I strongly object on the basis of biodiversity issues to the development project SSD-9679 "Hills of Gold Wind Farm" consisting of Department of Planning & Environment recommendation of 47 wind turbines in the Nundle, Crawney and Hanging Rock district of Northern New South Wales.

I wish to provide some background information and points to consider for the Independent Planning Commission on the proposed wind farm development and the validity of the project.

AUSTRALIAN BIODIVERSITY STATUS:

"Over the last 200 years Australia has suffered the largest documented decline in biodiversity of any continent. Despite efforts to manage threats and pressures to biodiversity in Australia, it is still in decline."

The main threats to our biodiversity are:

- Loss, fragmentation and degradation of habitat
- The spread of invasive species
- Unsustainable use of natural resources
- Climate change
- Inappropriate fire regimes
- Changes to the aquatic environment and water flows

The above extract is from the Australian Government Biodiversity website which should be updated to include wind farm developments are the major threat to biodiversity sustainability in Australia today.

Significance of Ben Halls Gap Nature Reserve:

The park features an outstanding area of tall, high nutrient old growth eucalypt forest. Most of the tall high nutrient forests of the region, and elsewhere in the state, have been **cleared or logged**.

The mountain gum of the park is rare on an Australia-wide basis because of clearing, and is limited in extent in other conservation reserves. The mountain gum trees in the park are probably the tallest in the state, with many over 40m, and the snow gums also unusually large (Benson & Andrew 1990).

Sphagnum moss mounds found in some areas of the reserve are significant and have been listed as an endangered ecological community under Schedule 1 of the Threatened Species Conservation Act 1995 (TSC Act).

The park has a rich bird and mammal fauna for its size and is located at the overlap of the distributions of many eastern and western bird species. A large proportion of the mammal and bird species recorded are tree-hollow dwellers and the park contains one of the highest recorded densities of the greater glider. The greater glider is a major prey item in the diet of the threatened powerful owl that occurs in the park.

Other threatened animal species recorded in the park are the tiger quoll, koala, great pipistrelle and olive whistler. Barrington Tops and the Liverpool Range appear to be a stronghold for the tiger quoll. The Park contains the rare skink Lampropholis caligula which has an extremely restricted distribution, occurring only in a few remaining patches of little-disturbed high altitude eucalypt forest.

An invertebrate survey of the park (Gunning, 1995) found it to be very rich in insect species, with a particularly high diversity of butterflies, moths, beetles, bugs and wasps and of soil and ground dwelling insects associated with the large amount of organic matter on the forest floor. Two rare species were identified - an alpine fly and Kershaws brown butterfly, both of which are significant new distribution records.

Summary of significance

Ben Hall's Gap Nature Reserve is an outstanding area of tall, high nutrient old growth eucalypt forest, which is virtually free of weeds. The mountain gum and snow gum oblique association is rare on an Australia-wide basis. The park provides important habitat for several threatened native plant and animal species (broad-leaved pepperbush, fragrant pepperbush, powerful owl, koala, great pipistrelle and olive whistler), the sphagnum moss cool temperate rainforest endangered ecological community, the rare skink Lampropholis Caligula and it is a stronghold for the tiger quoll.

The park provides a refuge for cold-adapted plant and animal communities, providing an overlap for eastern and western bird species with one of the highest recorded densities of the greater glider.

In 1991 the NSW National Trust listed the park area as the 'Ben Halls Gap old growth forest landscape conservation area' in recognition of its outstanding natural heritage features. The park is also listed on the register of the National Estate.

Proximity of Turbine placements adjoining Ben Halls Gap Nature Reserve

The DPE has made the recommendation of "The revised location of the blade tip of a wind turbine is at least 130 metres away from the surveyed boundary of Ben Halls Gap Nature Reserve". Therefore, four turbines 39,40,43 & 45 need immediate removal from the project.

Turbine 32: 205m
Turbine 33: 207m.
Turbine 38: 178m
Turbine 39: 127m.
Turbine 40: 99m
Turbine 43: 88m.
Turbine 44: 177m.
Turbine 45: 113m



The recommendation by the DPE is a ridiculous distance and provides no protection for the biodiversity of the Nature Reserve. This distance is solely based upon the restrictive nature of the terrain as evident in the photo below.



The Hills of Gold Wind Farm located within the Upper Hunter Shire Council has a Development Control Plan for wind farm developments that clearly outline distances of turbine placement to non-associated boundaries. "The proposal is not located within a distance equivalent to 2 times the height of the turbine (including the tip of the blade) from the boundary."

Two times blade tip is generally an acceptable distance from non- associated boundaries and has been accepted throughout other states of Australia.

Biodiversity Conservation Science Directorate

Please read the response from the department Director below regarding issues raised by the BCS during the previous submission.

Dear Anthony

Hills of Gold Wind Farm - Response to Submissions

Thank you for your e-mail dated 12 January 2022 to the Biodiversity, Conservation and Science Directorate (BCS) of the department inviting comments on the Response to Submissions (RTS) for the Hills of Gold Wind Farm.

Many of the issues raised by BCS in our submission of 4 February 2021 have been addressed; however, concerns remain around several issues, particularly the proximity of the development to the high biodiversity values of adjoining Ben Halls Gap Nature Reserve and nearby national park estate, the ability of the proponent to mitigate blade strike given the high levels of species diversity and densities, and the lack of ability to apply large buffers to turbines due to landform constraints. BCS recommends that the proponent be requested to provide, prior to project determination, a statement of commitments outlining blade strike trigger points and associated mitigation measures.

BCS notes that the proponent proposes to stage the construction of the project and that a detailed Staging Plan will be prepared and submitted in advance of construction. The intention is that prior to works commencing the biodiversity offset requirements associated with each stage will be confirmed and secured through the legal mechanisms required by the NSW Biodiversity Offset Scheme and the EPBC Act Offsets Policy. We further note the commitment that the project impacts will remain within the "worst-case" scenario assessed as part of the updated Biodiversity Development Assessment Report (BDAR). BCS requests that the Staging Plan and supporting credit obligation calculations be provided to us for review and verification. BCS welcomes the opportunity to discuss the mechanisms of how this may be achieved and conditioned.

Recommendations and comments on the RTS are provided in **Attachment A** and detailed comments are provided in **Attachment B**.

If you require any further information regarding this matter, please contact David Geering, Senior Conservation Planning Officer, via david.geering@environment.nsw.gov.au or (02) 6883 5335.

Yours sincerely

Saran Carr Director North West Biodiversity, Conservation & Science Directorate The response from this Government organisation is extremely concerning given the role this body represents. Protection of biodiversity issues should be paramount for any renewable project and government bodies that represent biodiversity protection should not simply roll over and offer Biodiversity Offset Schemes especially for such a significant Reserve as Ben Hall's Gap Nature Reserve.

NSW PARKS WILDLIFE SERVICE

The extract from the EIS response below highlights a Government organization willing to represent the biodiversity issues affecting the Australian landscape today. The developer should accept the response and the DPE should have adopted the recommendations from the NPWS, acknowledge the effects of the turbine placements in close proximity the Ben Halls Nature Reserve has on biodiversity issues and remove all adjoining turbines from the proposal.

Hills of Gold Windfarm proposal -- NPWS reply to updated BDAR and Bushfire Risk Assessment and proponent's Response to Submissions





1) BDAR & environmental considerations:

Reference ¹	Issue	Source/s	Remaining comments/concerns
NPWS_1 & 9,	Potential for blade-strike	s5.4.2, 7.2,	The removal of two turbines adjacent to national park estate is welcomed, but the remaining
EES_8 & 9a	impacts on avifauna.	8.3.1, 8.3.2,	adjacent turbines remain of concern, given that the Ben Halls Gap Nature Reserve (BHGNR) comprises significant habitat, especially for species reliant on tree hollows and higher quality habitat.
			Seven of the eight threatened bat species and four bird species (two threatened) are described as likely to suffer moderate impact from the proposal, including at the local population level.
			28 turbines are described as posing a "Moderate Risk" to local threatened bird and bat species.
			This needs further mitigation as it is unknown how the proposed adaptive management will mitigate impacts once the turbines are constructed. What options are there for the proposed adaptive management measures once the turbines are in place?
			A key question is whether a moderate level of risk to threatened species trentable adjacent to high quality habitat on national park? For these reasons and for potential impacts on NPWs operations, NPWS recommends the removal from the proposal of all turbines adjacent to Ben Halls Gap Nature Reserve.

Points to consider:

Do Governments and Developers recognize the significance and status of the Ben Hall's Gap Nature Reserve for the preservation of flora & fauna for future generations!!

Given the status of Ben Hall's Gap Nature Reserve what would the IPC, DPE, leading ecologists and the proponent expect the minimum distance for buffer zones for turbine placement to the boundary of Ben Hall's Gap Nature Reserve!!

Given Upper Hunter Shire Council's Development Control Plan requirement of 460 metres (2 x 230 metres proposed turbine height) distance from non-associated boundaries why are all turbine placements surrounding Ben Halls Gap Nature Reserve less than 45% of the requirement from the boundary!!

Under the DPE own recommendations why have turbines 39,40,43 & 45 not been removed from the project and why has the DPE adopted such a low 130 metre buffer zone to the Nature Reserve!!

Will the IPC be the only representative body to provide biodiversity protection for the environment of NSW and accept the response from the NPWS and remove all the turbines adjoining the Ben Hall's Gap Nature Reserve!!

Conclusion:

Increasing the supply of renewable energy will allow us to replace carbon-intensive energy sources and significantly reduce global warming emissions. However land use changes trigger biodiversity decline therefore we have a duty for a greater policy protection of conservation areas of significance such as the Ben Halls Gap Nature Reserve for future generations.

It is imperative that the State Government and various Government bodies accept the NSW Park and Wildlife recommendations and remove all turbines adjacent to the Ben Halls Gap Nature Reserve. This development is not a "green project" if it destroys the very thing it aims to protect.