

To Whom it may concern

Re: Bowmans Creek Wind Farm Application No. SSD 10315

I hereby declare that I object to the Bowmans Creek Wind Farm Proposal.

I have not made any reportable political donations in the previous 2 years.

It has now been three years since I first found out about the Bowmans Creek Wind Farm. I was not notified of the project by Epuron, instead the project was announced in the Newcastle Herald. Muswellbrook Council then held a community information session at McCullys Gap Hall.

During this meeting the Muswellbrook Shire Mayor stated that he had a conflict of interest in the project and would be standing aside from his position of Mayor on this project. Mr Rush then encouraged the community to establish a group and proceeded to talk to us about how we had to unite to get the best possible outcome. No representatives from Epuron were represent at this meeting. After this meeting Mr Rush emailed through a leaked map of the project site, this is when we first learnt of just how much we were likely to be impacted.

The council some more meetings, one included the Mayor of Liverpool Ranges. He spoke about how good the project had been, it should be noted, he spoke of a project that hadn't even begun to get developed, not a project that was running. Epuron also attended one of the council meetings and showed us the project map that had already been sent to us via Mr Rush. It was during one of these later meetings that Mr Rush stated he no longer had a conflict of interest and that he would continue in his role as Mayor when dealing with this project. We asked if there was an updated map and were advised that they the council had no new information about the project.

On October 8th 2019, Epuron came out to meet with us at our property to discuss the project. We had given them some earlier weekend dates, but they were unable to make any of those and we had to arrange for time off work to meet them during the week. When they came out they were unable to identify where the turbines would be located, I even pointed out North and asked them in relation to this roughly where would the turbines be located and they stated that they didn't know, but they would all be captured in the photomontage they would be taking.

During this meeting a raised all of my concerns, I was advised they would provide me from minutes of this meeting. I did receive these minutes on the 18th of March 2020 after my subsequent meeting with them. I have not met with Epuron since so have not had the opportunity to raise with them the inaccuracies of their minutes. I was floored that prior to this meeting I had used my university library to briefly research impacts of wind turbines and when I raised some of this information, neither Julian Kasby or Brett Peterkin had ever heard of it. This research is also available on Google Scholar, it dates back to the 1990's so is not new research. I was concerned that I could spend 10 minutes of research and be more up to date on what was happening in the industry than the two industry professionals sitting in front of me.

During this meeting I also raised my concerns about the impact to our property value. Julian told me that he had some comforting research on this known as the URBIS report and that it had showed there was no impact to property values. I stated that I had read this report, only this morning prior to their arrival and that I believed its findings showed it had not been able to find anything statistically significant as there had not been enough sales data, adding to my concern that people living near turbines were unable to sell their properties.

I raised concerns about impact to radio, television and mobile reception, these concerns did not make it into the brief minutes that were provided six months after the meeting and their EIS stated that to date no one had raised any concerns about communication.

I asked about the wind monitoring tower masts, as I had heard from neighbours that this didn't comply with a temporary structure as it was too tall. Epuron stated that this had been an oversight and that they had reduced the height to make it now comply. This conversation was also not documented in the minutes.

All other concerns that I raised were in the dot point form minutes I received some six months after the meeting.

The week after our meeting, Brett, Julian and a photographer came out to our place. They took five images from our house. They took one from outside our front door, then they walked towards the shed and took another. They took one from our back verandah, which although level to the front of the house was elevated at the rear so they stated couldn't be used, and took one from the clothesline and then took two more from different parts of our property. One on the top of the mountain where my dogs ashes were scattered.

Our next correspondence with Epuron was in the form of a community information session held at Muscle Creek Fire Shed. This was extremely well attended, members of our community. Most community members felt frustrated as there were pictures stuck to the side of the fire engine, and little information was provided. There was a general feel by all that the approach Epuron was taking was divide and conquer. One of the hosts arrived at the meeting to cook the BBQ for Epuron. During this time, several community members asked him if he understood what he was doing to those around him, his reply "you'd do it too for the money they are offering me".

It was around this time that I noticed that people no longer waved to me as I drove past. Our community had changed. I bumped into one of my neighbours at the shops, she had told me that she didn't want me to think she was snobbing me, but that she would no longer wave to me as my car was too similar to the hosts car and she didn't want to risk waving at her.

My next communication with Epuron was when they wanted to have another meeting to give me my photomontages. I was advised I would have the photomontages by December 2019, the reality was I didn't receive these photomontages until March of 2020. My next meeting with Epuron was held at my solicitor's office. I felt uncomfortable meeting with Epuron again privately as I had not received my previous meetings minutes. To date I have never received the minutes from my March 2020 meeting with Epuron.

When they showed me the photomontages, my solicitor was shocked at just how impacted visually my property would be. They asked me what turbines I would like removed and I told them all of them. I would never have invested and built with a view like that, my position on this has not changed. In the visual assessment, it is actually stated that I have good views in other directions and should look that way. This would mean I would never be able to travel in an easterly direction on my property and given that most of my property lies to the east of my residence, I don't see this as an acceptable option.

Epuron have also based all of their visual impact assessment on a document that was written when the average height of a turbine was nearly half of what is being proposed. I had several meetings with Mr Johnsen requesting a review of this document and the noise bulletin, however he was apparently most busy on his phone, pursuing his personal needs.

After this meeting I realised that the photomontages all had a disclaimer that they were not to scale. I also noticed that I had received photo 2 of 5 right through to 5 of 5, but had not received photo 1. Photo 1 was taken in front of my house, photo two was taken from the corner of my residence, closer to the trees.

My next communication with Epuron was at the zoom information sessions they held in July of 2020. The zoom meeting I attended was attended by one other resident, when I have spoken to other community members, I have been advised that there meetings were also poorly attended. Out of curiosity I ran a poll on Facebook and discovered that only 10% of Muswellbrook residents were aware of Epuron's information sessions. During my information session, I asked about blasting and was advised that they would not know if they were going to blast until after they had approval as that would be when they would get a geotechnical analysis. I struggled to understand how they could write an environmental impact statement when they did not know what they were going to do that would impact the environment.

I once again brought up my concerns around research showing that animals living near turbines had higher cortisol levels. I asked Epuron if they could provide me some research that cows were not impacted by turbines as, to date I had not been able to find any peer reviewed research on the impacts to cattle, but had found some very concerning anecdotal information. In September, a month after this meeting I had to follow up with Julian Kasby to get my follow up from the information session. Julian's response to my question about cattle was as follows: they were able to find "commentary on the experience of host landowners who also graze livestock on the same property.

The 'Renewable Energy Landholder Guide' (GHD for NSW Farmers Association) states "Host landholders generally find that once a wind farm is operational livestock quickly become accustomed to the moving turbines and are happy to graze in their vicinity and seek shelter in the shadows."" This is contrary to other species that have been studied that show that the animals do not acclimatise to living near turbines. Studies also show that farming pigs make lower weight gains when located near turbines. To date I have not seen a single study of the impacts of turbines for any Australian marsupial. For Epuron to only consider habitat damage of these species, I feel is grossly negligent.

Around this time, (July 2020) Epuron also sent an email stating that they would send through a neighbourhood agreement in the next couple of weeks due to my proximity to the project. They also misrepresented me and stated that my preferred option was acquisition. At no point have I indicated that this would be my preferred option, I have always been strong in maintaining that my preferred option was that this project did not proceed. It wasn't until February 2021 when I sent a complaint through to the wind farm commissioner due to my dealings with Epuron that they sent through a neighbourhood agreement. This neighbourhood agreement was enlightening, in exchange for a monetary amount that was significantly less than what we expect our property value to decrease by. Epuron would have the ability to renegotiate my mortgage and I would need to notify them should I ever wish to sell my property. After receiving this neighbourhood agreement, I have not received any further correspondence from Epuron. I feel that Epuron has little interest in engaging with the neighbours of this project and due to their little regard for the planning process consider this project a done deal.

I will now address elements of EIS that are separate from my personal dealings with Epuron.

1. Visual and Lighting

- a. The visual assessment is based around these structures not being lit, they have not yet received advice from CASA but all other projects require lighting. How can you complete a visual assessment when you don't have all the information on the visual impact.
- b. The mitigation methods offered by Epuron in the EIS are not appropriate, screening does not work for a structure that is 220 m high on a ridgeline that sits some 300 m above surrounding properties. The tallest tree on earth, the redwood which grows in California has been recorded at a height just under 120m, this would not even provide screening if the turbines were placed at the same height as each of the surrounding residences. It should also be mentioned that a typical redwood lives around 500 to 700 years with some being thought to be some 2,000 years old. That is a long time to wait for a screen to grow to obscure not even half of the ridgeline, without even screening any of the massive structure that is proposed to be plunked on top of it.

2. Noise

- a. This area is very quiet and Epuron's background sound monitoring confirmed this. Our area in Muscle Creek is quieter than areas monitored around Nundle.
- b. I hold significant concerns around the health impacts to surrounding residents and studies have found that turbines impact the sleep of those living nearby. I have put sleep trackers on all members of my family and now have a bank of sleep data on our family. Should this be altered by the project, I will be seeking considerable compensation.
- c. I am concerned that the wind farms have different rules to mine sites when it comes to noise. Thus far, Epuron has not been held to account for any regulations they have failed to meet, monitoring tower, the introduction of Parthenium weed just to name a few. Doubts as to whether they would be held to account for noise breaches.
- d. This area is geographically very different to many other wind farm sites and noise bounces around our valleys, how would this impact us with turbine noise and has this been accounted for in the modelling?

3. Biodiversity

- a. Bird strike is widely published about wind turbines, the rebuttal is always that cars take out more birds and while this is not being disputed, cars take out different birds to turbines, turbines have been found to take out more of our larger birds of prey.
- b. Bats have been found to die around turbines, not only from being struck but also from barotrauma (tissue damage provoked by rapid pressure change)
- c. The spotted quoll is found in the area and there are no attempt to reduce the impact to them, instead they are offered as a credit only for the government to invest in the conservation of the species in another area.
- d. I can't find any research of health impacts for native fauna living near wind turbines. Research in other species shows a significant increase to cortisol levels in different species.
- e. Epuron have stated that their project is on cleared farming land. It is therefore interesting that one of the hosts was interviewed described his property "4000 acres in the head of a naturally stunning valley, the property comes complete with remnant rainforest, naturally flowing waterfalls and crystal-clear pools, soaring escarpments, and giant grass tree forests." This is a vastly different picture of the landscape to what Epuron is creating.

4. Aboriginal Heritage

- a. We are aware of some cultural walking tracks and regular hunting areas within the project boundary. The surveyed area appears quite small in relation to the entire project.
- b. The project has not yet been properly engineered, there is little mention of blasting and the impact on blasting needs to be considered in relation to any Aboriginal Heritage as fragments may cover other areas of significance within the project boundary that have not been surveyed.

5. Historic Heritage

- a. Epuron have stated that there will not be any impact to those properties in the vicinity that have historic value. They have also only looked at the footprint of their desired transport routes, these routes may need to be changed significantly when they have them engineered as the inclines may require either significant widening or a change of route to enable the trucks to climb with the parts on board. These historic assessments also did not incorporate potential impacts should Epuron need to blast the ridgelines to create their haul road access tracks or get the footings in the ground to secure these mega turbines.

6. Traffic & Transport

- a. These roads already become congested at the time of shift changes, extra cars during the construction phase will be noticed.

7. Aviation

- a. With the introduction of large turbines on prominent ridgelines, will this impact the rescue helicopters flight time, as it may now have to detour around this hazard?
- b. We believe that aviation lighting will be required for the project, this will also impact the visual amenity and detract from our currently night sky with light pollution.

8. Economic

- a. In the short term this project will provide jobs to those with experience and a willingness to work. This may mean that workers will not be local as there aren't any locals with experience in maintaining wind turbines. This increase in demand in the rental market will push up rental rates and may lead to an increase in displaced locals as they will be unable to afford a rental in town.
- b. In the long term this project is offering employment for up to 15 full-time workers over the life of the project. This will not provide much increased revenue to the local communities even if these workers choose to reside here.
- c. There is no monetary figure provided in the EIS document showing how the community will benefit from this project. It does make mention that this money will be given to the local councils. Many impacted neighbours currently contend with poor road maintenance, no garbage collection and during covid no or limited access to the waste management facility. These funds are not going to improve the lives of those that they impact the most.

9. Social

- a. The short term high numbers of employment during the construction phase of the project are likely to drive up rental rates, causing many locals to become displaced and be unable to afford rentals.

10. Stakeholder

- a. As an impacted neighbour, there has been inconsistent communication and very little consultation. When individual meetings have been held, timely minutes have not been provided. When meetings have been held in a group setting, there has

been a divide and conquer attitude held by Epuron and questions asked by group members have often gone unanswered.

- b. Meetings held by Epuron have been poorly advertised and when have surveyed local residents, very few have been aware of the meetings.
- c. The latest round of meetings held were conducted during school holidays and were not offered in the suburb of Muscle Creek that has the largest number of impacted families and was also previously the most attended venue.

11. Property Values

- a. Epuron have been quoting the URBIS report as finding that there is no loss to property value. This report was not able to find anything of significance as they did not have enough sales data. This is a misrepresentation of the information.
- b. I have spoke with Nigel Wood and his personal research of property sales surrounding wind turbines confirms my own personal views, and anecdotal reports that I have got from other community residents surrounding turbines that property values don't just plummet, the big issue becomes finding a buyer. I know I would not have bought, or invested my time in developing a property right next to an industrial wind park.

12. Communications

- a. Reception for internet and mobile phones is already an issue in these communities and there is the potential for it to be impacted by this development.
- b. The EIS identified that two turbines needed to be moved as they were going to impact the RFS radio channel. Have they been moved enough or has wind capture profit been put before safety?

13. Water Resources

- a. A substantial amount of water will be required during the construction phase, the EIS states that this will be carted in. There is no mention on where the water that will be required to wet the roads for dust management will be coming. Keep in mind these access tracks will be the size of a haul road in order to be capable of moving the large parts, they are also on the top of ridgelines in identified windy areas.

14. Agriculture and Soils

- a. Epuron have stated that there are no studies that they can find in relation to impacts to cattle surrounding wind farms. They have stated that "They were able to find a couple of documents which provided commentary on the experience of host landowners who also graze livestock on the same property." It should be noted that peer-reviewed research on pigs show that those living near wind turbines have significantly lower weight gains.
- b. The EIS has stated that there will be no reduction in farming profits for those hosting the wind turbines, this same document also states that due to the lack of records kept by hosts they will not be able to identify if the turbines have had an impact on their farming profits.

15. Bushfires

- a. Aerial fire fighting will be impacted as aircraft will only be able to fly over the top when there is good visibility.
- b. The EIS states that the bushfire risk will be reduced as they will be clearing 519 hectares of potential fuel from the area.
- c. Bushfires have been known to start from, wind turbines, bird strikes to surrounding infrastructure and maintenance work surrounding turbines. We live in an area that

is one road in and one road out. Any increase to bushfire potential is concerning, regardless of whether or not there is 519 hectares less of fuel load.

16. Air Quality

- a. Air quality in the region has been monitored for a long time, with many doctors providing statements to the media of the health impacts.
- b. What impact will an unsealed road on a ridgeline have on the already high dust levels? This is worth considering as Epuron has identified that these ridgelines have high winds.
- c. What impact with wind turbines have on already high dust levels? The surface temperature around wind farms has been studied to be higher due to vertical mixing that prevents the temperature in the evening from cooling as quickly, this will cause the ground to dry out faster, requiring more dust suppression.
- d. Turbine blades spin at high speeds and dust in the air has been found to be very abrasive to the external layers of the turbine blades. Has this been factored in to blade life expectancy as well as the increase in the likelihood of blade throw?

17. Blade Throw

- a. A blade can be thrown approximately 500 metres from the base of a turbine. When a turbine is placed on a ridgeline, this distance can be even greater. Currently, the distance of turbines from neighbours are only measured from the place of residence. This essentially makes a neighbour's own property part of the buffer surrounding a host's turbine. There is the potential that a neighbour could be on their own property and be struck by a turbine blade.

18. Health

- a. There have been multiple studies on the fact that wind turbines can impact sleep.
- b. Sleep is also used as a form of torture for prisoners of war.
- c. The world health organisation identified that wind turbines can have an impact on health.

19. Waste

- a. Where will all the waste be taken, ie, the construction waste and the waste oil that lubricates these turbines?

20. Decommissioning

- a. Who will have to pay for the decommissioning of these turbines should the operator go into receivership? What safeguards are in place to prevent us having to look at out of service turbines until they rust out and fall to the ground?

21. Cumulative impact

- a. The EIS does not touch on the cumulative impact of industrial activity in this area. There are few places for native animals to see refuge around the mines and power stations, we are now adding another threat to our native species.
- b. There is already an approved wind farm in Scone, why is this not being developed as opposed to giving this area another eyesore?

I have tried to make this submission as brief as possible whilst still conveying my concerns of the project. I reserve the right to send through more information after the closing time of submissions.

I am happy to provide references for all research and/or quotes throughout my submission.

Please strongly consider what you are about to inflict on our little bit of paradise.