

Garry Smith
3 Spinnaker Ridge Way
Belmont NSW
Email – smith029@icloud.com
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Submission opposed to the Hills of Gold Wind Farm - (EXH-50789958)

This submission opposes the construction of the proposed 'Hills of Gold Wind Farm', along the ridgeline between Hanging Rock and Crawney Pass in the Northern Tablelands region of NSW.

As previously detailed by myself and the Newcastle and Hunter Valley Speleological Society (NHVSS), There are many bat roost caves surrounding the Hills of Gold Wind Farm. These have not been investigated, nor studied in any respect for this proposed wind farm. Why have they not been studied?

Please respond to both NHVSS and personally to myself regarding these issues.

1. For instance I was at Timor on the weekend of the 26th and 27th November 2022, and in one cave there were in excess of 2000 Eastern Bent Wing Bats (*Miniopterus schreibersii oceanensis*). This number can easily be verified by counting individuals in photographs.

These bats are utilizing a cave within a few kilometers of the proposed wind farm turbine installation sites. These turbines are well within the bats nightly feeding range.

In addition to this particular cave, there are many others bat colonies in other caves surrounding the wind turbine sites that would also be affected. I have detailed these roosting sites in many local caves in previous submissions, yet the current HOGWF Amendment Report No2, dated 7th Nov 2022 does not adequately address any of the issues I have previously raised.

2. The cursory studies undertaken for a short duration for the HOGWF reports are far from adequate and have not even identified all the species recorded in the local area. Just look at the book Timor Caves published by the NHVSS which identified 12 species.

As previously stated;

*There are only 8 species of microbats recorded in the project EIS study, however there are at least 12 species of micro bat which have been recorded in the Timor area (Rutledge et al. 2008) just kilometers from the project site. This in itself indicates that the EIS study is cursory and was not conducted over a significant time period nor covered sufficient area to be credible. NHVSS members have observed and reported in the Newcaves Chronicles, very large populations of cave dwelling bats (numbering in the thousands) in caves at Timor, Crawney Pass, Glenrock Station, Ellerston, Barrington and Barry. The proposed wind farm is within the nightly feeding range of both the Eastern Bent-wing Bat (*Miniopterus schreibersii oceanensis*) and the Eastern Horseshoe Bat (*Rhinolophus megaphyllus*), cave dwelling bats which reside in the above mentioned caves. There are at least 12 species of microbats recorded at Timor, which is within several kilometers of the proposed windfarm. This includes both cave dwelling and forest bats.*

The importance of the regional Large Bent-wing Bat populations and their flight paths between the significant roost sites at Barrington Cave (Tomalla), Main Cave (Timor), Barry Cave (Barry Station) and Crawney Pass Caves, has been overlooked. Barrington Cave has in the past been observed to have hundreds to thousands of individual Large Bent-wing Bats (Rutledge in Rutledge, J. 2003; Helman in Rutledge, M. 2002; Scott in Rutledge, M. 2001). The Submissions report indicates that the project design avoids impact to breeding habitat for threatened microbats, but has failed to recognize that the protection of the migratory flight paths themselves is what conserves the breeding behaviours and therefore populations.

Please respond to these issues.

3. There has been no study covering the seasonal movement of bats between the various cave areas as listed above. Besides the caves surrounding the proposed windfarm there has been no study to identify if bats travel further afield to places like the Moore Creek Caves or Dinton Cave near Tamworth. All of these possible seasonal flight paths could be directly impacted by the construction of a wind farm. This is addition to the nightly feeding range of bats in caves within just kilometres from the proposed Wind Farm. Why has there not been a study? **Please respond to this issue.**
4. The newly proposed access roads a, b, c, (on sheets F3-1 and F3-4) for construction and maintenance and the Transmission line easement are all totally unacceptable as they pass close to the Crawney Pass caves which are home to Horse Shoe bats. There is considerable risk that silt runoff at the headwaters of the valleys will affect the limestone caves not far away in the same valley. There has been no study undertaken to identify the risk of siltation entering caves. Why has there been no study, yet these caves were identified and raised in my previous responses and that of NHVSS. **Please respond to this issue.**
5. The newly proposed access roads a, b, c, (on sheets F3-1 and F3-4) will clear important vegetation (in the nightly feeding areas) within several hundred metres through to several kilometers from the Crawney Pass Caves which are used bats as a roost site. **Please respond to this issue.**
6. The issue of bats using old mines and audits in the area has not been addressed. There are many mines, cliff faces in the area. There has been no study to identify which mine shafts or audits contain bats, nor the numbers or species which will be impacted, ie possibly killed by impact with spinning turbine blades. **Please respond to this issue.**
7. There are also forest dwelling bat species that will be impacted with the clearing of trees containing hollows and loose bark for these bats to shelter in. There will also be at significant risk to these bats from spinning turbine blades. **Please respond to these issues.**
8. As pointed out in an overseas study by Lintott et al. (2016) who surveyed 46 windfarms across the UK and found that pre-construction acoustic surveys, which form part of Environmental Impact Assessments, are poor predictors of bat casualties at windfarms. Their study determined that “bat activity recording during pre-construction surveys may not accurately reflect activity levels post construction”. The study also mentioned that bats may be changing their behavior around turbines and even attracted to windfarm sites because of ultrasound emission from turbines and increased prey availability. There may also be other yet to be identified reasons for the increased bat activity around windfarms.

This overseas study and others mentioned in my previous submissions, raise considerable concerns for this proposed wind farm. Why has a study not been undertaken? **Please respond to this issue.**

9. This HOGWF ‘Mitigation Considerations and Response’ to the possible movement of bats and raptors by slowing down or stopping specific turbines when either “**may be**” in the area is on the whole fanciful thinking. The instigation of these measures is very problematic as it is extremely difficult to predict the movement of bats and raptors at any given time. Wind conditions – direction and strength, seasonal and daily temperatures, rainfall, availability of insects etc etc are all extremely variable and unpredictable at any given moment. It will be too late to instigate these fanciful responses once a large bat kill has already occurred. Any bat or raptor kill due to blade strike is devastating to the population of bats and raptors. **Please respond to this issue.**

Reference

Lintott P.R., Richardson S.M., Hosken D.J., Fensome S.A. & Mathews, F. (2016) Ecological impact assessments fail to reduce risk of bat casualties at wind farms. *Curr. Biol.* **26**, R1135–R1136.

Signed

