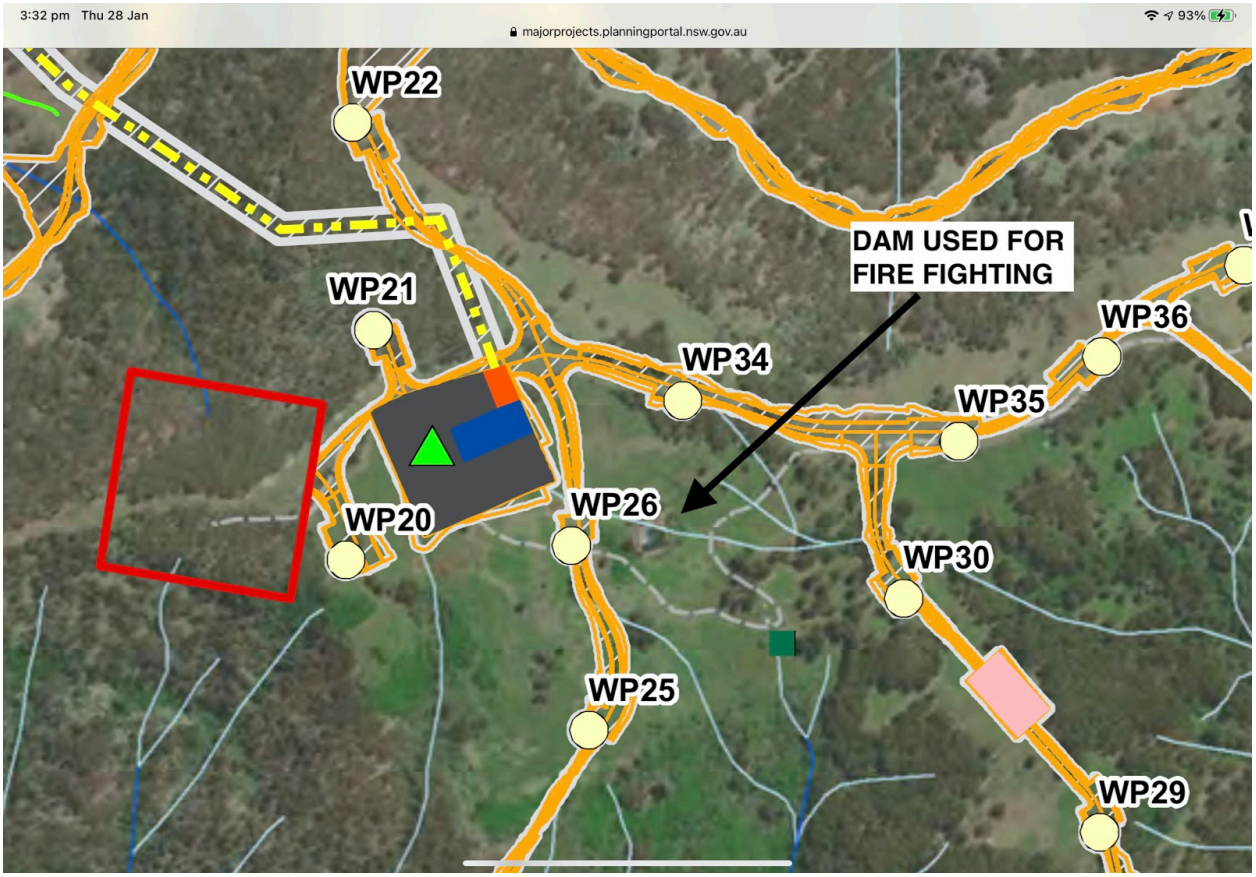
The EIS 13.1 pg. 249 suggests use of helicopters for agricultural aerial application operations to enable closer proximity to obstacles than fixed wing aircraft, however this may also require additional cost.

HOGPI members note that aerial firefighting has not been addressed. This is of paramount concern to members who experienced a devastating fire in the vicinity in Dec 2019/Jan 2020 of over 7,495 hectares. The unavailability of aerial firefighting due to competing resources was a major reason for the protracted fire, resulting in greater loss to landowners and threat to the Nundle, Hanging Rock and Timor communities.

AVIATION PROJECTS

Figure 7 Location of Project in relation to Dam

'Figure 7 Location of Project in relation to Dam' is incorrect. The arrow "Dam used in bushfires" is not positioned correctly. The actual dam used in bush fire aerial fighting is situated in an open paddock and will become not accessible should the BESS/O&M/substation complex be constructed. It will also be obstructed by turbine WP26.



REQUESTED ACTION – AVIATION

- **follow up CASA with request for review of assessment referred by Planning.**
- **follow up organisations that have not responded to correspondence.**

11.2 BLADE THROW

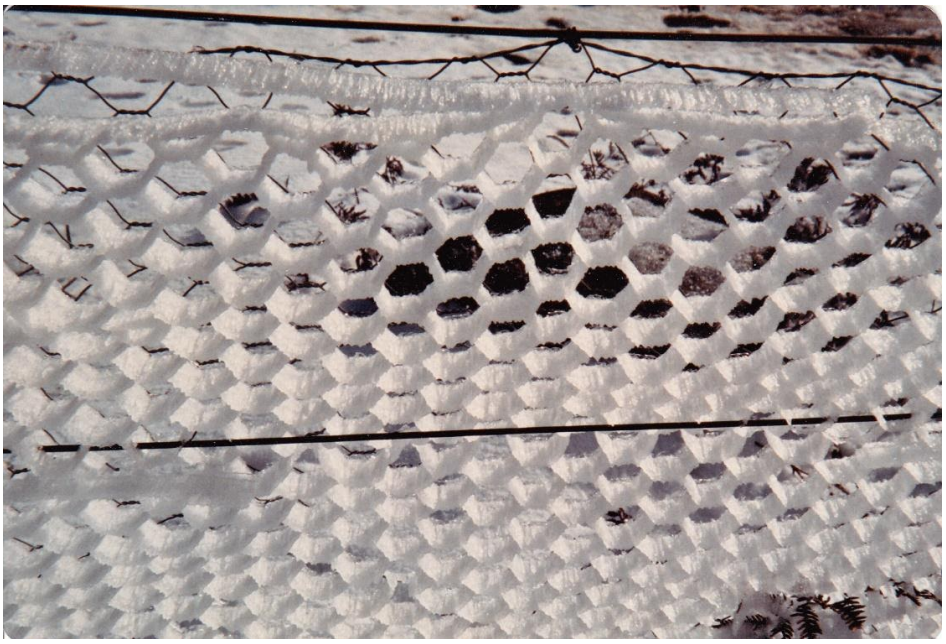
HOGPI members request that Blade Throw risks include OH&S workplace risk assessment. The EIS identifies one Associated Dwelling potentially at risk of Blade Throw, but fails to acknowledge the workplaces of many landholders bordering the project with livestock and workers within the Blade Throw range. There are also potential impacts for recreational users of this land; campers, hunters, bushwalkers.

At the October 2020 Hills of Gold Wind Farm CCC meeting ERM's Murray Curtis stated that Sapphire Wind Farm replaced three turbine blades within the first two years of operation. This has the potential to further disrupt the community if wind turbine blades need to be replaced after installation.

HOGPI members note that the EIS does not address the potential for Ice Throw, despite Hanging Rock being known for black ice and snow. During period of low cloud, freezing temperature and high wind, freezing mist forms ice coatings on the windward side of all surfaces. Icing of turbine blades has not been dealt with. In blizzard conditions in July 4, 1990 and July 13, 2015 the 11,000 KV power line in Morrisons Gap (31.322°S 151.104°E) broke under the weight of ice.

There is a small habitable Associated Dwelling (Lot 210 DP 819485) which is only 350 meters from the turbine WP65 and 525 meters from the turbine WP64. The coordinates of the dwelling are 31°32'48.08"S, 151°10'36.29"E. The EIS does not mention the dwelling nor discuss future plan for this dwelling. Will it be dismantled? Will it continue being used and occupied despite the presence of the turbines nearby?

A number of Morrisons Gap Road and Shearers Rd residents will have to drive through the construction zone, and between operating turbines, once constructed, to access their properties. Morrisons Gap Road and Shearers Road (both are public roads) have not been assessed for blade throw risk to travelling motorists.



Wind driven frozen mist build up on Nycooma fence August 1983

REQUESTED ACTIONS – BLADE THROW

- **take into account landholders bordering the project with livestock and workers within the Blade Throw range.**
- **consider potential impacts for recreational users of this land; campers, hunters, bushwalkers.**
- **make provision for replacement of turbine blades after installation.**
- **address the potential for Ice Throw, despite Hanging Rock being known for black ice and snow.**
- **advise whether Associated Dwelling (Lot 210 DP 819485), 350 meters from the turbine WP65 and 525 meters from the turbine WP64, will be dismantled? Will it continue being used and occupied despite the presence of the turbines nearby?**
- **address impacts of Morrisons Gap and Shearers Rd residents driving through construction zone and between operating turbines.**

11.3 HAZARDOUS MATERIALS

The potential for change of turbine blades needing replacement and the Decommissioning stage requiring including the disposal of turbine blades has not been addressed in the EIS.

It is understood that when wind turbine blades are no longer needed they are cut down in size and disposed of.-Wind turbine rotor blades made from glass or carbon fibre reinforced composites for disposal carries an extremely high risk of contaminating the surrounding environment including neighbouring Ben Halls Gap Nature Reserve, Crawney Pass National Park, and surrounding water catchments flowing into rivers for human consumption. HOGPI members request detail about where turbine blades would be cut and landfilled throughout the life of the project? What risks are associated with cutting the blades?

REQUESTED ACTION – HAZARDOUS MATERIALS

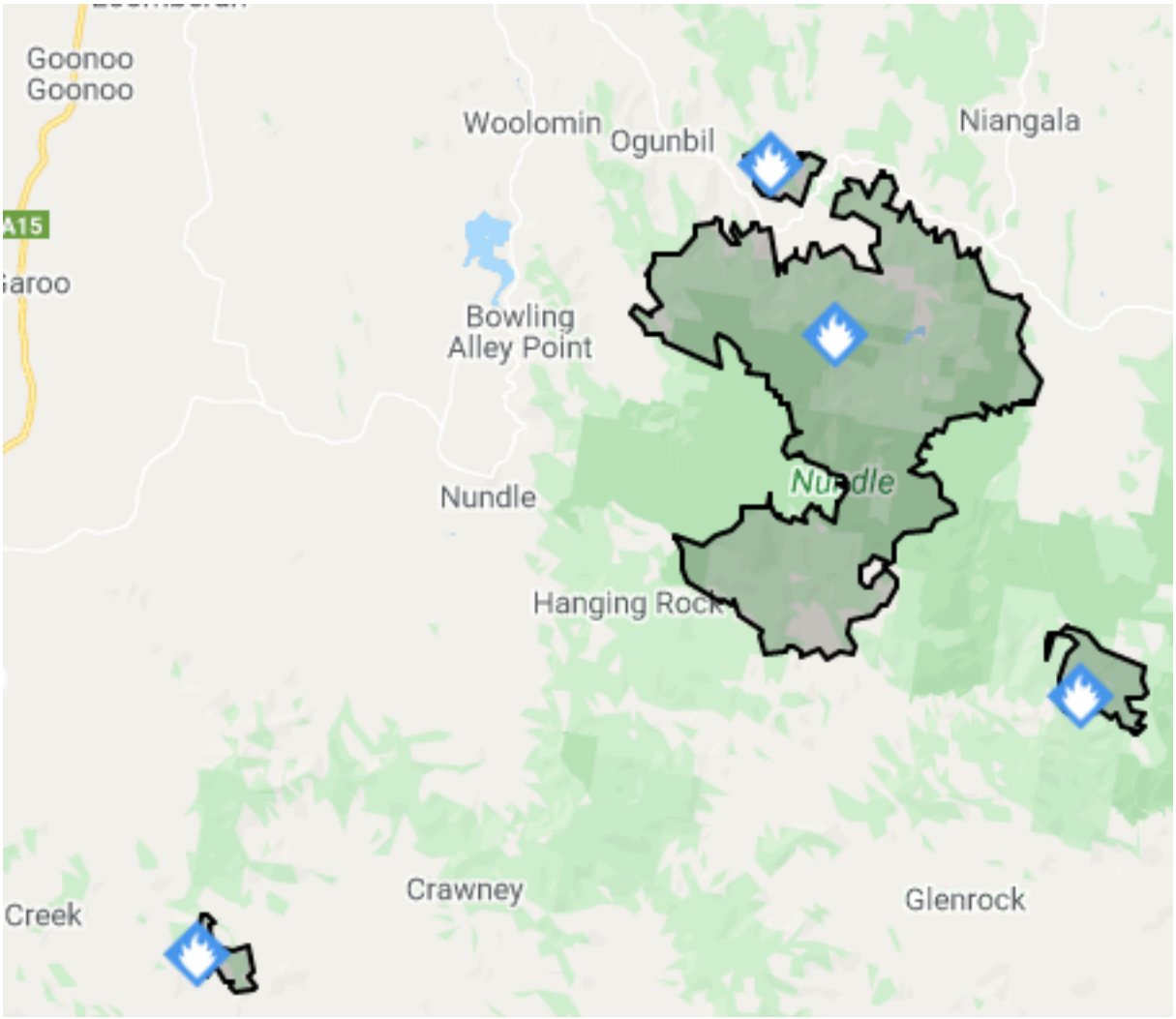
- **provide detail about where turbine blades would be cut and landfilled throughout the life of the project? What risks are associated with cutting the blades?**

12.0 BUSHFIRE

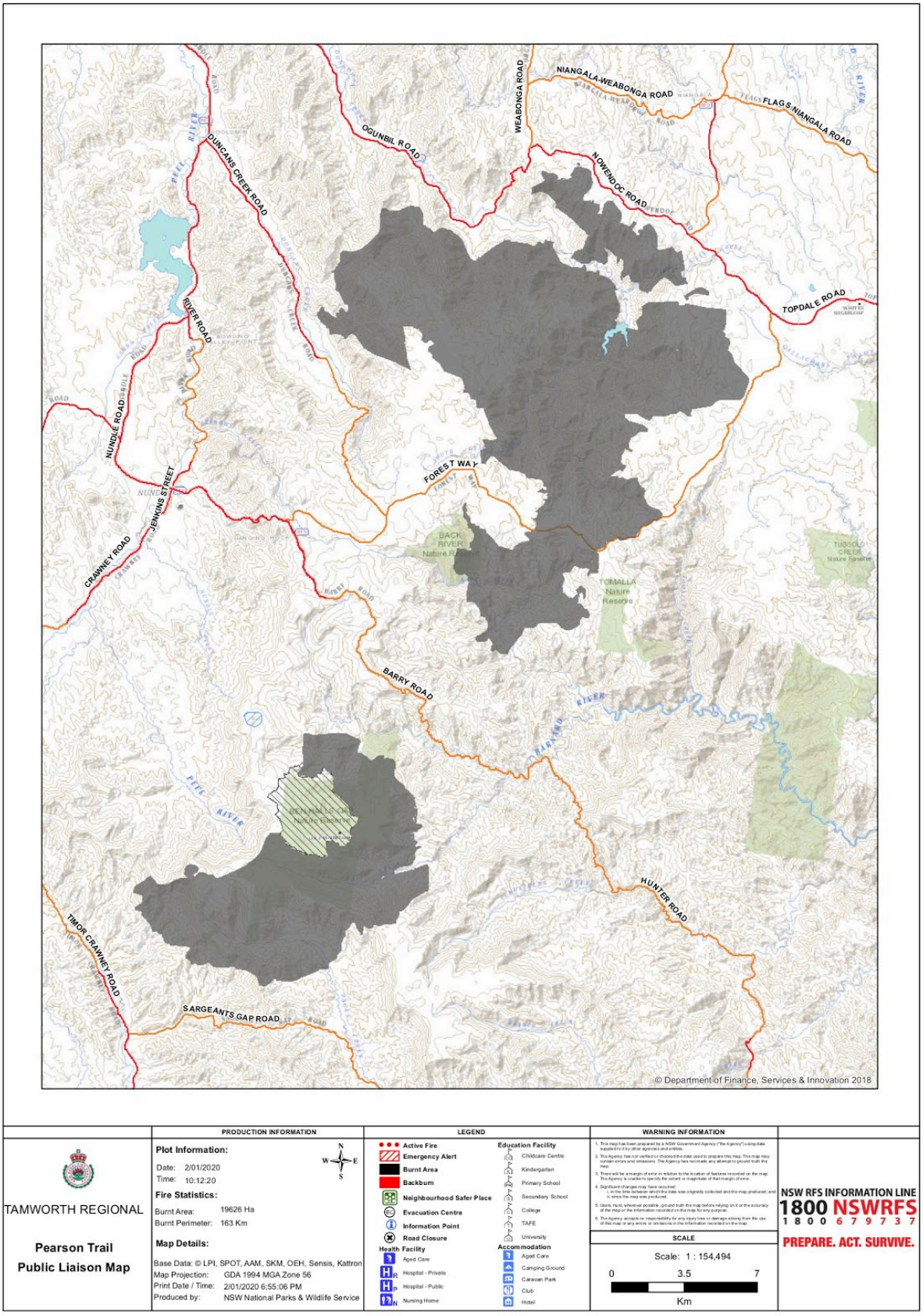
HOGPI deputy president and Hanging Rock Rural Fire Service Senior Deputy Captain, Brain Tomalin has written a detailed submission regarding EIS Appendix J Bushfire Risk Assessment. HOGPI will defer to Brian's years of experience fighting fires and knowledge of the ecosystem from living on the range for 40 years.

HOGPI supports Brian's request for a site specific assessment, based on a site visit to understand the unique nature of the topography, ecosystem and limited access. We share Brian's concern that turbine and Battery Energy Storage System placement would limit helicopter access to Nycooma Dam.

The entire Project Area is listed as Bushfire Prone, which community members brought to the attention of WEP at the December 2019 Hills of Gold Wind Farm CCC meeting following the EPBC Act referral Public Exhibition period.



Fires Near Me screenshot from December 2019, including Section 44 bush fire that burnt 7,495 ha.


NIANGALA-WEABONGA ROAD
WEABONGA ROAD
FLAGS-NIANGALA ROAD
OGUNBIL ROAD
DUNCANS CREEK ROAD
NOWENDOC ROAD
TOPDALE ROAD
RIVER ROAD
NUNDLE ROAD
JENKINS STREET
FOREST WAY
CRAWNEY ROAD
BARRY ROAD
HUNTER ROAD
TIMOR CRAWNEY ROAD
SARGEANTS GAP ROAD
PEEL RIVER
BACK RIVER Nature Reserve
TOMALLA Nature Reserve
TUGGOLO CREEK Nature Reserve
© Department of Finance, Services & Innovation 2018
TAMWORTH REGIONAL
Pearson Trail
Public Liaison Map
PRODUCTION INFORMATION
Plot Information:
Date: 2/01/2020
Time: 10:12:20
Fire Statistics:
Burnt Area: 19626 Ha
Burnt Perimeter: 163 Km
Map Details:
Base Data: © LPI, SPOT, AAM, SKM, OEH, Sensis, Kattron
Map Projection: GDA 1994 MGA Zone 56
Print Date / Time: 2/01/2020 6:55:06 PM
Produced by: NSW National Parks & Wildlife Service
LEGEND
Active Fire
Emergency Alert
Burnt Area
Backburn
Neighbourhood Safer Place
Evacuation Centre
Information Point
Road Closure
Health Facility
Aged Care
Hospital - Private
Hospital - Public
Nursing Home
Education Facility
Childcare Centre
Kindergarten
Primary School
Secondary School
College
TAFE
University
Accommodation
Aged Care
Camping Ground
Caravan Park
Club
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Scale: 1 : 154,494
0 3.5 7
Km
NSW RFS INFORMATION LINE
1800 NSWRFS
1800 679737
PREPARE. ACT. SURVIVE.

The EIS 13.4.4, pg. 266 recognises that the Project Area is flanked by very steep, rugged terrain. Hills of Gold Wind Farm introduces a new hazard into a Bushfire Prone landscape. The EIS pg. 274 states, "The risk that the wind farm itself will cause a fire is minimal although it is recognised that the proposed development is located within a bushfire prone landscape, and that despite the mitigation measures and treatments that are put in place, some bushfire risk will always remain." The risk of turbine fire caused by equipment failure throwing embers into Ben Halls Gap Nature Reserve cannot be discounted.

The EIS pg. 274 outlines that Asset Protection Zones APZ will be established for the Wind Monitoring Masts (10m), Operations and Maintenance Building, Battery Energy Storage System, and Substation (20m) and Switching Station (33m east and 23m west). No trees or shrubs will be planted within the APZ. This should be taken into account when assessing the visual impact of the ancillary infrastructure, and further restriction to claw back biodiversity loss.

Photographs of aerial fire fighting of the Nundle and Hanging Rock bushfires (2019/2020)

Nundle State Forest, some 3km from the proposed Project Area, was declared a Section 44 bushfire. Pages Creek fire burnt 7,495 hectares and Pearson Trail fire burnt 18,000ha (source: Bushfire Information Community Newsletter 2/1/20). At the height of the emergency it was

anticipated that Pages Creek and Pearsons Trail fires would merge. Australia's black summer is still raw in the memory of the local community who were on high alert from September to January 2019-2020 as they heard air tankers and aircraft dumping retardant and water on fires, attended public meetings, prepared to evacuate vulnerable residents, and volunteered as Hanging Rock and Nundle Rural Fire Service members or supporters.

HOGPI members do not want fire fighting capability impaired, including the ability to deploy low flying aircraft close to wind turbines, transmission lines, neighbouring nature reserve, state forests and national park.

Brian Tomalin says Hanging Rock is probably the second most vulnerable village to bushfire in NSW. Bushfires in the area east of Nundle tend to be what the RFS refer to as "campaign fires," which are hard to control and last for longer than two weeks.

HOGPI members are concerned that wind turbines are proposed for a fire and lightning prone area, potentially amplifying the problem of bushfire risk and restricting the risk of aerial fire fighting.

The Hanging Rock village is sandwiched between the proposed wind farm and highly flammable pine forest plantation. Introducing construction and hundreds of workers to the ridgeline adds fire risk to Ben Halls Gap Nature Reserve, Hanging Rock village, and landholders in vulnerable areas.

The Fire Management Strategy for Ben Halls Gap Nature Reserve highlights 2000/2001 and 2002/2003 unplanned fires. There is a designated staging area and helipad on flat land and a water vehicle point marked. These facilities would need to remain accessible.

The Fire Management strategy also includes utilising aerial photography during incidents. The 2019/2020 Hanging Rock fire also utilised aircraft to conduct thermal imaging studies to monitor residual smouldering.

WEP's consultant contacted the Hanging Rock and Nundle RFS Captains briefly and then, with no follow up, consulted with Coffs Harbour Regional Command. Local knowledge is one of the greatest assets within the community and was not utilised for the EIS.

Brian Tomalin has indicated that modelling available shows there are points within the range that will be unable to be contained due to limited or no ability to fly aircraft close to the turbines to get containment in the early stages of a fire near the Project Footprint. This could allow a fire to spread to inaccessible country below Hanging Rock Village and create cinder showers that would fall on the Hanging Rock community during updraft of an uncontained fire, placing community members lives at risk.

Table 5.4 Summary of Bushfire Risk Factors, Pg. 55 in Appendix J, "Natural ignitions such as lightning strikes are likely and historically common across the region. Human induced ignitions (both accidental and arson) are also known to occur. The risk of the fire starting as a result of a lightning strike is actually reduced by the presence of wind turbines. A built-in lightning protection system safely dissipates the electricity from the blades or the nacelle into the ground."

Research indicates that the height of the towers increases the incidence of lightning strikes particularly on mountains. "It has been observed that number of lightning strikes to tall structures and the percentage of lightning discharges initiated from the structure, what we call upward lightning, increase with tower height." *(A Calculation Method of Effective Height of Structures in Lightning Studies - Takatoshi Shindo [IEEJ Transactions on Power and Energy Vol.132 No.3 pp.292–293 DOI: 10.1541/ieejpes.132.292])*

Research also indicates a possibility of increased lightning strikes in the vicinity of wind towers, although a variety of factors influence the incidence of lightning in the surrounding area.

"If a tall structure constructed, number of cloud-to-ground lightning flashes around the structure may increase or decrease by the effects of the structure. Several studies have been carried out to clarify the effect. Saito et al. [61] investigated the lightning striking characteristics to wind turbines in the coastal area of the Sea of Japan. They compared the lightning density around a wind turbine and found that the lightning density in the area within 3km from a wind turbine is several times larger than that in the area 9km from the wind turbine. They call it a 'hot spot'. The increase of lightning in the area is due to the occurrence of upward lightning from the wind turbine . . ."

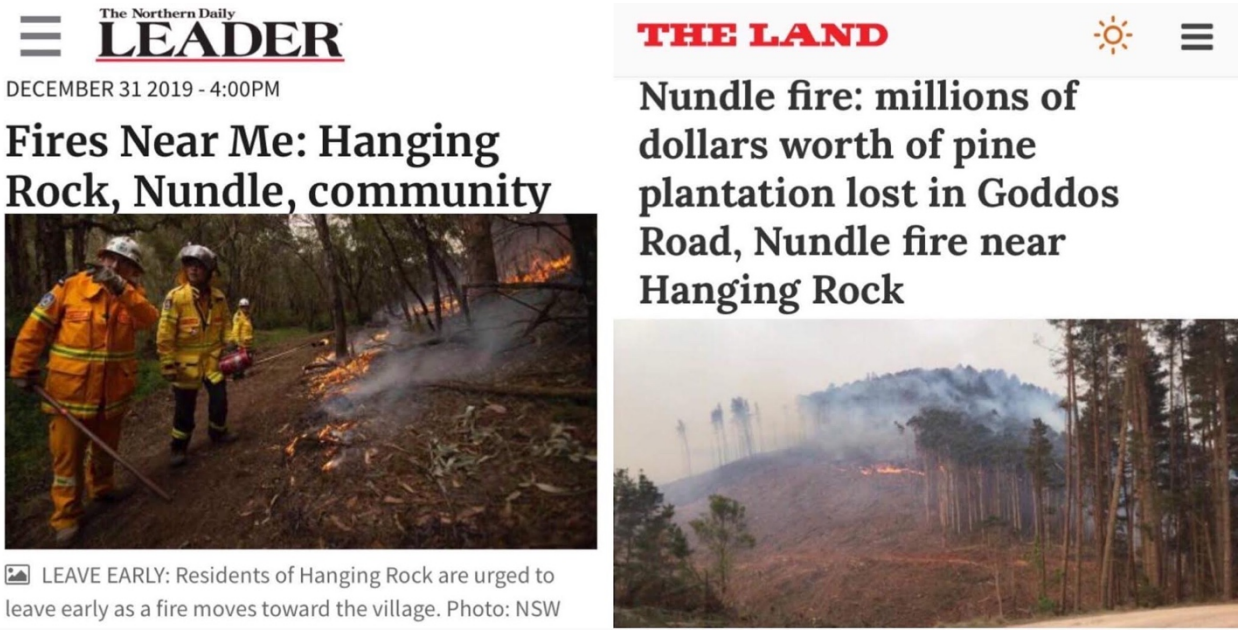
"However, an increase in the number of lightning occurrences by the construction of wind turbines has been observed in Europe [62,63]. In Ref. [62], number of lightning strikes within about 1km of a wind turbine is compared with that in a reference area that is 2.5–3km from the wind turbine at 50 onshore and 2 offshore sites. Observation data by the European Cooperation of Lightning Detection (EUCLID), which is a LLS operated in Europe, show that the number of lightning strikes around wind turbines was higher than those of the reference area by 64.1% for negative strikes and 28.7% for positive strikes, on average. Note that the increase does not appear at all sites; in fact, the number of lightning strikes decreased after the construction of a wind turbine in some sites." *(Lightning Striking Characteristics to Tall Structures - Takatoshi Shindoa [IEEJ TRANSACTIONS ON ELECTRICAL AND ELECTRONIC ENGINEERING IEEJ Trans 2018; 13: 938–947])*

Considering the close proximity of the ecologically sensitive Ben Halls Gap Nature Reserve and Crawney Pass National Park to the Project Footprint the potential risk of increased lightning strikes within a 1 to 5 kilometre of the Project Area is an unacceptable risk.

Research shows that there will be an increased lightning intensity around the towers. Irrespective of the effectiveness of the lightning protection methods built into the towers and blades the probability that lightning could cause equipment failure and ignite a fire in the turbine exists. If the engineering design of the lightning protection cannot be assessed with a risk profile of "Exceptionally Unlikely" the risk probability is unacceptable for the location of the Project.

Table 5.4 Summary of Bushfire Risk Factors, Pg. 56 in Appendix J, "Bushfire at Waterloo Windfarm: During this event transmission infrastructure, meteorological towers and guy-ropes were difficult to see; this infrastructure does have potential to limit the effectiveness of aerial firefighting operations."

Detailed design features of the Project need to be completed before assessment of the impact on infrastructure on aerial firefighting operations.



Media coverage of Nundle and Hanging Rock bushfires (2019/2020)

REQUESTED ACTION – BUSHFIRE

- **provide site specific assessment, based on a site visit to understand the unique nature of the topography, ecosystem and limited access.**
- **address residents' real concerns and anxiety about the potential for wind turbines to restrict the movement of bushfire aviation firefighting to protect people and their land.**

13.0 SOCIO ECONOMIC IMPACT ASSESSMENT

The Socio Economic Impact Assessment was a great disappointment to HOGPI members. Only 11 community members were interviewed, which appears to be a small sample. The assessment team did not visit Nundle at any time during 2020, which is a missed opportunity to gain further understanding about the dynamics of the town and the landscape. The results are worded to present the proponent in a positive light, and the potential negative impacts on the community that would live with the Hills of Gold Wind Farm on a daily basis are not a priority.

Nundle Art Show Opening Night

Table 1 Net Community Benefit Assessment and Ratings, pg. 7 identifies the Impact on community attitudes and sense of community as Low (negative) and Low (negative) neutral following mitigation. The mitigation suggested includes transparency and collaboration during the wind farm development phase. Yet the proponent was not transparent with the Hills of Gold Wind Farm CCC regarding Engie's plans to purchase WEP and the Hills of Gold Wind Farm development. A community member tabled media articles from January 2020 speculating about Engie's ownership, and ASIC registration from October 6th, 2020 yet Engie's purchase of WEP was not disclosed until October 29th 2020.

The Assessment states that the proponent has continued to collaborate with the community in areas of road safety, yet detail of the Traffic and Transport Assessment was not available until

the EIS Public Submission period began on December 2nd. Community members from Nundle and surrounds with limited access to computers or the internet have been at a disadvantage to understand the implications of the proposed traffic routes, construction and traffic noise, and blade trespass potentially removing fences and trees on private land. For some residents being alerted to the potential impacts on their property in the EIS was the first time they had knowledge of their property being considered on the transport route.

The potential impact on local financial gain (Community Enhancement Fund) is rated as Medium (positive) increasing to High (positive) post mitigation. However, this can be interpreted a different way with local knowledge. Before the Hills of Gold Wind Farm was made public the Nundle and Hanging Rock communities worked co-operatively to market the area and organise community events to raise money. When the CEF is available why will community groups need to organise events at all, why will community members need to volunteer, why would opponents of the wind farm be interested in applying for grants from Engie when it has destroyed their enjoyment of their property?

Potential negative impact on local business is measured as Low (negative). It is unrealistic to suggest that consideration during the design phase could mitigate impact to Low medium (positive) without turbines being removed completely.

Impact on property prices is considered (Low) negative and neutral following mitigation minimising impacts during the design phase. The uncertainty of the wind farm is already having an impact on demand for lifestyle properties, and investment in building or renovations of existing properties. Photomontages have done nothing to ease the concerns of landholders, only confirming the unacceptable impacts that they already imagined.

Creation of local jobs is judged Low (positive) and Medium (positive) following mitigation working with authorities to promote and develop skills. As outlined in the Employment section of this document it is expected that DPIE will consider the Hills of Gold Wind Farm jobs estimates to be overstated. The proponent has changed the script on jobs over three years from jobs for locals to jobs within an hour's commute. The real jobs benefit to locals is expected to be minimum. The EIS expects 60 construction workers would be bused to Hanging Rock from strategic accommodation in Tamworth, indicating they may be FIFO.

The Impact on local tourism is viewed as Low (negative) and Neutral following working with tourism operators and authorities to minimise impacts. The visual, environmental and traffic and transport impacts of the Hills of Gold Wind Farm are so great that it is impossible to achieve a Neutral impact on tourism. To create new tourism opportunity would require community motivation and support and support for the proponent. The majority of the

community oppose the proposal and the good will is not there to encourage the majority of tourism operators to work with Engie to create new tourism opportunities.

Impact on the local environment is predicted to reduce from Medium (Negative) to Low (Negative). The environmental impacts of the Hills of Gold Wind Farm are so extensive ranging from tree removal, clearing and disturbing vegetation to blasting and construction. The community has not been adequately informed about the suite of environmental impacts as a result of the Hills of Gold Wind Farm.

Appendix P Socio Economic Impact Assessment Economic Impacts does not take into account that only one of the four associated landholders hosting turbines live on their property. The Assessment assumes landholders will re-invest some of their turbine income into the surrounding community, but that likelihood is reduced if they do not live in the community. It is offensive to HOGPI members that turbine hosts who would not live with the day-to-day impacts of wind turbines on the range expect others to do so. The majority of dwelling owners surrounding the Project Area have not signed Neighbour Benefit Sharing Agreements, nor given consent to blade trespass, or use of their land for road upgrades and transport access. Non-Associated Dwellings would carry the majority of the visual impact and lifestyle loss from the proposal. The Assessment ignores that while income would be provided to owners of Associated Dwellings, it does not acknowledge income or asset value lost from pre-existing agricultural land, lifestyle blocks, residences, future subdivisions, tourism businesses, and the value of the range as a natural resource and for recreation.

More than 100 guests attend a sell-out HOGPI fundraising dinner and show Shootin' Sadie at The DAG Sheep Station in March 2019.

The proponent continues to downplay the level of opposition to the Hills of Gold Wind Farm. Social impact continues to attract media attention, locally, regionally, and nationally, including Print (The Land, The Northern Daily Leader, Bush Telegraph), Television (Prime News, NBN News, and Credlin on Sky News with Peta Credlin), and Radio (88.9fm, ABC New England North West, 2GB with Ben Fordham). The majority of the local community oppose the Hills of Gold Wind Farm development regardless of financial compensation, proposed mitigation, and offsets. The development does not have community consent, only a minority of the community, consisting mainly financial beneficiaries, their relatives or employees, support. The proponent should not have proceeded with prospecting for the proposal, which majority host landholder, Jim Robinson, pitched to Wind Energy Partners Pty Ltd as a potential site.

A detailed summary of the pre-existing Tourism industry is provided. The Assessment demonstrates a misunderstanding of the importance of the Visiting Family and Friends segment to the Tamworth region.

While the Assessment makes reference to the Friends of the Wind Farm Group it does not mention Hills of Gold Preservation Inc, which was formed in April 2018 and has the largest financial membership of any community group in Nundle.

The Socio Economic Impact Assessment makes no specific mention of jobs benefits for Nundle and Hanging Rock, but rather expands the benefits to wider regional NSW. This should be considered in the context that the majority of residents in the vicinity of the wind farm do not want to live with its day to day impacts.

HOGPI members note that Nundle and the proposed Hills of Gold Wind Farm share character traits with Gloucester and proposed Rocky Hill Coal Mine, both having:

- pre-existing tourism and tree-change lifestyle residents;
- significant scenic value and rural character;
- attractive to a large number of visitors each year;
- significant visual impacts on local residents, travellers and tourists;
- incompatibly located;
- proposed land use conflicts with existing land uses, rural-residential and tourism;
- simply in the wrong place and simply too close to residential areas;
- environmental impacts on both the natural and built environment;
- social and economic impacts in the locality;
- lighting impacts limiting views of the evening sky and intrusive to residents;
- decision to purchase property influenced by visual amenity views of higher elevations towards the range;
- recognise the significance of the local landscape to the local community;
- town divided, elevated levels of stress, anxiety. depression.

HOGPI members ask for consistency in merit assessment and, like Rocky Hill Coal Mine, encourage DPIE recommend that the Independent Planning Commission not approve Hills of Gold Wind Farm.

At the Hills of Gold Wind Farm CCC meeting on December 10th 2019 a community member tabled an article from ‘The Glen Innes Examiner’ quoting a study by University of Sydney

academics stating that the benefits of wind farm developments near the town were privatised into the hands of a few and had modest long term benefits. “The benefits are quite restricted in some ways...people who’ve got land are beneficiaries...the town faces a relatively high unemployment rate despite nearly a billion dollars of investment…” It continues, “What can make or break some projects’ viability is their social license to operate - the extent to which the local community is happy for them to arrive.”

REQUESTED ACTION – SOCIO ECONOMIC IMPACT ASSESSMENT

- **HOGPI members ask for consistency in merit assessment and like Rocky Hill Coal Mine, encourage DPIE recommend that the Independent Planning Commission not approve Hills of Gold Wind Farm.**
- **be transparent with the Nundle and Hanging Rock community regarding construction and ongoing jobs estimates.**
- **request a member of the Socio Economic Impact Assessment team visit Nundle and Hanging Rock.**

13.1 EMPLOYMENT

The applicant's script on jobs has changed in the past three years from being: jobs for Nundle and Hanging Rock residents; to jobs within an hour's commute of Nundle, and 60 of 120 workers bused from strategic accommodation at Tamworth to and from Hanging Rock twice daily for the 13 months construction period (are the 60 FIFO workers?). The applicant gained early support among some members of the local community on the basis of the prospect of 34 local operational jobs. This is misleading and unrealistic.

During operations, approximately 31 permanent staff will occupy these premises. Whilst most activity is anticipated to occur during business hours Monday to Friday, access to the Project Area will be required on a 24 hour basis, seven days a week.

Figure 3-16 Example O&M Facility – Willogoleche Wind Farm

(Photo courtesy of ENGIE)

Screen shot from Hills of Gold Wind Farm EIS pg. 50.

In a February 7th 2018 presentation a proposal for 70-85 wind turbines was estimated to create 272 construction jobs and 34 operational jobs. This figure did not change as the project increased to 97 wind turbines, then reduced to 78 wind turbines. By September 22nd, 2020 Hills of Gold Wind Farm CCC the Socio Economic Impact Assessment indicated that for a 70 wind turbine proposal Direct Construction jobs would 216, and Operational jobs would be 31.

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		0.8 Jobs/MW	0.09 Jobs/MW
Hills of Gold Assumptions		0.7Jobs/MW	0.08 Jobs/MW
Hills of Gold Job Forecasts	410	272	34

Excerpt from a Someva document dated December 2017, presented by Inclusive Engagement's John and Christine Wilcox on February 7th, 2018.

HOGPI members are concerned that those employed from outside the area would have little opportunity to buy or rent houses at Nundle and Hanging Rock because real estate is so limited. The major associated landholder has been talking up the prospect of the wind farm increasing school numbers and members at the bowling club. If workers have nowhere to live at Nundle or Hanging Rock, they aren't going to bring their families to settle. During the February 2020 CCC northern site visit a Someva employee indicated there may be construction worker accommodation provided at Hanging Rock. When a community member asked for the worker accommodation, or donga, to be indicated on a map, Someva representatives said accommodation would no longer be factored into the proposal.

HOGPI's detailed analysis of wind farms operating or under construction in NSW indicates that based on average FTE construction and ongoing jobs/turbine the Hills of Gold Wind Farm jobs estimates are overstated (more than double in the case of FTE operational jobs). In the October 29th 2020 Hills of Gold Wind Farm CCC minutes a community member tabled documentation for wind farms with 70 turbines indicating they have 8 to 15 full time ongoing jobs. Why does Hills of Gold Wind Farm propose 31 ongoing jobs when it is not consistent with wind industry precedence? The proponent advised that "he's not here to defend those numbers as it is covered in the Social Economic Impact Assessment.". Furthermore, the community member

observed that Collector Wind Farm CCC minutes stated that the bulk of its workforce came from Western Sydney and interstate.

The EIS, pg. 273 states that "The Project will be controlled by a remote supervisory control and data acquisition (SCADA) from a control room located within the permanent site operations and maintenance facility. The SCADA system will allow remote operation of all WTGs with the ability to shut-down individual or all WTGs if required." This further brings into question the proponent's claim that Hills of Gold Wind Farm will create 31 ongoing jobs. HOGPI expects DPIE will comment on Hills of Gold Wild Farm jobs projections being overstated like it did for Jupiter Wind Farm, where at 230 construction jobs and 22 ongoing jobs for a 54 turbine wind farm, the proponent submitted jobs figures more than double those associated with similar sized wind farms.

REQUESTED ACTION – EMPLOYMENT

- **Provide construction and ongoing jobs estimates based on wind industry precedence.**
- **provide evidence that 60 construction workers will be transported by bus from strategic accommodation in Tamworth.**
- **clarify that construction worker accommodation is not proposed.**

13.2 FINANCIAL COMPENSATION

WHITE ROCK Wind Farm

Projects to receive funding from the White Rock Wind Farm Community Fund for 2018.

PROJECTS <$5,000	PROJECTS >$5,000
Swan Vale Tennis Club: Outdoor shelter	Arts North West: Lift Off! festival
GLENRAC Inc: Newsletters	Glen Innes Lioness Club: Catering caravan refit
Art on the Corner: Art competition	Glen Innes Minor League: Water storage tank
Deepwater Community Radio: Air conditioning	Glen Innes Public School P&C: Painting and storage
Glen Innes and District Tennis Assoc: Upgrade facilities	Glen Innes Rugby Union Club: Night lighting
Glen Innes Community Drug Action Team: Event equipment	Glen Innes Showground CLM: Painting of grandstand
Glen Innes Family and Youth Services: Purchase sewing machines	Wellingrove Progress Association: Shipping containers
Glen Innes Junior AFL Club: Equipment	
Glen Innes Rugby League: Pump shed	**INFRASTRUCTURE PROJECTS**
Glen Innes Community Christmas Day Luncheon: Santa's visit	Ben Lomond War Memorial Hall: Replace windows
Emmaville Pony Club: Jumping equipment	Glen Innes & District Cricket Association: Safety fence
Tingha Recreation Reserve: Equipment	Glen Innes Pistol Club: Stage 3 of range refurbishment
HN McLean Memorial Retirement Village Auxiliary: PA system	
Inverell Little Athletics: High jump mats	

The EIS 7.6.2 Community Enhancement Fund, pg. 138 outlines the proponent's offer of a CEF at $2,500 per turbine, an estimated benefit of $175,000 per year if the project proceeds with 70 turbines. The proponent has not disclosed whether the CEF will be reduced if turbine numbers are decreased further. The compensation has already decreased from $242.500 for 97 turbines.

The selection process for the CEF committee is specific, outlining 10 representatives including community members from Nundle, Hanging Rock, Timor, and Wallabadah (within 20km of Project Area infrastructure) and three council members The Council administering the finances would receive a fee of $5,000 per year.

The CEF has been appealing compensation for some members of the community. It is misleading for the major host landholders to distribute a flyer in the Nundle Post Office listing big ticket items for potential funding; a retirement village, doctor, indoor swimming pool,

jumping pillow, flying fox and swings into Sheba Dams, family tourist and adventure park at the wind farm with ski run, toboggan rides, mountain bike riding, horse trails, walking and buggy tours, inflatable ball rides, paddle boats, rock climbing wall and ninja warrior course, pipeline from Chaffey Dam to Nundle, community garden, skate park, go-kart track.

It is negligent of the proponent to raise the expectations of some members of the community that these items will be funded, by not correcting inflated concepts. The proposal is yet to be determined, the CEF does not exist, and many of the ideas put forward have not been thought through, and even at this early stage do not appear to be possible following CEF Workshop discussions.

Examples of White Rock Wind Farm CEF were far more modest, including hot water systems, shade shelters, and sporting equipment.

Nundle and Hanging Rock have a long history of being proactive and attracting grants for community projects and don't need to sell off the mountain range to fund new infrastructure or events. Currently fundraising like the Nundle and District Lions Club Breakfast on Australia Day, Nundle Country Picnic, Great Nundle Dog Race, Nundle CWA Art Show and Nundle Campdraft raise money and provide opportunities for connection and friendship. Volunteering to raise money for worthy causes contributes to community members' wellbeing. However, with an annual lump some of cash, events or raffles won't need to happen, just apply to the CEF for funding.

It is disturbing to consider that the social division caused by this proposal could last generations if it is approved. Community members who oppose the wind farm will not want to touch anything funded by Engie or displaying its logo. Consequently, a minority of the community will potentially be left to administer and benefit from the CEF.

The EIS overstates the potential benefit to host landholders stating that there are 14 freehold titles associated with hosting wind turbines or infrastructure. This equates to eight families. Of the 70 wind turbines proposed, 53 wind turbines (75%) benefit the major host landholder or his family members, the remaining 17 wind turbines either sharing boundaries or proposed on three landholders' properties. Four landholders would host transmission lines.

Well over $100 million dollars is the estimated value of lifestyle and agricultural land held by Nundle/Hanging Rock/ Crawney/Timor landholders who oppose and surround the Hills of Gold Wind Farm Project area. If this land was to be devalued by even the smallest of 5% due to the proposed wind farm, this would outweigh all financial gains of a CEF.

REQUESTED ACTION – COMMUNITY ENHANCEMENT FUND

- **disclose whether the CEF will be reduced if turbine numbers are decreased.**

13.3 COMMUNITY ENGAGEMENT

The EIS 7. Community and Stakeholder Engagement, pg.123 states that, "*Wind Energy Partners and ENGIE are committed to effective and genuine engagement with key stakeholders and the local community to seek feedback to help inform the Project design.*"

Yet it wasn't until the October 29th 2020 Hills of Gold Wind Farm CCC meeting that Engie disclosed via videoconference that it had bought WEP and the Hills of Gold Wind Farm development, despite refusing to confirm media speculation presented from January 2020. On June 16, 2020 HOGPI wrote to ENGIE to introduce their group but never received a response. Please see attached **Appendix 13.3 - Correspondence**.

At the October 29th CCC meeting a community member tabled Engie's ASIC registration of Hills of Gold Wind Farm Holding Pty Ltd on 6th October, rather than it being disclosed to members at the time. Prior to this HOGPI had written to ENGIE in June 2020 but never received a response.

In the three months as Hills of Gold Wind Farm owners Engie representatives have not met with HOGPI members or held a public meeting to introduce themselves. A CCC community member had to request an ENGIE contact. CCC members' emails regarding five community members being banned from a planned western site visit were deferred to a consultant to resolve.

The proponent states its key objectives of the consultation and engagement process are to "develop a social license to operate" (EIS, pg. 124). Throughout the community consultation period, members of the community raising concerns about or opposing the project have been patronised in person or via the media, and told they simply don't understand the project or don't have enough information. The proponent and its consultants have not acknowledged that the majority of the local community do not want a wind farm on the range. This has been proven by a petition lodged in state parliament and the large number of non-associated residences surrounding the proposed project area. In three years the proponent has failed to establish a social licence to operate.

The proponent claims a Stakeholder Engagement Strategy was prepared to guide consultation with stakeholders during EIS lodgement and following EIS lodgement. The HOGPI representative on the CCC brought to the proponent's attention that it had failed to engage landholders on the southern boundary of the proposed Project Area. Follow-up contact between HOGPI members and Timor residents confirmed they had not been contacted by the proponent. Contact was made with some Timor residents regarding Noise and Visual Impact Assessment. As recently as the December 10th 2020 HOGPI general meeting Timor residents stated they had not been adequately consulted about the proposal. EIS Table 4.1, pg. 62 lists the community of Timor as 15 km south of the Project Area. However, there are members of

the Timor community within 5km of the Project Area and as recently as January 2021 Timor residents called into the HOGPI pop-up office in Jenkins St saying they had not been contacted by the proponent. It is noted that Inclusive Engagement's report mentions *"Homesteads on the other side of the Crawney Pass near Timor"* as early as 11 May 2018 yet they were still not engaged in the process. Page 253 Appendix C3 Engagement

It is disappointing that it was not disclosed that the proponent was tracking sentiment using online platform Simply Stakeholders (EIS, pg. 125). Pages 129-130 describe a summary of sentiment recorded by the proponent/its consultants. HOGPI suggests community members with concerns about or opposing the proposal do not trust the proponent or its consultants and would be reluctant to reveal their opinion. It could be said that the sentiment measured is subjective and biased in favour of the proponent to support its proposal. Consequently, the 73% neutral sentiment measured would not be a reliable indicator of accurate community sentiment.

EIS Table 7-4 Community/Industry Stakeholder Engagement, pg. 129 - 131 describes Local Community and Business Groups. It should be noted that the Friends of the Wind Farm group mentioned was established in 2020. A Facebook group was created on 29th July 2020. Coincidentally, this follows a visit to Nundle by Australian Wind Alliance's Andrew Bray (since renamed RE-Alliance). I wonder if he suggested the formation of the group to support the proposal/EIS. It certainly looks like he provided the generic wind industry friends signs. The AWA has been particularly active in the Nundle and Hanging Rock community in the past three years, attending Friends of the Wind Farm meetings, and generating media in support of the proposal and criticising HOGPI members speaking out. A website post on January 24th, 2021 encouraging submissions in support of the Hills of Gold Wind Farm demonstrates Mr Bray's public role in deepening community division, "...there is a determined group of opponents who, with Barnaby Joyce's blessing, want to see the project stopped."

In the EIS, pg. 134 the proponent suggests Eco-tourism was raised by local businesses as an opportunity. "Interest has been received to host open days, support local tours, and host annual fun runs." Eco-tourist facilities are a prohibited development on the rural land zoned RU1 according to the Tamworth Regional Council Local Environmental Plan. The major host landholder has demonstrated on two occasions his reluctance to provide community members, who have expressed concerns about the proposal, access to his property for CCC site inspections. Will the major host landholder refuse access to his property to community members with concerns about the project for open days/local tours/fun runs? At the very least the reduced community cohesion in the village as a result of the wind farm conflict will decrease the capacity for community members to work together on future events. This was demonstrated by three experienced committee members resigning from the 2020 Nundle Go For Gold Festival Committee when Someva was asked to provide in kind support of the event.

The EIS Table 21-1 Environmental Management and Mitigation - Statement of Commitments, pg.349-352 discusses a commitment made to seal Morrisons Gap Road. This was made to gain the support of a group of landholders who rely on this road and would be impacted by dust associated with Traffic and Transport to the Project Area. The road is not located within the Project Area and trespasses on three private properties. The proponent does not have the legal authority to make a public promise to seal the road without reaching agreement with affected property owners and Tamworth Regional Council. This seems like a popularity winning exercise, and not a promise that can be easily delivered.

The proponent/consultant has gone through the motions and ticked boxes for community consultation, but has not genuinely listened to the overwhelming community opposition to the proposed Hills of Gold Wind Farm.

When the wind farm was first made public in the community a proponent consultant responded aggressively to several business owners when told the community would be organising its own public meeting to talk about the proposal. Similarly, a community member was abused on the main street by one of the major host landholders, for the community member's role in organising the public meeting.

The majority of the proponent's communication materials have been made available online. However, it cannot be assumed that the majority of the Nundle and Hanging Rock population are computer literate, have access to computers, or the desire to read information on a screen. Consequently, there has not been equal access to information for residents.

The community consultation has been superficial, not genuine, and some landholders and whole sections of the proposal (Timor) have been ignored.

Explaining the project does not increase its acceptance. The more HOGPI members know, the more they oppose the proposal.

REQUESTED ACTION – COMMUNITY ENGAGEMENT

- **accept the evidence that the majority of the community from Nundle and surrounds do not support the Hills of Gold Wind Farm and withdraw the Development Application.**

13.4 SOCIAL COHESION

The EIS, 4.4.7, pg. 81 continues to downplay the level of community opposition and lack of community consent for the proposal. The EIS references Friends of the Wind Farm signs demonstrating support for the project, however these signs were provided and erected by the major turbine host. The quoted number of 80 is misleading, with numerous properties displaying two signs. In contrast Preserve Hills of Gold Signs are paid for and installed by members. Some HOGPI members elect to not display signs for fear of repercussions.

THE LAND

Nundle vows to fight wind farm proposal

Daniel Pedersen 20 Apr 2018, 6 a.m.News

The Northern Daily LEADER

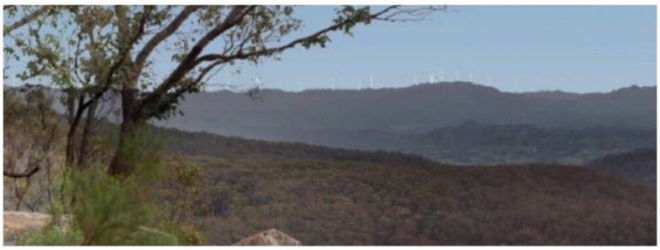
DECEMBER 27 2019 - 5:30AM

Nundle wind farm: 'overwhelming majority' of residents against the proposal

The Northern Daily LEADER

MAY 6 2020 - 5:00PM

Hills of Gold wind farm 'photomontage' does little to allay Nundle opposition



Power project: The view from Hanging Rock Lookout of the proposed Hills of Gold wind farm project outside Nundle. Photo: Wind Energy Partners

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Nundle Hills of Gold Wind Farm Project divides community opinion |

Proposed wind farm divides Nundle community members

The HOGPI paper and online petitions are evidence that the majority of the Nundle, and Hanging Rock community oppose the proposed Hills of Gold Wind Farm. This is supported by a statutory declaration by a Justice of the Peace, presented to the Hills of Gold Wind Farm CCC and Tamworth Regional Council in December 2019. The paper petition was lodged with NSW Parliament by Member for Tamworth Kevin Anderson in November. Financial membership of HOGPI is made up of residents of Nundle, Hanging Rock, Bowling Alley Point, Crawney and Timor.

Since February 7, 2018 when WEP consultants Inclusive Engagement made the wind farm public in the wider Nundle community, there has been reduced social cohesion. This has manifested itself in breakdown of friendship, banning from community facilities (and CCC site visits), verbal abuse, vandalism, and dysfunction or withdrawal from volunteer community groups.

On the morning of the 2019 Nundle Go For Gold Festival Nundle/Lindsays Gap Rd intersection, Oakenville Street, and roadside trees on the entrance to the festival were spray painted with the words, “GO THE WIND FARM”. If the Hills of Gold Wind Farm was approved, this social division would continue and any gain from compensation would be stripped by lost social capital. The prosperity and quality of life enjoyed by many in the Nundle and Hanging Rock community comes from the success of working together for fundraising. There are flow-on benefits to mental and physical health, role modelling for children, and co-operation and support during emergencies.

A selection of Hills of Gold Preservation signs displayed within the community

Community division has reduced social cohesion and resulted in anti social behaviour.

HOGPI members know the volunteer time involved in applying for, administering and reporting on grants. The majority of the local community oppose the development and will not want to contribute or be part of projects funded by the proposed CEF. The Nundle and Hanging Rock community currently raises more than $175,000 a year in fundraising and economic activity through annual events and tourism. The Hills of Gold Wind Farm is a threat to that continuing, cancelling out any proposed financial gain from the Community Enhancement Fund.

Understanding and analysis of the proposed Hills of Gold Wind Farm has come at a great personal and financial cost to HOGPI members and supporters for three years. The hours that have gone into reading, attending meetings, corresponding, and travelling, are an opportunity cost to time spent with family, friends, on hobbies, community volunteering, and business development. The proposal has created great stress and anxiety, and has impact HOGPI members' mental and physical health. It has created uncertainty in the community, restricting capital investment in building. HOGPI applied to DPIE for an extension to 90 days for the EIS Public Submission period, taking into account the high retail and family activity leading up to the end of the school year, Christmas, and remaining school holidays (particularly for a tourism town). This was rejected. The summer NSW school holidays has been the busiest tourism trading period experienced due to COVID 19 increasing the appeal of regional NSW travel. The January 29th deadline has had a significant impact on HOGPI members' businesses and families, with parents up until midnight working on the HOGPI submission for almost two months, unable to give their school age children the attention and family life they would normally experience during the NSW summer school holidays.

14.0 AUDIT AGAINST NATIONAL WIND FARM COMMISSIONER'S 2020 ANNUAL REPORT

https://www.nwfc.gov.au/observations-and-recommendations/site-selection

HOGPI members note the NWFC's observation that, "locating wind 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 dislocation impacts on the community. Access roads for hill and ridge wind farms can also be obtrusive and significantly damage and constrain the remaining available farming land in the area."

The Hills of Gold Wind Farm proposal goes against the NWFC's report, proposing a J-shaped amphitheatre of 70 wind turbines on 24km of a high ridgeline 1200-1400m elevation, 600m above the valley below. The proposal would have an unacceptable visual impact on the approach to Nundle from the west, on residences at Hanging Rock, Nundle, Crawney and Timor. The EIS does not provide a photomontage depicting the impact of clearing and construction of access roads, concrete batching plants, operation and maintenance structure, car parking and storage, substation, lay down area, hardstands, wind turbines and foundations, transmission lines and switching stations.

Section 8.2.3. states that, "Prospecting for new wind and solar farm development sites could be subject to an 'approval to prospect' requirement issued by the responsible authority before formal prospecting commences. The approval to prospect a specified potential site would be granted on a range of criteria, including the suitability of the proposed site, alignment with the State's renewable zone strategy, transmission capacity as well as the credentials of the developer and key personnel."

HOGPI members support the NWFC's call for 'approval to prospect'. Intrinsic issues such as Land and Soil Capability, Transport and Traffic, Environmental Impacts, and Visual Impact warrant assessment prior to a developer entering a community. Similarly, a community should be informed when wind masts are erected testing for a potential wind farm. In the case of Hills of Gold Wind Farm wind masts were erected for eight years without the proposal being made public. During that time residents have made property and business decisions based on the current landscape without a wind farm.

At a small meeting of community members and WEP in March 2018, the proponent described the wind resource as "C Grade" stating that better "A grade" locations had already been developed. The proponent has not presented any Wind Speed Data that is site specific, so it remains unknown how productive the site will be.

Based on the concept of approval to prospect being granted considering site suitability and alignment with the state's Renewable Energy Zones, Hills of Gold Wind Farm would not qualify, saving the community of three years of angst to date.

In Recommendation 8.2.1 the NWFC emphasises, "...the responsible authority should have processes in place to obtain and verify clear evidence of the developer's consultations with affected landowners and residents and be able to assess the likelihood of strong community support for the project."

HOGPI has evidence in the form of a petition that the majority of the Nundle and Hanging Rock community oppose the Hills of Gold Wind Farm.

The NWFC writes, "There may be opportunities to select and prioritise wind and solar energy projects in the current pipeline based on an increased likelihood of acceptance of the project by the surrounding community. With the increase in development and construction costs, the ongoing grid connection issues and the declining value of large-scale generation certificates, not all projects in the development pipeline are expected to go ahead. There is an opportunity to select projects that meet other key parameters, including economic and regional development goals, while also selecting sites that are optimal from a community impact perspective."

Based on the evidence presented by the HOGPI petition and the number of NADs surrounding the proposal, the Hills of Gold Wind Farm does not meet parameters for "increased likelihood of acceptance of the project by the surrounding community." After analysing the EIS and identifying significant issues related to Class 8 soil, Transport and Traffic impacts related to Devil's Elbow realignment, and Nundle and Hanging Rock village traffic movements, disturbance and clearing of 513 hectares and related impacts on threatened flora and fauna and Ben Halls Gap Nature Reserve and Crawney Pass National Park, and visual impacts on pre-existing residents and tourist industry, the proposal is not optimal from a community impact perspective.

The NWFC recognises that "Given that existing projects have most likely already selected optimal sites for their location, management and selection of appropriate new sites from remaining site options may become more difficult." This acknowledges that remaining available wind farm site options may be compromised and not approvable based on community and environmental impacts.

HOGPI supports the NWFC recommendation that, "Appropriate zoning for renewable energy development and overlays for clarifying where it would be appropriate or not appropriate to build and operate projects should also be considered." Following a presentation to Tamworth

Regional Council in December 2019 HOGPI requested that Council incorporate large scale renewables in its DCP.

At the NSW Farmers Association and DPIE Large Scale Renewables Forum at Armidale in June, 2019, Mid Western Regional Council (Mudgee) was held up as a best practice example for its Development Control Plan aiming to sensitively site large scale renewables developments to protect residents' quality of life and tourism industry. It is also working on an amendment to its LEP, mapping visually sensitive land.

HOGPI included the Mid Western and Upper Lachlan DCP extracts in its presentation to councillors:

- "Council does not favour large expanses of ridgelines being covered with wind farms and turbines"
- "Turbines shall not be located within 5.0 kilometres of any dwelling not associated with the development or from any lot upon which a dwelling may be constructed. The 5.0 kilometre setback proposes utilising a precautionary principle in addressing perceived visual, noise and health concerns;"
- "Turbines shall not be located within a distance two times the height of the turbine (including the tip of the blade) from a formed public road."
- "Turbines shall not be located within a distance 2.0km from a non-related property boundary;"
- "Turbines shall be located in positions so as to have minimal visual impact on nearby properties, especially existing dwellings and lots on which dwellings may be constructed;
- "Turbine locations shall not surround a non-related property"

Upper Lachlan Shire Council also aims for sensitive siting of large scale renewables in its Development Control Plan. The Council's Plan recently influenced the Department of Planning Industry and Environment and Independent Planning Commission decision to reject the Crookwell III wind farm proposal.

A media release states "the Project does not satisfactorily address the objectives of the E3 – Environmental Management Zone of the Upper Lachlan LEP 2010 that require the protection of aesthetic values."

The NWFC's Annual Report, 1.1.1, pg. 37 makes the following recommendation: "The developer should establish a formal complaints/enquiry process, including a system to record and manage complaints, as well as provide a transparent register of complaints/enquiries information. The Hills of Gold Wind Farm proponent did not establish a formal complaints process or complaints register.

Photograph of Jenkins Street, Nundle

15.0 FEASIBLE ALTERNATIVE

HOGPI members suggest that a feasible alternative to Hills of Gold Wind Farm on the range is to do nothing or pursue a project in a less ecologically and historically significant location.

There are enough renewables in the pipeline for energy targets to be met and wind turbines to be sensitively sited. A wind farm located in a Renewable Energy Zone is a start as an alternative. The National Wind Farm Commissioner's Annual Report (updated 2020) states, "...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 and towns…"

Given that the Upper Hunter Energy Park, at nearby Scone, was approved in 2010 and remains not built, the need for WEP's proposal can be questioned.

HOGPI members propose the following alternatives to Hills of Gold Wind Farm:

- continue promoting Nundle as a tourism destination for the benefit of the region, and lifestyle rural residential area without wind turbines.
- sensitively sited renewables on large landholdings, on flat or slight to moderate undulating land, well away from neighbours and towns. Nearby Dungowan Dam Pumped Hydro Energy Storage and Middlebrook Solar Farm at Loomberah have not been controversial;
- small scale community owned renewables such as Manilla Community Renewable Energy Inc;
- bulk community purchasing of small scale roof-top solar;
- preserve old growth preserve old growth forest and remnant native vegetation on the range for carbon sequestration and protection of the Peel, Manning and Hunter catchments;
- renewables with multiple hosts and few affected Non-Associated Dwellings instead of one major host landholder and 64 Non-Associated Dwellings (80%) in the vicinity of the wind farm.
- renewables within Renewable Energy Zones;
- renewables not towering above a historical village which relies on its tourism economy;
- renewables that are supported, not opposed by the majority of the community;
- renewables not neighbouring environmentally sensitive land.

16.0 CONCLUSION

The Hills of Gold Wind Farm EIS presents a proposal for an amphitheatre of 70 wind turbines on 24km of range from Hanging Rock to Crawney. The elevation and height of the turbines to blade tip and the topography of the Upper Peel Valley make it highly visible, creating extreme and irreversible detrimental impacts on the rural heritage character of Nundle, Hanging Rock, Crawney and Timor. These locations are valued for their amenity and natural environment by residents and tourists, contributing to the local and regional economy and biodiversity. The EIS contains serious errors about Class 8 soil mapping and its implications for high erosion and mass movement risk. It lacks detail regarding significant engineering, biodiversity, and heritage impacts for major infrastructure, including a new private road, to bypass Devil's Elbow. Consequently, the Capital Investment Value is grossly underestimated with 33 exclusions. The proposal has implications for unsafe Traffic and Transport Impacts to local residents at Nundle and Hanging Rock and ignores direct impacts of road upgrades on multiple heritage items. It describes extensive disturbance and clearing of 513ha is proposed, removing koala habitat, pre-European old growth forest and remnant native vegetation, and ignores potential impacts to Ben Halls Gap Nature Reserve and Crawney National Park. The EIS is evidence that the proposal is surrounded by non-associated landholders, and three years after being made public there are still nearby residents who have not been consulted.

There are communities in Renewable Energy Zones that welcome renewables developments in their landscapes. The majority of Nundle, Hanging Rock, Crawney and Timor residents do not welcome this wind farm proposal. It is not the right place for a wind farm. This is backed up by the National Wind Farm Commissioners Annual Report, "locating wind turbines on the top of hills or ridges, ... can have greater impacts ... and may have other dislocation impacts on the community" and Upper Hunter Shire Council's Development Control Plan, "Ridgelines dominated with wind turbines will not be favoured." Tamworth Regional Council is already contributing to decarbonising electricity generation with its involvement in Dungowan Dam Pumped Hydro Energy Storage, recent approval of Tamworth Solar Farm and support for Manilla Community Renewable Energy Inc. Additional solar projects are in the pipeline including Middlebrook Solar Farm and Westdale Solar Farm. The Hills of Gold Wind Farm is not needed at the potential cost to biodiversity, water, heritage, tourism and the quality of the landscape experience enjoyed by residents and visitors. Importantly, it does not have community consent. HOGPI considers this project is not approvable and should be rejected.

SUMMARY OF REQUESTED ACTIONS

REQUESTED ACTIONS – SOIL

- **redo Soil and Water Assessment based on correct Land and Soil Capability mapping, paying particular attention to Class 8 soil, high erosion and mass movement risk.**
- **conduct on site soil survey and use results in modelling of erosion hazards.**
- **use Hanging Rock rainfall modelling (up to 50% higher than Nundle Post Office) and use figures to inform runoff and erosion mitigation.**
- **address potential for moving soil and water based pathogens between sites (including Ben Halls Gap Nature Reserve).**
- **incorporate wash down facilities to avoid contamination or rare and endangered flora and fauna, weed spread and fungus movement affecting frogs.**
- **address potential impacts of flooding, particularly on floodplain crossings needed for heavy transport vehicles.**
- **take into account the gradient of the site in engineering of road realignment, internal access roads, wind turbine and associated infrastructure construction.**
- **modify wind turbine and site layout based on high erosion and mass movement risk.**
- **incorporate Class 8 soil high erosion and mass movement risk implications for road and wind turbine, and other infrastructure, into Capital Investment Value Report.**

REQUESTED ACTIONS – TRANSPORT

- **provide satisfactory evidence for safely transporting turbine components, overcoming the steep gradients of the range, without adverse biodiversity and heritage impacts, at the northern and southern access points of the Project Area.**
- **HOGPI members ask that DPIE physically inspect the proposed steep realignment/new private road to judge its viability before determination and obtain expert geotechnical and engineering assessments.**
- **include the estimated construction cost of the Devil's Elbow realignment in the Capital Investment Valuation Report.**

- **provide a realistic breakdown of the percentage of traffic each of the proposed six routes is estimated to carry on a daily basis during construction and operational period.**
- **provide a new Traffic and Transport Impact Assessment based on realistic road assumptions for the town. Alternatively, if the applicant intends to reconstruct the village roads to reflect the project assumptions based on this report, we ask that the cost of these road upgrades must be included in the Capital Investment Valuation Report.**
- **provide a thorough and realistic Traffic Safety Plan to be prepared by the applicant with utmost consideration given to maintaining safety for residents and tourists in Nundle and Hanging Rock.**
- **provide intersection modelling to enable the local community to understand the transport impact of the proposal on their main street**
- **provide landholders' consent for blade and property road trespass prior to any further consideration of the project proceeding to the next phase of DPIE assessment.**
- **confirm the exact blade length for the project.**
- **provide a thorough Transport Assessment for Head of Peel Road.**
- **Include associated costs in the Capital Investment Valuation Report.**

REQUESTED ACTIONS – ENVIRONMENT

- **list significant species in, and protection measures required for Ben Halls Gap Nature Reserve and Crawney Pass National Park. Take into consideration Threatened Ecological Communities including Ben Halls Gap National Park Sphagnum Moss Cool Temperate Rainforest located adjacent to the Project Area.**
- **provide a buffer of at least a 500m setback neighbouring remnant open forest with a high abundance of threatened species, such as the boundary of Ben Halls Gap Nature Reserve.**
- **increase setbacks to 500m for locations of known threatened bird and bat habitat and nests of raptors and owls, and bat roosts.**
- **provide a distance of at least 80m from the blade tip to the canopy of hollow-bearing trees to reduce blade-strike risks to birds and bats.**

- **assess and mitigate the cluttering effect on bird and bat strike of the southern cluster of turbines forming three fingers in an overlapping barrier of 27 turbines, placed unusually close together.**
- **assess and mitigate the cluster of turbines about 1Km away from Crawney National Park (WP9-WP14) where the separation distance between blades is 100m-120m - making them even closer together than at Ben Halls Gap Nature Reserve.**
- **provide evidence of biodiversity assessment for proposed realignment of Devil's Elbow.**
- **provide a detailed plan of tree trimming and removal across the proposed transport route.**
- **provide further information about what the logging track is and why it is needed.**
- **state the duration of the five field studies in November 2018, August 2019, November 2019, February 2020, and August 2020.**
- **provide a more in-depth study of the north eastern section of the wind farm Project Area. Local knowledge suggests Threatened Fragrant Pepperbush (Tasmannia glaucifolia) is extensive between the northern Project Area and Morrisons Gap Road, and could potentially be impacted by roadside clearing to enable access to the proposed Project Area.**
- **conduct a thorough search for Eucalyptus oresbia, listed as vulnerable in NSW, which has been observed neighbouring the proposed project area, and can sometimes look like Mountain Gum**.
- **provide research by an independent bat and bird expert over a minimum 12 month period investigating "unique factors at each tower location that require precise locating of towers to cater for different topography, vegetation communities and flora and fauna species."**

REQUESTED ACTIONS – WATER

HOGPI asks the state government to request from the applicant a:

- **basic understanding of Hydrology, "when the rain stops it is groundwater that keeps the rivers flowing".**
- **a thorough Hydrological and Geotechnical Analysis (on ground study) to determine the potential impact on groundwater flow.**

- **determine potential impact on Tamworth water supply & Hunter / Manning catchments.**
- **to insist on a thorough investigation into potential impacts on surface and groundwater flows into the Peel River, as people rely on springs for domestic & stock water.**
- **note that in the EIS flooding has not been covered at all.**
- **include hardstands and compacted surfaces such as internal access roads in runoff modelling and mitigation.**

REQUESTED ACTIONS – HERITAGE

- **address the major adverse impact of the development on the setting and curtilage of the multiple listed heritage items within the Nundle township and surrounds, including natural heritage items The Hanging Rock and Yellow Rock.**
- **address the impact of the proposed development on the setting and views within the town and its collection of numerous listed heritage buildings.**
- **address the direct adverse impacts of road upgrades and the detrimental effect the works will have on the character of the village and the surrounding landscape including nationally listed Ben Halls Gap Nature Reserve.**
- **address the irreversible changes to the curtilage and significant views to listed and unlisted heritage items.**
- **address the significant indirect heritage impacts of the proposed development as a result of the detrimental impact on the significance of the surrounding cultural landscape to the heritage character of Nundle.**
- **undertake a social values assessment to inform the preparation of the assessment of heritage impact in accordance with the Burra Charter the management of a place.**
- **conduct a geophysical survey or geotechnical assessment prior to DPIE assessment determine if there are voids or other substantial features present within the proposed road corridor.**

REQUESTED ACTIONS – VISUAL ASSESSMENT

- **resubmit the Landscape and Visual Impact Assessment to include at least seven missing residences and development application locations.**

- **DPIE representatives visit private residences and public viewpoints to understand the potential visual impact of the proposal.**
- **provide at least one animated wind turbine image rotating in a photomontage to illustrate the potential impacts of the proposal.**
- **identify all residences within 4550m – 8000m of the proposed project area.**
- **provide a photomontage of clearing, road widening, 48.65km of access roads (including logging track and transverse track on the mountain face), concrete batching facilities, operations and maintenance building, battery energy storage system, substation, hardstands, turbine foundations, overhead cabling, and transmission lines and switching station.**
- **provide evidence of Development Application for meteorological masts.**
- **assess the impact of night lighting for ancillary infrastructure including switching stations, and substations.**
- **audit Hills of Gold Wind Farm against Upper Hunter Shire Council Development Control Plan and adjust turbine layout accordingly.**
- **provide evidence that vegetation screening is a sufficient mitigation measure where affected properties are located in a valley where there is a 600m difference in elevation to the range.**

REQUESTED ACTION – TOURISM

- **Give greater recognition to the role of tourism to the economy of Nundle and surrounds, and the region in contributing to increased overnight stays and expenditure.**
- **require proponent to reassess the Visiting Friends and Relative (VFR) in their Socio-Economic analysis to correct misinterpretation. VFR is a strong market segment to Destination Tamworth and Country Outback NSW.**
- **require the proponent to better assess the socio-economic impacts the project will have on the existing and future tourism market., focusing particularly on visual amenity and traffic/transport.**

REQUESTED ACTIONS – CAPITAL INVESTMENT VALUE REPORT

- **include installation cost for BESS to correctly reflect the total estimated value in the CIV and to comply with the recognition that installation of the BESS to help mitigate risks associated with unserved energy as recommended by AEMO, 2019.**
- **adjust the cost of all excavation works listed in 'Estimate Detail' must be adjusted to reflect rock material with on-site Geotechnical Data provided and amended in CIV.**
- **update the Estimated cost must be updated upon completion of an onsite assessment of the crane hardstand areas.**
- **adjust cost to construct the turbine footing must be in line with concrete footing specifications described in the EIS.**
- **HOGPI members request that the applicant either adjust the Project Specification output to 385MW or adjust the cost 70 wind turbine generators to reflect a minimum output of 6MW per wind turbine generator in the CIV.**
- **HOGPI members request the applicant to identify and individually itemise all construction costs to each intersection and widening upgrade, blade trespass areas including compensation cost to consented landholders affected by blade trespass to every proposed route in the village of Nundle and Hanging Rock.**
- **HOGPI members request that the applicant must itemise the estimated value of the 48.64km Internal road access to clearly show the cost component (allocated to or otherwise to include) of the "transverse track" identified in the EIS (pg.49) in the CIV.**
- **As the "preferred and main access route" with 80% of traffic expected to travel through during the construction period, include the costs of construction to the Devil's Elbow bypass must be included to in estimated cost in the CIV.**
- **HOGPI members insist that the above exclusions must be include above exclusions in the CIV in order to satisfy the requirement in Clause 3 of the Environmental Planning and Assessment Regulation 2000.**

REQUESTED ACTION – DECOMMISSIONING

- **since Engie (a large International corporate entity), is the owner of Hills of Gold Wind Farm, HOGPI members request that a detailed Decommissioning plan must be prepared with adequate and acceptable terms to secure an ethical Decommissioning process.**

REQUESTED ACTION – NOISE

- **redo the Noise Monitoring Assessment without bellowing cattle and generator noise for one of the Non-Associated Dwellings.**
- **conduct noise assessments at Timor.**
- **clarify if the different blade lengths influence wind turbine noise?**
- **give detail of noise implications for two rock crushing facilities.**
- **provide detailed geotechnical analysis of the site to determine where and how much blasting would be required to construct Hills of Gold Wind Farm wind turbine foundations, hardstands, and access roads (including Transverse track and Devil's Elbow realignment), and its impact on surrounding residents. Blasting near Devil's Elbow may require closure of Hanging Rock Lookout or Barry Rd, causing additional inconvenience and safety risk to residents and tourists.**
- **address topography impacts in the Noise and Vibration Assessment. Local knowledge highlights that noise travels long distances in the Hills of Gold and Wind Turbine, Construction, Blasting and Traffic noise assessment do not take that into account.**
- **take into account wildlife, that is also affected by noise and vibration like humans. in the Noise and Vibration Assessment.**

REQUESTED ACTION – AVIATION

- **follow up CASA with request for review of assessment referred by Planning.**
- **follow up organisations that have not responded to correspondence.**

REQUESTED ACTIONS – BLADE THROW

- **take into account landholders bordering the project with livestock and workers within the Blade Throw range.**
- **consider potential impacts for recreational users of this land; campers, hunters, bushwalkers.**
- **make provision for replacement of turbine blades after installation.**
- **address the potential for Ice Throw, despite Hanging Rock being known for black ice and snow.**

- **advise whether Associated Dwelling (Lot 210 DP 819485), 350 meters from the turbine WP65 and 525 meters from the turbine WP64, will be dismantled? Will it continue being used and occupied despite the presence of the turbines nearby?**
- **address impacts of Morrisons Gap and Shearers Rd residents driving through construction zone and between operating turbines.**

REQUESTED ACTION – HAZARDOUS MATERIALS

- **provide detail about where turbine blades would be cut and landfilled throughout the life of the project? What risks are associated with cutting the blades?**

REQUESTED ACTION – BUSHFIRE

- **provide site specific assessment, based on a site visit to understand the unique nature of the topography, ecosystem and limited access.**
- **address residents' real concerns and anxiety about the potential for wind turbines to restrict the movement of bushfire aviation firefighting to protect people and their land.**

REQUESTED ACTION – SOCIO ECONOMIC IMPACT ASSESSMENT

- **HOGPI members ask for consistency in merit assessment and like Rocky Hill Coal Mine, encourage DPIE recommend that the Independent Planning Commission not approve Hills of Gold Wind Farm.**
- **be transparent with the Nundle and Hanging Rock community regarding construction and ongoing jobs estimates.**
- **request a member of the Socio Economic Impact Assessment team visit Nundle and Hanging Rock.**

REQUESTED ACTION – EMPLOYMENT

- **Provide construction and ongoing jobs estimates based on wind industry precedence.**
- **provide evidence that 60 construction workers will be transported by bus from strategic accommodation in Tamworth.**
- **clarify that construction worker accommodation is not proposed.**

REQUESTED ACTION – COMMUNITY ENHANCEMENT FUND

- **disclose whether the CEF will be reduced if turbine numbers are decreased.**

REQUESTED ACTION – COMMUNITY ENGAGEMENT

- **accept the evidence that the majority of the community from Nundle and surrounds do not support the Hills of Gold Wind Farm and withdraw the Development Application.**