

Department of Planning & Environment
GPO BOX 39
SYDNEY NSW 2001

Attention: Anthony Ko
Your Reference SSD-9679

<https://www.planningportal.nsw.gov.au/major-projects/project/9701>

Dear Sir/Madam,

TAMWORTH REGIONAL COUNCIL SUBMISSION – STATE SIGNIFICANT DEVELOPMENT – HILLS OF GOLD WIND FARM – APPROXIMATELY 5 KM SOUTH OF HANGING ROCK AND 8 KM SOUTH-EAST OF NUNDLE

Ref: Ir/SL/GV Document Set ID 606951

I refer to your correspondence received 27 November 2020 giving notice of the public exhibition of a state significant development, Hills of Gold Wind Farm (SSD-9679). Thank you for the opportunity to provide comment on the proposed development, please find Tamworth Regional Council's submission below:

General

Tamworth Regional Council is generally supportive of renewable energy initiatives. The Proposal is a large renewable energy development and therefore has relevance at a global, national and regional scale. This Project follows the trend (mega-trend) away from fossil fuel and toward renewable energy power generation.

The Tamworth Regional Council Blueprint 100 Document Part 1 (Action 6.5) and Part 2 - Local Strategic Planning Statement identify renewable energy as being important issues and goals in the region. This is also in accordance with the Department of Planning Industry and Environment New England North West Regional Plan 2036 which identifies the potential for the region to become the renewable energy hub of NSW.

This is a major development (\$770m CIV), with many potential flow-on benefits to the community; economic benefits through various commercial opportunities; the potential for job opportunities with the proposed 215 direct and 430 indirect jobs (construction) and 30 permanent and 50 indirect jobs ongoing; substantial local road upgrades and potential associated tourism activities during construction and operational phases. Council is therefore very mindful of the potential opportunities available to its community if a development of this nature was to proceed.

However, Council wishes to raise some significant concerns regarding this specific Proposal. While Council supports the principle of renewable energy, the documentation submitted as part of the development application raises considerable doubt regarding whether the subject site is in fact appropriate or sustainable for such a large-scale renewable development. It is on this basis that Council finds itself unable to support the proposed development in its current form and provides the following comments and reasons for its concerns / objection, all of which are relevant to the question of whether the proposed location is suitable for the proposed development:

Development Engineering Comments

The development was referred to Council's Development Engineering Division, which provided the following comments:

Introduction

Whilst the Development Engineering comments are confined to strictly engineering subject matter, they highlight the likely physical impacts associated with various aspects of the proposed development. These physical impacts will then create potential environmental, cultural, visual and related impacts. In particular, the Development Engineering comments highlight those areas in which the likely extent of required works may have been understated or overlooked by the proponent.

Items that fall within the engineering purview include traffic impact associated with the establishment, operational and decommissioning phases of the project, together with earthworks, road works and drainage aspects associated with access roads, temporary batching plants, temporary and permanent site infrastructure (laydown, parking areas, sheds and the like), and the turbines themselves.

Traffic Impact

Establishment Phase:

The establishment phase of the project will generate the most significant traffic impact. The documentation supplied in support of the project provides voluminous assessments of the candidate haulage routes. The documentation also nominates likely traffic volumes, both in terms of routine construction traffic, and also the oversize and over mass (RAV) deliveries to the project site. In order to assess and respond to the proposal, it is appropriate to look at these two elements separately.

Routine Construction Traffic:

During the construction phase, routine construction traffic accessing the site has been projected as comprising the following daily trips:

Vehicle Type:	Establishment: Trips Per Day	Peak Construction: Trips Per Day
Light Vehicles	130	210
Buses	12	12
Water Trucks	22	40
Trucks	40	240

In the mornings, between 7:00am and 8:00am, this would look like:

Vehicle Type:	Establishment: Trips Per Hour	Peak Construction: Trips Per Hour
Light Vehicles	65	102
Buses	6	7
Water Trucks	4	4
Trucks	5	28

To put this into context, traffic in Nundle will more than *quadruple* in the mornings between the hours of 7:00am and 8:00am during the period peak construction activity. In traffic engineering terms, increases in queuing lengths and intersection delays would be minimal. However, the townsite will feel significantly busier in terms of traffic noise and general activity compared to the usual baseline.

How does the proponent propose to mitigate this issue during the construction phase? What measures are in place to minimise disruption to the Nundle and its community during the peak construction phase?

The nominated route for this routine traffic is into Nundle via Lindsays Gap Road or Nundle Road, and then to the site via Morrisons Gap Road. This appears to be at odds however with the proposed site configuration which includes establishment phase batching plants and laydown areas at both extremities of the project footprint (i.e. one at the end of Morrisons Gap Road, and another at the end of Kirks Road, off the Head of Peel Road). *Clarity needs to be provided as to whether routine construction traffic is to be split between these two destinations.*

In terms of traffic impact, the projected additional vehicle movements will not push any of the roads or intersections to the point that reasonable levels of service are exceeded. In the case of roads in and around Nundle and Hanging Rock, this is essentially a function of the fact that current traffic volumes are relatively modest. The existing traffic volumes on these roads and intersections are simply a long way from their theoretical capacity. The corollary to this, of course, is that the additional traffic will be quite noticeable when set against the modest ambient levels. There will be a temporary impact on the existing character of these locations.

Another potential impact along access routes that routinely requires management is the generation of dust. The proponents have nominated that they will upgrade and seal Morrisons Gap Road. The other roads along the nominated route are already sealed. However, if Head of Peel Road is to carry a measurable amount of the projected routine construction traffic, consideration will need to be given to sealing part or all of that alignment.

There is potential for accelerated deterioration of roadways and associated infrastructure as a result of the construction phase traffic. This can be managed via a process of dilapidation surveys and agreed management plans, secured by way of performance bonds.

Oversize and Over Mass Traffic Routes:

In addition to the routine construction traffic discussed in the previous section, establishment of the project will also involve transport and delivery of blades, tower sections, nacelles, substation components and cabling, which will involve overlength and over mass vehicles (RAV's).

It is important to note that the preferred route(s) for these vehicles may be significantly different to the preferred route for routine construction traffic.

The blades in particular are very long rigid elements (potentially up to 83m long). As such, manoeuvring these elements along the existing roadways can only be achieved with significant modification to intersections and other geometric constraints along the way. The Development Application includes an assessment of two candidate routes by a transportation company, and a transport planning consultant.

The route includes transport by road from the Port of Newcastle, primarily up the New England Highway to the Tamworth region. The current nominated route involves accessing Nundle from the New England Highway via Lindsays Gap Road. From Nundle, two RAV routes to the project site were assessed, being:

1. Via Barry Road and Morrisons Gap Road, or;
2. Via Crawney Road and Head of Peel Road.

From an engineering perspective, there are some significant gaps in the current analysis, including:

- The assessment carried out by the transportation company provides what appears to be a relatively comprehensive base-line catalogue of modifications that would need to be made at

various intersections, bends, bridges, crests and the like in order to facilitate the passage of the larger elements – especially the blades.

The assessment however appears to be based on *plan-view* geometry and therefore understates the extent of impacted areas where there are *cuttings* and *batters*. The assessment is also confined to identifying the geometric extent of the impact – but does not explore the mechanisms for achieving the extra *clearing*, *infrastructure relocations*, *land acquisitions* and the like.

The intrusions into adjoining landholdings will also need to be resolved with the relevant owners, and an accurate geometric extent will need to be defined in order to facilitate these negotiations.

- The two nominated alternative routes both include significant impediments that remain unresolved.
 - In the case of the Barry Road route, the strategy for negotiating the Devils Elbows was previously stated as involving lifting the blades into a vertical position. This no longer appears to be the case. Instead, the stated strategy involves constructing a track straight up from the first hairpin, tying back into Barry Road some 460m further uphill. The practicality of this suggestion is questionable. The engineering associated with stabilising and draining such an extreme formation would be challenging to say the least, and the result would be highly visible (creating a visible vertical scar) as well as being precarious;
 - In the case of the Head of Peel Road route, the existing unsealed road formation wanders in and out of the actual gazetted road boundaries from place to place. The geometry of both the existing formation and the gazetted reserve are such that transporting the blades would involve intrusions into private land holdings, whichever alignment were to be adopted. Council is of the understanding that not all landowners along this route are supportive of the project. In fact, quite the opposite. Securing the necessary third-party agreements associated with transporting the blades along this route would appear to be far from a foregone conclusion.

Whichever route is ultimately selected, road upgrades will be required in order to facilitate the RAV movements. These upgrades will likely include load assessment and resultant augmentation of structures, widening existing narrow bridges and causeways, straightening some of the more extreme horizontal and vertical alignments, and widening certain intersections.

Operational Phase:

Consistent with other wind farm and solar farm proposals, the traffic volumes during the operational phase of the project will be relatively modest. The legacy network improvements will be more than adequate to accommodate the operational traffic, at least in so far as routine traffic is concerned.

The Development Application documentation is silent on the matter of RAV requirements during the operational phase. That is to say, there is no mention of contingency for the event of a blade-throw or other catastrophic failure, and the subsequent need to transport substantial overlength or over mass replacement components. This aspect needs to be clarified, as it has an impact on the timing of reinstatement of “temporary” establishment-phase access alignments.

Decommissioning Phase:

The documentation nominates a typical lifespan for wind turbines of 25 to 35 years, with three main options at that time:

1. Continued use, depending on the condition of the equipment;
2. Replacement of the wind turbine generators (WTG's) with updated technology, or;
3. Decommissioning and removal of the WTG's and associated infrastructure.

Each of these options would require RAV access – to a greater or lesser extent. The documentation does not elaborate on this element. Additional clarity is required in this regard.

Other Development Engineering-Related Matters

The proposed development has an overall footprint of 513ha. Within this footprint, a number of development related issues will need to be managed via the imposition of appropriate conditions. From an engineering perspective these issues require significant and appropriate management of the site to address the potential for erosion generated by vehicle movement, wind and water, so that these impacts can be minimised.

Ancillary Development

More details are necessary to determine the construction impacts associated with the ancillary industrial components within the development site. The following components must be addressed in more detail to ensure the potential environmental impacts (e.g. noise, dust, odour, traffic, contamination, flora and fauna) are minimised and managed appropriately:

- Turbine crane pads and assembly areas – aggregate circa 30ha spread across 70 individual sites
- Internal roads and service corridors – 194ha
- Battery Energy Storage System – 6.38ha
- Switching Station (not in TRC's area of Jurisdiction) – 1.65ha
- Temporary mobile concrete batching plants – 2 x 1.0ha sites
- Temporary site office, carparking and storage – 10.6ha
- Substation – 0.36ha
- Permanent operations and maintenance compound – 1.09ha
- Transmission line with associated access tracks – 135ha

It is Council's opinion that the sensitivity of the site is such that the specific details of these expansive elements needs to be investigated in detail prior to approval of the development, on the basis that understanding these engineering elements is critical, in order to inform other critical assessments upon which the approval will turn, including hydrology, environmental impacts, visual impact and the like.

Management of erosion will be a critical element of the development.

Council requires more information of a significant detail to assure it of the ability of the development to preserve the environment and minimise the development impact. Providing this level of integrity will involve the proponent demonstrating that the development can and will satisfy the following:

- Limiting disturbance, i.e. the development footprint to areas than can be reasonably managed in terms of batter slopes and extents;
- Avoiding large cut and fill on steep areas of the site;
- Avoiding clearing anywhere near established creek lines, and where existing vegetation is essential to maintaining slope stability during rainfall events;
- Capturing and appropriately detaining runoff from disturbed areas, prior to discharge to established water courses;
- Similarly capturing and appropriately detaining runoff from roofed structures, and storing for re-use or discharge to established water courses;
- Adequately designing and managing crossings of lower order water courses, and avoiding crossing higher order water courses wherever possible;

- Managing the interfaces between internal access tracks and public roadways, and;
- Stabilising and re-establishing disturbed areas and management in accordance with the Blue Book guidelines in a timely manner.

Biodiversity

The following concerns are raised in relation to the information provided in the Biodiversity Report provided by the Applicant:

- **Lack of information in relation to impact on fauna (particularly aerial fauna) located in the adjoining Ben's Hall Gap Nature Reserve (2,500 Ha) and Crawney National Park (310 Ha).**

Whilst the Report argues that there is sufficient habitat in the adjoining nature reserve/national park to compensate for any loss of habitat/fauna species in the development footprint, this is not considered to be an adequate response and clearly does not comply with the intent, objectives or requirements of the NSW Biodiversity Offsets Policy for Major Projects.

The Development Application indicates there has been no overall assessment of threatened species in the locations that will be impacted by the proximity of the wind turbines once they are in operation, particularly aerial species. The Report has examined indirect impacts (collision risks for birds and bats, disturbance from noise, light etc.) within a 1.5km buffer around the development footprint but this is considered inadequate.

It is strongly recommended that the indirect impacts from the wind turbines be examined within a 10km buffer from the development footprint.

- **Lack of information in relation to Collision Risk for Bats and Birds**

Appendix D of the Report contains data and modelling in relation to the collision risk for birds but does not include any modelling in relation to bats or nocturnal bird species such as owls. The report states that of the fifty-one (51) species of birds present in the development footprint, all of these have the capacity to fly at the same height as the turbine blades but only eighteen (18) bird species were recorded as doing so. The report goes on to state the risk of collision is estimated as being very low. The report includes little evidence to support this conclusion.

Section 8.3 of the Report does address the potential impact of the wind turbines on threatened bat species within the development footprint and basically concludes that there is limited data on the heights that the bats will fly and forage. It states that the spacing between the turbines (ranging from 300m to 500m) will allow substantial locations for migrating and foraging bats to pass through the landscape.

The report provides insufficient data / modelling to support this conclusion.

- **Bird and Bat Adaptive Management Plan**

Like the Biodiversity Offset Strategy, the BDAR states that a Bird and Bat Adaptive Management Plan will not be developed until after the wind farm is approved. It is completely unacceptable that a project which could significantly impact on threatened species in the region does not provide a plan detailing how the impacts can be avoided, minimised or managed. It is strongly recommended that a Bird and Bat Adaptive Management Strategy be submitted prior to final determination of the project.

It is also recommended that the layout and spacing of the turbines be revised to avoid any further clearing within the development footprint.

- **Land Clearing**

There appears to be an inconsistent approach to the level of assessment and approval processes for land clearing within the development footprint. Clearly, the approvals and permits issued to date for agricultural activities have not been subject to the same level of rigorous assessment as the current wind farm application. In this regard, any clearing of habitat for threatened species or woodland listed as an endangered ecological community should address the potential impact on biodiversity irrespective of the end use.

It is strongly recommended that no further clearing be permitted in the development footprint until such time as the Wind Farm application has been determined.

- **Impact on fauna**

Council officers have noted during site inspections, the presence of wombat holes across the development site. The Development Application appears to provide no assessment of the impact of construction on these mammals or details of the proposed management, protection and preservation of these mammals during the construction phase of the project, noting that extensive excavation across a minimum 200ha area will occur.

In this respect Council requires further expert information outlining the assessment of the impact of construction on these mammals and details of the proposed management, protection and preservation of these mammals during the construction phase of the project.

Heritage

Council is not supportive of the nominated transport route and the strategy for negotiating the Devils Elbows by constructing a new road which directly impacts on the local heritage listed site known as the Black Snake Gold Mine on Lot 440 DP 822503 (Item No. I134 in the Tamworth Regional Local Environmental Plan 2010). This parcel of Crown Land is scattered with Mine Shafts and Tunnels and contributes to the historical character of Nundle and Hanging Rock as a mining heritage locality. The Statement of Significance according to the NSW Heritage Register states:

"The place has both historical and geological significance to Nundle, the Tamworth district and to local and national mining development beginning in this instance from the mid-1800s."

By decimating the Black Snake Gold Mine heritage site, the proposed Devil's Elbow strategy does not meet the objectives of Clause 5.10 of the Tamworth Regional Local Environmental Plan which is to conserve the environmental heritage of the Tamworth Regional Council area and to conserve the heritage significance of heritage items and heritage conservation areas, including associated fabric, settings and views.

Peel Valley Catchment

The catchment area of the dam is 420sq km and based on the area of the catchment that will be affected during construction and operation of the proposed turbines, it is anticipated that any adverse impact on the quality of runoff water reaching Chaffey dam will be very minor.

However, Council is concerned that it is unable to fully understand the extent of potential impact on the catchment in the absence of adequate detail in respect to the ancillary industrial components of the Project. Therefore, Council is also unable to assess the ability of the development, (noting its scale), to appropriately mitigate the potential environmental impacts of those ancillary industrial operations and the consequent impact on the catchment.

As mentioned previously in this submission, further details of the industrial components of the development, the potential environmental impacts of those industrial activities, and the proposed means of mitigating those impacts is required.

Water Supply

The submitted EIS is unclear on the likely source of external water supply required for concrete batching and construction activities. The proponent estimates 55ML of water will be required for construction and will be sourced from either;

- Council water supply, with agreement with the relevant Council(s)
- Extraction from an existing nearby land owner bore
- Extraction from a new groundwater bore
- Extraction from surface water source (Chaffey Dam or Peel River)

It is recommended a water balance report be undertaken to determine the likely impact of the development on water resources and in particular on adjoining landholders. Further investigations/certainty regarding the sources of water is required, as this will need to be considered as part of the water balance and by other external referral agencies.

Visual Impact

Council requests that the proponent be required to consider clustering/reduction of turbines to achieve a reduction in the visual dominance of the towers on the ridgeline and also reduce impact on biodiversity.

Bushfire Prone Land

Council requests further information regarding the mechanisms the proponent intends to put in place to avoid catastrophic bushfire outbreaks. Clarification is requested of the potential of the Wind Towers to impact on the ability to undertake aerial firefighting duties.

This is especially relevant in light of the recent bushfire that went through the area and the required aerial support necessary to save dwellings and property. It is also unclear whether an appropriate assessment has been made in the event of a mechanical failure to a wind turbine generator. Has an appropriate assessment been made that demonstrates an ability to undertake aerial firefighting duties within the Project area?

Community Enhancement Fund

The applicant has proposed that a Community Enhancement Fund (CEF) be established to benefit the local residents around Hanging Rock, Nundle and communities close to the project. The fund charter proposes a contribution from the operator of \$2,500 per wind turbine per year installed and operating. The contribution would be subject to CPI and continue over the life of the project.

The proposed CEF is being sought to be accepted in lieu of voluntary planning agreements with Tamworth Regional Council, Liverpool Plains Shire Council and Upper Hunter Shire Council. This is with the exception of any public roadworks which are committed to directly from the project and outside of any funding from the CEF.

The fund is likely to be auspiced by Tamworth Regional Council as the most affected LGA and with the centres of Nundle and Hanging Rock located therein. The charter proposes a \$5,000 administration allowance to assist with the management the CEF.

The CEF as proposed would be delivered by a committee (\$355 or similar) with a total of 11 members. Bids for projects are proposed to be called twice a year.

The eligibility of projects is focussed on the area near the wind turbines as far as Nundle, Hanging Rock, well into Upper Hunter Shire and Liverpool Plains Shire.

A central principle in this process is that of "additionality". This means projects and services that are additional to those normally delivered by Council. An identified risk is that some projects could still result in infrastructure being developed or upgraded on Council land that will require ongoing maintenance and the expectation of eventual replacement.

The types of organisations supported from other similar funds include community and sports clubs, school P&C, volunteer emergency services and other community groups.

Council has several concerns regarding the CEF Charter as proposed.

- The contribution of \$2,500 per operating turbine is considered to be very modest considering that the proposed Hills of Gold turbines are considerably larger both in physical scale and power generation than existing wind farms.
- The delay in providing funds to the community until the commencement of the operation of the first turbine is questioned. It will be during the construction phase that most disruption is likely to be caused. There appear to be good opportunities for providing sponsorship during the construction phase to various groups such as school sports and activities, community groups and events prior to the activation of the CEF.
- There appears to be an inherent complexity to the operation and administration of the CEF considering the reasonably modest amounts involved. The proposed committee structure of 11 participants from the various towns, localities and Councils seems unwieldy. It is considered that the twice yearly bid processes may be better managed in this case by a once a year process. It seems likely that the burden on the three Councils resources would exceed \$5,000/year.
- It should be considered whether this may be better facilitated by a working group of Council rather than a S.355 committee. The working group might best be convened by an independent person with a legal, accounting or administrative background for the first two years to establish and activate the process.
- The CEF structure seems to have become accepted practice and the potential funds available over 25 years could be significant depending on the agreed payment by the operator. Council acknowledges that this would provide a notable cumulative benefit to the local community if the administrative complexities and costs can be managed.
- Prior to accepting the CEF in lieu of a voluntary planning agreement Tamworth Regional Council, in company with the other affected Councils, requires the opportunity to finalise the details of the CEF regarding potential timing, criteria and process to improve the potential administration of the Fund.

Whilst the proposal is permissible under the State Environmental Planning Policy (State and Regional Development) 2011 Council has serious concerns regarding the potential environmental and social impacts of the proposed development and is unable to satisfy itself due to the lack of detail regarding construction, operational and ongoing management aspects of the project. It is for these reasons that Tamworth Regional Council cannot support the approval of the Hills of Gold Wind Farm proposal in its current form.

Council requests further involvement with the Proponent and DPIE regarding the matters identified above and should the application be considered for a favourable determination, Council requests the opportunity to prepare recommended conditions of consent.

Should you require any clarification in relation to the matters raised above, please contact Manager, Development Sam Lobsey on the number below.

Yours faithfully,



Gina Vereker

Director, Planning and Compliance

Contact: Sam Lobsey (02) 67675507 or s.lobsey@tamworth.nsw.gov.au

10 February 2021