In reading through EPYC's EIS I have come across numerous areas of inconsistency and misinformation. I will only concentrate on a few of what I believe to be the most important defects.

The EIS states the nature of the proposed Jupiter wind farm location is:

"the PA and broader region consists of extensively cleared farm land, predominantly used for commercial grazing purposes. However, potential for future subdivision leading to a growing rural-residential character within the region has been considered in respect of potential land use conflicts."

In reality the surrounding areas adjacent to the project area are not extensively cleared land used for commercial grazing, it is predominantly land used for rural residential purposes. The above statement implies that the area **could** develop into a rural residential area but neglects to say that it **already is**. Information from both Goulburn Mulwaree and Palerang councils indicate that there are over 500 blocks of land with building permission within 5 km of the proposed Jupiter project area. Over the past 10 years Tarago and surrounding regions have become attractive rural lifestyle settings for many who work in Canberra, with numerous sub divisions being created and many more on the drawing board.
At present there are 204 affected homes within 3km of the project area. Let's be very conservative and assume there are 3 residents per home, giving us around 608 affected people within three km. **This is by far the highest affected population of any wind farm proposal to date in NSW.**

The proposed Industrial Jupiter Wind Farm is not in keeping with the local planning objectives and land use of the area which is developing into what I would class as high rural residential use for those looking for a tranquil rural outlook. The recent department information session held at Tarago with hundreds of locals attending show the sheer number of residents that will be affected by the proposal and illustrates the united stand we have taken to preserve our way of life.

The EIS states :

"The elevated gentle ridge lines occurring within the PA offer a favourable wind resource and are highly suitable for the placement of WTGs."

The proposed wind farm is positioned in a valley between two higher ridge lines which will result in turbulent winds in and around the project area. As any pilot knows there is significant turbulence created on the lee side of a ridge line and should be avoided. The prevailing winds will create this turbulent effect as it flows over the ridge line down toward the proposed wind farm.

A study conducted by the University of Notre Dame shows that it takes more than 40 blade diameters to recover the free speed wind speed.

It is suggested by Charles Meneveau, a John Hopkins fluid mechanics and turbulence expert, and his colleague Johan Meyers, from Belgium.

*"So far, wind turbines had been considered as standalone units, with few researchers taking into account the effects that the distances between them have on their final output. Meneveau and Meyer found out that **the current space of 7 rotor diameters between two adjacent wind turbines** is not enough to overcome the effects of the wind turbulence created. They found that a distance of **15 rotor diameters** would suffice (that would be about 4,500 feet, or 1.3 kilometres). I don't know if the space would realistically be enough for all the turbines to have such a setup, but the researchers say they would be much more cost-efficient."*

These findings would indicate that the Jupiter project with turbines positioned as close as 300 metres or 4.7 rotor blade diameters downwind from each other are not only inefficient, but will create two negatives as far as residents are concerned, that being the high visual impact of multiple turning turbines in close proximity to each other and the combined noise effect that will be generated as turbine turbulence interferes with each other.

Most wind farms are constructed on ridge lines with ample space between turbines to elevate the turbulence that is created by the turbine itself on other turbines that may be around it.
Jupiter have a clusted design to cram as many turbines into the limited space they have to work with and as a result have created a project that is likely to be inefficient and unworkable.
I don't believe EPYC have any intention of building a wind farm in this configuration and are merely looking for an approval to then on sell the project.

The EIS States:

7.6 Mitigation
• WTGs are by their nature tall and visually prominent. The turbine design and location is limited by functional requirements and minor changes such as colour choice and reflectivity are unlikely to change the visual impact enough to alter any impact ratings recorded within this report

• new screen planting around affected dwellings would likely reduce some of the visual impact ratings recorded within this report. This solution may be effective for some landowners based on the location of their dwelling

• whilst screening planting can be highly effective in blocking or filtering views, the impact is often of a highly local nature and can remove parts of the view that may still be considered desirable. The extent and nature of appropriate mitigation measures for private receptors would be subject to consultation and agreement with individual property owners.

The EIS itself states that in most cases the mitigation measures outlined will not be effective and it appears that a half hearted attempt has been made by the consultants to at least address the mitigation requirements. It would be virtually impossible to block out 173 metre high Industrial structures when most homes are in positions topographically that won't allow for any meaningful tree planting exercise that would achieve the desired result. I don't believe the mitigation suggestions within the EIS are at all feasible and agree with the consultants that the mitigation measures are not likely to change the visual impact that the project will have on most residents.

Noise:

The Department on many occasions have stated that the background noise monitoring program is based on the 2009 SA Wind Farm Guidelines. In numerous discussions with the Department it has been made clear that if the proponents tick all the right boxes and conform to the Guidelines there is very little the Department can dispute. Many residents and residental groups around Wind Farms have pointed out the inadequacies within the guidelines to protect locals, but alas this has fallen on deaf ears and has become a pointless exercise in most cases. Instead of attacking the errors in the Noise Monitoring Program in Jupiters EIS, I wish to address a procedural matter which has come to my attention.

As stated in the EIS the background noise monitoring program was carried out by the customer and not DNV GL, the consultants. DNV GL have merely used the data collected and given to them by EPYC to create the Noise monitoring report we see in the EIS. The monitoring equipment was placed by ERM (being the customer) or EPYC (I know of at least one home where EPYC placed

and collected data) and data collected by them. As far as I know ERM or EPYC are not qualified acousticions and therefore any data collected by them can not be verified as being correct or acurate. I don't believe this meets the criteria set down in the SA 2009 Wind Farm Guidelines. The Department will need to address this issue and clarify their position on acceptable background noise monitoring practices.

Conclusion:

I was recently asked by the Department's landscape consultant what I valued about my view and why is it so important to me. So here are a few thoughts.

We built our home some 20 years ago in the Tarago region. We were drawn here by the peaceful atmosphere, the surrounding hills and distant views to the west which we enjoy to this day.
We have, and continue to raise our nine children and of recent times six foster children in these beautiful surroundings giving them the opportunities that many children don't get to experience such as horse riding, motor bike riding, looking after animals and learning to value the environment around them.
Like many others we came from a city environment with a conscous decision to change our lives and enjoy a quieter, slower way of life, in a rural setting far from the industrial rat race. It may be hard for those in the city to understand what we hold dear and why we fight so hard to keep this idealic lifestyle and maybe they never will.

Departments and city landscape architects can't fully understand the values we place on our lifestyle, our land and community.
We may all have slightly different reasons and views of what we see as pleasing in our environment and what we hold dear, but we are all of one mind for what ever reason, this is our home, this is our community and we are the only people qualified to assess an Industrial wind farm in our rural setting.

Industrial Structures such as Wind Farms do not belong in highly populated rural communities. This proposed project must be rejected by the Department as a project not in keeping with the planning and common use of the region.

Mark Tomlinson