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The Secretary  
NSW Department of Planning and Environment  
4 Parramatta Square, 12 Darcy Street  
PARRAMATTA NSW 2150

VIA EMAIL

Dear Secretary

Attention: Clay Preshaw, Nicole Brewer and Natasha Homsey

**STATE SIGNIFICANT DEVELOPMENT APPLICATION SSD - 8950984  
BURRENDONG WIND FARM – PROPOSED WIND FARM WITH UP TO 70  
WIND TURBINES AND ASSOCIATED INFRASTRUCTURE**

I have a 16ha property located at 940 Worlds End Rd Worlds End. Our property is one of the closest properties to the Burrendong Wind Farm on the Worlds End side of the proposed wind farm.

Our family is part of the Burrendong Save our Surroundings (SOS) group. The proposed wind farm is located in relatively close proximity to the north-east of our property. It will have significantly changed and adversely impacted views to the currently natural Worlds End Ridgeline due to proposed 250m high industrial turbine Nos.49, 50, 53, 54, 55, 56, 57, 58, 59 60 and 61 - the focus of our submission.

In general, I would encourage the transfer of power generation away from coal to renewable energy. But what I do not support is the misinformation and most likely back handed strategies that Epuron, Ark Energy and Korea Zinc (Developers) have and are using to push this development through. This will be explained later.

Firstly, this project first came to our attention in 2018. The developers have had over five (5) years to put all of this together. But we have only been given twenty-eight (28) days to read and analyze some 526 pages within the EIS main document plus 27 supportive documents to read and analyze. If this is meant to be a fair system then this is NOT. Ninety (90) days submission would be more appropriate, then we could obtain outside advice on the submission.

Now we will only be able to skim read the documents and come up with a sub-standard response. In light of the small amount of time allowed to review these documents I would presume that Korea Zinc will only have twenty-eight (28) days to respond and rectify any changes.

The EIS report contains 27 Appendices. At this stage all of the appendices have not been read due to time constraints (only 28 days given). With an extension of time, these documents could have been checked for accuracies of the information and constructive input and comments could have been provided.

The following is my comments only on the EIS supplied due to time constraints:

## **EXECUTIVE SUMMARY**

- Page 2 Disclaimer. In the disclaimer Eco Logical state that "the scope of services was defined in consultation with Ark Energy, by time and budgetary constraints imposed by the client".
- So, what were the budgetary and time constraints? Does this mean all of the requirements were not done due to costs and time? What sections have not been fully investigated? How much did Ark Energy direct and manipulate the EIS due to budget and time? The EIS must be thorough.
- It is known that properties were not visited, requested photographs that were promised were not delivered, promises of compensation not realized etc, phone calls and emails not responded to. Was this because of budget cuts and time constraints?
- Page 4. Looks like Eco Logical is making the submission for the project and also undertaking the EIS to support the project.
  - This is a 100% conflict of interest. How can the company submitting the development application undertake the EIS impartially? Especially in the first sentence Eco Logical states "Eco Logical has prepared an EIS to support the assessment and approval of the project".
- Page 5. Up to 70 Wind turbines generators are proposed.
  - Since 2018 the number of WTG has fluctuated from 70 to well over 100. The exact number of WTG has not been established, and given the past experience with Arc energy and Korea Zinc the number is likely to change again.
  - It is likely once they have permission to build this wind farm then more WTG will be added.
- The construction phase of the Project will generate around 250 full time equivalent jobs for an 18 - 24 month period and will support the use of the local labour force, services, and amenities, with a peak workforce of

375. A further 12 full time equivalent jobs on an ongoing basis would be generated for the 30-year Project lifespan. A local workforce is favoured, and the relocation of staff to the region used as a supporting option to fill roles where required. This statement is not supported in other sections within the EIS.

- The traffic numbers are incorrect as further vehicle movements will be required for the hydro-electric plant plans for Burrendong Dam.
- They also state that the project can be modified so it will last 60 years so from now on in all documents in the EIS, reference to 60 years life expectancy of the project should be made.
- They claim that the project will produce clean energy.
- Does not consider the negative affect of the project in any sections. For example, the removal of 1,000s of trees. Such as lost amenity, lost habitat and disposal of waste.
- They claim the project is predominantly privately owned land used for agricultural purposes.
- This is misrepresentation of the facts. There has been no listing of the properties that the project will be on. But it is known that the majority of them are recreational properties and not agricultural properties with absent property owners.
- To be honest and transparent a list of all of the properties and the current use must be part of the EIS report in all relevant sections.
- Page 7. Why is the project needed?
- I agree with the majority of the reasons why the project is needed. However, Ark Energy has failed in the section "Provide mutually agreed opportunities for landowners, neighbours', and the wider community to share in the benefits of the Project".
- In 2018 promises were made by senior management but has not been delivered for neighbours' of the windfarm. The project has split the community like I have never seen before. Life time friends no longer speak to each other due to the wind farm.
- The community at Worlds End and others around the site have now been deleted from all of the maps in this EIS. So how can they say that they are representing the community interest when they refuse to acknowledge that we are there.
- At this stage I have not seen a single thing that will benefit the community that is closest to the wind farm. As we are vocal about our concerns it seems that Arc Energy and Korea Zinc will have nothing to

do with us unless they have too. Failure to return phone calls and emails is occurring daily. This is NOT community consultation.

- With the proposed hydro-electric plant plans for Burrendong Dam right next door why is this project needed? Burrendong Dam hydro plant will provide adequate power.
- Page 9. Project Elements.
- In this section it appears that they have no idea on how many elements they wish to install. "They state up to 70". At this stage they should know how many, how high and the location of each.
- Figure 4. Key Project elements.
- One of the main ways that one can ascertain the impact on a property is to review maps. However, on all of the maps that Arc Energy and Eco Logical have issued they are of very poor quality so one cannot get the necessary information from them or as is the case in Figure 4 the key does not match up with the map. This has happened on almost all of the maps. So how could an EIS be submitted for community consultation when the maps are of such poor quality? Element 5 is Meteorological masts and they have 3 located at the same location.
- Page 11. Local Communities. They state that there is low population density within and surrounding the project.
- This is not true and is misleading. The surrounding areas are not predominately agricultural areas but are recreational areas with many of the owners frequently using their properties. The vast majority of property owners around the site purchased their properties for the scenic beauty of the area. The statement that there are limited visual and noise impacts is far from the truth and is wrong.
- Page 11. Phases and Timing.
- Project is likely to commence within five (5) years of DA consent.
- In this section they acknowledge that the project has not been finalized. After the DA consent they need another five (5) years to get it all together. So, is construction unlikely to start before 2028?
- So how can the community around the site adequately comment on the EIS when they have not even completed the design?
- Project has anticipated operational life span of thirty (30) years.
- This is incorrect and misleading. Further on in the EIS they state that the operational life span could increase to sixty (60) Years. With that many years the EIS needs to be considered for the sixty (60) years and not the thirty (30) years. Fig 5 page 12.

- Compensation to the neighboring properties will also need to increase for the sixty (60) years.
- Future Engagement. They state that if the project is granted, they will do a program of community awareness initiatives.
- Surely before the DA is approved these community initiatives need to be known. As it appears now the towns will benefit but the properties that are severely affected by this wind farm will get nothing.
- Point 5. Assessment of Environmental Impacts.
- In the top header in green the properties surrounding the wind farm have been left out.
- They state that the EIS has been rigorous. This is NOT the case as many properties have NOT been listed on maps and requirements of photos have NOT been produced as promised.
- Mir Landscape Architect photographs did visit the property only to take photos, no other visual or other assessment was undertaken.
- The EIS has a large amount of inconsistencies which will be discussed in the relevant sections.
- Landscape 7 Visual. Identified 20 non-associated dwellings within 4950m of the nearest WTG.
- This number is so WRONG. These 20 non-associated dwellings are NOT even 50% of the dwellings that are in the areas. This section will need to be re done with the correct number of non-associated dwellings included. Arc Energy, Eco logical and Korea Zinc are so misrepresenting this area that the entire EIS should be discarded and the EIS must be undertaken again. No legitimate accuracy can be taken from this section of the report. I know for a fact that one particular property that will have a front row seat to over 20 WTG has never been approached. They are within 3000m from the WTG.
- On numerous times over the phone and in person at the community meetings in Mudgee, Arc Energy were told about these properties and still they did not contact them.
- Page 16. They say that the project would comply with noise requirements.
- The company that Arc Energy used for noise monitoring has a very bad reputation within the Wind Energy section. The reliance on any data from this company cannot be relied on. Only one noise monitoring station was used within Worlds End and this was placed at the most covered area so as it would not register any noise. Very inadequate

noise assessment was undertaken. Thus, the report on noise is not compliant to Wind Energy: Noise Assessment bulleting (DPE, 2016).

- Page 17. Two (2) threatened Communities were found being
  - i. Grey Box Grassy Woodland
  - ii. Box Gum woodland
- Also, three (3) more sites are within the proposed area of the WTG and need to be included in the EIS. These sites have been identified by NSW Biodiversity Conservation Trust in 2016 (refer CA0197 430 Worlds End Rd Conservation Agreement under the Biodiversity Conservation Act 2016 (NSW). These sites are:
  - i. Blakely's Red Gum Grassy Woodlands
  - ii. Yellow Box grassy woodlands
  - iii. Southern Tableland grassy woodlands
- It also appears that the biodiversity side of things has still not been completed for this EIS. Further information is required before adequate comments can be made.
- The found fauna and flora will be discussed later. This will show that many species were missed in the EIS.
- Traffic & Transport. Report undertaken by Stantec.
- This report is flawed and should not be relied on in this EIS report for the following reasons.
- They state that the project will generate an average of 153 one-way vehicle trips per day. If the project will have employment of 375 full time plus 250 full time employees that would mean that each trip one-way will have a 4.08 person in each vehicle. That is not realistic. Also, the numbers of employees in the EIS differs from these figures. It would appear that they do not know how many people they will employ. Also, the traffic data is way out of what looks likely to happen.
- The vehicle trips appear to also include all sub-contractors, trucks delivery vehicles etc. So perhaps each vehicle will have 6 to 10 people per trip.
- In addition, further in the documents some 3000kgs of material per day is required for the concrete to be delivered. This appears not to have been in the calculations. Perhaps they will be flying in the material?
- Nowhere in the Traffic section does it take into account the roads that these traffic increases will be having an effect on in regards to the local traffic and the condition of the roads. Yarrabin Rd and Burrondong roads are not suitable for large vehicles or the volume of expected traffic.

- The traffic modelling has left out the increase in vehicles that will be required for the build of the hydro-electric plant plans for Burrendong Dam
- Hazard and Risks.
- They have missed a risk which is persons shooting in the area. Often people have been caught trespassing on lands that the WTG will be located upon.
- Aviation.
- The need to change the approach height needs to be amended. Change the height of the WTG.
- Also, from time to time the Airforce uses Worlds End valley for low flying practice. Would suggest that the Wind Farm approach the Airforce in regards to this.
- Public Health.
- They talk about shadow flicker not being a problem for the non-associated dwellings. This statement is flawed as they have not included at least 50% of the non-associated dwellings. This part of the EIS needs to be redone.
- What happens, if the project is approved, when the WTG are installed and there is noise and shadow flicker experienced by the non-associated dwellings, which includes all of the ones that have been incorrectly left out? Will they turn the WTG off when the sun is to the west of the WTG?
- Bushfire. "A major fire spreading from the project site in the direction of Mudgee ..... is possible but also unlikely."
- Biggest load of misinformation that I have ever read in an EIS. This is Australia. Bushfires happen. The modelling and EIS needs to be completed accurately. After seeing and being part of the recovery in the Warrumbungles NP and others where over 100 houses were lost, to say that it is unlikely for a fire to burn towards Mudgee and by direction of our home in Worlds End is incorrect. Coonabarraban was only saved by a late wind change and the town was over 60ks from the start of the fire in a south-easterly direction.

#### Aboriginal Cultural Heritage.

- There is a current Aboriginal land claim that has been lodged for this area. This may severely affect the build of the wind farm.
- Soils, land use and agricultural land.

- Two (2) reports failed to identify recreational properties within the project site and missed listing the number of trees that will be required to be removed for the project.
- Naturally Occurring Asbestos has been identified in the EIS and the air borne particles have been dismissed as being of issue as they would likely be dispersed quickly. This is not very reassuring that they may likely be dispersed. As our properties are directly in line with the normal wind pattern, I find this alarming that it is dismissed so easily. This needs to be addressed more thoroughly in the EIS.
- The development corridor is 3,058.08ha. That is a huge area of the local environment for this project to affect.
- Water & Aquatic Ecosystems. The project will require water during construction. Water to be sourced locally.
- This will mean more traffic to the local area which has not been factored into the traffic section.
- Social & Economic. Social impact assessment undertaken by Ethos Urban suggest benefits to the local level.
- Unfortunately, this is not true. It has divided the community with friendships broken and mistrust between neighbors.
- It states that extensive community consultation has occurred. This is disputed as in many cases phone calls, emails and requests have NOT been taken or followed up. Ark Energy and its previous owners have been difficult to work with in this project.



## **ENVIRONMENTAL IMPACT STATEMENT:**

- Eco Logical is a Tetra Tech Company that states it has over 1500 plus wind projects around the world so how can Eco Logical be impartial when preparing this EIS report for Ark Energy.
- This is a major conflict and as such this report and all findings must be discarded. An impartial EIS needs to be commissioned.
- The review of this EIS should stop here due to the conflict of interest from Eco Logical. However, just in case the report is allowed the following points are made in regards to this EIS.
- Content. States benefits for community.
- But does NOT specify that properties that are in close proximity to the Burrendong Wind Farm will receive any benefits from the 70 plus WTG. Final number not established for WTG.
- The Central West and Orana Region Plan 2041 apparently states “builds upon objectives previously set out in strategic plans and ensures the character and identity of the region is celebrated and protected”.
- Currently either in production or on the planning stage is some fourteen (14) plus other wind and solar farms within close proximity to this project.
- They forgot to mention the hydro-electric plant plans for Burrendong Dam which is right next door.
- How then is the 2041 plan going to ensure character and identity of the region and how this is to be protected. The region will become an eye saw of wind turbines all over the place. This will be at a loss to the environmental beauty of the current site which is now under threat.
- Project Overview. States that approximately directly sustain 250 full time positions and indirectly sustain a further 400 full time positions over the construction period.
- This is a different number than what was stated in the executive summary which states that only 375 positions over the construction period. But the traffic report only has 153 vehicle movements one way per day. So, with up to 650 full time workers on site during construction it appears that each car will need to carry 4.24 people each trip? Obviously, this is not possible. The figures presented in the EIS need to be corrected.
- The current roads system to the site is currently a dangerous road if you come from Mudgee. The roads were not built to carry this volume of traffic. The likelihood of a serious accident is high.

- Figure 1-1 Regional Context of the Project Site.
- According to this figure all transport will be going into the site and out of the site via the north access towards Gulgong. If this is the case how will the project stop staff and subcontractors from using the road to Mudgee?
- This figure is also missing Bio-conservation areas that are within the affected areas.
- Figure 1-2 Preliminary Project Layout.
- Missing from this map are up to 40 residences that are within 4ks of the site. No residences are listed within the Worlds End area of the site which are some of the closest residences to the WTG. Would appear this is because people in the Worlds End area are critical of the project and have made noise to Ark Energy. Their way in dealing with us is to delete us. WTG from 53 – 61 are within 2+kms of our houses. This map is very misleading and must not be used for any purpose.
- The Proponent. Apparently, Ark Energy is an Australian Company.
- Ark Energy being owned by Korea Zinc is not an Australian owned business but is with Korea Zinc which has a poor reputation within Australia. It has been spoken that Korea Zinc will push hard and go well beyond what is required to get what they want.
- Structure of the EIS states Provide the community with sufficient information about the Project.
- This has been going on since 2018 so they have had five (5) years to put this EIS report together. However, we get twenty-eight (28) days to read and analyse some 526 pages within the EIS main document plus 27 supportive documents to read and analyse. If this is meant to be a fair system then this is NOT. Ninety (90) days submission would be more appropriate, then we could get outside advice on the submission. Now we will only be able to skim read the documents and come up with a sub-standard response. In light of the small amount of time allowed to review these documents I would presume that Korea Zinc and all other consultants will only have twenty-eight (28) days to respond and rectify any changes. Will this be the case? Only seems fair.

## 2. Strategic Need for the Project.

- We get all of the reasons why different power generation is required. What is most alarming is it seems that only a few areas within NSW will be the full-frontal attack of renewable energy sites. The Mudgee / Dubbo region has some fourteen (14) plus other wind and solar farms. This region does not have to provide all of NSW power. Wind blows in other areas as well as the sun shining in other parts of NSW.

- Also, in the same location there is an upgrade of the hydro-electric plant plans for Burrendong Dam. This project is bigger and will produce more electricity than the wind farm but will have less environmental effect on the area.
- This will also add traffic to the roadways. So, there are now fifteen (15) power plants within close proximity to each other.

### 2.2.3 Other Renewable Energy Projects in the Locality.

- They have missed the upgrade of the hydro-electric plant plans for Burrendong Dam. This project would be within 1km from the wind farm.
- Table 2-1 Renewable Energy Projects in the same REZ and LGA's needs to be completed. The distance from this project site to the other 18 sites is missing.
- They say there are fourteen (14) sites of renewable energy in close proximity but table 2-1 has twenty-three (23) listed. So, where ever they state that there are fourteen sites (14) in fact it should be twenty-three (23).
- Figure 2-5 Renewable energy projects within the region. The map they have produced of the nearby energy projects clearly shows way more than the fourteen (14) sites that they have listed. Suggest that someone from Ark energy learns how to count to thirty (30). This needs to be rectified. Once again Ark energy and Eco Logical are trying to pass off information that is not correct.
- With all of the current and planned power sites now in this area it would be interesting and I think valuable to know what the estimated energy generation will be. I would think well over the 3GW that the area can support.

### Figure 2-3 Midwestern LSPS planning priorities addressed by the Project.

- Is the power generated from this wind farm going to be used for the local area? Or is it going to the Newcastle area? If so, then place the wind farm in Newcastle LGA.
- Estimated 781ha footprint for the project. They still are saying in this table that additional surveys are required. They must be completed for the EIS so a proper understanding of the project can be undertaken.

### 2.3.3 NSW Wind Energy Guidelines.

- The objectives of the Wind Energy Guidelines (DPE, 2016a) are to:
  - a. provide clear and consistent guidance to the community, industry and regulators about how to measure and assess

- key environmental impacts of SSD wind energy development in NSW;
  - b. facilitate better outcomes by requiring early identification of impacts to drive better siting and design;
  - c. facilitate meaningful, respectful and effective community and stakeholder engagement across the development assessment process, from pre-lodgement to post-approval;
  - d. encourage benefit-sharing between wind energy operators and the communities in which they operate, where appropriate; and
  - e. provide greater accountability for the management of impacts over the life of a project by linking commitments to conditions and / or appropriate monitoring and adaptive management strategies
- Ark Energy has failed in all of the above five (5) guidelines as set out above.
- They have not provided clear and consistent guidelines to the community.
- They are still not 100% sure on where the WTG are going and how many so the outcomes are not known.
- They are not respectful to the community. This is evident by all of Worlds End properties not being included in the discussions.
- At the first meeting we were promised community sharing for compensation in 2018. Still waiting in 2023 for an answer to this from Arc Energy.
- Still cannot say if the project is for 30 years or 60 years.
- This project is NOT in compliance with the SEARs as well as other plans and policies in wind farm development.

#### 2.4.2 Site Selection – Land Suitability.

- Further decisions around alternative design related to the Project will be made post-approval during detailed design.
- This needs to happen now not after the approval has been given. The 70 WTG will increase if this happens and the communities will not be able to stop unacceptable practices from occurring.

#### 2.4.2.2 Land Use.

- Arc Energy and Eco Logical say the area is predominantly agriculture. This is not the case, the area is predominantly passive recreation. If Arc were to list all of the hosting sites it would show that only a few are

still being used for agriculture. One of the hosting sites has not been used for agriculture for well over 50 years. Another hosting site is owned by an 80 plus year old person who only runs a few sheep. Hardly agriculture.

- They list that 97.3% of the land has been determined to have severe to extremely severe land capability limitations. Does not sound like agricultural land as proposed by Arc Energy and Eco Logical. Their own document counters what they are saying. I would say that 97.3% is land for passive recreation.

#### 2.4.2.4 Site Access and Condition.

- They say that there is good road access to the Project Site.
- I don't know what roads they are driving on but access to the site is not on good roads but are on roads that have not been engineered to carry the expected traffic generated from the wind farm. Added to this the expansion of the hydro-electric plant plans for Burrendong Dam will have a huge effect on local persons.
- After the first sentence in this section, they then state that there is difficult access for landowners and emergency services. This counters the statement in the first part of this section. This is more accurate than the other statement of good road access.
- They also say that the roads and access tracks will reduce lightning strike to vegetation. As a consulting Arborist that deals with lightning strikes to trees, I am waiting with anticipation to be informed on exactly how this is supposed to occur. This statement is NOT backed up by any scientific evidence and must be removed.
- They identified Naturally Occurring Asbestos but have not written how this is NOT going to affect the community once disturbed.

#### 2.4.2.5 Stakeholder Consultation.

- Would be interesting given the bias that Arc Energy has with getting as many wind farms in as possible in the shortest amount of time if the landowners are getting the full stories about hosting wind farms.
- I follow country real-estate properties for sale and it is interesting that hosting farms are now coming up for sale at an increased rate. These farms are not selling as they are being listed for many months. Even the inducement of money from hosting the wind farms are not enticing people to buy hosting properties. I for one am still looking to relocate due to this wind farm and when I review a property that hosts wind farms, I move onto the next one.
- Apparently one of the hosting people for this project has already pulled out of the project.

- They still have outstanding design issues that will be adjusted after approval maybe given. How can a considered review be undertaken if so many issues are left out?

#### 2.4.3 Community Support and Benefits.

- We were promised at the first and other meetings that there would be neighbor agreements, apparently as recommended by Clean Energy Council guidelines. This is discussed in section 6.14. To date other than the first two approaches in 2018 nothing has occurred as promised. Yet again another broken promise from Ark Energy.
- This whole community support and benefit system is a con to get the wind turbines through. The very local community in Worlds End has been forgotten and ignored.
- The only thing it has done for the community is split the community and destroyed long term friendships that will not be repaired. Well done Ark Energy.
- None I repeat none of the local Worlds End residents will get any of the electricity that this project will produce.

#### 2.4.4 National Energy Market Capacity.

- With the upgrade of hydro-electric plant plans for Burrendong Dam another power system within 5km is not needed. The upgrade of the hydro-electric plant plans for Burrendong Dam is likely to be less of an environmental disaster than the Burrendong Wind Farm.

#### 2.5 Project design and alternative options considered.

- Of the eleven (11) potential impacts the design hierarchy was adopted.
- There was NO design consideration within this section for the local residences.
- So the residents had no say in the design or alternative options.
- In Figure 2-5 Project design evolution it is further demonstrated that there was NO community impute at all since 2018 and NO community consultation.
- Figure 2-016 WTG design evolution.
  - The deleted WTG to the south were deleted because the hosting property withdrew the use of their land for the WTG. It was not because of any changes by design from Arc Energy.

- Turbines numbered 1-10 and possibly 11-14 are located on water board land which is owned by the State Government. This is a conflict of interest in the extreme. The State Government is getting large amounts of money if this project goes ahead.
- WTG 53 is located about 2.5km from our house.
- Alternative Options. In this section one would hope that the site was looked at for different power generation. The site apparently was not looked at for different systems. A solar farm would have been good for the site. As solar farms can be located on disturbed sites less infrastructure is required. No visual damage to the surrounding properties. The argument that solar only works on sunny days as opposed to wind being there 24/7 is not true. For many hours and days there is no wind out at this location.
- In the surrounding area there are renewable energy projects near to this site - there are twenty-three (23) solar farms as compared to only six (6) wind farms. By weight of numbers, it appears that solar is far better than wind so this also shows that solar at this location would have been better suited. Yet it was not considered.
- So, there was NO alternative options looked at for this area.
- If a solar farm had been considered they would have found that the majority of energy projects in the area are in fact solar farms. Listed below are some reasons why a Solar farm at this location would have been better:
  - No road works required for the transportation of components.
  - No creeks to be repaired.
  - Roads would not have to be widened.
  - Vegetation along the road corridor can be left alone.
  - Less loss of native vegetation.
  - Location of Solar farm infrastructures can be located easier.
  - Not a threat to wildlife.
  - Very low community impact.
  - No visual impact to neighbors.
  - No noise.
  - No light flicker.
  - Area has good sunshine.
  - Cheaper to install and run.
  - And the list goes on.

#### 2.5.2.1 Transmission Line Route Options.

- This is still not known which of the two (2) will be done until detailed design stage. How can the EIS be undertaken if the designs are NOT completed.

- This is especially important as the transmission lines will likely damage Threatened Ecologic Communities and local aboriginal items and places.
- Bye Bye Koala's and Wedge Tail Eagles.

### 2.5.3 Do-Nothing Approach.

- What a load of rubbish that has been written here. Twenty-nine (29) plus wind and solar farms are within close proximity to this location.

### 3 Project Description:

- We finally have in this section the breakdown of the WTG ownership. 17 lots are private landowners and 58 lots owned by NSW Government. So, the NSW Government is the largest beneficial from this wind farm.
- The WTG that are on NSW Government lots is a conflict of interest. Does not pass the Pub test. How can an organization that will financially benefit from a project be the consenting authority for the DA.
- Due to the above conflict of interest, it is imperative that an independent authority review the EIS and submission. Anything else would be a serious conflict of interest. Just like Bylong Valley Government corruption.
- If an independent authority does not review the EIS and submission and it gets approved then an investigation by the NSW Independent Commission Against Corruption should be undertaken as soon as possible.

### 3.1.2 Land to be disturbed.

- Since the project design has not been finalized in any sections, then the final disturbance is unknown. The project design needs to be finalized so that comments from the public can be made. The WTG are not new, they know what is needed so do the plans and submit them.
- 74 ha of external road upgrades are needed. So where is the map that shows what disturbance is on the roads. How can we comment on issues when they are not forthcoming with the information. Is it that 74 ha of trees need to be removed to allow the components to travel the roadway?
- They have identified Naturally Occurring Asbestos but have not really considered how to control the dust but only state that it will blow away. Details on control methods that will be used need to be supplied so that adequate comments can be made.



### 3.1.3 Identified Constraints.

- This section has identified Agricultural land but has not identified natural bushland that the project will affect.
- At this stage of the EIS there has been no land use mapping or vegetation mapping with the location of the components of the Wind Farm. So, it is impossible to bench mark what they are saying is accurate. Given the past dealings with Ark Energy I would not believe these figures.
- Major and minor watercourses are not listed with what impacts are likely.
- Native Vegetation and Threatened Species no maps at this stage so no comment yet.
- Aboriginal Landowners. The current Aboriginal land claim for the area needs to be investigated further so that this information can be supplied and then comments can be made.
- If there were no recorded sites within the project how then did they find 102 Aboriginal objects?
- Nearby Landowners. The EIS report has identified only 20 non-associated receivers within 4.95km of a proposed WTG.
- This must be the biggest misrepresentation that Ark Energy and Eco Logical have ever made. Just in Worlds End area they have omitted some 30 residences. They actually have no one residing in Worlds End when one resident lives within 1.1km from a WTG. This whole section needs to be redone to accurately provide information for the assessment. The questions is why is Ark Energy omitting so many non-hosting residences? What have they got to hide?
- Figure 3-1 Identified constraints within the project Site.
- It appears that the area to be used for the WTG will impact vast areas that are being used by Environmental constraints. The supplied map has icons that are not being shown on the map so a complete review of this map is not possible.
- Koala's have also been seen around WTG 40 – 47 which has not been put on this map and which would need to be changed.
- Other significant animals have been identified within the area of the WTG which have been left out which include Wedge Tail Eagles and Powerful Owls.

- This would be seen as the normal for Eco Logical and Arc Energy to omit information just like the people that have residences in Worlds End.

### 3.2 Physical Layout and Design.

- This has not been finalized so no comment required other than complete the layout and design then do the EIS.
- If the physical layout and design is not finalized before approval then what is to stop Arc Energy, after approval, from increasing requirements. If they cannot get the number of residences correct, how can they get the plans correct?
- It would seem more design is needed than what has occurred to date.

#### 3.2.2.1 Foundations.

- They state that they do not know the geology at each WTG location?
- Surely this needs to be sorted out well before the EIS statement and the application is made.
- It would seem to be that they are after a DA approval and then will do the proper design without hindrance from anyone. Given their past poor performance this must NOT be allowed to occur. Do the work now then submit the DA. Not do the DA then make changes at will without appropriate community input.
- They have not even selected the WTG so if a better one happens to come along then all will change. The height of each WTG may change without anyone having a say if the DA is approved without detailed plans being submitted for approval that cannot be altered.

#### 3.2.2.2 Towers

- Apparently, each WTG has up to five (5) sections. With seventy (70) WTG being constructed that means large vehicles will traverse the area and local roads at least three hundred and fifty (350) times. The effect on the local environment and people will be immense. Is this figure represented in the traffic report?
- Then add on the multiple trips needed for each blade per WTG then the number is well over 560 large vehicle trips.
- This above figure does not take into account the cranes and other vehicles, such as water and soil carting vehicles, that are required as well. In the Executive Summary it is stated that only 153 daily one-way trips will take place. This figure seems highly unlikely and is not a true representation of the number of trips that will occur. It would more than likely exceed 300 trips one way per day.

Other components.

- Other components of the WTG farm including:
  - Towers
  - Nacelle
  - Rotor
  - Blade
  - Generator Transformer
  - Ancillary Infrastructure
  - Substations
  - Operations and Maintenance
  - Transmission Lines
  - Overhead Transmission cables
  - Underground Transmission cables
  - Control cables and earthing
  - Permanent Meteorological masts
  - Telecommunications Facilities
  - Hardstands
  - Internal Roads
  - Utility Services
  - Signage
  - Site offices and compounds
  - Rock crushing and concrete or asphalt batching plants
  - Laydown areas and construction compounds
  - Temporary Meteorological Masts
  - Site Access
- All of the above sections of the EIS report have not been completed and are waiting for the DA approval. How can the EIS cover these headings in neutrality if they are not designed. There are more issues that have NOT been completed than what have been completed in the EIS.

### 3.2.6 Mitigation Measures in Physical Layout.

- They have listed five (5) things that they have done to mitigate physical layout. How can they list these mitigation strategies when the physical layout is currently unknown as the design has not been finalized.

### 3.2.7 Components of the Physical Layout that May Change.

- So, all things can be changed after the DA has been approved.
- They indicate that the number of WTG of 70 may lead to fewer WTG being built. OK but what will stop them from adding WTG after the approval?
- So, the WTG can be moved after the DA approval to further impact residences without the residents being able to challenge the new location.

- They state that the proponent's commitment to avoid environmental and social impacts to the maximum extent possible. So why then have they not represented the correct number of non-hosting properties?
- All components of the development must be covered by this EIS so a correct interpretation of the data can be undertaken. With so many outstanding sections that have not been addressed and finalized no proper review can be included in this EIS or for us to consider.

### 3.3 Uses and Activities.

#### 3.3.1 Land Uses

- Now they are saying the project site is Primary production and Environmental management. This is not what they have said in the Executive Summary and the previous 81 pages. They are saying the majority is primary production.

#### 3.3.2 Proposed Activities within the Project Site.

- In the table 3-4 Proposed activities during project stages, it states in the pre-construction works that there will be minor clearing or translocation of native vegetation. No corresponding tree removal maps can be found, no number of trees to be removed could be found and no number of trees that are going to be translocated and to what area they are going to be transplanted too. One needs to know how many trees are being removed or modified so as a replanting program can be undertaken. At least a 1:4 ratio of tree replacement should be made as part of the DA approval. This is normal ratio for when trees get removed on the development sites. This is normally stipulated in the DA approval. In some cases it has been as high as 1:6 ratio, and that was where 100,s of trees were being removed.
- In the same section a flora and fauna investigation and pre-clearing surveys will be undertaken. This should have already been completed but due to the fact that the majority of the site and construction is still waiting for design, this apparently has not happened. If so, how can this EIS report be submitted?

#### 3.3.3 Transport of Material and People.

- Yarrabin Rd. They state that bends will be widened and upgrading of the waterway crossing. This is misleading as they will have to upgrade the small bridge that crosses over Meroo Creek. This will have serious traffic implications for residences that are required to cross over this creek. This has not been correctly detailed in this EIS report.
- Endacott Rd is part of the Reflections Holiday Parks – Cudgegong so how can all of the traffic be using Endacott Rd without destroying the holiday Park. Also how did they get permission to use the holiday park area, NSW Government handout?

- Apparently, the route of the oversized vehicle has not been signed off but will be done after the DA approval. So how can this EIS report be issued with the traffic component still to be finalized.
- Vegetation along the transport corridor also has to be removed or trimmed. No plans have been submitted to indicate the number and what number of replacement trees are being installed.

### 3.3.3.2 Transport of Employees.

The numbers that they state in this section have been disproved 3.2.2.2 Towers

- Apparently, each WTG has up to five (5) sections. With seventy (70) WTG being constructed that means large vehicles will traverse the area and local roads at least three hundred and fifty (350) times. The effect on the local environment and people will be immense. Is this figure represented in the traffic report?
- Then add on the multiple trips needed for each blade per WTG then the number is well over 560 large vehicle trips.
- This above figure does not take into account the cranes and other vehicles that are required as well. In the Executive Summary only 153 daily one-way trips will take place. This figure seems highly unlikely and is not a true representation of the number of trips that will occur. It would more than likely exceed 300 trips one way per day.
- The 153 vehicle movements I believe is just for staff and does not include vehicle movements for water, cement, aggregate, sand, asphalt, water, components of the WTG plus others.
- The traffic report needs to be updated to include all traffic that will be traversing these roads.
- Yarrabin Rd is a very sub-standard road that is windy and narrow. Lots or the roadway there is only a small area of room between oncoming traffic. With as they say 60% of traffic going to be using this roadway accidents will happen. The road is not made to accommodate that volume of traffic. If the project were to be approved all traffic for the wind farm must be made to use the Wellington route.
- There has been no mention in any section of the EIS as to the transportation of the portable buildings. These require large vehicles to move them into place. This has not been factored into the traffic report.

#### 3.3.4.2 Water

- They state they need water for the project. They need 972.5ML for the project. How many road trips will this take? This information has not been included in the traffic report numbers.

#### 3.3.4.3 Road Base.

- Same as the above water statement, traffic for road base has not been factored into the traffic report.

### 3.4 Timing

- Construction works to commence from 1 – 5 years as the majority of the project still has to be designed. Get the design completed before the application and then if approved there would not be the need to get so many post development approvals.
- As there are so many outstanding components not known, consent should NOT be granted until all of these are sorted out and a new EIS is issued.
- In table 3-6 Anticipated Project timeline they state 30 years of operation but they have also said that the project may go for 60 years. If that is the case then 60 years will need to be the bench mark for the project not 30 years.

#### 3.4.1 Staging.

- In this section they indicate that the WTG may be upgraded. Does this mean to 60 years as in point 3-6 above?

#### 3.4.2 Project Phasing.

- They state as described in this EIS that it is indicative and subject to changes following the detailed design process.
- The EIS should be undertaken when all components of the project have been finalized. How can the EIS be an independent review of the project if sections are still to be finalized?
- They state "Therefore, while the Project proposes to develop 70 WTGs, commercial considerations, and technological advancements at the time of development may lead to fewer WTGs being selected for construction and operation." That also would mean that more WTGs could be added.

#### 3.4.2.1 Micro-Siting Criteria

- They say that no WTG will be moved more than 100m from the GPS coordinates shown in Appendix B.
- Who is saying this? Is this Arc Energy agreeing to this or as I think it may be that Eco Logical is saying this. Moving of any of the WTG or other parts could have a detrimental effect on the neighboring properties. Then the non-hosting residence will not be able to object to the moving of the WTG or other parts. Surely in 2023 the final location can be determined prior to the approval.

#### 3.4.2.2 Pre-construction

##### Minor works.

- Apparently, more surveys will be required but not listed so what's missing? So, they admit they still have not done it all.
- Minor clearing of native vegetation. What do they consider minor clearing? Under 10 trees is minor above would be major. There has been no detailed discussion on the removal of vegetation and the replacement of trees being removed. The DA cannot be awarded until all vegetation management issues have been explored and explained in detail. This includes the site and all access roads that will affect the trees.

##### Ancillary infrastructure

##### Internal roads

- No detailed design of maps of roadways, level changes or other important details have been detailed. The effects of level changes on retained native vegetation have not been included. The number of trees being either removed or modified has NOT been included as well as the number of replacement trees has NOT been identified and the species of trees to be replanted have NOT been identified.
- No landscape plans have been submitted for review.
- No tree removal plan has been submitted for review.
- No tree trimming plan has been submitted for review.

##### Overhead Transmission Lines.

- Easement preparation, including the lopping and / or removal of trees.
- This above statement by Eco Logical demonstrates that they have no knowledge when it comes to trees. 'Lopping' of trees has been illegal

for well over 40 years. Industry standards for the correct ways to prune trees have existed for years. That a company like Eco Logical recommends the 'lopping' of trees is of major concern and needs to be addressed. Also, there is no indication of the number of trees to be removed or trimmed. No mention of replacement trees for the trees that are removed. There is no indication that they have started to acquire local seeds from the native vegetation to help replace the removed trees.

#### Underground Transmission Lines.

- The EIS indicates that no trees or vegetation will have to be removed for the installation of the below ground transmission lines. How will Arc Energy and Eco Logical achieve this?

#### Other Electrical Infrastructure.

- It would appear that this section does require some clearing but is NOT specified to what the clearing is. This needs to be clarified and if trees are being removed then they need to be shown on the plans and replacement trees replanted.

#### Wind Turbine Generators.

- The EIS indicates that no trees or vegetation will have to be removed for the WTG. How will Arc Energy and Eco Logical achieve this?

#### 3.4.2.5 Operations and Maintenance

- In this section there is no apparent recourse for the local community to make complaints in the future if what was approved has not occurred. There must be a system in place for the operation of the Wind Farm for community input for the duration of the project.

#### 5.1 Approach.

- Ark Energy understands the importance and benefits to all parties of effective and comprehensive consultation with local community members and other key stakeholders.
- This is the statement that Ark Energy uses to start this section which is a lie. How could this be the case if they do not return phone calls, emails and have totally left out all of the properties in Worlds End plus other non-hosting rural properties.
- In meetings representatives from Ark Energy had agreed on certain items and then to totally renege on what they have said. Case in point is the panoramic photographs from people's houses in Worlds End. We had to threaten Ark Energy to get this done and now they have not used any of the data from the images at all in this submission.



## 5.2 Engagement Undertaken to Date.

### 5.2.1 Key Stakeholders

- Once again, a total lie from Ark Energy. They say that they have consulted landowners within 5km of proposed WTG. I know for 100% that one of the brothers from a hosting site who has a house 3 km from WTG has never been consulted. This is after us telling Arc Energy multiple times that a lot of property owners had been missed. So, this whole section is false.
- Under Residents and Community Members they have left our Worlds End again.

### 5.2.2.5 Local Public Information Sessions.

- These have been great especially if you are after nice teas and cakes and bucket loads of very professional maps and documents. However, concerns from the people that attended were not acted upon and it appears that these were just undertaken so they could tick the box. They were not really of any benefit to attend.
- Table 5-1 Summary of consultation undertaken to date with landowners and residents. Many residents' landowners missed at least 20 that I know of.
- Figure 5-4 Photograph from public information sessions hosted in Mudgee, November 2021 taken prior to the community fully understanding the impacts that the wind farm would have. The next meeting had over 30 people attend. Once again Arc Energy cherry picking what photos to show. Not a real representation of what happened.

### 5.3.1.4 Other Feedback

- Table 5-5 Other community feedback themes. Roads, Modifications and Traffic Management. Missed bridge works and disruption to local traffic.
- Noise. Multiple requests were made to have noise monitors installed around the project. Only one that I know of was used for the analysis. This was also undertaken by a company that received a very bad report on a previous report for a wind farm.
- Community Benefits. Talked about but absolutely nothing other than talk.

#### 5.4.1 Actions to be Undertaken.

- They state that consultation activities remain ongoing. This year alone we have only been contacted 2 times after multiple emails sent requesting information. Then the contact is always by phone so there is no written response.
- Should the Project be approved, prior to the commencement of construction activities, a program of community awareness initiatives will be implemented. They say this but without further information on this matter it is likely that this will be at the minimum. This must be in place prior to the project being approved.

#### 5.4.2 Ongoing Monitoring and Adaptation of Engagement.

- They say that this is occurring but Arc Energy do not do this.

### 6. Environment Assessment:

- Table 6-2 Environmental risk analysis of adverse environmental issues.
- Landscape and Visual they have the likelihood as likely, but this should be certain which would bring the unmitigated risk to high.
- Adjoining landscape should also have the likelihood as certain which would increase unmitigated risk to extreme.
- Flora species, plant communities and/or habitat should be certain so unmitigated risk to high.
- All of the assessments for Biodiversity are too low and should at least be medium. As they still have not finalized the plans and changes are likely in most areas, this table is not a true representative of the environmental effects of the project.
- Indirect impacts of proposed dust has not been included in the disturbance of the Naturally Occurring Asbestos.
- Traffic and transport – increase in traffic volumes. As previously stated, the traffic has been totally understated so this unmitigated risk of low is way wrong. It should be at least be a high. Same with increased traffic risks and /or reduced safety should be a high.
- Risk from fire from the lithium-ion batteries, given the spate of fires from these batteries recently, should also be high.
- Disturbance and erosion of soils and productive topsoil should be high if not higher given the Naturally Occurring Asbestos.

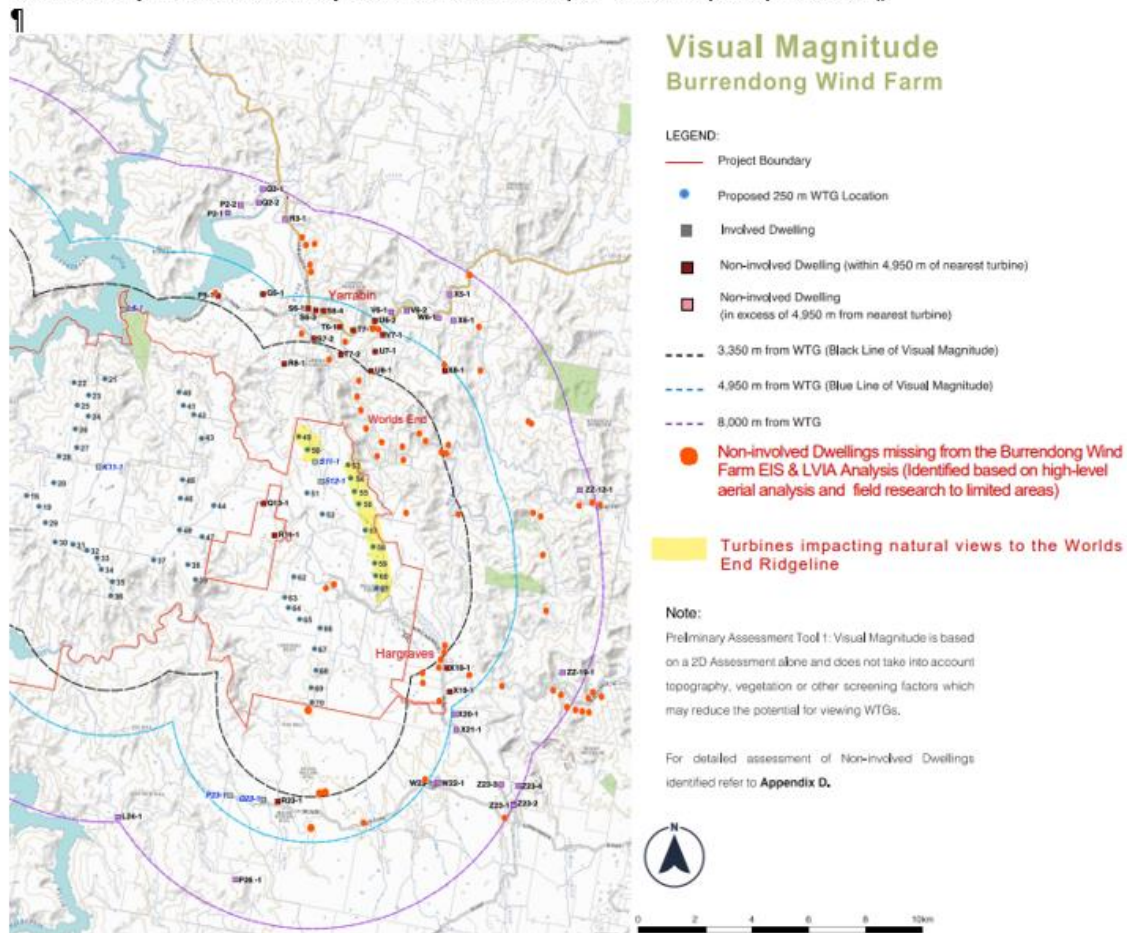
- Waste. No consideration has been given to the waste from trees being removed.
- The whole table needs to be redone once all of the project reports and final location of the WTG are known. The risks cannot be stated without knowing the full project locations and reports. Also, it is not clear who made this risk assessment, was it ARC Energy or Eco Logical? Who made the risk assessment should be clearly stated.

### 6.3 Landscape & Visual

#### Assessment Overview.

- The assessment identified 20 non-associated dwellings within 4,950 m of the nearest WTG. Of these, 4 were identified within 3,350 m (the Black Line) and 16 were identified within 4,000 – 5,900 m (the Blue Line).
- This statement is the first paragraph of this section of Assessment Overview. As this number is way wrong then all of the following data is incorrect and would need to be redone. There are at least 50 plus non-associated dwelling within the 4,950 m of the nearest WTG. On numerous occasions at community meetings and onsite meetings representatives of Arc Energy and Eco Logical were told that they had missed dwellings. Also, in this document all of the non-dwelling residences of Worlds End have been removed. Our houses are within 2000m of the nearest WTG. So, both Arc Energy and Eco Logical appear to be guilty in removing non-dwelling places.

Wind Turbines closest to our clients' respective properties. Non-involved dwelling locations (not exhaustive) are indicated as per the map key below.¶

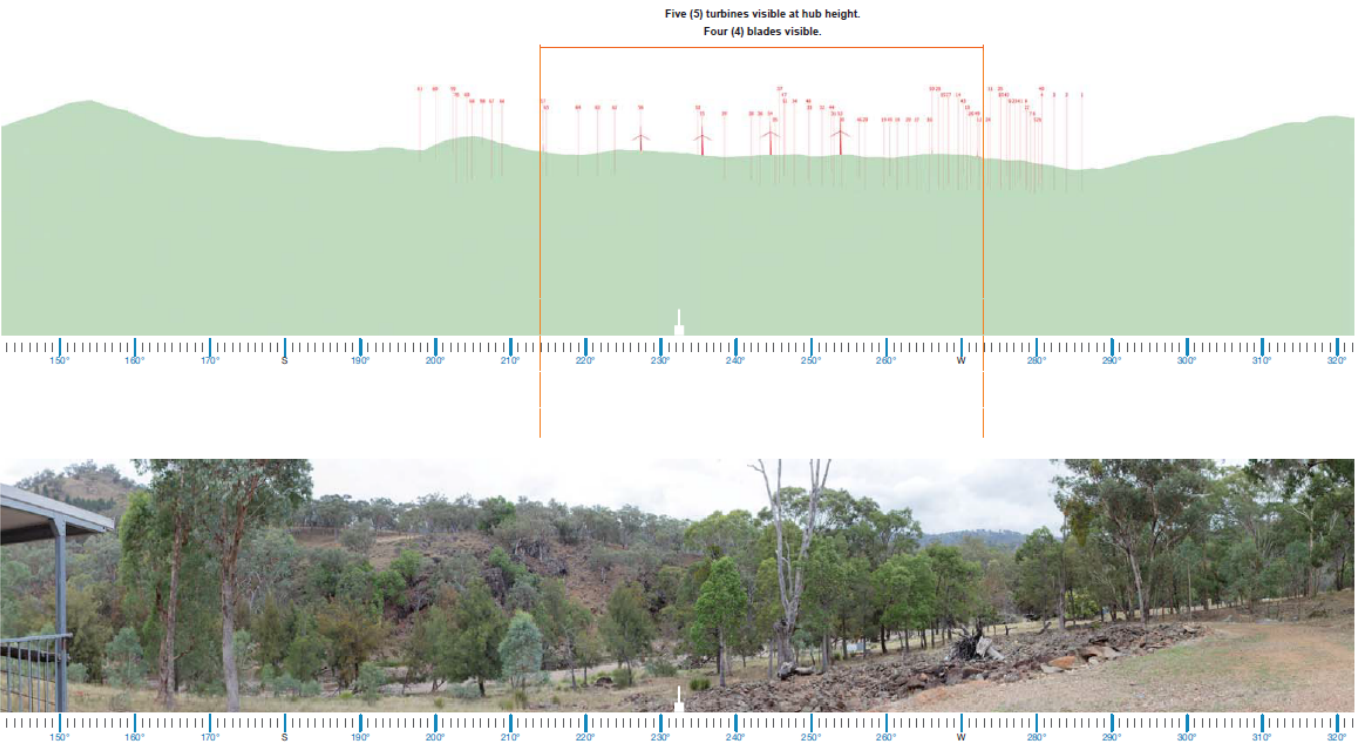


Burrendong Wind Farm Landscape and Visual Impact Assessment (LVIA) P38, Figure 16. Yellow mark up identifying Wind Turbines (Nos. 49, 50 and 53 to 61) impacting the High Scenic Quality natural views to the Worlds End Ridgeline from non-associated dwellings located to the north-east, in proximity of our clients' land holdings.¶

This is our mark up of missing non-residences from Worlds End area.

- The above map that Arc Energy did for the project does show other non-hosting residences so why eliminate non-hosting residences from Worlds End now for the submission?
- Based on the misrepresentation and omission of the non-associated dwellings this application must be refused.
- They say that the visual impact is negligible, very low or low. We have 400ha and of that 390ha have a front-line view of the WTG. We purchased our property to be away from infrastructure and for the vista and now we get wind turbines.
- The two maps below (A.8. MLA-01 Assessment) were supplied to us by Moirs. Why are these maps not included in this EIS? The modeling by Moirs clearly shows significant impact to our property.

A.8. MLA-01 Assessment





- This image was taken in Nov 2020 showing the visual impact of the WTG (Epuron 2020). This map has also not been included in any of the reports.



- This image (H Taylor) shows the view at 250m above ground level from the likely location of a WTG back towards Worlds End properties.



- They state that the project is likely to become a feature within the visual landscape. This is one of the biggest misrepresentations that has been stated to date.



- This uninterrupted view from top of Worlds End Ridge is going to be lost to WTG everywhere (H Taylor).



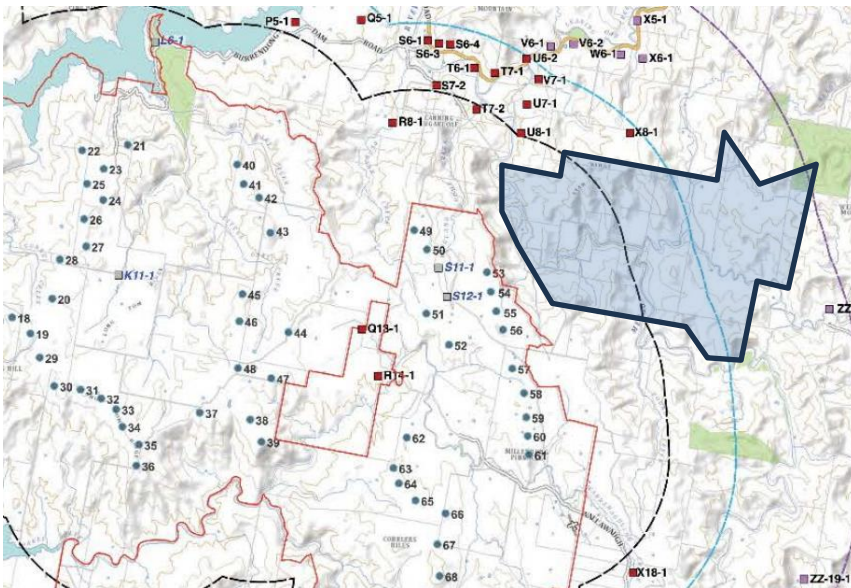
- This image taken from the internet is what our western sky will look like.

- 6.3.1.1 Landscape Character of the Region.
- They list Worlds End Rd and Worlds End as having dwellings but somehow they forget to put Worlds End on the maps which are closest to the WTG.
- 6.3.1.2 Landscape Values. Survey of community was undertaken early on in the project when most people did not know what was happening to the area at large. Yes, the community would support renewable energy but not the volume that is being approved in such a small area of NSW.
- Figures 6-1 & 6-2 are not representative of the survey they do not state how many people responded. If only ten (10) people returned the survey then the data is useless. Full disclosure of the data is required.
- Table 6-4 Overview of LCU's within Study area. Last landscape character Unit is LCU07 Worlds End with the overview saying Worlds End is a small LCU defined by the valley known as Worlds End. The land is

typically characterised by a valley floor with dwellings utilised as weekends.

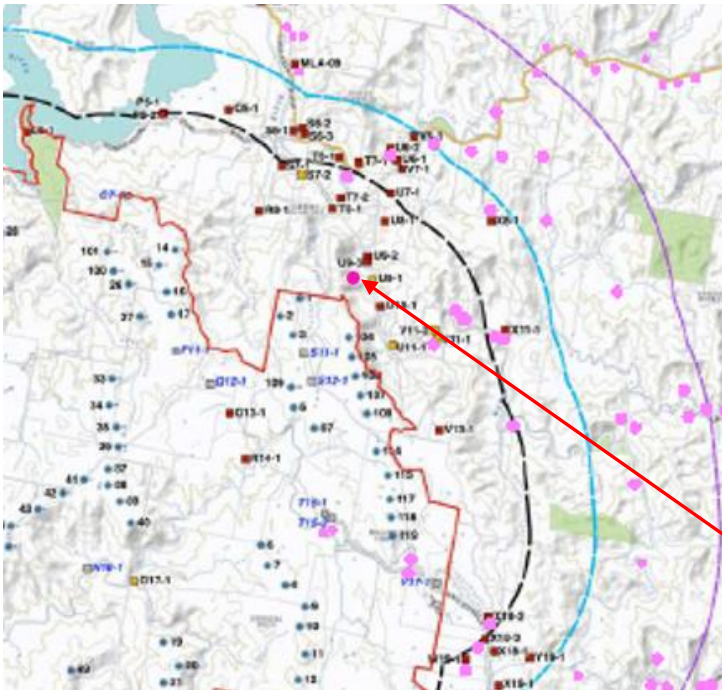
- So Worlds End does exist in this section but somehow misses out in the other sections.
- Figure 6-4 LCU's within the Project Site. Once again the residences in Worlds End have been left of the map.
- 6.3.2.1 Non-Associated Dwellings. Once again, this section is incorrect. Is it Arc Energy that is getting this wrong or is it Eco Logical that is getting it incorrect or both?
- So, this section is incorrect and needs to be updated.
- Suggesting to do screen plantings to hide the WTG is wrong. They were there first so move the WTG as they are way too close to R14-1 and Q13-1 and other sites. This is like saying plant trees to hide airplanes from Mascot airport. Who is going to pay for the screen plants and then plant them and maintain them? Arc Energy?
- Table 6-5 Summary of ZVI assessment for each non-associated dwelling. How can the project state that screen plantings will hide the WTG. It is not their place to make this statement. For example, the property owners may not want vegetation on that side of their house or it may be a fire threat so they need cleared areas on that side of their residence. The fact is that the WTG are way too close to the residences and these WTG need to be removed.
- Also, again in this table somehow seven (7) residences have appeared by magic in Worlds End. R8-1 T7-2 U8-1 S7-2 and U7-1 but alas our property U9-3 is missed. This section is wrong and needs to be completed correctly with all of the properties listed. Also the correct listing of properties needs to be included in the maps.
- So, with these identified seven (7) residences in Worlds End then all of the data that states how many non-associated dwellings is incorrect as they did not list any residences in Worlds End. This table is indicating that the other data is wrong.
- Figure 6-5 Non-associated dwellings located within the Black and Blue Lines of Visual Magnitude. This map proves that they have no idea on what they are taking about as the seven identified residences in Worlds End are not in Worlds End but are in Yarrabin.
- So, now we are back to the fact that NO residences in Worlds End are recorded as being there.





Section of Figure 6-5. Highlighted area is the rough area of Worlds End

- R8-1 T7-2 U8-1 S7-2 and U7-1 but our property U9-3 is not on the map. This incorrect exclusion needs to be corrected.



Previous map of WTG by Epuron showing our property as U9-3. Pink dots are missing residences.

#### 6.3.2.2 Visual Amenity of the Existing Landscape, Key Public Viewpoints and LCUs

- Figure 6-6 Zone of Visual Influence Blade height map is incorrect as it has missed many non-residential properties especially Worlds End which is closest to the WTG No 49- 61. So, there can be no reliance on this map.

- Figure 6-7 Zone of Visual Influence Hub Height map is incorrect as it has missed many non-residential properties especially Worlds End which is closest to the WTG No 49- 61. So, there can be no reliance on this map.
- No Public Viewpoint Analysis was undertaken from Worlds End or from Hargraves.

#### 6.3.2.3 Landscape Character Units.

- They state "It is likely the character of areas which are valued for their high landscape quality and utilised for recreation and tourism will remain intact. Regionally, significant landscape features identified would remain dominant features of the landscape and it is unlikely the Project would degrade the scenic value of these landscape features."
- So, the area does have high landscape quality and utilised for recreation and tourism but now not agricultural purposes? After viewing many Wind farms around NSW, VIC, SA, the Wind Farms are an eye sore and detract from the local area which will drive tourism away from the area.
- Table 6-7 Overview of the visual impacts for each LCU. Worlds End makes an appearance again. Now they have been able to identify the correct location of Worlds End. How is it they can do it in this section but cannot find the correct location of Worlds End in other sections. Our property can see at least 50 or the WTG from different locations on the property and these are within 4ks of the property. This fact needs to be addressed in the EIS.

#### 6.3.2.4 Shadow Flicker.

- As they have not accessed properties in Worlds End this section needs to be reviewed to include all properties. As based on the 6-9 figure Worlds End residences will receive about 10-30 hours of shadow flicker.

#### 6.3.2.6 Ancillary Infrastructure

- Transmission lines. Between 50 – 60 m clearance under the power lines will be needed. This means that the vegetation in that area will be removed. There has been no detailed tree removal plan showing what species of trees and number of trees are required to be removed. The removal of vegetation in straight lines is visually very poor. In a native area these cleared areas will stand out. The full visual affect cannot be commented on in the EIS as the route has not been determined.
- Meteorological Masts. Given a low rating for visual impact. As these are at least 150m tall they will require a light at the top. This light will have a visual impact at night.

#### 6.3.2.7 Night Lightning

- This they say will alter the night time landscape. Given the beauty of the areas at night this is a major issue for residences.

#### Light Associated with ancillary infrastructure.

- As the final location of all of the infrastructure has not been finalized how can they say that the lighting will not be a problem. This needs to be addressed once the final locations are known.

#### 6.3.3 Mitigation Measures

- To mitigate the negative landscape and visual impacts from this project install solar farm as opposed to this wind farm.
- At this stage they should not be still talking about design of the components of the WTG. All of these issues should have been designed and then included into the EIS. If approved when the design is not finalized, then changes could be made that could have an adverse effect on residences.

#### 6.4 Noise and Vibration

- The noise report apparently was undertaken by a company that does not have a good record with writing reports (refer to court records). Apparently, some reports have been found to be incorrect. Given that, I give this current section of the EIS little weight for inclusion into this EIS.
- There is no map showing the location of where the noise testing was undertaken from. This needs to be updated so a complete review of this section can be undertaken.
- Traffic noise has been ignored in the report. With the large amount of traffic that the project will produce, especially the larger vehicles, this omission must be addressed.
- Figure 6-10 shows that no consideration was given to the residences in Worlds End. However, it appears that the majority of Worlds End will have predicted noise levels of up to 30dB. So, from a very quiet location we now get the noise of the wind farm. With NO COMPENSATION.

## 6.5 Biodiversity.



Local resident koala found within close proximity to the development site (H. Taylor 2022)

### 6.5.1.4 Threatened Ecological Communities.

- Seven (7) PCT's with threatened ecological communities are within the footprint of the proposal. That is out of the twelve (12) that were find. So over half of the site is within a threatened ecological community.

### 6.5.1.5 Threatened Species.

- They have produced a list of fauna and flora that they considered for further assessment but I believe they left some out including:
  - *Aquila audax* (Wedge tail eagle which are nesting within the project site.)
  - *Ninox strenua* (Powerful Owl) Also known to be onsite.



Powerful Owl within close proximity to the development site (H. Taylor 2023).

- They state that due to the large area under investigation targeted flora surveys of 5m was not undertaken. Does not matter the size of a project one must complete all components.
- Apparently not all of the required surveying has been completed. It is essential that all the required surveying be completed before submitting the EIS. This incompleteness must be addressed.
- It appears from Figure 6-33 that sections still need to be completed.

#### 6.5.1.7 Ecosystem Credit Species.

- *Aquila audax* left off the list.

#### 6.5.2 Potential Impacts.

- We agree with their finding that the construction and operation of the project will directly impact biodiversity of the site and cannot be avoided.
- Yes, it can be avoided. Do NOT do the development as a wind farm but as a solar farm.

##### 6.5.2.1 Removal of Native Vegetation.

- Permanent vegetation removal is required for the construction of all infrastructure and some access tracks.
- No plan has been given to show the areas of vegetation to be removed. No count has been undertaken on trees to be removed or pruned. No plan has been undertaken on the trees along the public road that will need to be removed or pruned. Or as Eco Logical state "lopped". No landscape plan has been provided for review. No replanting schedule has been provided for review.
- So direct impacts to native vegetation across the site is 855 ha.
- Estimate the average number of trees per hectare across Australian forests and woodlands (156 trees/hectare, including both large and small trees). WWF Australia. This project has the potential on these figures to remove some 133,380 trees both large and small.
- Given the possible large number of trees that will be required to be removed, and this does not include the external roads, further mapping is required prior to the EIS being issued.
- As the removal of these trees are within threatened ecological communities, such as koalas which are becoming extinct in NSW by as early as 2050, this development as a wind farm should be denied.

#### 6.5.2.2 Removal of Threatened Species Habitat.

- With the exact location of the WTG still not known how can this be adequately assessed? For example, with the large number of trees that are required to be removed this has not been adequately assessed.
- They state that most of the hollows are small. This still means that there are large hollows that will be lost. Hollows in trees take many years to form and if the small hollows are removed then there will be generations where there will be no hollows.
- Table 6-39 states that *Ninox strenua* (Powerful Owl) has only 2.08ha that it would be seen in. I have seen these owls in the middle of the project site and back to our property which would be over many 100's of ha.

#### 6.5.2.3 Indirect Impacts.

- Inadvertent impacts on adjacent habitat or vegetation. They say this will occur nightly during operation of development. What is happening nightly? Specific details of nightly operation have NOT been supplied. These details must be included so that comments can be made.
- Vehicle strike. This is a great likelihood of this happening due to the increase in traffic on sub-standard roads especially Yarrabin Rd.
- With the construction they have identified that there will be an increase in predatory species, increase in pest animals and increase in fire risk. They do not state on how this is to be controlled. So, more predatory species and pests (e.g. pigs, foxes, rabbits, deer, wild dogs and vegetation such as serrated tussock). As well as the high risk to us from fires generated due to the development. So, if fires come from the development site and damage our properties will Arc Energy pay compensation?
- The other indirect impact that has not been listed is the impact on the Wedge Tail Eagles and Powerful Owls that are within the development site.

#### At risk bat species.

- They state correctly that bats will be impacted by the WTG.
- Also, with the loss of vegetation this will have an effect on the bats as well.

#### At risk bird species.

- Australian Magpie, Australian Raven, White-bellied Sea Eagle, Little Eagle, and Wedge-tailed Eagle. These species of birds have been identified as being at risk of being killed by the blades of the WTG. They

missed the Powerful Owl which is known to be within the middle area of the development.

- The on-site surveying period for this data was limited to only summer months. No data was undertaken from March through to October. Thus, the bat and bird data is incomplete and needs to be updated. No reliance can be made on the data supplied in this EIS due to missing seven (7) months of data.
- Currently there is six (6) Wedge-tailed Eagle flying over Worlds End Ridge line which places these eagles at great risk if the development is to go ahead.
- In the model in table 6-41 they have statistics that give concern regarding the rate of kills for birds and bats. Given this data then there will be a decrease in birds and bats in the area and within 10 years according to their stats all of the birds and bats will be gone. Wedge Tail Eagles are predicted to have 10.97% risk per year of collision so in 10 years no Wedge Tail Eagles. Thus, taking out a high-level predator will have a detrimental effect to other animals with an increase in pests.

#### 6.5.2.5 Serious and Irreversible Impacts.

- They have listed White Box - Yellow Box - Blakely's Red Gum Grassy Woodland as being seriously and irreversibly damaged by the development. So, some 77 ha or 90 ha of this species of woodland will be destroyed. Never to be returned.
- Based only on this significant irreversible damage to the site then the project must be rejected.

#### 6.5.2.6 Matters of National Environmental Significance.

- Whilst assessments concluded that no significant impacts are likely to occur. This is the lead in sentence for this section. This is just after they state that there will be irreversible damage to the TEC being White Box - Yellow Box - Blakely's Red Gum Grassy Woodland. So, this section is incorrect and misleading and needs to be redressed.
- Two (2) threatened species are listed *Haliaeetus leucogaster* (White-bellied Sea Eagle) and *Hirundapus caudacutus* (White-throated Needletail). They say that impacts are unlikely but do NOT state how they are NOT going to occur. This statement in the EIS is misleading.
- There are also fourteen (14) other threatened bird species that could be impacted by the WTG.
- The project must not be approved for development.



### 6.5.3 Mitigation Measures.

- Biodiversity offset credits should NOT be allowed for this project. The damage is being done to this site so moving credits to other sites is wrong.
- They state that the biodiversity credits will be calculated after the DA approval and after the final development footprint is known. Do the work now, set all footprints and work out the damage then submit the DA and EIS.
- To date they still do not know how many trees are going to be removed on the development site and the access roads. They do not know how many trees with hollows are going to be removed. So how can they calculate biodiversity impacts?
- Table 6-44 Mitigation Measures for Biodiversity Impacts.
- This just reads like a cut and paste from other reports. No specific details for this site have been provided.
- In the section Native Vegetation again a cut and paste from another report where trees are being removed without input from a Consulting Arborist. A trained ecological person is NOT an expert on trees. Pre clearing surveys on vegetation must be done at the DA stage not after the approval. Once again, no Arboricultural impacts or maps or data on trees to be removed has been provided.
- Native Fauna section is again a cut and paste from another report.
- In this section they now are stating that the WTG installation can occur at any time 24/7. This also includes concrete pours and in ground electrical work. So, are we going to have noise and lights 24/7. More specific detail must be provided.
- In all sections of this EIS for Biodiversity there has been NO assessment undertaken for any Fauna or Flora or any assessment for Threatened species. There has also been no assessment for Aboriginal or heritage within the private land that will be used to widen the roadway for the WTG. This should have been completed prior to the EIS being submitted.
- There has been no mention of the effect that the increase in traffic on all roads will have on the animals that are within the road way corridors. This has been left out of the EIS report and all other sub contracted expert reports. Incidental road kills of animals needs to be addressed in the EIS.
- The listed endangered ecological communities - White Box - Yellow Box - Blakely's Red Gum Grassy Woodland and Box Gum Woodland is a continuation of woodlands across our property surrounding our dwelling



and then links to the Avisford Nature Reserve. This will be removed if the project is approved.

- There has been no mention of any conservation agreements under the Biodiversity Conservation Act 2016 that are within close proximity to the project site. Our property which is within 2k of the project has a conservation agreement covering 90% of our property.

#### NSW Biodiversity Conservation Trust

#### Site Values Report

## Natural assets

Key features of the Conservation Area identified include:

- Habitat for Koala
  - Habitat for numerous threatened woodland bird species, including the Glossy Black-cockatoo and the Speckled Warbler
  - Proximity to the Meroo River, an important drought refuge for wildlife, which flows into Burrendong Dam
  - Contiguity with large tracts of forest which form a broad corridor to Avisford Nature Reserve to the east
  - Outstanding views across the rugged tableland landscape.
- Our natural assets of our property at 430 Worlds End Rd Worlds End as determined by NSW Biodiversity Conservation Trust. Refer CA0197 430 Worlds End Rd Conservation Agreement under the Biodiversity Conservation Act 2016 (NSW).
  - If the project goes ahead then the second last bullet point (listed above) *"Contiguity with large tracts of forest which form a broad corridor to Avisford Nature Reserve to the east"* will no longer be the case.
  - If the project goes ahead the last bullet point *"Outstanding views across the rugged tableland landscape"* will now read very poor views across to a wind farm landscape.
  - The detriment to this conservation area on our property needs to be adequately addressed in the EIS.

### 6.6 Traffic and Transport.

- In the assessment over view of traffic and transport they again state 153 one-way vehicle trips per day. Previously to this section this has been shown to be severely under stated for many reasons.
- They state that the project will generate an average of 153 one-way vehicle trips per day. If the project will have employment of 375 full time plus 250 full time employees that would mean that each trip one-

way will have a 4.08 person in each vehicle. That is not realistic. Also, the numbers of employees in the EIS differs from these figures. It would appear that they do not know how many people they will employ. The traffic data supplied is clearly under represented and misleading.

- The vehicle trips appear to also include all sub-contractors, trucks delivery vehicles etc. So perhaps each vehicle will have 6 to 10 people per trip.
- In addition, further in the documents some 3000kgs of material per day is required for the concrete to be delivered. This appears not to have been in the calculations. Perhaps they will be flying in the material?
- Nowhere in the Traffic section does it take into account the roads that these traffic increases will be having an effect on in regards to the local traffic and the condition of the roads. Yarrabin Rd and Burrondong roads are not suitable for large vehicles or the volume of expected traffic.
- The traffic modelling has left out the increase in vehicles that will be required for the build of the hydro-electric plant plans for Burrondong Dam.
- 16.5 km section of Yarrabin Rd running east west towards Mudgee will be used by light and heavy vehicles. This road is not in a position to carry the expected extra traffic from this project and the Burrondong hydro expansion project. The extra traffic on this narrow road will results in congestion for local traffic and most likely result in a major accident. Also, the increase in traffic will have a devastating effect on animals that are often found within the road corridor.
- Twelve Mile road goes through private property that has not been identified in the traffic report or in the Biodiversity reports. This omission needs to be included in the EIS.
- No assessment has been made of the removal of trees along the roadways or removal of trees within private properties or the pruning of trees on private and public property.
- Figure 6-21 has the access to the site though the caravan park. How was this organized seems to not pass the pub test.
- The site access point (one only) is via Burrondong Dam Road so all the traffic will be coming via Yarrabin Rd. This will mean that Burrondong Rd at certain times access to the driveway to Worlds End could be blocked.
- The bridge over the Meroo Rd has not been built to be able to handle this volume or weight of vehicles that will travers over this bridge. So how will traffic get over the Meroo Creek? Also, the Meroo Creek often floods and this has not been taken into account. When the Meroo floods, if the project goes ahead, it will mean people will be stranded on either

side of the bridge until the water recedes. What's to happen to these people caught on the project side? This situation needs to be addressed in the EIS.

- Table 6-46 Anticipated 2023 Daily Traffic Volumes and Peak hour volumes I presume that these figures are now and not when the project occurs, if it occurs.

#### 6.6.1.3 Accident History.

- Speaking only of parts of Burrendong Dam Rd and Yarrabin Rd the data is incorrect. They are only the reported accidents and does not include collisions with animals and accidents that do not get reported. Last year a car ran off the Yarrabin Rd and was recovered locally and was not reported. So, at best these figures are only for the reported accidents. Also, does not include the two (2) cars that have driven off Meroo Creek bridge.
- OSOM Vehicles. They say that there will be 4 OSOM vehicles on six (6) nights. So based on this statement they are going to be working outside of the scheduled work times. This has not been discussed in other parts of the EIS. Night time work will mean vehicles on the road at night. Accidents between vehicles and animals is more likely to occur at night. This has also not been discussed or planned on how to minimize this in the EIS.
- Currently the bridge over the Meroo Creek will not be able to withstand OSOM vehicles. There has been no discussion in any of the sections on how the type and volume of vehicles required for this project will safely travel over this bridge. This must be addressed. Maybe once they get to the bridge a helicopter will be used to get them over the bridge.
- Based on the data given here there will be at least 168 OSOM vehicles required to deliver the components for the WTG. It would appear that these trips have not been factored into the data of 153 daily one-way trips.

#### 6.6.1.5 Crown Land Roads.

- Crown Roads may be affected by the current Aboriginal land claim that is occurring in this area and this has not been mentioned. This will need to be addressed prior to the approval of the DA.
- At this stage I would think that the project does not have access rights into the development site via the crown lease at the Caravan Park.
- Also, it appears that the crossing of the Meroo Creek is on a Crown license which will be subject to the current Aboriginal land claim.
- Also, the crown land on Yarrabin Rd will be within the current Aboriginal land claim.

- Goolma Rd Twelve Mile Rd requires trees to be removed. No assessment of the trees to be removed, the location of these trees or if trees are required to be pruned has been provided. Does not indicate that the removed trees will be replaced. Will the trees be replaced? Also does not indicate if any of the trees are on private land. If any trees are on private land then they will need permission to either prune or remove. Has this permission been sought?
- Twelve Mile Rd. It states that large amounts of vegetation removal will be required. This was not covered in the biodiversity impacts. Why not? Where is the assessment? The trees that require removal could be in a critically endangered vegetation area. Twelve Mile Rd tree removals needs to be addressed in the biodiversity study.
- Yarrabin Rd. It states that large amounts of vegetation removal are required. This was not covered in the biodiversity impacts. Why not? The trees that require removal could be in a critically endangered vegetation area. Yarrabin Rd tree removals needs to be addressed in the biodiversity study.
- Burrendong Dam Rd. It states that large amounts of vegetation removal are required. This was not covered in the biodiversity impacts. Why not? The trees that require removal could be in a critically endangered vegetation area. Yarrabin Rd tree removals needs to be addressed in the biodiversity study.
- Part of the beautiful landscape in this area are the road trees. After seeing the number of trees removed for the Crudine Ridge wind farm and the poor pruning of trees these roads will be bare of all trees. The roadway corridor is an important part of the ecosystem which has been ignored in this EIS.

#### 6.6.2.2 Construction Impacts.

- The listed one-way trips are misleading as workers will need to return home at the end of their working day. Instead of saying 153 one-way vehicle trips per day it would be more representative to say 306 trips per day extra on the roadways.
- Now in the second paragraph in this section for the first time the number of trips has increased to 182 vehicles. This number is NOT consistent with other sections of this EIS report. Surely an EIS needs to be accurate and consistent in all of the sections.
- Table 6.50 Average modal split of traffic generation. This table contradicts parts of the traffic report. At the start of the traffic report, they state that 4 – 6 OSOM vehicles per day 6 days a week. Now they are saying in this table only 4 trips per day. If it is going to be 6 then re do the table to accurately show what is happening.

- They state that the project will generate an average of 153 one-way vehicle trips per day. If the project will have employment of 375 full time plus 250 full time employees that would mean that each trip one-way will have a 4.08 people in each vehicle. That is not realistic. Also, the numbers of employees in the EIS differs from these figures. It would appear that they do not know how many people they will employ. Also, the traffic data is very under reported.
- The figures used in the traffic report page 233 of the EIS is incorrect. They have not taken into account in the traffic count any regards to traffic that is required to deliver water and other materials.
- They state that 60% of the traffic will come via Mudgee on a roadway that was not designed to cover that volume of traffic. It is used for local traffic only.
- Table 6-51 Average modal split of traffic generation. Now in this table they are saying that there will be 364 total trips per day which means that there will be 182 trips one-way. So, this table contradicts the number previously stated of 153 one-way trips. This needs to be clarified. If they cannot work out the one-way trip numbers, then there is no confidence that any of the other parts of the traffic issue are correct and have been accurately represented. Also, this table does not include the OSOM vehicles which will add to the numbers.
- They list the threshold of two-way rural road capacities for Yarrabin Rd as level A. Which is: The top level is a condition of free flow in which individual drivers are virtually unaffected by the presence of others in the traffic stream.
- They the traffic experts would appear to not have driven this Yarrabin Rd either in the day time or at night. I would have this road as level of Service C: This service level is also in the zone of stable flow, but most drivers are restricted to some extent in their freedom to select their desired speed and to maneuver within the traffic stream. The general level of comfort and convenience declines noticeably at this level. This is especially so at night time were the average speed in under 50ks due to animals.
- With the increase by plus 80% to Yarrabin Rd this level would drop further to a level of D. This level is close to the limit of stable flow but is approaching unstable flow. All drivers are severely restricted in their freedom to select their desired speed and to maneuver within the traffic stream. The general level of comfort and convenience is poor.
- On page 236 of the EIS statement under OSOM Vehicles which have been left out of the traffic data they state that only 4 OSOM will occur at night. This is different to what the traffic report said earlier in this EIS. They need to get the facts correct and consistent in each section of this report.

- Also, in this section we now find out that it will not only be a OSOM vehicle coming but will also include several escort vehicles. These escort vehicles have not been factored into the traffic data. For each delivery of WTG there will be an extra eight (8) vehicles per night one-way that have not been accounted for in any of the traffic data.
- No consideration has been discussed with the traffic increase from the Burrondong hydro expansion project. So, all of the traffic data will be incorrect given the increase in traffic due to the Burrondong hydro expansion project.

#### 6.6.2.4 Decommissioning Impacts.

- Now the traffic report has the project for 25-30 years not 30 years or the previously stated 60 years. This must be consistent in all sections of the report.
- The decommissioning will also impact roadside trees so more trees will be required to be removed so the site can be removed. This has not been considered anywhere.
- Traffic Management Plan must be completed before the approval stage. This must include the expected traffic increase from the combined Wind farm and the Burrondong hydro expansion project.
- In the Environmental Impacts there is no discussion or mitigation measures for animal impacts and what to do if this occurs. This needs to be addressed in this section as well as the Biodiversity Impacts section.
- Also, in the Traffic Environmental Impacts and the mitigation measures there is no mention of the vegetation that will be required to be removed or pruned. This needs to be considered and the table updated.
- Stakeholder Management Plan, inclusive of a Communications Plan needs to be completed prior to the approval of this project and should be in this EIS.
- Internal and External Traffic Management has missed animal impacts and tree impacts and what to do if this happens. This needs to be updated.
- Given that Yarrabin Rd is not suitable for the expected traffic volume it is our suggestion that all traffic for the project must come from Twelve Mile Rd to Burrondong Dam Rd. This has to be enforced or otherwise there will be a serious accident on Yarrabin Rd.

#### 6.7 Hazard and Risks.

- Apparently twelve (12) WTGs will impact PANS-OPS for Mudgee aerodrome. They state that approach heights to Mudgee aerodrome be raised from 3,900ft to 4500ft to ensure safety. What about removing

the twelve (12) WTG's then there will be no issue for safety height clearance for airplanes.

- At this stage we are not sure which twelve (12) WTG are affected by this. Will it be WTG No 49 – 61? This information must be provided.
- The subject of public health is of major concern for people in the area. Only one small paragraph discusses this issue and is very dismissive of the public health issues. This needs to be addressed with proper scientific papers explaining all facets of public health around Wind Farms.
- Shadow flicker only identified two (2) dwellings that are expected to experience shadow flicker. When so many dwellings have been missed how could this be the case? This needs to be redone will all of the missing dwellings included.
- Bushfires are major issue within the Australian Landscape. As they are such a threat to people especially out in the bush one small paragraph which dismisses the possibility is inadequate for this project. Does not even talk about asset fire setbacks. This section needs to be redone and list all fires asset zone setbacks especially towards our dwellings. Would also need to discuss how staff are going to get out if there is a fire. As there appears only one (1) road in and out then they could be cut off from an emergency exit. This could prove fatal. They do not discuss the possible situation if a fire does start onsite what they will do and how they will respond to the neighboring properties if there is a fire. Will they have fire fighting capabilities with the staff on site? Will there be a fire unit on site? The Yarrabin Rural Fire Service only has a hand full of men to work on fires with very a small amount of equipment. They will not be able to cope with a fire of magnitude at the Wind Farm. All of these issues have not been addressed in the EIS.
- As the project will be surrounded by native vegetation this also will increase the fire risk to the Wind Farm.

#### Aircraft Protection.

- Worlds End valley is used by the military for low flying practice. This has not been recorded within the EIS. They need to speak to the Airforce to find out if the valley of Worlds End will continue to be used for low flying practice.

#### 6.7.1.2 Telecommunications.

- They list eight (8) services but only listed GPS. This is the American system what about all of the others that make up the GNSS system?

## Wireless and Satellite Services.

- They state that no WTG is located close to 800m of a dwelling. This is wrong as they have left many dwellings off the maps and it is known that at least two (2) dwellings are very close.

### 6.7.1.5 Bushfire and Electrical Fire.

- This was covered in an early section under hazard and risk and they stated that "Conversely, a major fire spreading from the Project Site in the direction of Mudgee based on a west to southwesterly wind direction and associated weather is technically possible, but also unlikely.
- Now they are saying that there has been in the past 15 years some 17 bushfires within 15km of the project. So, is that **UNLIKELY?**

## Airspace Protection.

- In this section it states that the wind will be disturbed by the WTG for up to 2.88km from the WTG. That would mean that the air space over many of the dwellings will be disturbed. As Arc Energy and Eco Logical have missed up to 60 dwellings this could have major consequences on the climate at our dwellings. This is going to have serious consequences for us.
- The disturbed air space needs to be addressed in the Environmental Effects section. It has not even been mentioned.
- This disturbed air space will have serious effects on the Wedge Tail Eagles and the Powerful Owls that will fly very close or through the WTG.
- This is a serious miss in this EIS report.

### 6.7.2.5 Bushfire and Electrical Fire

- Now they have included fuel management practices (APZ) around project infrastructures. There is no document on developing APZ, no maps, no guidance and no likely impacts on the land that these APZ will need to utilise. This would mean more trees to be removed in addition to the already removed trees.
- As there will only be one road in and the same road out if a fire was to occur across the roadway, people would be trapped and the firefighters will be unable to get access to the WTG's. This is a serious WHS issue for the employees and contractors.

### 6.7.3 Mitigation Measures.

- Table 6-60 states that they will let the Royal Australian Air Force know the final location of the WTG and WTG heights. As the RAAF uses Worlds



End valley for low flying practice, I would have thought a conversation with the RAAF had already taken place.

- So now it appears in this section that we are going to be looking at multiple-colored towers. White and orange. Just great for our views across the ridgelines. This is in contrast to them saying that “the visual impact is negligible, very low or low”.
- For the past 3 years we have been told by Arc Energy there will be no lights on the WTG. Now I read that 2000 candela medium intensity obstacle lights will be used. That means now that our western night sky has gone.



Photo taken towards the west where the WTG will destroy this night show of stars (H. Taylor 2019).

- In the same table 6-60 they state they need to develop a Bush Fire Emergency Management and Operations Plan. Surely this needs to be addressed prior the approval of the development.
- They are after a 10m expansion of cleared land around each WTG tower, wind monitoring mast, construction compound, switch yard, substation, and O&M Facility. This will further remove trees and increase the amount of removed vegetation that has not been considered in the biodiversity study. This omission will need to be corrected in many sections of this EIS.
- One of the current ways that bush fires have started eg. Mt Kaputar and the Pilliga Forest fires was from cars randomly releasing *diesel*/particulate filter (DPF) burn. These fires started out small but then

became a major wild fire that burnt out 1000ha in a very short period of time. This needs to be addressed for this project given the high number of diesel vehicles likely to be there daily.

## 6.8 Aboriginal Heritage

- Six aboriginal sites have been found within the footprint of the project and assessed as moderate to high overall significance.
- The sites identified where aboriginal artifacts were found are: BWF AS10, BWF AS11, BWF IF2-RG, BWF IF5, BWF AS14, BWF AS17 and BWF AS38 – but there are no maps to indicate where these are, so it is not known what structures are affected by these important sites.
- Wellington Valley Wiradjuri Aboriginal Corporation has listed some nine (9) major concerns about how the aboriginal heritage was undertaken and to date these have not been resolved. They state that the areas around: BWF AS10, BWF AS11, BWF IF2-RG, BWF IF5, BWF AS14, BWF AS17 and BWF AS38 – Avoid and Redesign project around these Significant Cultural Sites.
- Murong Gialinga Aboriginal and Torres Strait Island Corporation also support the removal of all infrastructures around the above important sites.
- Wellington Valley Wiradjuri Aboriginal Corporation (WVWAC) also raised the following:
  - “Not all internal access tracks to be used or impacted for the project were surveyed by pedestrian assessment, most were driven over and only stopped at areas where turbines were planned, this regardless of existing tracks or not should be surveyed by walking to identify any remaining cultural sites within Burrendong Wind Farm – Environmental Impact Statement | Ark Energy © ECO LOGICAL AUSTRALIA PTY LTD 288 Aboriginal Organisation Draft ACHA Response be impacted. It is also noted that the few Tracks that were surveyed on foot by RAP’s, in most cases Cultural Heritage Sites were identified
    - This project area has significant “Song lines” through it and aesthetically and spiritually the impact that this project will cause is High.
    - There are two burial locations known to WVWAC Elders and Members close to this project location, both at this stage are outside of any project related impacts, however if this were to change, in depth negotiations with WVWAC Elders and Members will be required.
      - Table 14 pp. 57-60 Relating to the column Significance: Most sites were given the Significance classification as Low, culturally WVWAC, Elders and our members do not agree

with this as Culturally ALL of our ancestral sites are Highly Significant, and the more sites destroyed through development mean the greater the significance to our people for the sites that do remain.

- Mitigation Measures – for six (6) sites: BWF AS10, AS11, AS14, AS38, AS86, AS88 and IF5 – Avoid and Redesign project around these Significant Cultural Sites.
  - If sites identified above are impacted WVVAC and other Traditional Owners groups must be negotiated with to achieve a mutually agreed outcome and management plan
  - As for the remaining sites: These are listed as having “Unmitigated impacts” and as cultural sites must be salvaged by surface collection and where appropriate sub-surface, where deposits exist.
  - Non-salvage of impacted sites is unacceptable. All Cultural Material collected through surface collection or sub-surface investigations is to be returned to site and buried in areas close to where the materials originated from the project area. This is to ensure no singular RAP group obtains this material and also ensures that the material is retained within the project area. Due to the size and scope of the project, this will require potentially up to ten or more locations and must be in areas where this or any other future development or property owner activity will not disturb the re-burial location.
- Of the 102 Aboriginal objects found within the development footprint, six (6) of these were classified as having moderate to high overall significance according to Eco Logical. In the above dot points it would seem that the local WVVAC Elders and Members object to the findings. Based on the above, any conflict between relevant Aboriginal stakeholders and the project must be addressed and significant changes, where needed, must be made to eliminate any conflict. This will mean that many components of the Wind Farm will likely be eliminated or moved.

#### 6.8.2.5 Scientific Significance.

- It would appear that Eco Logical wrote this Aboriginal Heritage report. The local WVVAC Elders and Members have questioned the significance that Eco Logical has given to Aboriginal sites. The WVVAC Elders state “Culturally ALL of our ancestral sites are Highly Significant, and the more sites destroyed through development mean the greater the significance to our people for the sites that do remain.”
- So, this section 6.8.2.5 would be incorrect and needs to be updated. Which will mean many components of the Wind Farm will be eliminated

or moved. It appears that 28 sites are on access tracks and 5 have direct effect on WTG's.

- It appears that all of the Aboriginal investigations have only been ground level. There has been no subsurface examination. Eco Logical in the report has identified culturally significant complex sites but still not explored them.
- In the report it also states that "areas in the development corridor that have not been subject to archaeological survey". This must be completed before the submission of the EIS.
- Has an archaeological survey been undertaken on the transport corridor which will be changed and will pass over private lands?

#### 6.9 Historic Heritage

- The report has failed to identify that the project site was part of the Cudgegong River Gold Field 1861. This covers the Worlds End Ridgeline.

#### 6.10 Soils, Land Use and Agricultural Land.

- It appears that the naturally occurring asbestos will only be investigated at the design stage. No, it must be done prior to the issuing of the EIS. Need to know now.
- If the agricultural land is only 5% of the development site, then 95% would be recreational views and wilderness. How then has this category that consists of 95% not be included and detailed in this section. This needs to be corrected.
- This report identifies minor mapped occurrences of gold within the Project Site yet in point 6.9 there is no listing of gold. This section is not consistent with the proceeding section. This needs to be corrected.
- Also, further on in the report the report acknowledges two (2) mining leases within the project sites but no historic value????

##### 6.10.1.4 Land Use and Agricultural Land.

- In the previous section the report stated that only 5% of the project site was agricultural land. However, in this section they are saying the primary land uses are grazing on native pasture. This contradicts what they have said previously.
- This section has missed recreational property owners. This is C3 Environmental Management lands. This must be included and addressed in the EIS.

- In the section Land Use Conflict it is reported that Tucker Environmental undertook soil samples and consultation with the local community. They never visited or talked to us and our property is very close to the WTG's. They were only within the area for two (2) days so there is no way that they visited all of the people and properties that are affected by this development. So limited credit can be given to this report.

#### Compatibility With Surrounding Land Use.

- The project will change our land use from passive recreation and environmental lands to industrial view lands with very low visual amenity. This has not been mentioned in this report.

#### 6.10.2 Potential Impacts.

##### Construction.

- There is no mention of the impacts of removing so many trees from the project site.
- The areas are listed as highly likely for soil erosion once the ground is disturbed. This should not be allowed to occur. The eroded soil will end up in the creeks and ultimately the rivers. If the project goes ahead, the mitigation strategies for controlling soil erosion need to be included in the EIS.

##### Loss of Agricultural land and Production.

- This project will remove 855ha of land from agricultural use. Which also includes 74ha of external roads. Not sure how many agricultural activities happen on external roads. Perhaps Eco Logical can explain this?
- The report then states that the loss of some 855ha is minimal.

##### Biosecurity and Weeds.

- The area known as Worlds End Ridgeline where WTG will be located has *Hypericum perforatum* (St John's Wort) and Blue Heliotrope (*Heliotropium amplexicaule*) as reported in the report. The report failed to identify that on the ridge line there is an abundance of Serrated Tussock (*Nassella trichotoma*) with all not being controlled by the property owners. So, with disturbed soils it is highly likely these weed pests will increase.

##### Impacts to adjacent Land.

- In this section it does not talk about the loss of amenity that adjoining land will lose due to the development.

- In table 6-88 Initial risk evaluation has erosion as a Moderate and/or medium-term impact to the environment and community and the same for contamination of watercourses and traffic. "Traffic – increased traffic in local area could affect safety of residents, livestock and other vehicles and could damage existing roads from heavy traffic."
- The largest impacts are at a major level of impacts being the "Biosecurity – spreading of weeds, disease or pests on project site or surrounding properties".
- So how are the neighboring properties going to be protected? What are the mitigation strategies? If the surrounding properties are affected in the future how will the developers respond?

#### 6.10.3 Mitigation Measures

- Prior to any approval all mitigation measures must be detailed in a report which would be included in this EIS report. Not after the project is approved.
- In this section on weed control only St Johns Wart is going to be controlled. Blue Heliotrope and Serrated Tussock are going to be allow to blow around the site uncontrolled. (AG002)
- Serrated Tussock is one of the major weeds of NSW so I am at a loss why they would allow this weed to not be not controlled on the development site. Large sections of the open areas of the development site are covered with Serrated Tussock.

#### 6.11 Surface Water, Groundwater and Aquatic Ecosystems.

- In the overview they state that the project will require an increase in water consumption. This means heavy vehicle movements out of the devolvment site to source the water. The collection of water in trucks has not been factored in the traffic report by volume of trips.
- Regional Catchment. They missed the Meroo Creek which the project access road goes over on Burrondong Dam Rd.
- Figure 6-58 has the Meroo Creek in a location that is away from the project site. Where they have Grattai Creek located is closer to where they should have Meroo Creek located. This map is misrepresenting where the creeks and rivers are by poor labelling.
- There is no mention of the creeks and rivers along the external road that will be used to get components to the site. Especially the crossing at Meroo Creek. This report is incomplete and needs to be amended.

Figure 6-62 Vegetation Riparian Zone, Key Fish Habitat and Aquatic habitat within the project Site.

- The Meroo Creek should have been included in this as it is a major fish habitat creek. With the following species known to be in the river:
  - Murrey River Cod (Vulnerable EPBC Act)
  - Eel tailed native Cat fish (Endangered FM Act)
  - Golden Perch
  - Silver Perch (Vulnerable EPBC Act)
  - Yellowbelly
  - Trout Endangered (FM Act and EPBC Act)
  - Red Fin
  - Carp
- Also, it is highly likely that these fish are in the Meroo Creek.
  - Southern purple spotted gudgeon (*Mogurnda adspersa*) – Endangered (FM Act)
  - Olive perchlet (*Ambassis agassizii*) – Endangered (FM Act)
  - Flathead Galaxias (*Galaxias rostratus*) – Critically Endangered (EPBC Act)
  - Macquarie Perch (*Macquaria australasica*) – Endangered (FM Act and EPBC Act)
- There has been no mention of the following in this report that uses the rivers and creeks and will be affected by this development.
  - Turtles
  - *Paratya australiensis* glass shrimp
  - *Cherax destructor* common yabby
  - Freshwater mussels
  - *Hydromys chrysogaster* water rat
- We have seen all of these (turtles, glass shrimp, common yabby, freshwater mussels and water rat), often in the Meroo Creek that runs alongside our property at 430 Worlds End Road, Worlds End.
- The Meroo Creek in the past year has been continually flowing and is very important to the ecosystem near to the development site. This needs to be included.

#### Groundwater as a Potential Water Supply.

- The report indicates that there is no ability to get ground water from within the project site. That means all water for the project MUST come from outside of the project. This means vehicle movements which have not been added to the traffic report. This will increase heavy trucks onto the roadways. The traffic report will need to be rewritten, then submitted with a new EIS report. As there is data that is incorrect

and/or missing for the traffic, then this affects the validity of other sections of the EIS.

### Groundwater Dependent Ecosystems

- In this section the Meroo is listed as Meroo River. It is NOT a river, it is Meroo Creek. If they cannot read a map and get this correct, how is the rest of the report likely to be correct.
- In figure 6-65 the map indicates that the Meroo Creek at our house at 430 Worlds End Road Worlds End has high potential terrestrial and aquatic GDEs. Given that our house is close to the Meroo Creek, this is of concern that the project could have detrimental effects on the Meroo Creek.

#### 6.11.2.1 Surface Water (Potential Impacts)

- Water is going to be used in four areas - Earthworks, dust suppression, WTG footings and Electricity transmission tower footings. They state that there is a requirement for the Project, a total of 972.5 ML estimate.
- It has not been specified where they are going to get this vast amount of water from. Will they just go to the Meroo Creek and take the water from the creek? YES, they have admitted to water sources including the local streams. To what affect will this have for the environment? This has not been covered in the biodiversity report.
- When we purchased our property the Burrendong Dam was at 3% full. So, if the level of the dam significantly drops again what then?
- Table 6-97 Mean annual flow for each catchment. This table has left out the Meroo Creek. After the table, the commentary states that there will be significant increase in the sediment runoff from the Project (prior to any mitigations). This could be devastating for the local creeks and rivers. These mitigations need to be clearly stated in this report.
- Table 6-98 Needs to include the Meroo Creek.

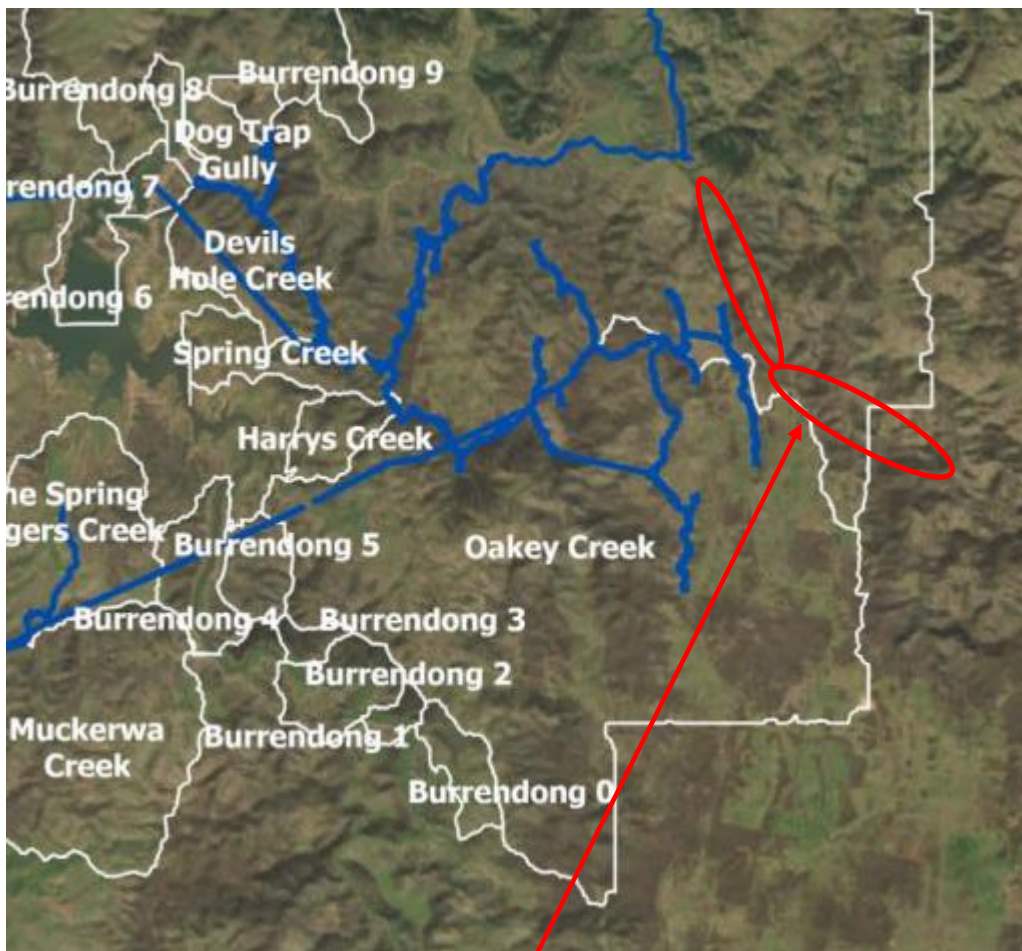
#### 6.11.2.2 Riparian Land and Aquatic Ecosystems.

##### Construction.

- As the only way into the project is across the bridge that spans over the Meroo Creek I find it hard to believe that it has been missed in the report.
- In the construction section they state that construction works will only be undertaken when there is no-flow to minimize impacts. Whilst I agree with this, the Meroo Creek since March 2023 to present has been flowing. So, this means that any works to be undertaken on the crossing over the Meroo Creek could be curtailed for months.



- Further to this, spawning and migration for the threatened aquatic species listed in Section 6.11.1.2 occurs in spring and summer, so construction of watercourse crossings and activities on waterfront land should be avoided during these periods.
- At this stage of the EIS report page 402 it is still unclear, based on all of the previous reports, what is going to happen to the bridge over the Meroo Creek. Details need to be provided.
- Apparently, trees along the creeks, rivers and riparian zone are going to be removed. No maps or details about this has been seen to date in the EIS report. There needs to be a complete tree management plan written for the project with clear demonstration of the areas and number of trees to be removed. Also, a landscape plan for the development site and public roadways showing where and what trees are going to be planted to replace the removed trees.
- Arc Energy and Eco Logical in this report have recognized that *“the project Impacts will include introduction of new weeds to the area and extended penetration of weeds into native plant communities. This may result in a loss of biodiversity and habitat value, smothering of native juvenile plants, harbouring of feral animals and Burrendong Wind Farm – Environmental Impact Statement | Ark Energy © ECO LOGICAL AUSTRALIA PTY LTD 382 alteration of vegetation structure and riparian function. For example, shallow-rooted weedy groundcovers may outcompete native tree seedlings that would usually stabilise the banks with deeper roots”*
- As the development site already has multiple invasive weeds and animals, are these going to be treated / controlled prior to the development.
- Figure 6-68 Catchments used for modelling. Has missed Meroo Creek so all of this section needs to be undertaken again to analyse the project properly. In fact many creeks and rivers have been missed.



Missed Meroo Creek plus others.

- After reviewing this catchment modelling, I believe this is so inaccurate. How can so many creeks and rivers be missing on the right hand side of the project?

#### 6.11.2.4 Flooding.

- This happens frequently, especially along the MISSED Meroo Creek which has to be crossed to get to the development site. At times the bridge over the Meroo Creek is impassable for weeks at a time due to flooding.

#### 6.12 Resource and Waste Management.

- Mudjee Waste Facility, which is on Hill End Rd, has been listed as the most appropriate facility to use for dumping of waste. The delivery of this waste material in heavy vehicles will mean large trucks using Yarrabin Rd. These two-way trips have not been factored into the traffic report. So, the traffic report requires to be researched again and the correct data used. The plan also need to consider that waste generated by the hydro-electric plant plans for Burrendong Dam which will also use Mudjee Waste Facility.

- Cement truck waste has not been discussed nor the number of trucks that it will take to bring in the amount of cement needed. This needs to be discussed in multiple locations within the EIS reports. These large cement trucks would most likely come from Mudgee and use Yarrabin Rd.

#### Quarries.

- They say they may need material from quarries which will also mean large vehicles using Yarrabin Rd. This extra traffic also has not been factored into the traffic report.
- Figure 6-69 Resource and Waste Management Facilities in proximity to the Project site. So now in this report they have found Merroo Creek. But again, they say it's a river which it is not.

#### Aggregate.

- To be sourced from onsite or from other quarries in the region. This will mean more traffic for Yarrabin Rd which has not been discussed in this section.
- Here they say POEO Act states that a license is required if rock crushing activities process more than 150 tonnes of material per day.
- Then the report states: If the extraction and processing thresholds used in concrete batching exceed Schedule 1 of the POEO Act, an EPL will be obtained from the EPA for the operation of rock crushing or concrete batching facilities.
- In section 3.2.4.2 Rock Crushing and Concrete or Asphalt Batching Plants it states that they will need 590 tonnes per day. So already Arc Energy knows that they will exceed the 150 tonnes per day, so this section far exceeds the stated 150 tonnes of material per day. This section of the report does not line up with earlier sections of the report.

#### Concrete Batching

- As they state due to the large scale of the project a concrete batching plant is required. Once again this will mean heavy vehicles bringing in the material to construct this batching plant. Again, no mention of the traffic that will be involved with this requirement that will need to travel on Yarrabin Rd.

#### Water

- States that there is a need for large volume of water and the water will be sourced, if possible, locally. This means water trucks using Yarrabin Rd.

- In this section there is no estimation on how many truck loads of water will be required and this has also not been factored into the traffic model.

#### 6.12.2.2 Waste

- It seems in this section that Mudgee waste center has been forgotten and is not listed.
- Sanitary waste from temporary staff facilities will be removed from site which will generate two-way traffic which also has not been included in the traffic report.

#### Construction.

- Construction is listed in this report as the largest contribution of waste with most having to go off-site. Once again, the two-way transport of waste has not been factored into the traffic model. Now in this section they are only using Bald Hill Landfill. So, this section is different to the other section 6.12.1.1 Resource Management Facilities. Consistency in this EIS is vital.

#### Operation.

- Once the project is operational the waste will go to Mudgee facility. This means that the large waste trucks will be using Yarrabin Rd. This will result in further usage of Yarrabin Rd that has not been factored into the traffic report.

#### Vegetation Waste.

- With 1000's of trees being removed this section has been missed. Details are required.

#### Decommissioning.

- The recycling of the blades at the present time is not possible. So, if a blade were broken and needed to be replaced the old blade could not be recycled. This would generate large piles of unusable waste. This needs to be addressed. What they would do at this site for broken or at end-of-life blades needs to be stated. Saying that technology or newer blades will be more recyclable does not help with the blades that would be used at this site.

#### 6.13 Social

- Moir's found that key factors were community and people. Yet this development is dividing the local community where long term friendships are now being shattered by the development of this wind farm.

- The report states that the community will receive money for hosting the WTG. However, known fact is many of the hosting land owners are absentee owners so the money will go out of the local area not into it.
- The community benefit sharing program might help the townships like Mudgee and Wellington but not the neighboring properties that have to bear the full burden of looking at the WTG. No mention of them. In fact lots of the neighboring properties, as highlighted previously in many sections, have been on purpose left out of all of the maps. This scheme has not shown how the money would be split. Does Wellington get 80% whilst Mudgee gets 20% and the locals nothing or the other way around and still the neighboring communities get nothing? So based on this and the fact that the neighboring properties have been left out this social section is not worth anything in consideration for the project to go ahead.
- Table 6-108 Social locality definitions. Defined as 5 km from the Project Site boundary. This area recognises that residents within this zone may be highly impacted by construction and operation. As the community within Worlds End is within 2 km of the project how is it that we, the community, have been left out of all discussions and maps in the report? This is a blatant attempt by ARK Energy to misrepresent the social impact of this project.
- According to figure 6.71 Worlds End residences and people do not exist. Also, by interpreting this figure, which has no scale in the map for measuring, there are five (5) dwellings (brown dot) within metres of the WTG. How can this happen? I thought there was a buffer zone from residences?



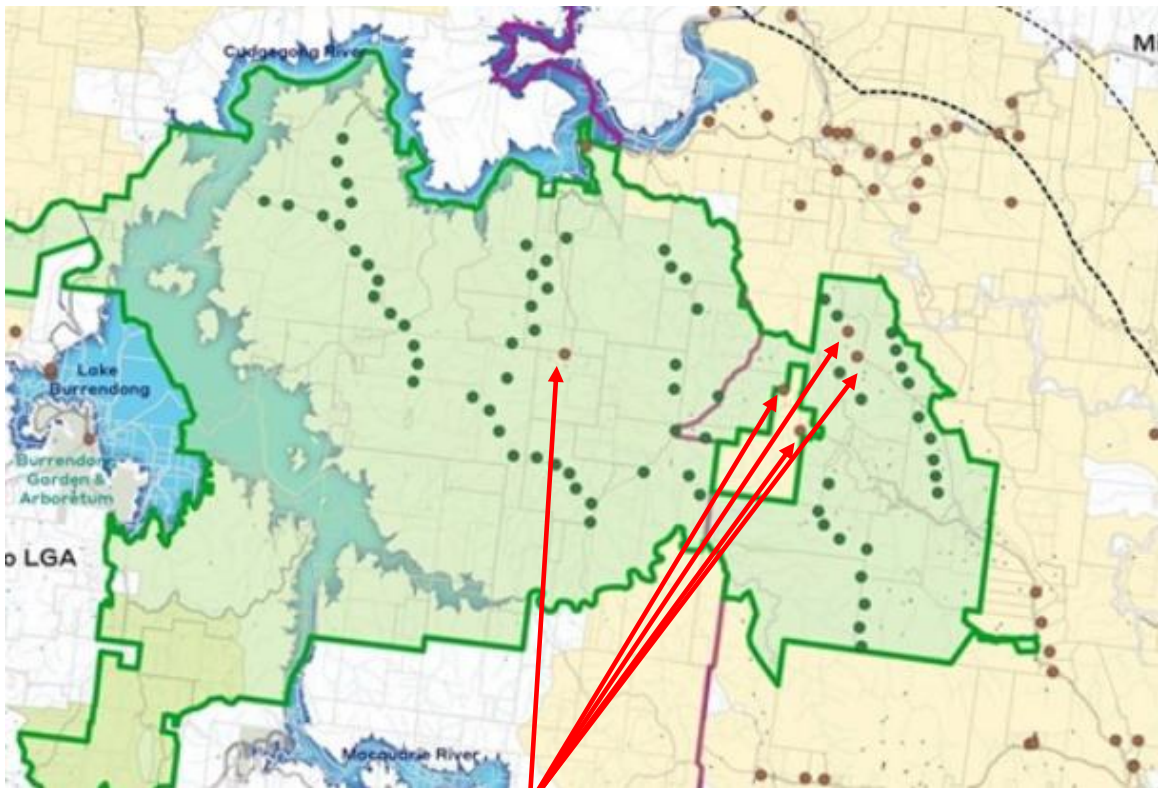


Fig 6-71. Dwellings next to WTG.

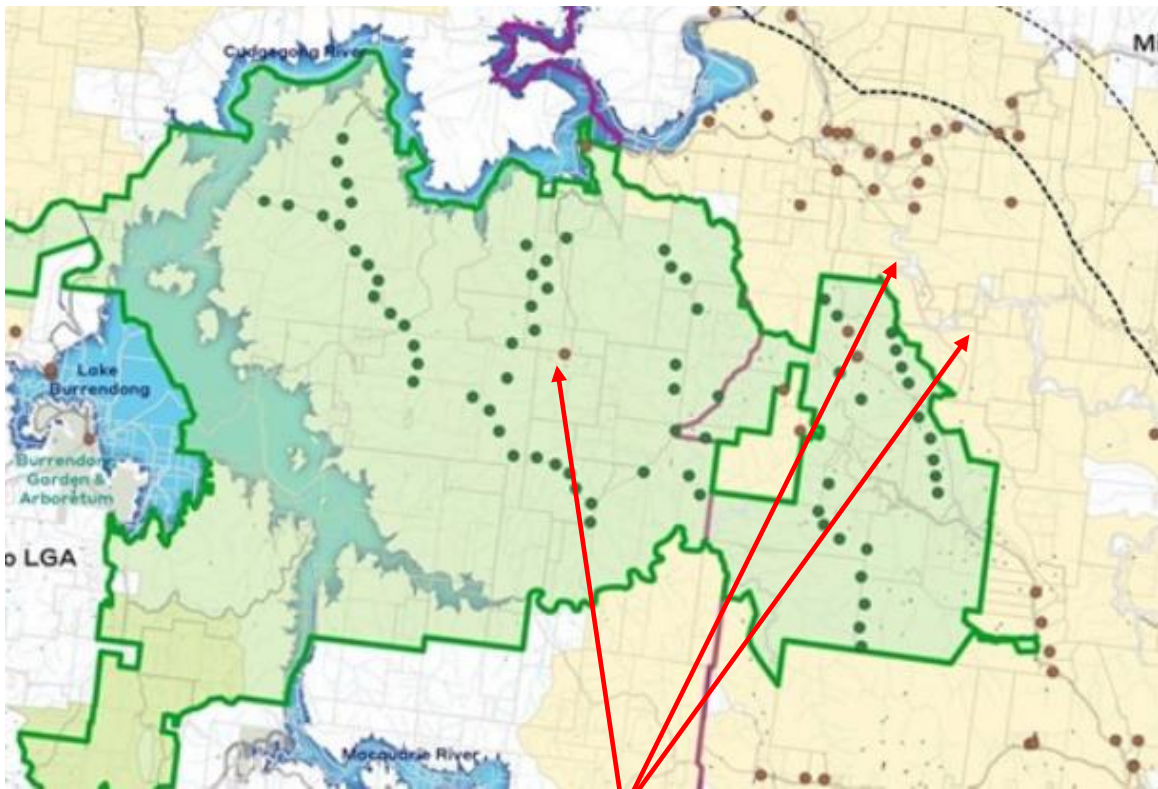


Fig 6-71 Some of the missing Residence

- Between the red arrows there is in excess of 20 residences missing from the data. In previous reports by both Epuron and then Ark Energy most of the residences were identified. Why are they missing here?

- In the scoping report Burrendong Wind Farm – Scoping Report in section 5.3 Stakeholder Identification they Eco Logical the author’s state:
  - Residents and property owners within 5 km of proposed WTG (approximately 40 property owners, see Figure 6-1) • Residents and property owners along the proposed transport route (approximately 35 property owners).
- That is vastly different to what is shown in figure 6-71.
  - Should include 5 non hosting residents within the project footprint.
  - Properties within 5km is shown as 38. Should be closer to 70 properties.

Burrendong Wind Farm - Scoping Report | Burrendong Wind Farm Pty Ltd

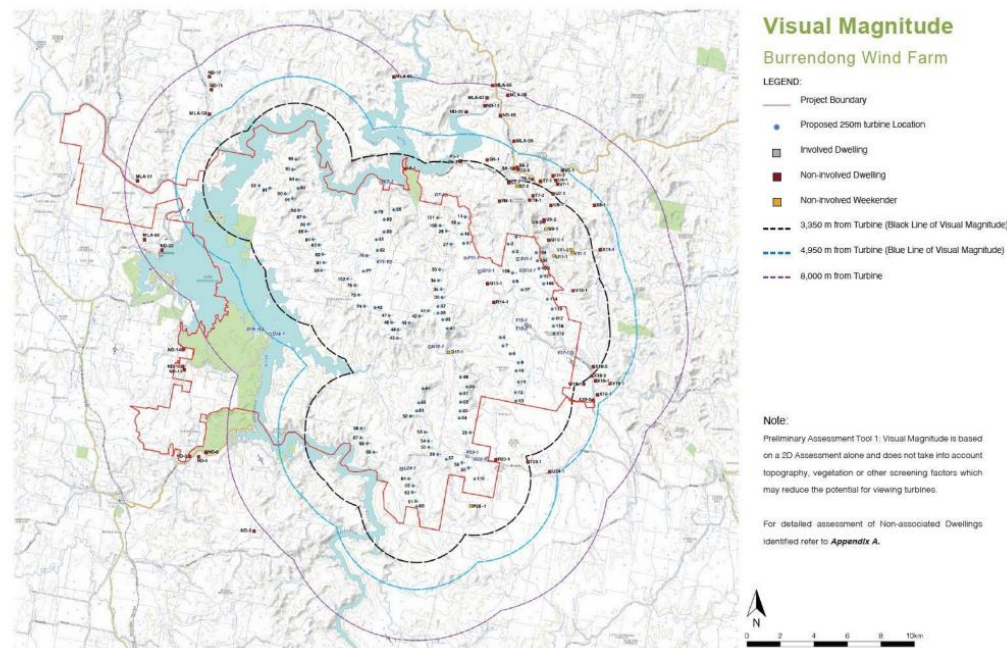


Figure 6-1: Visual magnitude analysis (Moir 2022)

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Figure 6-1 Visual magnitude analysis Scoping report Eco Logical page 70

- The above map taken from the scoping report from Eco Logical shows many residences listed on this figure. Especially all of the residences in Worlds End. As per normal all of the maps from Eco Logical are hard to read so I have taken a section that shows residences in Worlds End that they appear to have removed on purpose.



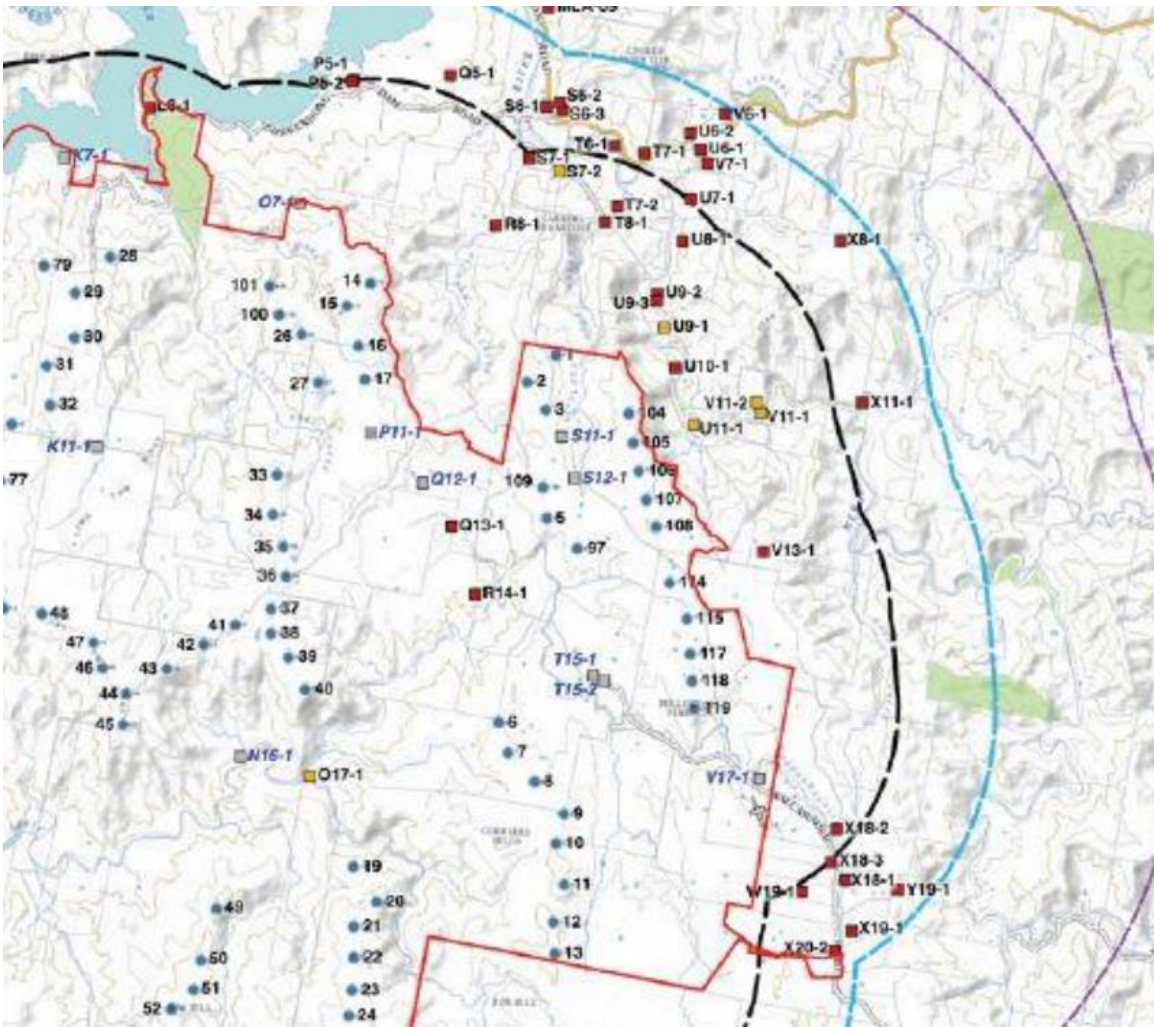


Figure 6-1 Visual magnitude analysis Scoping report Eco Logical page 70 close up view.

- As the numbers are blurry the following are some of the properties that have been intentionally left off from all components of this EIS report. This list is not the entire missed residences that were previously identified by Arc Energy and Eco Logical.
  - T7-2
  - U8-1
  - U9-2
  - U9-3
  - U9-1
  - V10-2
  - V11-2
  - V11-7
  - V11-1
  - V13-1
  - X11-1
- So, one must ask why has Arc Energy and Eco Logical made a misrepresentation to this magnitude in this EIS report?



#### 6.13.1.4 Local Social Issues and Trends.

- Climate change and Australian's Commitments. This has been recognized in this EIS. But the wind farm will change our micro climate at Worlds End. Damage could occur to our properties by the way of these immense WTG changing the climate, further stressing the local environment.
- This micro climate change has not been discussed within this EIS.
- Agree with Arc Energy and Eco Logical when they say "Changes to visual amenity appear to be one of the most significant impacts of wind farms, due to their highly visible nature which tends to disrupt natural landscapes.
- Also, agree with their statement 'direct issues of annoyance, sleep quality, and quality of life'. This has been happening since the first approach that we got back in 2018. We have been living with this nightmare since then. The amount of sleep loss and stress is unmeasurable as well as time lost and financial loss due to responding to EIS reports and other related activities associated with this wind farm.
- Also agree with their statement 'while the landowners receive positive compensation, it can bring about conflict between landowners who have received payment, and those who have not. Anxieties surrounding decreasing property prices because of wind farm development can also cause additional conflict'. This conflict of landowners is happening in this area due to this wind farm. We have already seen properties affected by the proposed wind farm. Properties that were being sold quickly and at high prices are now not selling and have been on the market for over a year. Once people know about the wind farm, they don't buy them. In addition to this, once the wind farm was announced larger number of properties in the area came onto the market. People were getting out before it became common knowledge that the wind farm was in the planning.
- Figure 6-74 SEIFA scores surrounding the Project Site. Once again Worlds End has been left off but Worlds End is in the area of **MOST DISADVANTAGED**.
- Given that our area has been recorded as most disadvantaged why is our area of Worlds End and our properties NOT listed. Why after being promised compensation no further communication in this matter has occurred since 2018?

#### 6.13.1.5 Local Social Infrastructure.

- I don't think Mudgee is a suburb but a thriving small community.
- Not sure what car Eco Logical drive but it does not take 1 hour to drive to Mudgee. In other reports they state 30 min. Needs to be consistent.

### 6.13.2 Potential Impacts.

- They missed in the development phase, anger towards Arc Energy and Eco Logical for misrepresenting what is happening and the devious ways in which they work.
- They also missed out on the financial loss that many people will have due to the loss of amenity of the wilderness views and loss of the abundance of birdlife.
- In the construction phase they have missed: concern for the dangers of the increased traffic that will travel along small country roads. This will increase the likelihood of serious accidents.
- Also, in the construction stage works are reported as happening differently in this EIS report to other reports. After reviewing this poorly researched and worded EIS we have no faith with its current content.
- Also, in this stage of construction the loss of wilderness amenity is given little regard as well as within the operational phase section of the report.
- In table 6-110 Social Impact they state that the WTG will have a certain negative affect. This as they say cannot be mitigated. So they admit that these WTG are a major environmental eye saw.
- Threat to way of life they have as medium. They the developers do not have to put up with these WTG so how can they rate this. We rate this as **CRITICAL**.
- Perception that property values will decrease. They have this as unlikely – low. Well, that is just rubbish. Once again, we have this as **CRITICAL**. This is based on our research that shows rural properties with WTG on their place are not selling and one property next to this proposal has been on the market for over a year with no one prepared to buy it.
- Changes to the community. They have this as minor to moderate once again we have this as **CRITICAL** due to the increase in vehicle numbers on country roads that are windy and not designed to carry the expected traffic.
- Fear of damage to local biodiversity is not as they say unlikely minor – low but is **CRITICAL** as well. They have stated that there are significant ecosystems in place that will be damaged. As well as significant Aboriginal components that they dismiss.
- Financial benefits via community benefit sharing program. They say almost certain. I thought it was a given. Also, we would argue that its certain that the non-hosting landowners next to the wind farm will get nothing in way of compensation. The only way the neighboring property owners will get compensation is if we play netball or tennis in town.

### 6.13.3 Mitigation Measures.

- Table 6-111 Mitigation Measures for Social Impacts. In the section All Social Impacts they list 5 key areas. I state that in all of these 5 key areas Arc Energy has failed miserably. We have multiple examples of this failure such as making promises in 2018 and then never talking about them again. One example of this is Neighboring property compensation. Failure to return emails but would ring so there was no records. The list is endless.
- The section on Positive Impacts through Community Benefit Sharing has nothing to do with the properties that are next to the wind farm. We have been forgotten and we are part of the community.

### 6.17 Economic.

- In this introduction to this section, they now are saying that there will be 53 full time on-site jobs. This is a huge increase from other parts of this EIS report. In the Executive Summary have only 12 full time jobs. That is almost five times the amount that the Executive Summary states. So, if the number is then 53 full time jobs, then the traffic and other reports are wrong. These reports need to be updated for 53 full time jobs.
- In the overview of the Economic section it now states that there will be neighboring landholder payments. What will these be? Who will be included as neighboring landholders? Arc Energy needs to detail exactly who are the neighboring landholders and what the compensation will be prior to the submission of the EIS so as the neighboring properties can make a proper assessment of their position.
- We have a suspicion that if you are a neighboring property owner and have not raised issues with Arc Energy you will get compensation. But if you have raised issues with Arc Energy then you will be dismissed. If this is the case then an inquiry into this must take place before the awarding of the development.

### Indirect Construction Employment.

- In this section they are now saying that on top of the estimated 375 jobs there will be an additional 400 FTE jobs over the construction period. This statement has come on page 461 which means that some 775 people could be going to the site on any given day. The traffic modelling was based on 153 one-way trips to site. That now means they have to have a least 5.03 people per car. This would be illegal in most cars.
- The traffic report does not support this statement so that report must be redone with the new figures. Also how are the small country roads going to cope with the significant traffic increase.

- In the section Total Construction Employment there is a contradiction again on how many people will be working on this project. At the start there was some 375 people full time employed now it's dropped to 250 full time employed. So, all of the EIS that deals with traffic and employment is wrong and needs to be corrected. So basically, the whole EIS report.

#### 6.14.2.3 Project Employment

- In this section it has now gone back to 12 full time staff, not the 53 that was stated in a previous section. Again, inaccuracy within the EIS report.

#### 6.15 Cumulative Impacts.

- Table 6-121 Cumulative impact assessment categories has the project as having significant impacts for example with Aquila Wind Farm. This is the first time that this wind farm has been mentioned so there are large issues with this such as traffic issues for the area. Also, they have not listed Burrendong Dam hydro plant upgrade which is next door to this development.
- The potential cumulative impacts from so many power generation farms eg. wind and solar in such as a small part of the landscape has a significant detrimental effect on the local area. Yes, coal mines are ugly but they are located in one place and screen trees along the edge of the mine can to some degree reduce the visual calamity of an open cut mine. But wind farms can be seen apparently from 8km away. This is an environmental vandalism for tourism. Who wants to go to an area to see WTG turning around.
- Arc Energy in this section also state that there are large number of power generation plants in the area.
- I wonder what would happen if 50km of the ocean in front of Newcastle to Wollongong became massive wind farms. By the way this would be fair because this is what is happening to rural NSW.
- With at least nine (9) wind farms at similar stages most of these do not have as many sensitive areas to consider. None of the other have aboriginal significance but most have landscapes with significance.
- An approved wind farm is only 3.84km from this proposed wind farm so not only do we get the 70 WTG from this one we will also get the 97 from Uunula Wind Farm. Total WTG within 10ks of our property will be 167 WTG. We wonder how that would go if it was in front of Manly.
- They state that only two (2) properties will see WTG from both Wind Farms. They have not taken into consideration views from rural properties who will see many of the WTG from both locations.

- Given the large amounts of renewable energy farms being developed and built, there will be much vegetation, both trees and low scrub, wildlife and wilderness being lost. The project in this EIS has not stated how much vegetation is going to be lost. They also do not indicate if any is going to be replaced. As this area has significant and endangered animals and plant communities it will only be a short period of time before they will be gone. Koalas will be a thing of the past.

#### Project Justification.

- In the 66 pages that precede this section I have discussed the inadequacies of this proposal. The justification that they use is flawed and cannot be given any weight in the discussion for the approval of this wind farm.
- It is common that damaging developments get away with approvals by offsetting their damage by way of ecosystem credits. This project has likely 17,568 ecosystem credits and 31,928 species credits. This does not help the local people or the trees or animals that will get destroyed by this wind farm. Offsetting the damage MUST NOT occur for this project.

#### 7.4 Incorporation of Community Engagement into the Project Design.

- Arc Energy has not, as they state, been effective in working with the community. This is especially visible with the people that have residences in Worlds End. The fact that this area can be totally ignored from the maps and discussion in the EIS clearly shows this. Commitment and action from Arc Energy to effectively engage with the community of Worlds End in the Project Design must be undertaken. This must be undertaken and accurate details of this engagement then incorporated into the revised EIS.

This submission is supported by my wife, Suzanne Marks, and two adult children Chloe Marks, Thomas Marks who all value the beauty, peace and wildlife during the frequent time they all spend at our property at 430 Worlds End Rd Worlds End.

Yours sincerely



**David Marks**