



TIMOR NSW 2338

**I object to the Engie Hills of Gold Wind Farm application.** I wish to note that all of my previous objections to the original EIS remain current and applicable.

**My Objections are as follows . . .**

- 1. Location**
- 2. Size of project and changes**
- 3. Proposed relocation of turbines**
- 4. Transport routes**
- 5. Koala habitat**
- 6. Environmental Impact**
- 7. Threats to Bats and Birds**
- 8. Wind turbine foundations**
- 9. Transmission lines and towers**
- 10. Stewardship sites**
- 11. Soils**
- 12. Water**
- 13. Bushfire**
- 14. Decommissioning and rehabilitation**

### **1. LOCATION OF THE SITE**

- The site for Engie’s Hills of Gold (HOG) Wind Farm remains a major objection to this development. This is not about the value of wind farms as a natural resource and alternative energy source, but about the considered choice of an appropriate location to build a large industrial complex, such as this wind farm. This site is completely unacceptable on many levels.
- The site Engie have proposed:
  - Sits on top of the ridgeline of the Liverpool Ranges – part of the Great Dividing Range, with elevations of 1100m - 1400m, and with a 230 wind tower installed, the overall height atop the Range will be over 1600+ m.
  - Has a Development footprint sitting on the boundaries of the Crawney Pass National Park, the Ben Halls Gap Nature Reserve (BHGNR) as well as the Ben Halls Gap State Forest.
  - Threatens the connectivity corridor for threatened species.

- Consists of steep slopes on the southern side (the Crawney and Timor Communities side) of the Development that reach over 50% gradient in sections and have a high risk of erosion and dispersion (land slides) which have recently occurred on the Crawney Pass Road, as testament.
  - Will involve clearing 447ha of vegetation with profound ecological consequences.
  - The required clearing that will severely impact 17 Plant communities; 2 State – Listed Threatened Ecological Communities; 2 Nationally-listed Critically Endangered Ecological Communities; 10 State –listed BAM (Biodiversity Assessment Method 2020) species credit species; 5 Nationally –listed threatened fauna; collision risk to Protected avifauna.
  - Is the source of 14 primary water courses, which are the life blood of the communities, who live in the area.
  - is comprised of soils that are of a Class 8 which are categorised as “extremely low capability land; limitations are so severe that the land is incapable of sustaining any land use apart from nature conservation. There should be no disturbance of native vegetation. Class 8 land includes precipitous slopes (greater than 50%) and cliffs, areas with a large proportion of rock outcrop or areas subject to regular inundation and waterlogging”.
- Engie, in their original EIS, continually promoted this development as in line with the New England Renewable Energy Zone (REZ) – even though the site is not part of that region. In this Report, Engie have shifted to acknowledge that whilst this project is outside of the REZ, so are 70% of all other such developments, approved by the Government. I think this is called “having it both ways”!
  - It is also noted that Engie promotes this project as being supportive of the sentiments of the NSW Government Treasurer and Minister for Energy, who says in a media release dated 4/10/2022 that there is a need “to fast track plans to replace ageing power stations ...”.
  - It is hoped that fast tracking does not amount to wholesale destruction of the environment due to panic and poor decisions made in haste, when choosing locations for major industrial developments. It is worth keeping at front and centre that the reasons for seeking alternative renewable energies sources is to **save the environment** and to appreciate its importance in saving us from effects of climate change. You cannot claim to be environmentally conscious by approving renewable energy projects and, in the process, actively destroy the very environment we are trying to save.

**Required action:**

- ***This proposal should be rejected as it is the wrong place and will severely effect the environment in this area.***

[2. SIZE OF PROJECT AND CHANGES](#)

The size and scope of this HOG Wind Farm changes with each Report iteration.

- 64 wind turbines with 56 red illuminating lights on top of the Great Dividing Range
- Increase in the project area impact from 8315 ha in the EIS to 8732 ha.
- Increase in Development Footprint from 300ha to 447 ha.
- Additional alternate transport route of 5.8 kms along Crawney Road as potential access route to the Development Footprint + an additional 6.1km of farm tracks to be upgraded.
- Widening of the Transmission Line route easement to from 60 m to 90m between the current and new substation locations, and subsequent clearing impacts.
- Increase in size of the BESS and substation to 11.09 ha.
- Increasing size of Switching station footprint from 2 ha to 4 ha.
- Option to use quarry inside the Hanging Rock State Forest and increase its site by 13.2 ha and increase extraction mining from its current less than 30,000 tonnes per annum to 500,000 tonnes per annum.
- Increase in new monitoring masts from 5 up to 10 and their associated hardstand areas.
- 40 kms of internal road network – all 5.5 m wide + 1.5 m shoulders on each side, making this 40km x 8.5 kms wide of clearing and bulldozing.
- 13 August 2021 Report on vegetation under transmission lines (E.6 P 390) states an estimate of approximately 193,000 square metres of vegetation clearance, based on a 20 km length Transmission line with 4 m of vegetation clearance – Report states that TransGrid previously use a clearance of 7.5 m for 330kV lines.

**Required action:**

- **This project should be rejected because Engie should not be able to receive a licence to extract 500,000 tonnes of forest materials due to the impact of this activity on the general public's ability to use the Hanging Rock State Forest.**

**3. PROPOSED RELOCATION OF TURBINES**

- A most critical part of all of Engie's applications – in the EIS, the January 2022 Amendment Report and in this November Amendment Report 2022 – is the overarching approval they seek to be able to relocate any and all turbines up to a 100 metre radius. If the HOG Wind Farm application is approved the turbines can be moved closer together, closer to boundaries of National Parks, closer to threatened ecosystems – they will be moved to the betterment of Engie's interest NOT that of the environment - and no one will be able to do anything about it or monitor this activity happening.
- In February 2022 NPWS asked for the **removal of all turbines bordering BHGPNP** to protect the bird and bat strike and to ensure its use of fixed wing aircraft to fight bushfire and avoid burning the Threatened Ecological Community BHGPNR Sphagnum Moss Cool Temperate Rainforest, which has now been upgraded under the EPBC Act as Critically endangered.

- Similarly, the Upper Hunter Shire Council (UHSC) requested in March 2021 the removal of WTG 31, 32 and 33 as they were in breach of their DCP, which requires a development to be 460 m from a boundary.
- Engie have removed 2 WTGs – 31 and 41 (#41 – please read point below) and have relocated 10 WTGs (32,38,39,40,42,43,44,45,46,47) and retained the position of 1 WTG 33 – this means 11 turbines still are adjacent to BHGNP and this collective clutter of 11 turbines remains a barrier to avifauna and will dominate and despoil the Peel and Isis valleys.
- In response to the UHSC, WTG 32 has moved closer to the BHGNP (205m from boundary) and 33 remains (217 m from boundary).
- Depending on the width of the turbine hubs, WTGs 42 (87 m from boundary) and 43 (88m from boundary) could be touching the BHGNP boundary with their blade tips and certainly could be effectively spinning over the tree canopy on the boundary.
- Furthermore, WTG 50 was previously relocated and it appears from Engie’s mapping to have been relocated onto Crown Land.
- Add to this Engie’s consistent request that they be granted approval to move any and all turbines by 100m radius and it is clear that the BHGNP and all its flora and fauna communities remain under severe threat! Tweaking the location of infrastructure and road systems will have little or no effect on species hot spots when turbines are collectively cluttered together.

**Requested action:**

- 1. The IPC reject this proposal and at very least ensure removal of these 11 WTGs, adjacent to BHGNR.**
- 2. In the disastrous circumstance that this Project is approved, that the request by Engie to have carte blanche to move turbines up to 100m radius is strongly and comprehensively denied.**
- 3. Engie is made to submit the exact location of each final WTG before approval of development is determined and that these cannot be subsequently altered. Reassessment of the environmental impacts would then also need to be undertaken.**
- 4. Engie needs to clarify the position of WTG 50 and its appeared location on Crown Land.**

**[4. TRANSPORT ROUTE FOR OVER SIZE/OVER MASS \(OSOM\)VEHICLES](#)**

- There were three proposed options to access the Project area, all of which have been rejected by various land-owners and authorities. So there is no detail on how Engie propose to access the Project area.
- It goes to the credibility of Engie that we have had to endure years of their inability to provide any definitive information to be assessed upon – the previous options were objected to as unviable and then dumped. But yet again Engie were given further opportunities when indeed, the whole project should have should have been rejected on the basis of the site’s unsuitability.
- If Local Land Services (LLS) has already said one option was not recommended because this would be a second road through the reserve, which contravenes the Section 75 of the LLS Act - not to mention the environmental impact of closing Option A and building a greenfield access road - why is application even being considered?
- Transport options which have already been rejected are either on Crown Land Reserves, reserved for Travelling Stock Routes OR are subject to the Gomeroi Native Claim Title Claim and an Aboriginal Land Claim, both currently undetermined. The land is zoned Environmental Conservation under the Tamworth Local Environment Plan (LEP).
- There are also no details on the Western Connector Road which will transverse from the new Crawney Road optional route to the ridgeline. There is no engineering report, no environmental impact cost on this steep sloping vulnerable terrain.
- All Options have unacceptably High impact on Threatened Ecological Communities (TECs) and on a Nationally listed threatened fauna species - the Booroolong Frog - and this project should be immediately rejected.
- There is between 20%-49% of High condition impact to the Critically Endangered Ecological Community (CECC) Box Gum Woodland, in addition to the area being habitat for the Booroolong Frog.
- Engie’s claim that the access site occurs “furthest from known records of the Booroolong Frog” is their hopeful way no one will suspect this means it is still within the area of this species and therefore must be counted as impacting on Nationally Listed Threatened status.

**Requested action:**

- **The project should be rejected because any Over sized/Over Mass Vehicles access through areas that are known to have high impact to Box Gum Woodland TECs - which is listed as a Critically Endangered Ecological Community - and to the Nationally Listed Threatened Booroolong Frog.**

## 5. KOALA HABITAT

- It is unfathomable that we are even considering Engie's Project that knowingly will destroy koala habitat. Tamworth Regional Landcare is creating 45 ha of new koala habitat in Gunnedah, meanwhile Engie's HOG Wind Farm will be clearing 46.2 ha of Koala habitat as part of this project.
- Koalas are now an officially endangered species. NSW Government states that if we don't stop clearing their habitat the koala is at high risk of extinction by 2050.
- The Matters of National Environmental Significance (MNES) in their Significant Impact Assessment on Engie's project amendment in Jan 2022 stated, that for the vulnerable Koala "...the proposed works have the potential for a significant impact on the species, due to the removal of greater than 20 hectares of habitat... The removal of 36.44 hectares of native vegetation...has the potential to impact the species due to the removal of habitat available to the local population". So here will be 10 months later and with an even larger clearing of koala habitat of 46.2 ha (10 hectares more!) – I hope and trust that MNES will reject this unacceptable project outright.
- NSW Government has set the ambitious goal of doubling koala numbers in NSW by 2050, which is the year, if actions are not undertaken it is feared koalas could be extinct in NSW.
- The NSW Government needs to uphold its stated Pillars for its NSW Koala Strategy (see [nsw.gov.au](http://nsw.gov.au) under Threatened Species), most relevantly, Pillar 1 Koala Habitat Conservation.
- This NSW Koala Strategy boasts it is the biggest commitment by any government to secure koalas in the wild. It is supporting a range of conservation actions that will provide more habitat for koalas, support local community action, improve koala safety and health and build our knowledge to improve koala conservation.
- Of the range of threats the NSW Government notes, all of them apply to the koalas in the Project area for the HOG Wind Farm – habitat loss, fragmentation and degradation, climate change, disease, declining genetic diversity, vehicle strike, bushfire and dog attack.

### **Required action:**

- **Call on the IPC to reject this unacceptable project outright, given its significant threat to koalas.**

## 6. ENVIRONMENTAL IMPACT AND THREATENED ECOLOGICAL SPECIES

- Engie’s HOG Wind Farm Project Area sits on the boundaries of the Crawney Pass National Park, the Ben Halls Gap Nature Reserve (BHGNR) and the Ben Halls Gap State Forest.
- The Crawney Park NP itself is part of a wider network of conservation reserves located on the Liverpool Range (of the Great Dividing Range) that includes Coolah Tops, Murrurundi Pass and Towarri NPs and Ben Halls Gap, Cedar Brush, Wallabadah and Wingen Maid Nature Reserves.
- These all form part of a regional corridor providing habitat connectivity along the Liverpool range and is also located within the broader Great Eastern Ranges Initiative conservation corridor.
- The Geology, Landscape and Hydrology section (P 5) found within the Crawney Pass National Park Community Conservation Area Zone 1 Plan of Management (adopted by the Minister in August 2019) states:

*“The main threat to soils is extreme rainfall events especially following an intense bushfire that removes vegetation. Major soil erosion may also lead to reduced water quality in the catchment. The protection of the water quality is also important to protect the Booroolong Frogs that occur in the Park”*

- This Plan tables 13 threatened native animals recorded in or within 2 kms of the Park. This is wholly within the Development footprint of the HOG Wind Farm.
- Engie’s Biodiversity Assessment Report 1 (P 13-19) states “...there will be certain unavoidable impacts if the project is built” and “...there will be an overall ecological impact in delivering the Project”.
- It is unacceptable that this project will involve clearing 447ha of vegetation with profound ecological consequences
- The HOG Wind Farm is assessed as impacting the following:
  - 17 Plant Community Types
  - 2 State Listed Threatened Ecological Communities (TECs) – a) the White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box Gum Woodland, Critically Endangered) and b) the Ribbon Gum – Mountain Gum – Snow Gum Grassy Forest/Woodland (Endangered).
  - 2 Nationally –Listed Critically Endangered Ecological Communities (CEEC) – a) the White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland (Box Gum Woodland and b) Threatened Ecological Community Ben Halls Gap Nature Reserve Sphagnum Moss Cool Temperate Rainforest.
  - 10 State –listed fauna BAM species credit species – 8 mammals, 1 amphibian, 1 reptile
  - 5 Nationally –listed threatened fauna – Koala, Large-eared Pied Bat, Greater Glider, Spotted-Tailed Quoll, Booroolong Frog.

- Protected Nankeen Kestrel, Brown Goshawk and Wedge-tailed Eagles.
- Koalas are now an officially endangered species. Engie’s HOG Wind Farm will be clearing 46.2 ha koala habitat.
- The Matters of National Environmental Significance (MNES) in their Significant Impact Assessment on Engie’s project amendment in Jan 2022 stated, that for the vulnerable Koala “...the proposed works have the potential for a significant impact on the species, due to the removal of greater than 20 hectares of habitat... The removal of 36.44 hectares of native vegetation...has the potential to impact the species due to the removal of habitat available to the local population”. So here will be 10 months later and with an even larger clearing of koala habitat of 46.2 ha (10 hectares more!)
- Impacts from the HOG Wind Farm will result from native vegetation removal, bulk earth works, roads access, vibration, vegetation clearance, reduction of habitat connectivity, fragmentation of vegetation, turbine strike and barotrauma.
- This Project will affect 190.55ha of Direct Native Vegetation of a moderate to high condition (117.48ha).
- In February 2022 NPWS have requested the removal of all turbines bordering Ben Halls Gap National Reserve to protect bird and microbats as well as to ensure the use of fixed wing aircraft to fight bushfire and avoid burning the Threatened Ecological Community Ben Halls Gap Nature Reserve Sphagnum Moss Cool Temperate Rainforest.
- Of great importance is that on **5<sup>th</sup> October 2022, the EPBC Act upgraded the Threatened Ecological Community Ben Halls Gap Nature Reserve Sphagnum Moss Cool Temperate Rainforest to endangered.** This occurred prior to Engie’s Amendment Report but they have failed to acknowledge the significance of this change.
- Engie has removed 1 WTG (41) and retained the 11 still bordering the BHGNR so all threats to the environment in this section of the Development remain.

**Required Actions:**

- **The NSW Government protect its known treated ecological flora and fauna communities and reject the HOG Wind Farm.**

[7. THREATS TO BATS AND BIRDS](#)



- The constant uncertainty to the environment and its flora and fauna, if Engie is granted licence to move any and all turbines by 100m radius. Even with the removal of WTG 41, it has only reduced a 24 km corridor of 230m high wind turbines to 23 kms of turbines. How will birds and bats know to pick the one spot where there may or may not be a gap!!! The same threat remains and should be assessed under this situation for its environmental impact.
- Engie have answered none of the issues and concerns raised in Submission by the Newcastle and Hunter Valley Speleological Society, who are constantly visiting and surveying this exact wind farm development footprint and know the karst environment, microbats and caves more than any other consultant.

#### Required Actions:

- **This project should be rejected because of the threat to caves and bats in this area, or at very least ensure removal of the 11 WTGs, adjacent to BHGMR.**

#### 8. WTG FOUNDATIONS

- In every one of the 3 Reports provided by Engie, there is very little information and no certainty on the exact type of wind turbine foundations to be used in this project. It cannot be that they do not know at this stage what type of turbine is being used and therefore the appropriate foundation necessary to support it on this specific terrain.
- This overall lack of detail about the constructability of the turbines' foundations leads one to the conclusion that the forecasts in the reports are largely guesswork (and potentially a significant under-estimation), based on other wind farms built on flat land elsewhere.
- So far we have been told each foundation sits on 25m diameter concrete pad; with a 3-5 metre deep concrete foundation; with a each WTG requiring a hardstand that is 0.38 – 0.53 ha in size. It is questionable that a 230 m wind turbine only needs a 3-5 m deep foundation when on our farms a 2.4 m steel fence post is dug and concreted into a 1 m foundation.
- The most telling piece of writing is : *“the type (of Foundation) will depend on results of geotechnical surveys”* (Appendix A, 3.2)
- Obviously these geotechnical surveys have not been done! How can we be at this stage, 3 Reports down, and seemingly there are no accurate geotechnical surveys about this landscape. Because the land is unsuitable for a construction zone of major proportions such as this and Engie know it!
- Engie must provide clear details of the type of turbines, foundations, the depth at which they will be dug and the resultant impact to the site, the amount of concrete

which will be needed and therefore the impact of this remaining concrete in the ground post the life of this project.

- Within the section on Mitigation measures there is reference that “Areas” will need up to 10m high vertical batters and 4.5 m shelves. This only goes to evidence the steepness and gradients on this site and how much retaining it will take to flatten it out – at what cost to the site itself!

**Requested Action:**

- **This project should be rejected because no details of been provided on details of the turbines and foundations to be used in this project.**

[9. TRANSMISSION TOWERS VS POLES](#)

- There is meagre information about the request for “optionality for transmission towers as well as monopoles” which appears in this Amendment report. This seems a fairly major change to occur now and there is no account of the environmental impact of a much larger structure being constructed.
- Buried in the Appendix E.6 BDAR on page is a March 2021 report on the vegetation clearance needed for the original poles. Of note is that Engie have only allowed 3 metre clearance notwithstanding that TransGrid use 7 m. Already this poses a massive difference in clearing that may be needed.

**Requested Action:**

- **This project should be rejected because insufficient detail has been provided on tranmission lines to access the electricity produced to the national grid.**

[10. STEWARDSHIP SITES](#)

- **Fact: Creating Stewardship sites does not mean that irreparable damage did not occur!**
- **Fact:** The Community is aware of some of the landholders Engie has approached. Their land is steep, densely timbered land, adjacent to this Project AND already exists as part of the wildlife corridor AND was never going to be cleared due to its inherent inaccessibility.
- **Fact:** Engie cannot double count this connective corridor of land as replacement for the 447ha of vegetation corridor that the HOG Wind Farm Project will bulldoze - AND then claim it again as a Stewardship Site.
- **Fact:** Double counting the same asset is not just bad mathematics it is cheating.

- Engie’s claim of no net biodiversity loss for this Project is a mere balance sheet numbers game – all the while there will be significant and irreversible ecological destruction on the ground.
- Historic clearing over the past 10-15 years, conducted by a primary host landholder, has mutually benefitted Engie and this clearing has escaped any environmental assessment, making the remaining native vegetation under threat, even more significant. DPE has been previously made aware of community concerns about alleged illegal clearing “contrary to regulations” and OEH investigations into it.
- In Appendix E.6 Engie provide information about the Biodiversity Offset Strategy and that they “are investigating adjacent properties” where potential Biodiversity Stewardship Sites can be established. Of note, Engie’s language on this topic, sounds all hypothetical at this stage – no certainty involved.
- Engie claim these sites could provide a wildlife corridor between the BHGNR and the Crawney Pass National Park and across to Wallabadah NR.
- The Crawney Park NP itself is already part of a wider network of conservation reserves located on the Liverpool Range (of the Great Dividing Range) that includes Coolah Tops, Murrurundi Pass and Towarri NPs and Ben Halls Gap, Cedar Brush, Wallabadah and Wingen Maid Nature Reserves. These all form part of a regional corridor providing habitat connectivity along the Liverpool range and is also located within the broader Great Eastern Ranges Initiative conservation corridor.
- Engie is not creating any wildlife corridor – in fact the HOG Wind Farm would be demolishing the existing corridor that already exists (of which the adjacent steep landholder land is part of, that Engie is looking at for BSS).

**Required Action:**

- **This project should be rejected because of its effect on the Crawney Pass National Park Community Conservation Area Zone 1 Plan of Management (adopted by the Minister on 8th August 2019) and the ecological integrity of ecosystems for present and future generations as stated under section 30E of the NPW Act.**
- **This project should be rejected as the proposed Stewardship Sites are fiction as they are allowing industrial developments to deny their ecological impact**

[11. SOILS](#)

- The only part in this Amended Report 2 that speaks to soil and water is in regards to their proposal to utilise the quarry inside Hanging Rock State Forest.
- It is telling that Engie have chosen not to respond in this Amended report to the submissions objecting to their assessments of the soils on the ridgeline and

surrounding areas, where the WTGs will be constructed. Two independent reports, by Dr Robert Banks, were commissioned by the Hills of Gold Preservation Inc (HOGPI), which were damning in their review of Engie's assessments.

- Dr Banks is a certified soil scientist (CPSS). His soil classing work is held and used by the NSW Government planning authorities for regional information on foundation hazards. Dr Bank's review should be taken seriously and read by the NSW Government as an objective alternative to the misleading assessment by Engie about the terrain on which major construction of a wind farm is proposed.
- Dr Robert Banks findings were that none of Engie's reports have met the objectives of appropriate consideration of the land instability, constructability or erosion/sediment controls and their adverse impacts on the proposed site.
- None of Engie's reports on the WTG siting has taken any account of site specific snow and rainfall volume and velocity received within the Project area – contributing to the saturation of the soil (and subsequent slow release of water by springs); potential mass movement and run off and sedimentation of the river systems.
- The UHSC should be very alarmed on this issue of rainfall and *potential* mass movement as it has currently just closed off part of the Crawney Road, on Crawney Station, leading up to the proposed site, due to a massive landslide taking out trees and the road. Very substantial landslides have also occurred in the high parts on one of the AD host properties – Minto – as reported by the station manager as a result of 2022 rains. This property also falls within UHSC area and is indicative of the soil types on the steep slopes, which are a feature of the entire Timor/Crawney side of this project. Additionally, UHSC requires another \$38 million to fix the Merriwa Pass road after its disastrous collapse, on similar soils. This is evidence of the unsuitability of this area for a massive construction project and should not be allowed to occur.
- Engie's own Amendment Report Appendix 2.3.2 (within the Jan 2022 Amendment Report 1) states: "Soils in the vicinity of the ridgeline appeared to be somewhat erodible" and "Several small soil slips were observed along the western portion of the ridgeline... however it is possible larger unobserved landslips may be present on the steeper slopes of the ridgeline". Yes, there are!!!
- Furthermore, in 2.4.3 Engie's Report says "Based on the results ...the silts and clays encountered onsite are highly dispersive and will be readily eroded where they are disturbed or exposed".
- More of the damning findings from Dr Robert Banks' review are:
  - No engineering or soil tests to justify the Updated Mitigation Measures on pages 23-24 of Engie's Soil and Water Addendum Report
  - No mention of keeping soil pathogens separate from separate catchments
  - No mention has been made of wash down area and sterilisation facility between catchments and sensitive areas

- No Soil and Water Management Plan (SWMP) has been provided
- No Comprehensive Water Cycle Strategy (CWCS) has been provided
- Geotechnical information is vague, misleading, poorly referenced and poorly geo-informed
- No Australian standard mapping practice has been used to provide risk or suitability information on this Project
- No map based on soil profiles and fieldwork, nor any relevant soil laboratory data are presented
- No mapped landslides – they are simply mentioned as occurring on “the western portion”.
- No attempt has been made to look for landslips under the Development Footprint and along the whole route of the proposed roads
- No attempt has been made to do a soil survey
- No soil profiles have been done as per the relevant Australian Standards for soil surveys; two Tables included by Engie claiming to be soil profile descriptions are a false statement as they do not meet any requirements for soil profile descriptions at all. No engineering soil analyses are given.

**Required Action:**

- **This project should be rejected due to the concerns provided by Dr Robert Banks about Engie’s Soils and Water assessments in the EIS and the Amendment Report 1.**

12. WATER

- The only part in this Amended Report 2 that speaks to soil and water is in regards to their proposal to utilise the quarry inside Hanging Rock State Forest.
- It is telling that Engie have chosen not to respond in this Amended report to the submissions objecting to their assessments of the soils on the ridgeline and surrounding areas, where the WTGs will be constructed.
- None of Engie’s previous reports on the wind farm Project has taken any account of site specific snow and rainfall volume and velocity received within the Project area – contributing to the saturation of the soil (and subsequent slow release of water by springs); potential mass movement and run off and sedimentation of the river systems.
- Engie’s Soil and Water Addendum Report confidently states: “...the Development Footprint on the ridgeline only directly impacts first order ephemeral watercourses, primarily tributaries of the Peel river” This is inaccurate and denies the reality that at least 13 WTGs are located on the Eastern fall end within the catchments of the Barnard River and Pages Creek – WTG 69, 70, 46, 47, 20, 24, 25,26, 28, 29, 30, 32, 33.

- The Pages and Perry’s Creeks and tributaries feeding the Isis River **have not been even mentioned or assessed in any way in any of Engie’s Reports.**
- DPE Water and the Natural Resources Access Regulator (NRAR) note there is no assessment of accessing an existing or new bore to confirm water supply availability and securing entitlement for this project.
- Two independent reports by Dr Robert Banks were commissioned by the Hills of Gold Preservation Inc (HOGPI) which were damning in their review of Engie’s assessments.
  - Dr Robert Banks’ review (referenced above in section under soils) cites:
    - No Comprehensive Water Cycle Strategy (CWCS) has been provided
    - No mention of keeping soil pathogens separate from separate catchments
    - No mention has been made of wash down area and sterilisation facility between catchments and sensitive areas
    - There is no assessment of permanent runoff effects.
    - There is no mention, let alone any assessment, of the impact that snow melt has on supercharging catchments with runoff.
    - There is no account of site specific snow and rainfall volume and velocity received within the Project area – contributing to the saturation of the soil (and subsequent slow release of water by springs); potential mass movement and run off and sedimentation of the river systems.

**Required Action:**

- **This project should be rejected because of concerns provided by Dr Robert Banks about Engie’s Soils and Water assessments in the EIS and the Amendment Report 1.**

13. BUSHFIRE

- Aerial fire fighting is still seriously compromised under the HOG Wind Farm project. Aerial fire fighting remains at the pilot’s discretion of perceived safety – the most reliable and highest water sources and landing area are unavailable due the siting of infrastructure.
- This Amended Report under 6.6 page 29 begins with a Disclaimer by Engie that despite mitigation, bushfire risks remain and that infrastructure is in area of direct flame contact.
- In fact 39 of the 64 turbines – 61% - lay in potential direct flame contact, as does 40% of the transmission line poles. In this same section Engie reference the “...*steep slopes and existing fire history within the adjacent National Park estates*”.

- It should be obvious that when another bush fire hits this area it will be unable to be contained if this Wind Farm development is in situ and the vast amount of fuels and oils kept on site will wreak utter destruction.
- Engie have removed 1 turbine (WTG 41) claiming this has solved the aerial bush fire issue. This will hardly ensure that all aerial fire fighting capacity can occur – as planes try to manoeuvre through the remaining 63 turbines on the ridgeline. I again ask you to consider that Engie can move any and all WTGs 100 m radius thereby making any certainty of assessing this Report, as impossible.
- Engie also have noted in this same section the following: *“It is important to note that the maintenance of the full width of the transmission line easement including reduced fuel loads beneath transmission lines will continue to be the responsibility of the asset owner and must meet industry standards.”*
- Who is the asset owner of this transmission line easement? Is it the farmer land owner? Is it Transgrid? Is it Engie or whoever they sell this project off to?

#### **Required Action:**

- **This project should be rejected because of the threat to the entire community based on its location within “...steep slopes and existing fire history within the adjacent National Park estates” and that 39 of the 64 turbines – 61% - lay in potential direct flame contact, as does 40% of the transmission line poles.**

#### 14. DECOMMISSIONING AND REHABILITATION

- Engie has utilised a change in its measuring methods to millimetres when describing the decommissioning process. One can only infer this is to make the paucity of what it will remove sound bigger if the number appears bigger.
- Engie will take responsibility for removal of “...below ground infrastructure, including the WTG foundations and hardstands to a depth **less than 500mm**. All other infrastructure below 500mm would be left in situ and covered in clean fill material, with the area adequately graded to reflect the slope of the surrounding area and to mitigate the risk of soil erosion”.
- So Engie will only be removing less than 500mm – this is only less than 50cm or less than 0.5 m!!! Is it left to the local associated land owner hosts, who signed up with Engie to remove the rest of the Concrete and to restore the landscape to its original state??? Are they aware of this burden and who will ensure they put aside the money necessary to conduct this work?
- No rehabilitation to its former tall forested environment could ever occur with a tree root possible depth of less than 50 cm. Erosion will remain a huge issue for the steep sloping land onto the Timor (southern) side of the Development footprint. The

ground will lose its ability to act as a sponge for the watercourses and to assist in prevention of erosion and landslides. This part of the Great Dividing Range, the Liverpool Range, will be forever denuded and eroded.

- It remains unclear about how much concrete and to what depth it will be required for the foundations of the wind turbines. (see section above on Turbine foundations). The calculation of only 3-5 metres depth for a turbine supporting structure of 230 metres tall does seem sufficient.

**Required action:**

- **This project should be rejected because of the extreme difficulty, or more likely, impossibility to restore the ridgeline to its original condition, when the life of the wind farm has expired.**