Alena Lavrushkina
“Valetta” Barry Rd, Nundle, NSW 2340

This is my submission for the Hills of Gold wind farm project (SSD - 9679) in Hanging Rock, NSW.

I OBJECT to the industrial wind farm on the highly scenic ridge of Hanging Rock.

Happy reading!

INTRODUCTION (FROM THE DEVELOPERS)

Allow us to introduce you to the Hills of Gold Wind farm project. A project that is proposed to be situated on the 1200-1400 meter ridge (a narrow part of the Great Dividing Range) with a visual footprint stretching from Tamworth to Quirindi to Muswellbrook, and direct visual impact to the Peel and Timor valleys below, and the areas of Crawney and Hanging Rock.

A project that will power approximately 185,000 homes with the installed capacity of 420 MW. Or maybe 385.

A project that will deliver local jobs. Or maybe they won’t be local. We may bring workers in buses from Tamworth. Or from New England. Hunter Valley is a good source of employment too.

A project that will have minimal environmental impact, because we will rehabilitate as much of the footprint as we can. Except for the areas we can’t. Like the hard stands. Or roads. Or around turbines (fire threat!). Or battery storage (bigger fire threat!). Or under the powerlines.

A project that will have no impact on habitat. Because we will mitigate. We will destroy habitat here, grab an offset there and ta-da! We’re good. We had two areas of habitat before, and now we have one, but it’s all sweet.

THE DEVELOPER’S STRATEGIC JUSTIFICATION

This is the chapter in EIS in which the developer will try to convince everyone, that despite the fact that the amount of new renewables entering the grid is at the point of destabilising it, and recently completed projects experience difficulties connecting, their project is what we all been waiting for.

> *"The energy sector in Australia is undergoing a clean energy transition from a centralised system of large fossil fuel generation towards a decentralised system of widely dispersed renewable energy comprising mainly of wind and solar."*

The Australian energy sector is definitely undergoing the above mentioned transformation, and creation of the Renewable Energy Zones (REZ) is an attempt to avoid a decentralised system of widely dispersed renewable energy projects and maintain some order in the rapid development of the industry. This project is located outside of any of the nominated REZ areas.

The National wind Commissioner has said in his recent recommendations:

“Recent state and territory government initiatives, such as Renewable Energy Zones (NSW), VRET Program (Victoria) and Reverse Auction Program (ACT) have enabled governments to become involved in selecting projects that are located in more optimal sites.”

And here is the good old Renewable Energy Target justification!

> *The Commonwealth Renewable Energy Target has set a 2020 target for energy from large scale renewable projects at 33,000 gigawatt hours. Once constructed, the Project will assist the scheme by supplying approximately 1,100 gigawatt hours per annum.*

Interestingly enough, EVERY wind developer claims that HIS wind farm is required to meet the dreaded target, but surprisingly, the developers have contradicted themselves by saying:

> *Sufficient renewable generation was committed by September 2019 to meet this target. The Australia Government’s policy is to not increase the target beyond the 2020 requirement, and to not extend or replace the target after it expires in 2030.*

The renewable Energy Target was met in 2019. This project is not required.

2020 Large-scale Renewable Energy Target capacity achieved

04 September 2019

The Clean Energy Regulator has now approved enough capacity to guarantee that the Large-scale Renewable Energy Target of 33,000 gigawatt hours of additional renewable energy will be met in 2020.

Today, the Clean Energy Regulator Chair David Parker announced this major milestone for renewable energy in Australia.

“It is now certain Australia will generate enough renewable energy to meet the 2020 Large-scale Renewable Energy Target,” Mr Parker said.

The Clean Energy Regulator stated that 6400 megawatts of large-scale renewable capacity had to be built between 2017 and 2019 to generate sufficient electricity to meet the target.

On 30 August 2019, this milestone was met ahead of schedule with the approval of four large wind and solar power stations, with a combined capacity of 406 megawatts.

“This achievement represents the hard work of a growing and dynamic renewables industry,” said Mr Parker.

As of 22nd of November 2020, there were 95 renewable energy projects that are in construction (or due to start construction soon) in Australia. This is based on projects that have reached financial close and are not yet commissioned. *Source: Clean Energy Council*

It is clear that with so many projects in the pipe line, if the The Hills of Gold wind farm fell off the cliff, it wouldn't be missed.

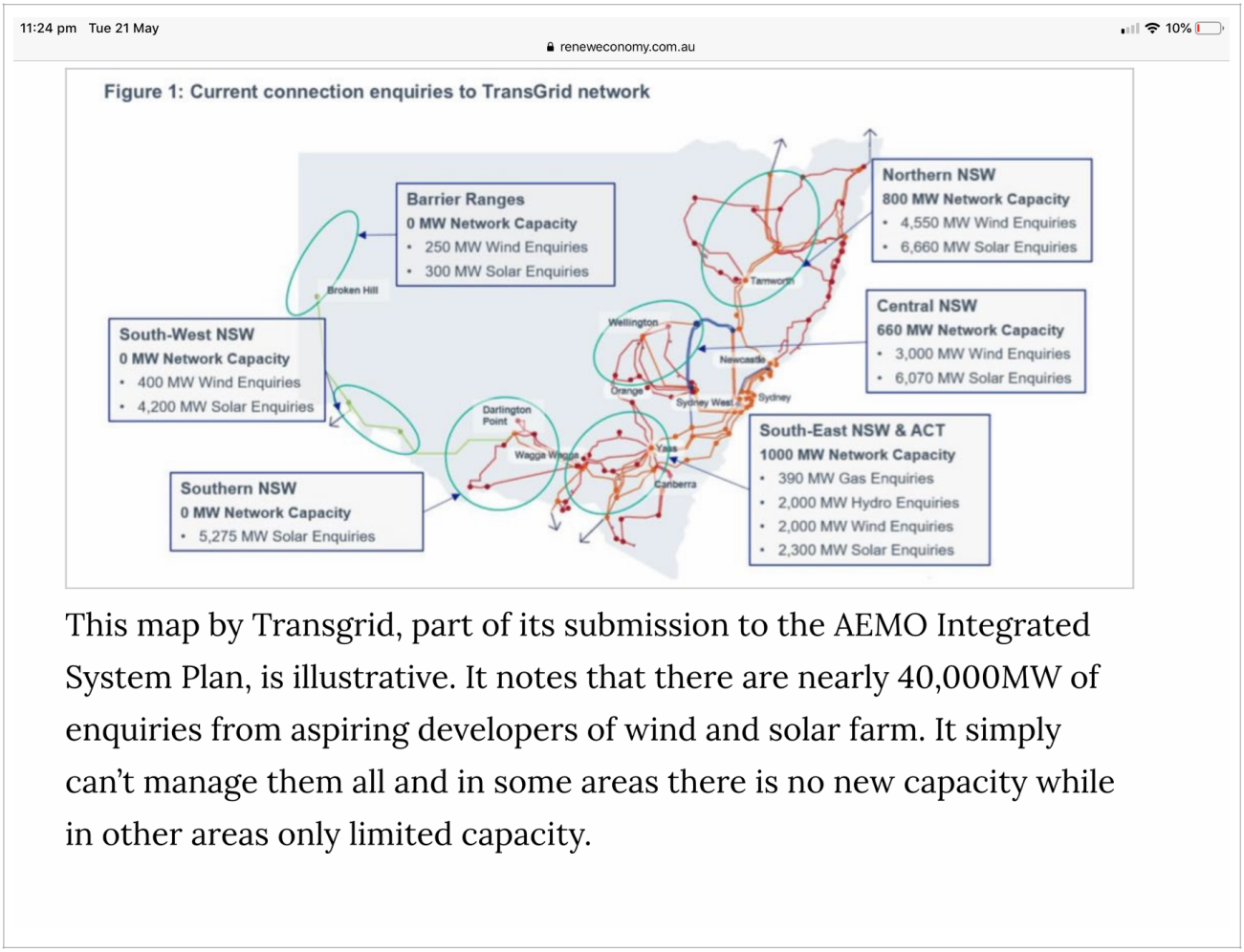
> *“The Project is uniquely positioned to take advantage of the existing transmission network and committed upgrades associated with the Queensland NSW Interconnector, which will increase the transfer of electricity between states and provide customers with access to reliable lower cost energy.”*

Examples of uniquely positioned projects are the Sapphire wind farm or The Granite Hills wind farm (currently abounded by the developer), where the high voltage power line traverses the project site. This project is positioned in the area with NO existing transmission networks, hence the construction of a new transmission line is proposed to allow for the connection to the grid. Or have they forgotten that?
It is also situated on one of the most challenging sites with near impossible access. It's definitely unique from that perspective.

QLD - NSW Interconnector will increase the transfer of electricity between states in due course and provide customers with access to reliable lower cost energy. Generated by coal in QLD, that is.
The proposed New England REZ, for example, will have its own dedicated transmission line from Uralla to Liddell, while this project is trying to connect to an already overcrowded Tamworth to Liddell line.

The National Wind Commissioner has said:
"Location and capacity of transmission grid remains a significant challenge for the renewable energy industry. A number of more recently completed projects have discovered, upon connection to the grid, that there is insufficient capacity in the existing transmission line for the project's generational output to be delivered – resulting in significant curtailment of the generation capacity of the project." "…it may be prudent for developers to engage early with AEMO and transmission operators to ensure that the project's output can be accommodated."

Although some vague language is present in the EIS in relation to the Liddell to Tamworth network capacity, the proponents have failed to demonstrate that the project's output can be accommodated.



This map by Transgrid, part of its submission to the AEMO Integrated System Plan, is illustrative. It notes that there are nearly 40,000MW of enquiries from aspiring developers of wind and solar farm. It simply can't manage them all and in some areas there is no new capacity while in other areas only limited capacity.

THE "PUBLIC INTEREST" MYTH

> *The Project represents a positive addition to the local and wider NSW economy and the NEM. Through the implementation of proposed mitigation and management measures, it is considered that this Project is consistent with the objects of the EP&A Act, and is in the public interest.*

The deforestation of the previously forested ridgelines IS NOT in the public interest.
The loss of habitat of threatened and endangered species IS NOT in the public interest.
The tampering with watercourses in the catchment area that supplies water for the region IS NOT in the public interest.

PROJECT LOCATION

> ***The landform and topography of the Project Area is defined by the substantial mountains of the Great Dividing Range, with a range of plateaus, ridgelines and escarpments broadly positioned in a north- south direction, wrapping around with the southern extent forming the eastern end of the Liverpool Ranges. The steep ridgeline decline to the north undulating foothills with creeks and tributaries carving through the landscape, converging at the Peel River and Nundle Creek***

along Nundle Valley floor. Ben Halls Gap Nature Reserve and Ben Halls Gap State Forest bounds the Project Area to the southeast with Crawney Pass National Park marking the western boundary of the Project Area.

In his submission to the Tamworth Regional council, objecting a DA for a dwelling in the close proximity to the proposed wind farm, Mr Chivers has made the following statement:

“The DCP (Development Control Plan) prohibits development on slopes in excess of 20% and requires geotechnical assessments for the slopes in excess of 15%. No information is provided in the SEE (Statement of Environmental Effects) regarding the slope of the relevant land”

It’s good to see that Mr Chives had great concerns in respect to the site selection for a small residential dwelling (which was located on a near level paddock), and its a shame that his own brain child, the HOGWF project, does not live up to his own stringent expectations! Clearly no data has been provided for the slope of the underlaying land for any of the turbine sites, hard stand areas, blade lay down areas, access roads, either of the substations, battery facility, operations buildings, car parks, two concrete batching plants and rock crushing facilities. Did I forget anything?

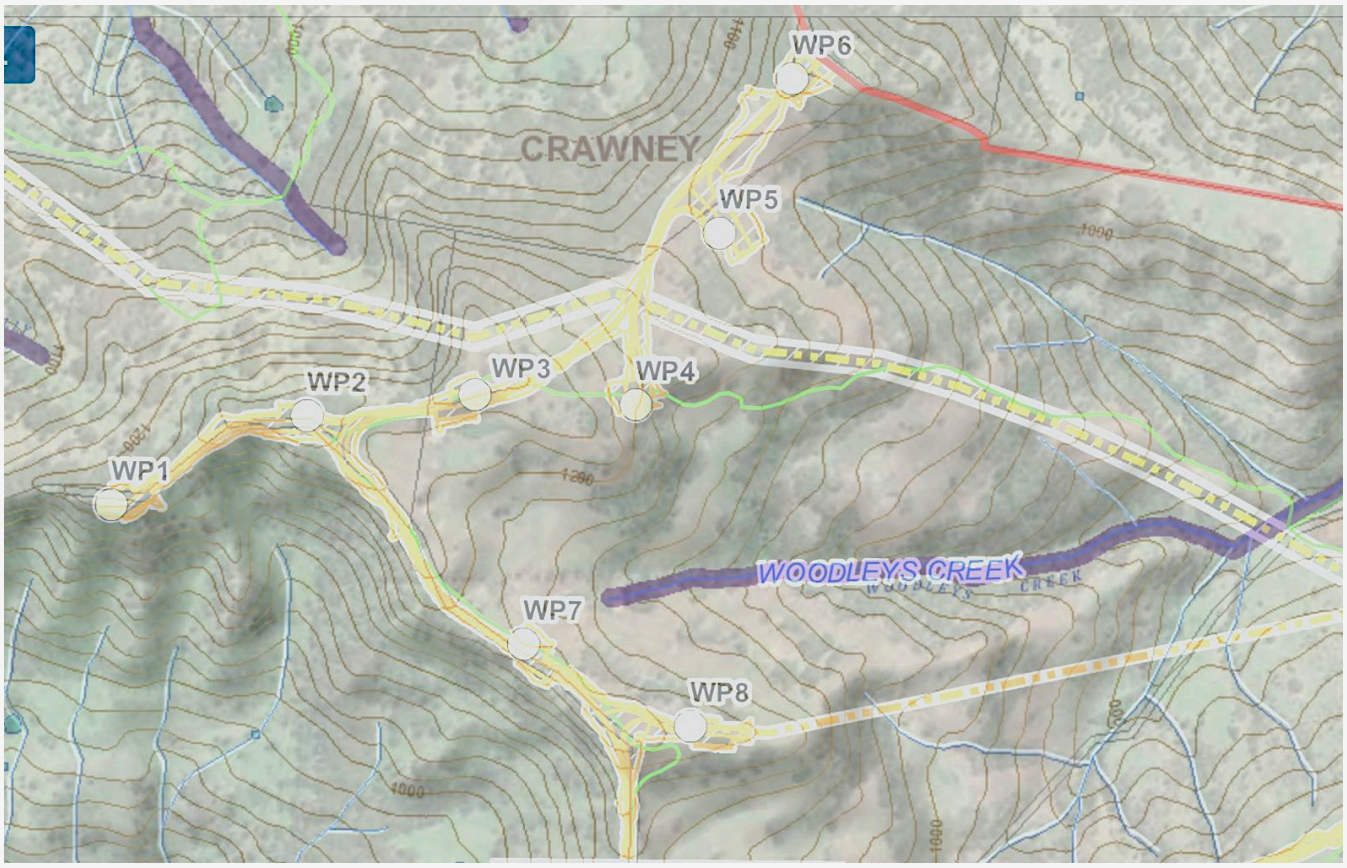
Image is the location of Turbine WP5 on Google Earth

The elevation across the site ranges from 776 m to 1418 m Australian Height Datum (AHD). This elevation range highlights the significantly variable topography

across the site. The ridgeline slopes dramatically downhill from the Project Footprint.

This brings me to the conversation about the good old topographic map and its absence from the Transport Report and EIS. There is no need to bring public's attention to the dramatic elevation of this project above the valley below, turbines plotted on narrow ridges, access tracks cut into the face of the mountain and the proposed power line doing the rollercoaster over the nearby ridges while heading West.

The contour lines are at 20 meter intervals.



"It has been assumed that the area of impact for roads, drainage, adjacent underground cable runs and cut and fill batters will have an average width of disturbance of 39.87 m (to accommodate drainage and cabling) and a total length of 48.65 km."

What amount of land carving is required to build a road with an average width of 39.87 meters on the hill side which is 20 or 30 or 40 degrees steep??

Image below shows the “Transverse track" across the face of the mountain, one of many creek crossings the EIS doesn't mention, and a large area of road works across an identified Old Growth forest. I assume it is needed to zig-zag back to the top of the mountain.
The contour lines are at 10 meter intervals.

SITE ANALYSIS

Quote from the 2020 recommendations by the National Wind Commissioner:
“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.”

4.3.2 Adjacent Land Uses

The main land uses of Nundle and Hanging Rock are agriculture, timber, and tourism. Directly east of Nundle is Hanging Rock State Forest which includes land zoned as forestry (RU3 – Forestry). Nundle is the closest locality to the Project Area which has residential and commercial land use zonings. The surrounding land is predominately zoned for agricultural purposes (RU1 – Primary Production).
Ben Halls Gap National Park / Nature Reserve and Ben Halls Gap State Forest occur in the eastern side of the Project Area and Crawney Pass National Park occurs on the western side.

No, no, no.. the main land uses of Nundle and Hanging Rock are LIFESTYLE properties, agriculture, timber, and tourism. Although it is correct that the surrounding land is zoned RU1, the proponents have forgotten to mention multiple small and medium acreage lifestyle properties surrounding the project and directly adjacent to the project site.

Surrounding the Project Area is steep, partially cleared country predominately used for grazing.

Adjacent to the north eastern part of the project area, are the heavily timbered, often steep properties, which are not suitable for grazing and have no agricultural value.
They are used by their owners exclusively as recreational or residential properties. The presence of an industrial wind farm would have a greater impact on the value of these properties, as compared to agricultural properties nearby. This is due to the wind farm impacting on the attributes of these properties for which they are purchased for in first place: unspoiled views, quietness, privacy and enjoyment of natural environment.

Not everybody wants to buy a large property to clear paddocks and raise livestock for slaughter. Some people buy large property simply to enjoy it. A 1000 acre property can be a lifestyle holding if purchased not for its carrying capacity but for the natural assets, for the beautiful big trees, the views, the clean water and peace and serenity. And thank god we still have buyers like that. These amazing people who put forward their hard earned money to purchase a property and NOT expect any production or return from it. And not start pushing trees over and sowing pastures to squeeze every dollar out of their holdings, but let it be, with the native grasses and magnificent eucalyptuses.

We need to look after this type of land owners too. We need to make sure that their values are protected and catered for, because if it wasn't for them, the whole of Australia would be a treeless desert by now.

WEP has entered into lease agreements with 14 landholders hosting project infrastructure, including the transmission line and switching station (encompassing 64 individual lots). A summary of the lots comprising the Project Area inclusive of the transmission line is provided in Table 4-2 and cadastral boundaries are shown in Figure 4-1.

Out of the 14 landholders listed as “hosting”, two landholders do not host ANYTHING. They are associated landholders having signed agreements with the developer and will accept impacts of the project. Further, another 4 landholders are virtually the same host that owns **multiple properties**. Two landholders on the Southern side are simply two different lots of the **same** property. Careful examination of the locations of project infrastructure against ownership of underlying land shows there is one major host, who likes to call himself “proponent” or “major host” of the project and has publicly stated the degree of his involvement via community newsletters, radio interviews and letters to the newspapers. There is a secondary

host with 13 turbines and BESS/substation and a few minor hosts who get pittance. Clearly the financial benefit from the project is not well dispersed through the surrounding community.

PROJECT ALTERNATIVES

In respect to the Section 8 – Proposed alternatives, the proponents should consider the feasible alternative of not taking the action in proposed location.
A sound alternative to the proposed Hill of Gold wind farm would be a wind farm which is:

A. **located on a more suitable terrain consisting of rolling hills instead of an elevated steep ridge which is attracting high rainfall and feeding three river systems.**
B. **A wind farm that has many hosts and few affected neighbours instead of few hosts and many affected neighbours.**
C. **A wind farm that is located within one of proposed future renewable energy precincts.**
D. **A wind farm which is not creating a far reaching high visual impact. Especially a visual impact upon historical village which relies on tourism for its existence.**
E. **A wind farm that is supported, or at least not objected to, by the majority of local community.**
F. **A wind farm which is not located on or near an environmentally sensitive land.**

COMMUNITY AND STAKEHOLDER ENGAGEMENT

…have been appalling. These three words sum it up pretty well.

There were many chapters in the EIS that made me laugh, but when it comes to community consultation, it made me angry.

There are people who are only just discovering about the existence of the project. There are residences still missing from the maps in the EIS and Appendices. There are people in the village unaware of the proposed traffic route coming through their properties.
And then there is a statement like this:

> *"Overall, feedback from stakeholders on the Project has generally been positive."*

Stakeholders who??

> *"The Project has been revised and refined over time in response to design and constructibility requirements, and in consideration of environmental constraints and the outcomes of community consultation".*

Now, the first sentence of this statement is believable, the project has been revised to accomodate construction constraints. That's where the truth ends. Community consultation??
There is no escaping the fact that this elevated ridge is very narrow and allows no opportunity

to adjust the project based on the feedback from the community. Therefore, consultation was limited at best, if not non existent. They knew all too well that the only feedback they were going to have would be in the order of "take your project some place else". There is NO evidence of the revision of the project in line with the community concerns, there is however, an evidence of the opposite. Dwellings left out from assessments, people kept in the dark. ANYTHING goes just to squeeze a few more turbines onto a narrow ridge. Wind Energy Partners, Someva and Engie have collectively embarked on a war against an adjacent landholder to block a DA for a dwelling, location of which they have found to be inconvenient for their project. Where is the example of *"revision of project in consideration of outcomes of community consultation"*. Is the person wishing to build a house on their land not a community member??

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

Having had a realistic look at the restrictive ridge, the developers removed a number of turbines from the original 97. And to compensate for the losses, they have extended the project and added a few more on the flanks, especially to the South and West, all of which are located on the densely timbered areas and this will result in an **increased** biodiversity impact.

BIODIVERSITY

THE IMPORTANCE OF THE ADJOINING BEN HALLS GAP NATURE RESERVE

From the Ben halls Gap management plan:
"Ben Halls Gap is one of a series of conservation reserves and state forests located on the basalt cap of the Liverpool and Mount Royal Ranges.

Scientific value
The park features an outstanding area of tall, high nutrient old growth eucalypt forest. Most of the tall high nutrient forests of the region, and elsewhere in the state, have been cleared or logged. The park is therefore an important scientific reference area. Very little logging and grazing have occurred in the park and as a result it has high quality habitat and virtually no weeds.

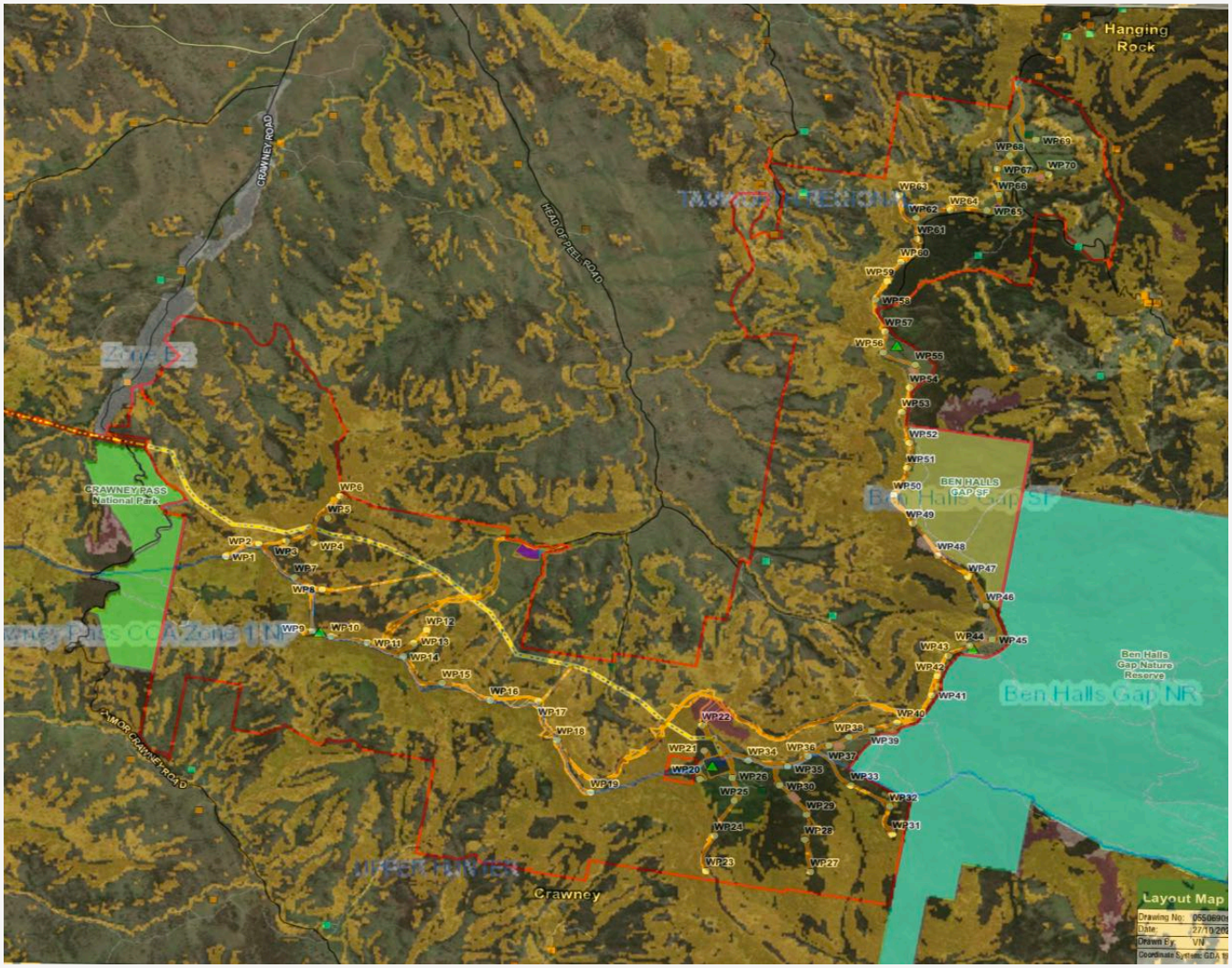
The park has a rich bird and mammal fauna for its size. It is located at the overlap of the distributions of many eastern and western bird species. A large proportion of the mammal and bird species recorded are tree-hollow dwellers and the park contains one of the highest recorded densities of the greater glider Petauroides volans. This abundance is a result of the high nutrient levels of the eucalypt foliage developed on basalt soils and the number of available suitable sized hollows. The greater glider is a major prey item in the diet of the threatened powerful owl Ninox strenua that occurs in the park.

Catchment value
The park lies at the head of the catchments of the Hunter, Barnard and Peel Rivers and as such has an important role in contributing to clean water and minimising the spread of weeds between catchments."

The wind farm project is at odds with the purpose of the adjacent Ben Halls Nature reserve which represents an area of undisturbed habitat and is set aside as an area of scientific reference. The foot and vehicle traffic past the boundary of the Ben Halls Nature Reserve carries a risk of weed introduction into the Reserve.

SITING OF PROJECT ON VULNERABLE LAND

This image shows the extent of the Vulnerable Regulated land in relation to the project site.



12 turbines and their hard stands are proposed to be located on the Vulnerable Regulated land. These are turbines are: WP1, WP4, WP8, WP12, WP23, WP31, WP33, WP40, WP47, WP59, WP61, WP64.

All access tracks on the northern slope of the ridge are located on Vulnerable Regulated land.

Turbine WP48 is mapped where an area of identified Old Growth Forest is (I mean was, and I'll leave to developers to explain what happened to it).

LANDSCAPE AND VISUAL

The visual impact is downplayed, the screening by vegetation is overstated and residences left off the map.

PERSONAL VISUAL IMPACT:

After making some inconvenient [for developers] noise about the visual impact to my Nundle property on the western side of the river, I was lucky enough to secure my own VIP photomontage session. Having seen some preliminary photomontages of disappointing quality before, I arrived to the appointment with my own camera. I was hoping for the “gotcha” moment, when later comparing the quality of the images taken by the consultant and myself, from the same location, at the same time. The images arrived a few weeks later and I eagerly zoomed in to compare the quality. I found that the ridge line was sharp enough and detailed to the point of the individual trees visible. There was nothing wrong with the quality of the panorama, there was only one issue…. turbines were almost invisible! Disappointed with the outcome and thinking that these translucent photomontages were too wishy-washy for my fine taste, I contacted Wind Energy Partners and requested following amendments:
1) A dead tree, which is now gone, to be removed and turbines hiding behind it painted on. 2) Turbines to be illuminated by the sun, so as to appear white, as they would be visible from my property for most of the day (my property is to the north of the project).

I had received an email implying that no such thing would be done and instead I was provided with a link to the Scottish Visual Representation of Wind Farms Guidance and the Visual Assessment Bulletin. I can only assume that my duty was to carefully study the above mentioned documents in order to educate myself about all things visual. Then, armed with that knowledge, to visualise the turbines on the ridge, rather than pestering the proponents about a decent and honest photomontage for my property.

Photomontage from a location 2.9 kms further from the project.

GENERAL VISUAL IMPACT COMMENTS:

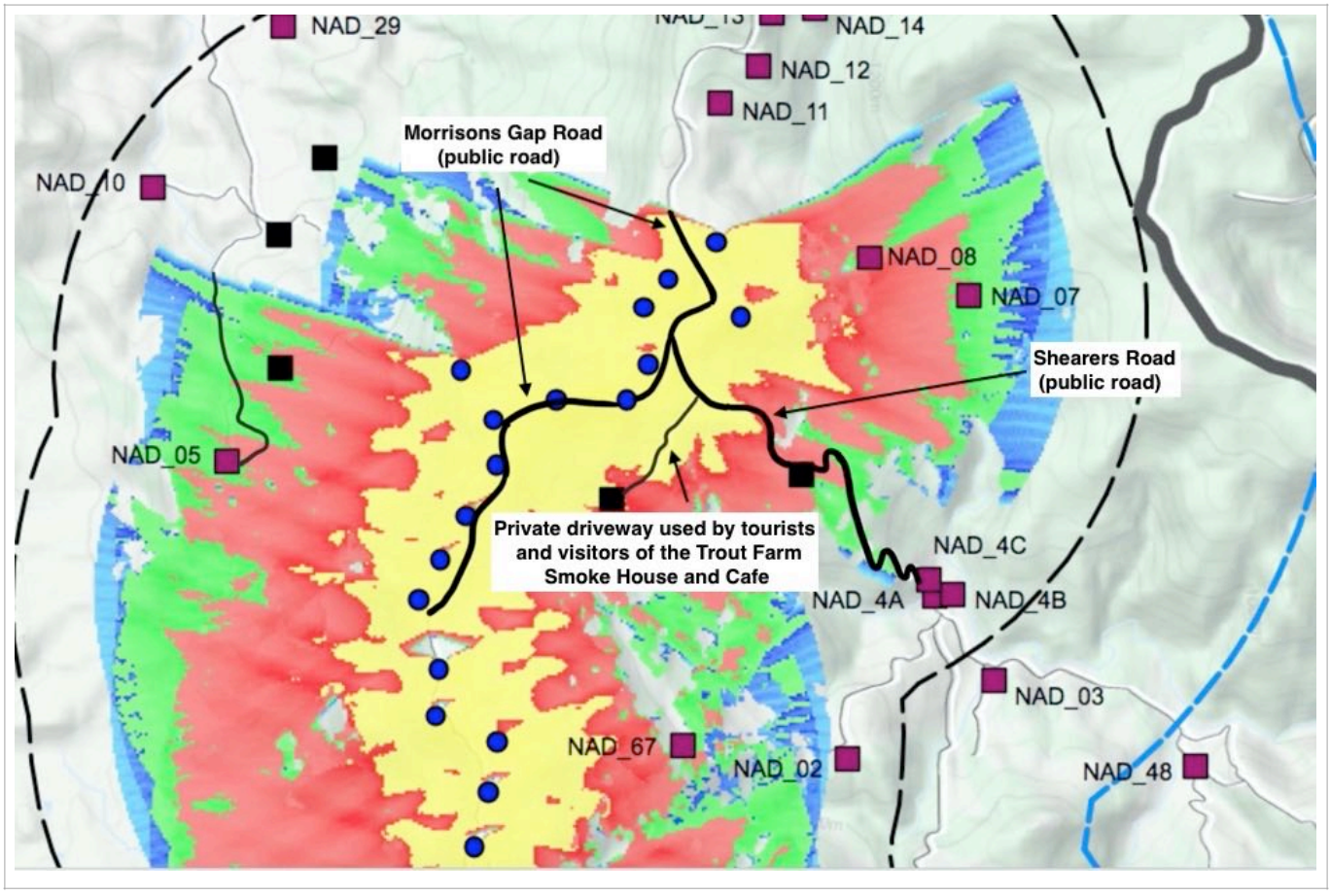
No visual assessments have been done for the elevated end of Nundle village (Gill st and Charles st). The group of residents in this location has spectacular views to the ridge.

Unsatisfactory visual assessment from the Hanging Rock lookout.

SHADOW FLICKER/BLADE GLINT

> *"In addition to the impact on residences, shadow flicker has the potential to cause annoyance to road users. The shadow flicker assessment identified a small extent of Crawney Pass Road which may experience shadow flicker. Dense vegetation through the national park would be likely to limit potential to experience shadow flicker."*

The impact of shadow flicker on road users of Morrisons Gap road and Shearers road has been completely ignored. This includes residents of the area and their visitors, as well as the general public. They will have to travel through the project and the area affected by shadow flicker. The owner of the Trout Farm has high hopes that if the Morrisons Gap road receives tar treatment, the visitation to his establishment will increase and might include tour buses.



The developer does not have Neighbour agreements in place with non-associated affected dwellings. Additionally, an approved DA is missing from this map.

> *Page 53 LANDSCAPE & VISUAL IMPACT ASSESSMENT:*
> *"Due to the large scale and elevated siting of the proposed wind farm, access roads, transmission lines and other ancillary structures have the potential to alter the existing visual landscape."*
>
> *The fact that the proposed wind turbines are generally positioned within a landscape that has remained largely unchanged for decades means that the potential for contrast is significant. There is little doubt that the Hills of Gold Wind Farm, regardless of how visible it actually is, would become a feature of the area.*

Well, they said it and said it well. The impact will be hard to miss.

TRANSPORT

The poor Rex Andrews has tried, the best he could, to keep the straight face while drawing the impossible corners and roads suspended in mid air. He tried his best to stretch the reality and make the landscape to fit the purpose without saying out-loud ”you guys are pushing s…t uphill, and a very big hill at that”. He did let it out though, in the summary of the Transport and Traffic Report:

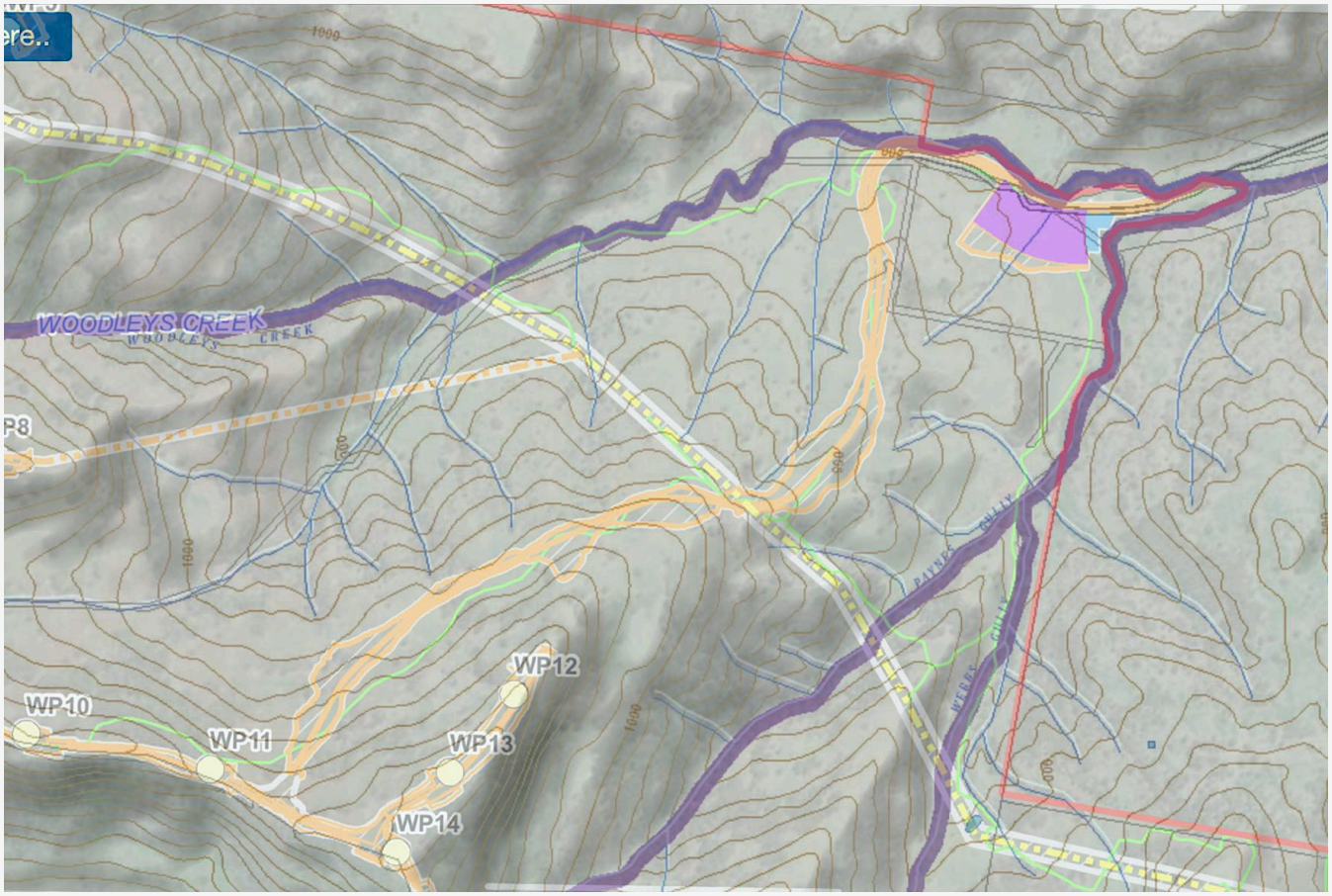
> ”*Out of both options, option 1* (Head of Peel) *in our opinion is the only realistic route out of both. Option 2* (Barry rd) *we deem as high risk and does not have the capacity to take the towers even if the blades could be transported in a lifter.*
> *Option 1 still requires an extensive amount of work but is more realistic. The access from Kirks Road through to the site access roads would need to be made suitable for the largest loads.”*

It’s hard to make the impossible look possible, by feeding mistruths even to an unsuspecting public, without losing the credibility of your agency. It’s easier to omit the inconvenient truths. The only reason the option 1 has any chance of looking more realistic, is because the report did not provide any further detail once the transport reached the foot of the range arriving on project involved land.

Rex Andrews left us at the end of Kirks road with a cautious warning “*The access from Kirks Road through to the site access roads would need to be made suitable for the largest loads”.*

Pick a direction, a ridge or a valley and make your way to the top however you prefer, up a 40-50% gradient if you like, just don’t forget to make it suitable for the largest loads.

The contour lines are at 20 meter intervals.



The way the transport report reads, it's clear that it would be far less painful for everybody, developers including, if this project was offset and mitigated somewhere else. But you see, "somewhere else" is taken. Or at least that's what Jamie Chivers told me two years ago. When the wind madness begun in Australia, the best sites with good wind resource, power lines overhead, easy landscape and access where spoken for first. Leaving young wannabe developers from the second wave scratching around for inferior sites.

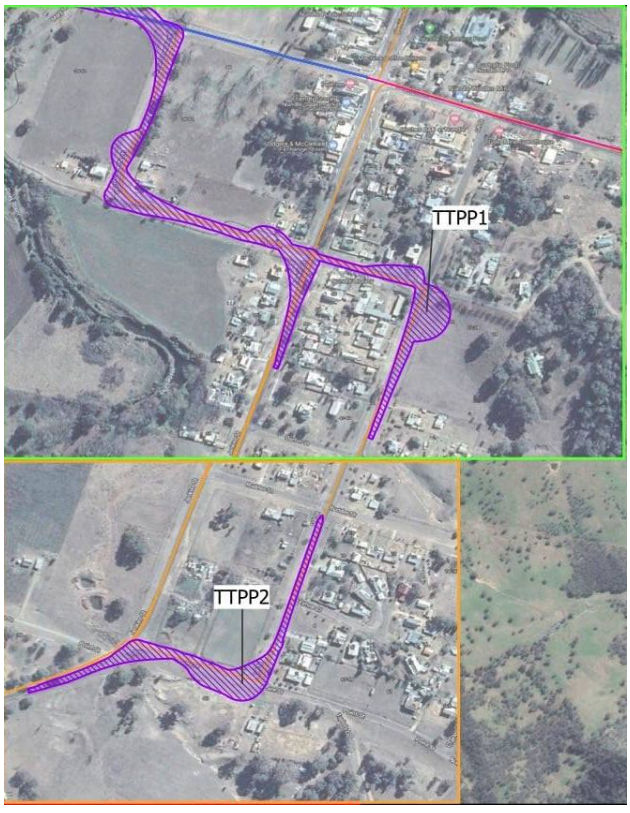
There are no technical details in the EIS or Transport Report in relation to any of the access roads once within the project site. There is no detail about the steepness of the terrain these roads are drawn to traverse. No detail in relation to the amount of cut that will be needed in order to create the required width road on the face of the mountain. On class 8 soils. There is no mentioning of the gradients of any of the proposed roads. The roads "as drawn" on the map submitted with EIS are currently impossible.

Until the proponent presents detailed engineering drawings for the proposed internal access roads, there is no point submitting biodiversity and aboriginal heritage studies, because the location and width of these roads will change significantly, if they are at all possible. The current location of these roads is unrealistic. The steepness of this ridge needs to be seen to be appreciated.

CORNERS AND INTERSECTIONS

Detailed intersection diagrams and blade sweep paths are provided for every corner starting from Newcastle port to arriving in Nundle, then again after leaving Nundle and before reaching project site. **But no detailed diagrams are provided for any of the corners or intersections in the village of Nundle itself.**
Following corners are featuring on the blurry maps provided and require further detail.

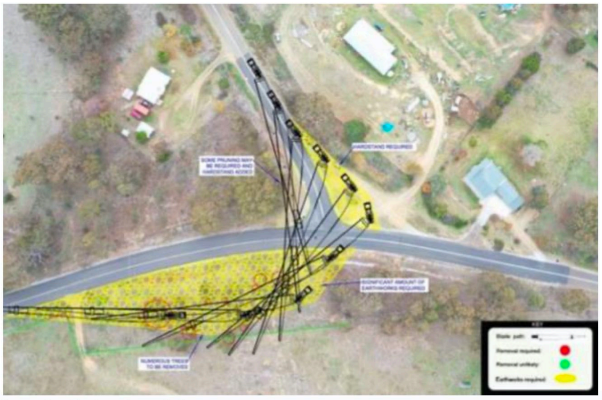
Oakenville St to Herring St
Herring St to Innes St
Innes St to Jenkins St
Innes St to Gill St
Gill st to Point St
Point St to Jenkins St.



3.7.4.1 Old Hanging Rock Road to Happy Valley Road

At the Old Hanging Rock and Happy Road intersection, additional hardstand will be required to accommodate the vehicle swept path. Portions of the additional hardstand will be on private property and will also require fence relocation and vegetation trimming / clearing. Signs will also be converted to removable signage at this intersection.

Figure 3.40: Old Hanging Rock Road to Happy Valley Road



Source: Rex J Andrews Appendix B

ACCESS AND PRIVATE LAND

I own the property on the southern side of the Hanging Rock road and Happy Valley Road intersection pictured above. **No consent will be given** for the *"portions of the additional hardstand on private property and also fence relocation and vegetation clearing",* nor would I allow them to undercut the hill under my boundary to accomodate blade tips sweep path.

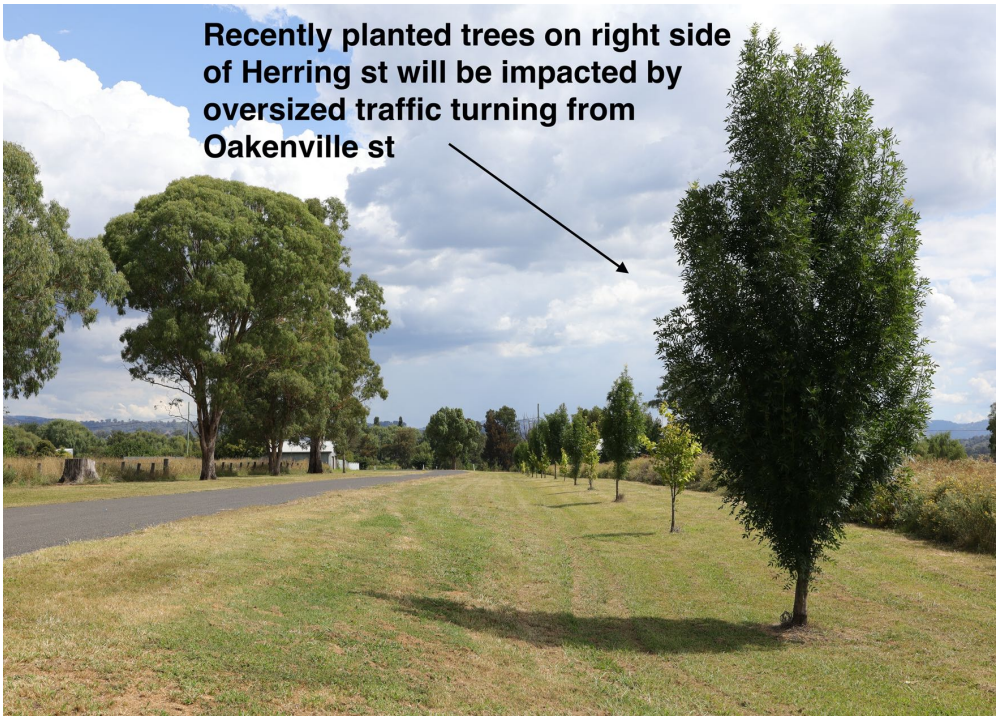
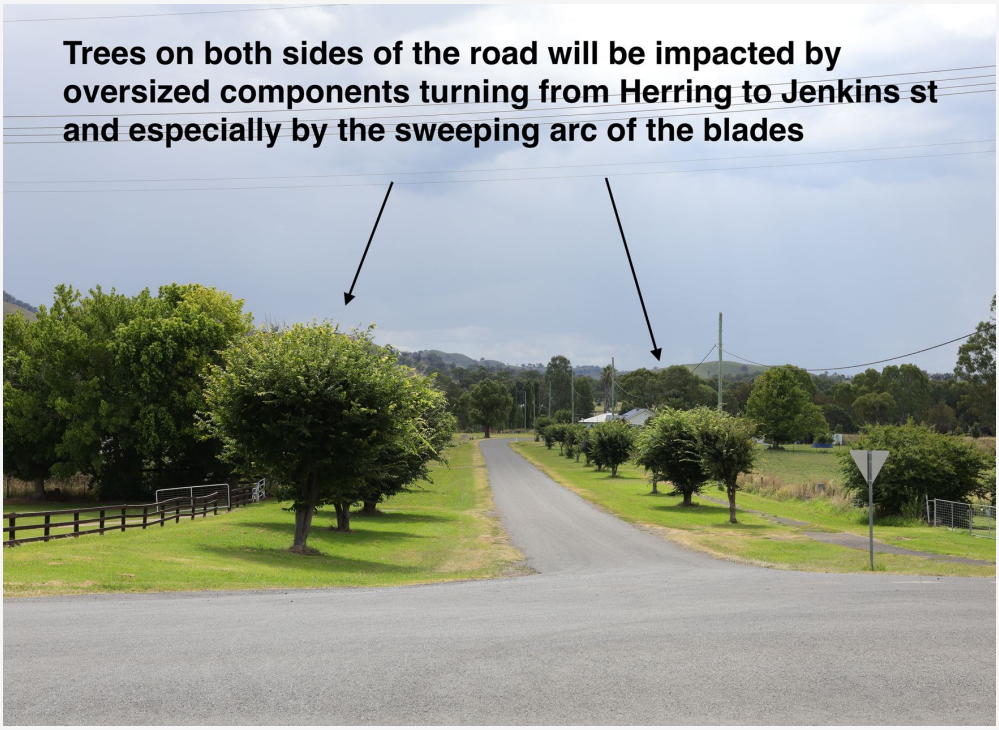
The image of this corner provided in the Transport report is misleading and leaves an impression of a relatively level corner.	**1.3 Km:** Hanging Rock Road onto Happy Valley Road at Nundle. 170 Metre rotor: 
In reality, the road slopes away in three directions from the intersection and the ground rises significantly on the southern side. This is where they propose to create the hardstand, and remove trees and fence. My fence.	

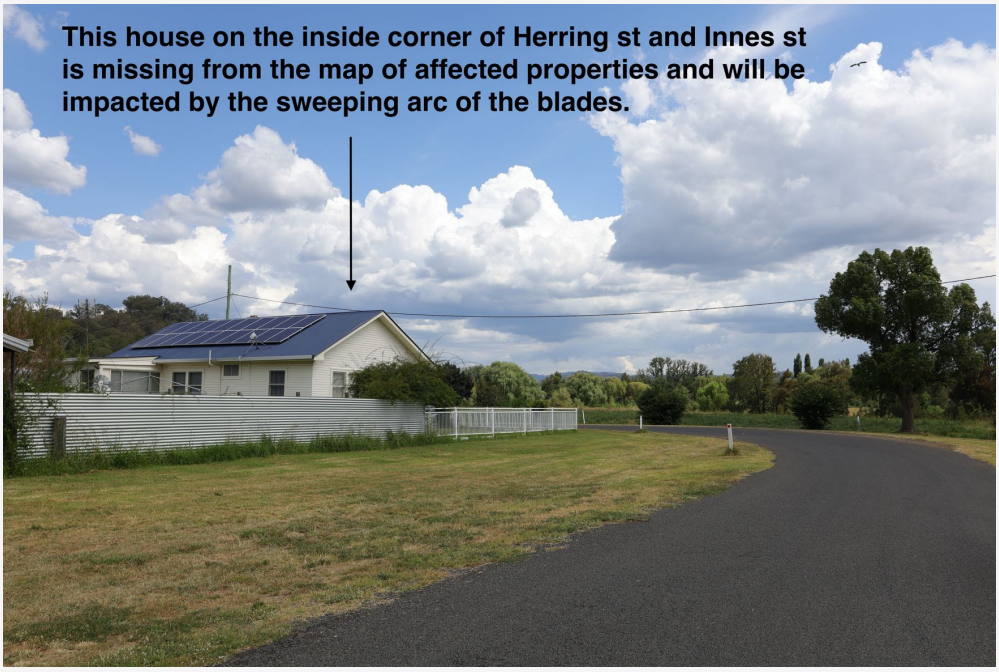
URBAN TREE REMOVAL..

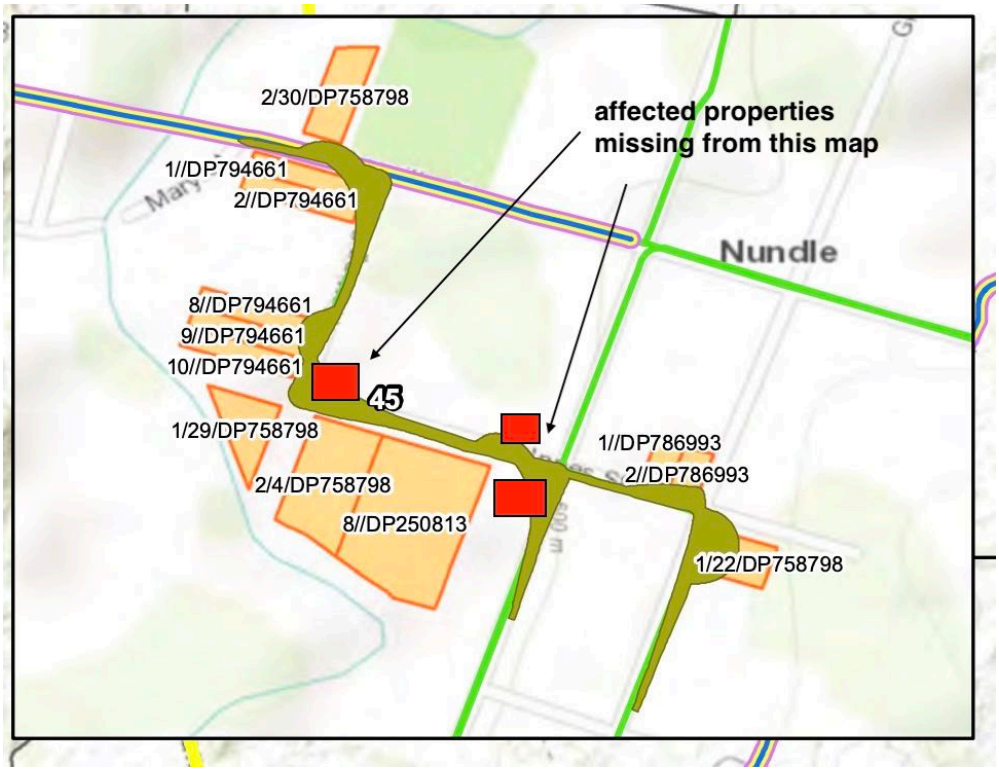
…is not addressed in the EIS with the exception of one tree in front of the church (heritage building). No information about the size or the type of the tree was provided.

The rows of deciduous trees that are planted along streets of Nundle for beautification of the village went completely unnoticed by the developers.

Approach to Nundle	
From Oakenville to Herring st	

	
From Innes to Jenkins st	

Jenkins St. One of the proposed transport routes. The EIS and Transport report do not mention the removal of street trees, but do mention the possibility of removal of the median strip.	
From Herring to Innes st trust them to miss a house! The blade sweep path is drawn to come half way through this house.	

Properties not identified on affected lots map	
The usual line of parked vehicles along Jenkins St and view towards the ridge line that will host turbines.	

During the day time main streets of Nundle (Oakenville St and Jenkins St) are generally lined with parked vehicles. On street parking is the only available option in the village and used by residents and visitors to access following premises and services:

- Supermarket,
- medical centre,
- pub,
- post office,
- pool,
- school,
- service station/cafe,
- park/playground,

- library
- Nundle hall
- public toilet
- various other cafes
- boutique shops.

Nundle post office deserves a special mentioning. There is no mail delivery within Nundle itself and residents travel to the post office to collect their own mail. This creates additional traffic on Oakenville st.

If “no parking” zones are established to allow for transport of oversized vehicles through the hub of the village, it will create a major disruption to the village life.

The slow transport of large components and associated delays on the route to Nundle will deter visitors and impact most businesses.

There are people in the village who are only just discovering that the blades and tower sections proposed to be transported past their houses, and in some instances through their properties. There has been no consultation with the community and the proponent has deliberately avoided any publicity around the fact that oversize components are proposed to be transported through the heart of the village and along residential streets of Nundle. Any transport maps provided to the community via updates or CCC meetings leading to the lodgement of EIS were extremely sketchy. They were well aware that if the community knew about the real degree of impact it would result in the greater resistance to the project. The family of the major host have run an “advertising of support” campaign prior to representatives of Engie visiting Nundle for the first time in ……. Residents of Nundle and Hanging Rock were supplied with, and encouraged to display, signs in support of the wind farm. They were also told a number of mistruths, including statements that their properties would not be affected.
The footprint of this campaign is ironically evident along the proposed transport route on fences and gates of unsuspecting residents.

One such resident has visited HOGPI office in Nundle on 16.01.21 and to his amusement has learned that Transport Report suggested following in relation to his property: “*Additional widening of the road and hard stand at the intersection is required to accommodate the vehicle swept path. Vehicle crossings into private land will occur and will require fence relocation as shown in Figure 3.41. Some trees will need to be trimmed/cleared and signs relocated to accommodate the vehicle swept paths.”* He asked, in disbelief, if the group of trees growing in the corner of his property will need to be removed? He received an affirming replay and was shown a diagram from the Transport Report. “They will do no such thing!!!” he exclaimed. It is clear that he has received zero consultation from the proponents in relation to impact to his property or access over his property.

Second example is a resident of the house on the corner of Jenkins St who has learned on 13.01.21 that one of the proposed transport routes requires blade swing into her property. She has been given this information while visiting HOGPI office in Nundle and viewing transport maps from the EIS. Prior to that she was unaware of the transport route and was never notified by proponents.

Third example is how the residents of Point st have learned about their property being impacted. On 22.11.20 I was contacted by one of them and asked for advice. I was told that out of the blue they have received a letter from the proponents asking them to sign a document

granting access over their land. Thats it. No prior consultation. No explanations of what portion of their land is affected. No maps supplied with the letter. Just a simple “sign here to give us access”. The degree of their shock could not be overstated. Up until that letter they had no idea that the wind farm traffic will be coming anywhere near their place.

THE DEVIL IS IN THE DETAIL

3.7.3.3 Devil’s Elbow Realignment

It is proposed to provide a new private road that would straighten the curves on Barry Road to Hanging Rock. Three design options that were investigated and a preferred option selected on the basis of consultation with Forestry, Tamworth Regional Council and consideration of minimising biodiversity impacts

The preferred option would result in a significant gradient that may require combination of push pull truck arrangements to negotiate the slope. The swept path for the preferred option is shown in Figure 3.32.

The proponents have forgotten to include contour lines in their diagram of the proposed private road. The proposed new road has an approximate distance of 630 meters from the point of leaving existing sealed surface to the point of re-entry. With a rise of 150 meters (15 contour lines) the result is an average gradient of approximately 24%. “Significant gradient” is an understatement.

I have plotted the proposed private road in the GPS, exactly as drawn, and have walked it along with two CCC members. The road can be broadly divided into three sections which are distinctly different.

The first section as the track begins uphill is very steep. Measurement across the 4 contour lines gives a rise of 40 meters with a run of 125 meters. This amounts to a slope of 32%. Our tired burning legs were a testament to that.

The middle section is not bad and looks feasible, not counting the environmental destruction.

The last section is impossible to walk unless you possess some air walking skills. The track goes off the side of the mountain, proceeds through space above the valley below and terminates at a vertical rock wall under the constructed road above. This proposed road is an example of intentional deception (I hope they are not this incompetent!) and shows that no engineer has set his foot on this track. But what does it matter, as long as it looks possible on a flat piece of paper, right? I strongly suggest that DPIE representatives perform thorough inspections of this and other access tracks proposed. This is just one example that demonstrates the lack of detail provided and most likely to exist in other locations along the ridge. Detailed engineering drawings should be requested for all proposed tracks and turbine locations. There is no need to approve an impossible to build wind farm.

HAZARDS

FIRE

> *A review of the NSW RFS Fire History Mapping available via SEED maps shows three major fires within the Project Area during the past 20 years. The largest and most recent was the 2019 Pages Creek Road Fire which is reported to have burnt over 7,494 hectares and was the result of a lightning strike within the adjacent Ben Halls Gap National Park. In addition to aerial support, the National Parks and Wildlife Service (NPWS) and NSW RFS used the Project Area and the ridgeline as a containment line and were able to back burn in advance of the fire front. This action successfully stopped the Pages Creek Road Fire and reinforces that this ridgeline is strategically important in terms of ongoing bushfire mitigation and co-ordinated access arrangements and has been considered within the detailed design of the Project.*

The presence of the wind farm does nothing to assist with defending the Hanging Rock village and residents of Morrisons Gap road, Barry road and Shearers road in the event of a bush fire, as the wind farm is situated to off the the side, rather than between the fire source and populated areas. However, the wind farm itself presents a danger, being proposed immediately adjacent to the fire source such as Ben Halls nature reserve, and should an accident at the wind farm ignite a fire in the adjacent reserve, it can then uncontrollably spread towards the populated areas.
The presence of the wind farm can also hinder the evacuation activities in the area due to increased traffic on local roads with extra traffic pressure coming from the wind farm personnel and wind farm machinery movements. It can also hinder the fire fighting activities by diverting attention of fire brigades to defending wind farm assets, and presenting an obstacle and possible danger to aerial fire fighting crews.

One of the common wind directions is from the Northwest and favours the spread of the fire originated on the wind farm towards the Ben Halls Nature reserve, Ben Halls state forest, and heavily timbered private properties adjacent to the North Eastern end of the project. A significant amount of fuel located on the above mentioned lands poses a risk of out of control fire which will ultimately threaten nearby landholdings and potentially the residential subdivisions of Morrisons Gap road and Hanging Rock village.

BLADE THROW

Table 21-1 Environmental Management and Mitigation - Statement of Commitments:

> *“Restricted public access to the construction and operational areas and security will be maintained via surveillance equipment to restrict access throughout the construction and life of the Project”*

This sounds like the developers are unfamiliar with their own project site. A number of the Morrisons Gap road and Shearers Rd residents will have to drive THROUGH the construction zone, and between operating turbines, if constructed, to access their dwellings.

An approved DA for a dwelling has been continuously ignored by the developers. The developer has known about the proposed dwelling since August 2018. The coordinates of the proposed dwelling are -31.560247,151.165401 and the dwelling site is within:

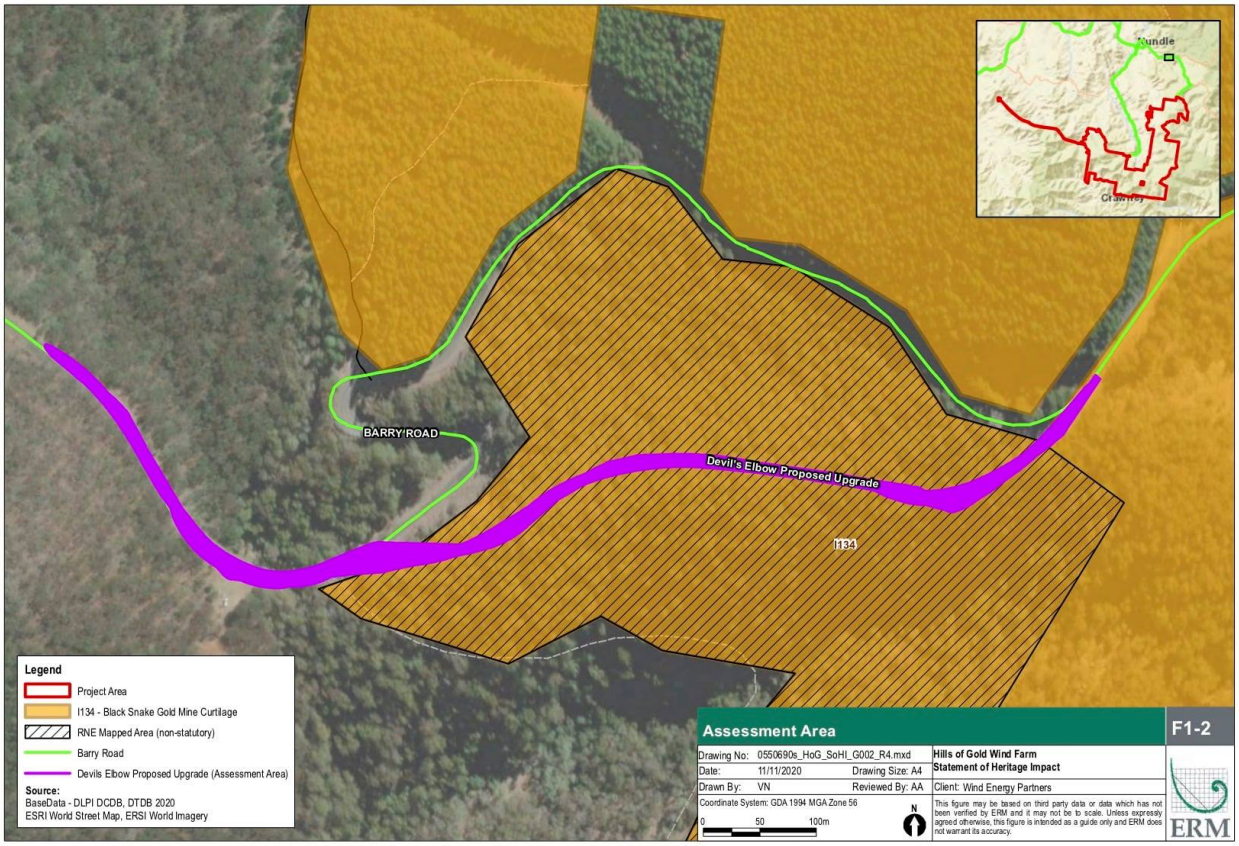
325 meters of turbine WP57,
520 meters of turbine WP58,
620 meters of turbine WP56,
675 meters of turbine WP59,
770 meters of turbine WP55.

HERITAGE AND HISTORY

The proposed transport route from Nundle to Hanging Rock forms a part of the Bicentennial National Trail.

The proposed bypass of the Devil's elbow is within the heritage listed 17.5 Hectares containing Black Snake and Brown Snake mines.

It is also listed as a public recreational area.



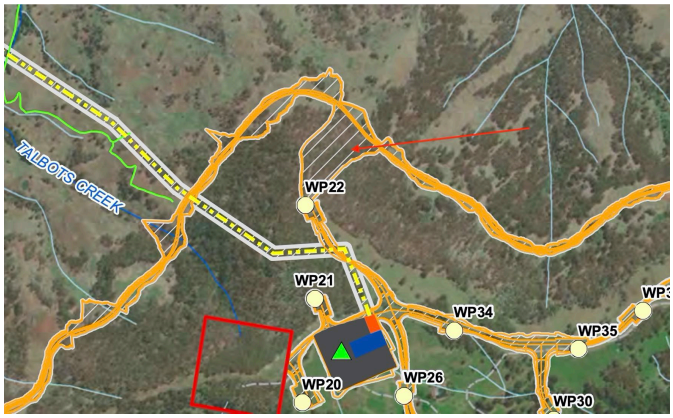
OLD GROWTH TREES AND ABORIGINAL HERITAGE

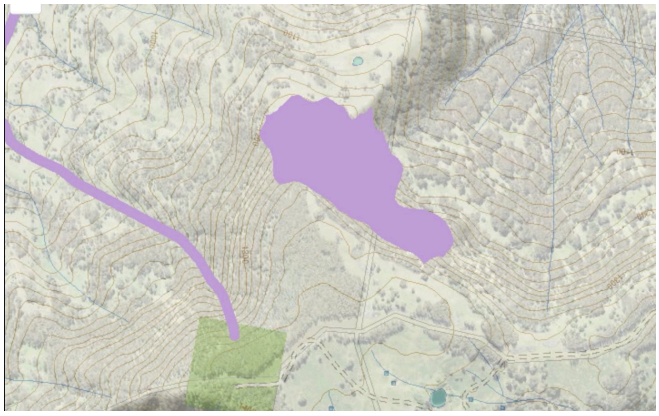
> *Page 289 of the EIS: "old growth trees may be present in the Study Area and have the potential to display scars of Aboriginal origin".*

There were two areas of Old Growth forest located within the project site. Both on the land owned by the major host of the project. (The adjacent Ben Halls Nature Reserve is also listed as an Old Growth area).

Out of the two areas on the private land, one has already been bulldozed. This clearing took place before any biodiversity or heritage assessment could be carried out.

The remaining area is now under threat by the proposed "transverse track"





BV Land Status: Biodiversity Values
Date added to BV Map: 25/08/2017
BV Map Criteria: Identified Old Growth Forest

WASTE MANAGEMENT

A key objective of the Waste Management Plan will be to ensure that any use of local waste management facilities does not disadvantage local businesses and, more generally, the local community, by exhausting any available capacity at these facilities.

The proponent should not be allowed to dispose any waste at the local waste facility. Nundle waste facility is for the local rate payers and has a limited capacity due to its small footprint.

There is no plan for large quantities of waste prior to the decommissioning plan. Blade failures usually result in the early disposal of blades. For example, Sapphire wind farm has had two blade replacements in three years of operation.

un-SOCIAL AND un-ECONOMIC

I have noticed while reading DA applications for other wind farms that job creation in renewable industry is something that is always heavily pushed forward. The renewable energy is touted as a replacement to fossil fuel energy and both job gains in one industry and job losses in another need to be taken into account. Nobody seems to be highlighting the fact that job losses from shutting down coal fired power stations, mining industry and associated administrative job losses in the energy sector may outweigh the job gains associated with wind farms. And what about entire townships that have evolved around mines? From coffee kiosks to investors providing accomodation, everybody will be affected.
At the same time, the wind energy is making its impact in the areas where energy generation was not an industry previously established and therefore not wanted. Wind farms are often proposed in the highly scenic locations relying on tourism. Impact to tourism is being overlooked.

There is a side to the wind industry I don't appreciate and it's usually not being talked about: this industry spins on subsidies and produces expensive electricity often at times when demand in the grid is low. The excess energy is then wasted. If wind energy was cheap, why would my Electricity supplier try to sell me a "Green" plan as long as I was happy to pay extra money? This industry is good at wasting taxpayers money and putting other jobs at risk. A Spanish study highlighted the fact that for every job gained in the renewable energy sector, 2.2 jobs are lost elsewhere due to rising electricity costs.

When it comes to Nundle, the industry is clearly not welcome here judging by the level of opposition in the area. It is important to understand that villages of Hanging Rock and Nundle have become a popular tourist and retirement destinations and there is a large proportion of residents or property owners in the area, who are not concerned about the job opportunities in Nundle/Hanging Rock because they are **not looking for work.**

Yes of course we have young people moving out seeking better opportunities, but we also have older people moving in in droves, something that other small communities don't experience to the same extend. According to 2016 Census data 33.1% of Nundle's population is over 65 years old.
They have chosen this area for its beauty and building the wind farm on the ridge above Nundle would be an equal act of vandalism to building a wind farm on top of The Three Sisters in The Blue Mountains or on the rim of Kangaroo Valley.

Starting out as gold mining towns, Hanging Rock and Nundle were once very busy little townships. In the second half of the last century Nundle has become the administrative center of the sheep grazing district. With the conversion of agricultural lands around Nundle to a less labor intensive cattle grazing, shearing jobs have disappeared. The arrival of farm machinery lead to decline in farm employment everywhere, the owner-operator can now take care of most of his farm needs. It's not the state of the economy, but mechanisation, that has killed jobs. And it will continue to do so. Self driving trains, mining trucks, buses and taxies. Self assisted checkouts, robot manufacturing and assembly plants, GPS assisted self driving harvesters and combiners. Advance in face recognition technology will replace shop personnel as the computer will log every customer walking in and out of the store. Online shopping will soon overtake shopping "in person". The wind farms, too, are remotely monitored.

Back when I was a child, teachers used to say that if you don't have education, you'll end up a manual worker. Now I am saying to my son "you'll end up with no job at all".
I once spoke to a local lady who said "all that's available in Nundle now is toilet cleaning". Good news! There will be a toilet cleaning position available at the wind farm site office, according to my conversation with one of the potential hosts recently. The rest of the ongoing jobs will be for highly skilled engineers who do a lap around the country servicing various wind farms. You only have to look up those job adds, "must be prepared to travel" is a first condition attached.

But times are changing again. The “work from home” revolution has began. It won't be the manual workers and labourers that will save Nundle, but the new generation of workforce with digital skills and online jobs moving out of the city. The tree-changers, freelances and professionals who can work from their computer anywhere they choose. Satellite broadband dish on the roof with 200Gb of data for $50/month is what's going to save Nundle.

It’s not hard to promote Nundle to Sydneysiders as a suitable place for relocation away from Covid 19, crime and city rat race. The beautiful images of the surrounding scenery do the selling.
Nundle is well poised to take advantage of these new times. What we have here, is something that not many villages on a similar crossroads have. The natural and recreational assets of the Forest, the dams for swimming and fishing, the difference in climate between Nundle and Hanging Rock to suit all seasons and tastes, the very image of the village with the spectacular back drop of the mountains, the unsurpassed beauty of the area. We need to promote Nundle/ HR as a safe, sustainable, healthy and picturesque area for people to move to.

As the world continues its transformation towards “work from home and shop from home” society, hospitality and main street retail are set to decline. As virtual reality makes its entrance into the scene, travel industry will suffer too. But places like little Nundle will continue on. Activities like fossicking for gold or gem stones can not be replaced by virtual reality travel. Neither can other sport and outdoor activities like fishing, hunting, riding bikes, four wheel driving. This will ensure tourist traffic through Nundle and ongoing support for local businesses.

ANOTHER GHOST WIND FARM?

At over 2 million per megawatt, this is already the most expensive wind farm ever proposed in Australia, even with the incomplete budget with many items still not budgeted for. With the cost of feed in power falling due to the oversupply of renewables beyond the capacity of grid, what type of investor is likely to purchase and construct this wind farm? Or is it going to become another "ghost" wind farm, approved but never constructed?
Is it fair to approve the project which is technically challenging and commercially unviable? If no investor will ever buy or build it, it will hang there like a death shadow over that ridge, living surrounding landholders in limbo. Should they build that new house they have an approved DA for? Renovate or extend existing house? Should they face the house to the ridge to capture those views, or away from it? Should they sell and move on? Should they count on the promised wind farm construction jobs? And the biggest question for the buyers - should they buy a property nearby or is it risky if the wind farm does go ahead?

TOURISM POTENTIAL

The popularity of wind farms as a tourism destination is questionable. Capital wind farm for example, in its 10 years of existence, has received only three (3) Google reviews. One reviewer, likely an overseas visitor, has elaborated on his experience:

“It is huge. While driving on the Tarago Rd, take the turn to Currandooley Rd… The road is bad with a lot of little sands and dirt. The limit speed is 40km/h but I sure that you not drive over 30km/h. Some distance must go with the speed of 5km/h. If you have a AWD, it is easier for you to drive. The road is more difficult to drive under the rain or after the rain.” So much for the promised local road improvements!

With the abundance of the wind farms throughout the NSW there is no incentive for visitors to drive to Nundle to see this particular wind farm, they all look the same. A much stronger selling point to encourage visitation, is the difference of the destination in comparison to other areas. Let’s make Nundle THE PLACE where you don't have to look at turbines. Places like this will be rarity soon.

EVALUATION AND CONCLUSION

I’ll make this chapter a short one:

This project is proposed for an unsuitable location and should be rejected.