Submission by [redacted] Dated 12 February 2024

Lodgement via Webmail system: Using Online Submission

** To be Redacted

[redacted]

SSD-9679 HILLS OF GOLD WINDFARM (HOGWF)

This submission is lodged on a personal and individual basis. I am a resident of Tamworth. I did speak at the Public Meeting in Nundle on Thursday 01 February 2024. Unfortunately five minutes did not provide time to present in detail.

Personal Background

I graduated as a Civil Engineer in 1976 and have worked predominantly in hard$ Contracting since, (now retired), with field experience in Quarrying, Road, Rail and large site-works coupled with extensive experience in developing work procurement proposals. This required knowledge of and input into specifications, statutory requirements, contract documentation, work methods, scheduling, procurement, commercial assessment of contract terms and supplier/subcontractor proposals, risk analysis, estimate compilation (based on First Principle basis), facilitation of management reviews and preparation of client submissions. Projects involved with have ranged to multi $B. My work has involved civil works proposals for several windfarms.

Within the family, my great great Uncle [redacted] in the mid 1800's was a detail watercolor artist skilled in the detail necessary to capture the details of landscape and life. He briefly worked in South Australia (Horrocks Expedition, freelancing around Adelaide and the Burra Copper Mine) before travelling to the goldfields of Victoria. His works capture the heritage of gold mining and life on the goldfields.

Some Wider Context

In the wider context, in recent times we are seeing increasing amounts of pushback against Renewable Energy Projects. To me, some is surprising, offshore projects satisfy the out of sight criteria and artificial reefs are created to improve fishing habitat. However, there are several common themes that I will comment on here:

- **Political Framework**

  Given a hiatus on Renewable Energy under former Governments, following changes of Government and a re-affirmation of some bold commitments, coupled with scheduled shutdowns of fossil fueled generation, there is now pressure/urgency to meet the achievement of targets.

  It would be a travesty for this urgency to allow development of "Less Than Ideal" projects using this haste as a reason.

- **Planning and Implementation of Renewable Energy Zones**

  There has been the creation of State Significant Infrastructure ostensibly to fast track the process of approval.

  Concurrently Renewable Energy Zones (REZs) have been established with Transmission Corridors tacked on seemingly almost as an after-thought.

It is noted that HOGWF falls outside any REZ and that a key point made by the Proponent is the proximity to an existing Transmission Line thus avoiding delays by any future approval of necessary transmission lines. Again as mentioned above the pressures of meeting Renewables targets should not over-ride proper planning and process.

In my view the delay in implementation of timely consideration of the needs, and planning for these needs has put society in general under pressure and they of course respond in accord with the stimuli that have presented, ie appears rushed, how does it affect me?, perceived lack of consultation, all guided by what is said in the media.

- **Landholder Returns – Passive Income**

  Recently various press publications have disclosed landholder annual payments for hosting Turbines of up to $30,000 per each per annum. Given the nominated 30 year lifespan and the uncertainty of events within that timeframe, I can only hope that the Landowners have taken the necessary care to ensure their payments continue in the event of a fall in wholesale energy prices making the Turbines un-viable, Insolvency of the Operators they are contracted to and that in such events they are not left with a stranded asset on their property without funding for removal and re-instatement.

- **Proponents Action – The "Cowboy" Element**

  Of recent times there has been various reference made to the Cowboy Element in the various press. Whilst I make comment, I personally do not take such comments at face value. I take steps to satisfy myself of the necessary facts.

  It is somewhat confronting to see Renewable Energy classified in this fashion. However, unfortunately due to the profit centered focus of Proponents it is unfortunately not un-deserved. The Public are being subjected to an onslaught of development and coupled with the rush of Proponents to turn a profit, corners are being cut. It defies logic that after a gestation of six (6) years, and three years in EIS, the Proposed Conditions of Approval before the IPCC are couched in Detail Design after approval, requesting the ability to move Turbine locations by 100m, failing to provide specific detail as to how the specific Turbine location will be accessed and in many instances certain decisions are still based on Desktop studies.

Not a NIMBY

My whole working life was devoted to construction, building predominantly Public Infrastructure to enhance the living standards and to progress the society in which we all live.

Every Role/Project I worked in/on both in the field and in the work acquisition roles interfaced with the Environment in many forms and fashions, eg protecting endangered species, protecting environmentally sensitive wetlands, controlling dust, not polluting the environment, storm water runoff, erosion and sedimentation, noise control, out of hours work etcetera. Additionally experience has included Site Management roles in Quarrying/Concrete and Bitumen/Asphalt (regarded as Noxious Industries), and Landholder Relations and Fencing on 110km of Rail Formation and working in/around live operating Railway networks on construction activities.

This experience has taught me to value the Public Interface, be a good Neighbor, work constructively to achieve outcomes and above all that I place high regard in and for the Environment.

I hold a belief that anything is possible given Time, Resources and Money. Issues arise when any or all of these are constrained (usually Money) and even the strongest commitment to Best Practice is then put under pressure resulting in reduced outcomes. Sadly for every Project meeting or exceeding high standards, there are those which fail dismally. This is usually where smaller contractors driven by cost pressures cut corners and on larger projects where multi levels of contractor hierarchy exist as well as “out of sight out of mind” in conjunction with multi levels of delegated responsibility.

It is noted that during the EIS process to approval by DPHI the Proponent has devoted considerable effort to massaging the numbers of for/against to focus on the much tighter range within the local Nundle community. Interestingly a submission made by Tamworth Regional Residents and Ratepayers Association (TRRRA) dated 28 January 2021 was regarded as a comment, despite containing significant argument against the Project. TRRRA at the time were approached by residents of Nundle and as part of that process at the time, I drafted the section of the TRRRA submission relating to Earthworks, Access, Clearing Areas and Erosion and Sedimentation. The approach adopted by the Proponent in my view highlights a Project driven focus whilst ignoring the wider Public. As an aside but an example, imagine painting the Opera House pink or sand mining Bondi Beach, who are the “Locals” and why would the opinion of many who value such icons be dis-regarded.

As a resident of Tamworth for over 30 years, I and my family have interfaced with many Nundle residents and certainly when we have visitors the heritage, minimally spoilt natural beauty and boutique business attractions of Nundle make it our first call go to Location.

For the reasons espoused in this submission, I have considered the balance of progress to Renewable Energy against the potential for irreparable damage to the environment, destruction of the irreplaceable natural beauty, peaceful environment and ambience of the area, the potential effects on the unique business that underpin the character and employment of Nundle and the effects on the heritage of the area. After due consideration I conclude that the development should not be approved. Whilst not being against Renewable Energy, I believe the Hills of Gold Wind Farm is the right project in the wrong place.

Constructability, Clearing, Erosion and Sedimentation, Rehabilitation

The terrain this proposal traverses may be classified as difficult access with slopes ranging to 30% and a significant portion in the 10 % plus range. For road transport highway applications a 10% gradient is considered difficult with traction starting to become an issue in certain weather conditions. These highways eg Murrurundi Range and Moonbi Ranges are sealed versus the graveled surfaces of this project. Additionally constraints around swept paths of the vehicles accessing the project in plan and peaks/troughs in longitudinal sections dictate that a much larger swathe than existing will be cut. Any new access will need to be configured accordingly.

The predominant concern I hold relates to matters of constructability, the areas of disturbance, the fact that this disturbance remains for the operational life of the project and subsequent issues of erosion and sedimentation and rehabilitation at the life end of the project.

As noted above I contributed to the TRRRA submission dated 28 January 2021 on these very issues. It appears to me that despite these concerns having been raised, very little definition of constructability and measures to combat erosion and sedimentation have been progressed.

The published IPCC Interview with officers from Tamworth Regional Council reveals very similar concerns to those which were raised by myself in the TRRRA submission. Significantly mention was also made to aspects of the Proponent's lack of clarity and definition regarding aspects of the transport and haulage routes. There is insufficient detail to determine how the haulage routes will be utilised after site entry at Crawney Road, ie how do unloaded vehicles exit site. Those views of TRC staff were affirmed again at the Public Meeting at Nundle of 01 February 2024.

It is my belief and opinion that the DPHI Recommended Conditions of Approval put forward leave too much scope for interpretation to the benefit of the Proponent. Throughout the referenced EIS (which is poorly collated comprising EIS No. 1, EIS No. 2 and a series of correspondence and reports covering changes made requiring extensive cross referencing to read and comprehend) there is much deference to detail to be worked out during Detail Design.

Ultimately the difficulty of the terrain in comparison with other location options would contribute considerably to construction costs, leading ultimately to a more expensive proposal, lower financial return/viability and at the end the increased costs to the final consumer.

- **Area of Disturbance (Clearing)**
  - The photograph below (https://reneweconomy.com.au/final-concrete-turbine-foundations-poured-for-australias-biggest-wind-farm/) depicts the scope of disturbance at a Turbine footing site. This is a site in Queensland Australia.

  - Note that in this photograph there appears to be NIL environmental protection against erosion and sedimentation in place. Additionally note the excavated material stockpiled for re-use (approx. 2000m3). The disturbed area depicted is vastly at variance with that advised by the Proponent for HOGWF in the EIS submissions.

- **Planning of Access and Haulage Routes**
    - Table 7.2 of the Recommended Conditions of Consent is at variance with the figure HILLS OF GOLD WINDFARM – Transport Route Nundle to Site in that Barry road is not shown on the figure as an OSOM route (for Heavy Vehicles only). Additionally this appears at variance with Clause B30.
    - Table 7.2 further provides for construction of laybys on Barry Road of similar size to others constructed on OSOM routes.

  Surprisingly the above, in my view, demonstrates a failure to comprehend that some of the larger haulage units remain OSOM in length and will be so in width unless they are able to reduce to legal width. As such even on exit unloaded they remain OSOM and are unable to use Barry Road. Additionally where access to turbines is a single spur track off the main carrier corridor provision will need to be made for turning radii and the vehicles to turn around at the turbine site. This will impact the clearing and disturbance areas stated.

- **Design of Access and Haulage Routes**

  Despite the deference to the Detail Design stage, software and techniques do exist whereby satellite imagery is able to be contoured and then have roadworks superimposed to develop quantity models. This technique has been applied to some of the project proposals that I have worked on and within far shorter time-frames than that which the Proponent has had.

- **DHPI Independent Expert Advice on Constructability Soil and Water Assumptions**

  The following points are made in response to this report. It is appreciated that the report is based on Engineering Judgement.

    - This review repeated my initial concerns regarding stability, constructability and erosion and sedimentation.
    - Earthworks operations inherently:
        - Open up new faces to weathering.
        - Disturb root systems of adjacent vegetation and viability of vegetation.
        - Break down the organic matter and micro-organisms which hold soil together.
    - Disturbance of in place low to medium erodibility soils during construction reduces in place cohesion making those soils more prone to erosion. Additionally the benefit of existing organic matter cover is broken down.
    - There is a trade-off between batter slopes of excavations and fills versus stability and erodibility and the amount of long term maintenance required. The use of the word temporary is somewhat of a contradiction, “temporary” for the majority of the access is a period of 30 plus years, much more akin to permanent public road structure. The longer term experience of TfNSW in such matters is considered more appropriate for the 30 year time frame, ie use of less steep batters than those which might work adequately over a time frame of 6 to 12 months typical of usual construction works. Additionally the longer the period, the greater the Risk of more extreme weather events meaning consideration needed to design for these events.
    - The few cross sections provided show trafficable widths of 5.0m with a 0.5m shoulder. This in my view will present some challenges to the passage of 5.3m wide loads grossing up to 170 tonnes or during construction the passing of two tippers or concrete trucks. Concrete pours would be likely to require 150 to 200m3 delivered per hour in average 6m3 loads ie 25 to 30 loads per hour in each direction. The frequency of movements will necessitate a much wider width being needed for safety.

- The Western Access/Transverse track essentially crosses the spurs and valleys of the Head of Peel and given the inherent nature of these, they flow water in periods of rain. Significant attention to the passage of such flows would be required. The RCC appear silent on these matters.

- **Access Roadway Design**

  The constraints around swept paths of the vehicles accessing the project in plan and peaks/troughs in longitudinal sections dictate that a much larger swathe than existing will be cut. Any new access will need to be configured accordingly. Various turning radii have been noted as far as load access is required. In some cases this will dictate a minimum distance from the haul route to the Turbine location to allow for turning.

- **Construction Laydown Areas**

  Significant laydown areas will be required and will need to be configured around the operational characteristics of craneage employed. At a nacelle height of 150m consideration needs to be given to the amount of jib and positioning that there is no jib binding against the stucture and that lifting occurs within the rated capability of the crane. Such cranes are large and require engineered support underfoot for stability and safe operation. This may require excavation and replacement of existing with suitable materials or construction of a piled crane pad.

  Additionally suitable access needs to be provided to suit the haulage equipment configured to allow continued project access to other work areas and to suit the vehicle geometry requirements.

- **Construction "Machine Width"**

  Construction (particularly on side slopes) requires a minimum machine width about 5m for safe work with regard to larger equipment eg D8 Dozers, 25T Excavators 30T Dumpers with consideration to how machines may pass or position to load being additional. This is a factor in the detail as to how earthworks are conducted in difficult terrain and will impact on the areas required to be disturbed.

- **Control of Erosion and Sedimentation (E&S) and Dust**

  The primary practical controls for E&S comprise silt fence, topsoiling and grassing, sediment traps, lining and facing with rock and fabrics, along with facilities to clean wheels of vehicles to prevent tracking onto public roads.

  Additionally dust control primarily by use of watercarts will be required.

  Internally there remains the issue of wheel spray from vehicles traversing graveled roadways, often seen as a stain on roadside vegetation. This is a form of sedimentation which is difficult to manage.

  Significant work resources (and $ Budget) will need to be devoted to implementation of the necessary controls, adjustment as work progresses, maintenance over time and removal and disposal when no longer required.

  From my observations from the various documents comprising the EIS there is no mention of any monetary budgets or even notation of specific resources which will be applied to this task.

- **Stockpiles**

  Significant quantities of material will need to be stockpiled for re-use eg:

  - Stripped topsoil for application to disturbed areas as part of E&S works, or for use in the final reinstatement at project life end.
  - Material excavated for Turbine footings to be re-used as backfill.
  - Material unsuitable for re-use in the project or which is not economical to load/haul/re-use or is otherwise quarantined by location.
  - Material from cuts

  Such stockpiles, whether short term during the construction phase or longer term to project end of life will need to be re-vegetated and have appropriate E&S controls installed and maintained.

  The question remains as to whether these areas are included within the areas of clearing for Biodiversity calculations.

- **Roadway Widths/Clearing areas/Biodiversity offsets.**

  Having started three (3) years ago on aspects of this proposal including the very subject of areas of clearing and disturbance, it seems that there is still not a robust appreciation of the quantum of area likely to be disturbed by construction of the requisite roadways and construction service areas. The picture presented at the commencement of this section shows a very different scenario.

  I hold concerns that there has not been sufficiently robust evaluation of these issues through the approval process and that perhaps still the areas of clearing and biodiversity offset are understated. As there is no “Detail Design” the question arises as to the calculation methodology employed.

- **Adequacy of allowances for environmental protection, monitoring, installation and maintenance of controls, demolition, disposal and final re-instatement**

  It is possible that this issue falls into the nexus of Financial Approval being conducted separately from Construction approval. I would be expecting to see a significant portion of the Project Cost to be applied to this area, perhaps to 10% of the total Out-turn cost. I sincerely trust that those responsible have performed the necessary due diligence on this matter.

- **Scope of Removal and Reinstatement on Completion**

  The RCC is vague as to the exact required scope at the Project end of life. If the conditions are not clearly defined in the RCC then there remains scope for argument by the Proponent as to what is actually required. For example, what has to be demolished and removed off site, what reinstatement of the original existing landform is required, does pavement material in access roads have to be removed and what standards of reinstatement are required.

  It is certainly my experience that Conditions of Approval are quite specific and detailed in this regard. The RCC proposed in my view are not prescriptive enough.

Modifications to the Recommended Conditions of Consent (RCC)

Throughout the RCC there appears to be a deference to the Detailed Design Phase.

- This may be due to the perception of an SSI listed project being considered to be Fast tracked despite this project having a gestation of some six (6) years and an EIS period of some three (3) years.
- It is suggested consideration be given to having controls which prevent the unfettered use of "Detail Design" as a medium to do as suits.
- It is considered at this approval stage that subject to minor incidental adjustments and amendments that the work methodology should be locked down and that form and function of the works be defined. This in my view does not countenance moving Turbines by 100m or not having large equipment/component access to be determined or subject to future change.
- How would it be possible to cost and budget the works if such detail remains un-resolved.
- In my experience it is usual to consider the adequacy of allowances made by suppliers and subcontractors in the risk matrix of the project to provide certainty that the proponent will be able to meet the required obligations and standards. Because of the dot point above there would be concern that this has been adequately considered in the assessment leading to the RCC. It may also be a factor overlooked in the process of conducting the financial assessment separately to the project construction assessment.

Financial

The IPCC has declared (Public Meeting) that the financial aspects of SSD-9679 are outside their review scope. Whilst I acknowledge this point, I point out that members of the Public who have a buy in in terms of of eventual prices of Electricity paid, costs incurred by Tamworth Regional Council in road maintenance above receipts under the Voluntary Planning Agreement (VPA) and the very fact that ultimately any financial dis-benefit is borne by all, seemingly are denied any input into Financial Aspects of the Project.

In particular:

- **Performance Guarantees**

  What guarantees are to be provided by the proponent, for how long and what format. These are a usual requirement of a construction project. The wider risk sits ultimately with the general public through taxes.

- **Financial Viability**

  These aspects are generally "commercial in confidence" again the wider risk sits ultimately with the general public as taxes. The issues seen are volatility in returns from Energy prices and the companies becoming bankrupt.

- **Demobilisation/Demolition/Reinstatement**

  As a minimum it would be sound practice for the DPHI to have satisfied themselves that the Proponent has costed in adequate allowances for Demobilisation/Demolition/Reinstatement and appropriately allowed the costs for disposal offsite into legal facilities.

- **Council VPA's**

  Ordinarily a development within a Council area attracts development fees. The creation of SSI schemes cut councils off from this source of funding. The creation of VPA's with the obvious involvement of DPHI appears to have been a work-around. The VPA has been included as a condition in the Recommended Conditions of Approval subject to review by the IPCC. It is my view that this is at variance with the statement that IPCC is divorced from from Financial Approvals.

The relevance of these points will come into effect, should the IPCC approve this Project.

Financial Inducements

Based in experience in Project Development roles. I have been accustomed to working within the NSW Government (amongst other State jurisdictions) under the guidelines for ethical conduct and anti-corruption set under the overarching ICAC. Additionally there are requirements around Developer Donations.

I have found it bemusing that conduct of the Proponent in offering cheaper electricity to residents of Nundle and surrounds should the project be approved, providing funding to various community organisations during the EIS phase has been used by the Approval Body in EIS reports.

This then knocks on to development of the Voluntary Planning Agreements with Councils, seemingly as an after-thought to Councils not being able to apply Developer Contributions under State Significant Infrastructure provisions brought into effect. The Proponent appears to have targeted Local Nundle community organisations in the drafting of these VPA's.

What I can say is that universally' everyone I have spoken to about these actions has been concerned about the ethics involved, wherein it appears to target the local population to bolster approval. As I have argued elsewhere within this submission, the Project for the reasons espoused has an effect on the wider population which for obvious reasons the Proponent may wish to discount.

With the limited resources of an individual, I have not seen any advice countenancing the ethics of the Proponent nor the Department of Planning Housing and Industry in accepting such conduct. May I suggest that if not already done so that this aspect be referred to ICAC.

Community Consultation

During the Nundle Public Meeting of Thursday 01 February the following points were noted by me:

- **Public Consultation by the Proponent**

  Surprisingly given the length of gestation of this project, I heard a good few speakers speak of never having been approached by the Proponent. This tends to downgrade the integrity and thoroughness of the Public Consultation element of the EIS leading into a recommendation for approval.

- **Divisiveness the Project and actions of the Proponent has caused within Nundle**

  From the Public Meeting it became apparent to me that much of the Division stemmed from the Actions of the Proponent "splashing cash" during the EIS process followed by the promise of further financial contributions to community organisations and facilities for Nundle. It is a well thought expectation that development should bring benefit to communities in which it occurs, however, whilst the development which affects the community is up front, the proposed offers are eked out over a 30 year period.

  I believe the conflict arises from those who wish to take the benefit versus those who lose their amenity of life or have their livelihoods potentially affected.

- **Proponent Numbers of Turbines – Potential viability issue**

  The DPHI Recommended Conditions of Approval is for 47 Turbines. Many speakers suggested deletion of further Turbines. Meanwhile the Proponent argued for 62 Turbines. I see this pre-emptively pushing the Project viability preferred by the Proponent at 62 Turbines to that at 47 Turbines and perhaps lower should the IPCC recommend a further reduction to the 47 Turbines recommended.

  Ultimately should a number 47 or less Turbines be approved and should the proponent elect to proceed then the lower number compared to the 62 Turbines sought by the Proponent may make the Project extremely marginal in viability into the longer term. This marginal viability may then impact the long term operational viability especially as more renewable energy enters the Energy Market.

  I find the assertion of the IPCC chair that the IPCC has no role in the Financial Capacity assessment of the Proponent somewhat in conflict with the IPCC deciding to approve a number of Turbines which at 47 is already below the wishes of the Proponent with the potential implications on Project Operational Viability. I do not recall any discussion other than on Planning issues during the EIS stage to approval by DPHI.

  Additionally the Voluntary Planning Agreements (VPA's) referenced in the DPHI Proposed Conditions of Approval are financial in nature and thus could be affected by long term operational viability.

- **The passion with which many spoke against the Project**

  I found a level of passion and quality of submissions in that room that I have rarely experienced.

In Closing

In conclusion, I object to this Project being approved.

I have concerns about the amount of detail that appears to have been pushed into "Detail Design" after Approval and that the Proponent has a level of understanding of the issues which provides me with confidence that the high standards around Environmental Protection that provide me with confidence these will be achieved. There has been a gestation period of six (6) years on this project with three (3) of these in the EIS phase. The type of issues around constructability and Erosion and Sedimentation to which I refer were routinely dealt with inside six (6) to ten (10) week proposal development time frames.

Compilation of submissions clearly consumes personal time and effort. This particular Project has had a long six (6) year gestation and has had multiple EIS stages over three (3) years. This has the effect of "wearing down" the opponents in the hope they will cease and desist. Furthermore in my field of experience in Hard$ Tendering, it was quite the norm that there was only one opportunity to present a proposal and demonstrate a fitness to be awarded a construction contract. The process witnessed with the HOGWF has had many iterations and in my view still misses the mark.

I believe this demonstrates the folly of creating SSI projects, supposedly to fast track the approval process. I believe the time-frame in this instance has been totally within the control of the Proponent. For whatever reason this has blown out and it is now fallacious to use time as an excuse to fast-track this application and approval.

The structuring of the RCC's couched around the role of the DPHI Secretary as the final arbiter appear to over-ride those of legislated approval bodies and gives concern as to how those powers might be applied should a matter of Public Interest arise.

The deference to "Detail Design phase" within the RCC's where the potential to interpret this as an unfettered medium to do "as suits" is of concern.

Relative to other potential windfarm locations there is a heightened risk of the environment being damaged. Should the environment be damaged by escape of sediment whether unnecessarily within the project footprint, onto neighboring lands, cleanup will be expensive and difficult, if not impossible.

Ultimately my view remains that it is up to the Proponent to demonstrate their ability to develop the Project and to comply with all legal and social obligations in doing so. I remain to be convinced that the combination of the Proponent's EIS proposals and the subsequent assessment by DPHI along with the resultant Recommended Conditions of Consent demonstrate a holistic appreciation from which an acceptable level of confidence in project execution can be derived.

Thank you for considering my submission.

[redacted]

12 February 2024