Comment on the referral for standard assessment submitted by AAPowerLink Australia Assets Pty Ltd for the

Muckaty Solar Precinct

by Grusha Leeman

Thanks to the NT EPA for taking my views into consideration. I am a long term Territorian, with education and experience in environmental management. I hope that the NT EPA desists from merely rubber stamping approvals but ensures changes are made so that the environment can actually be properly cared for.

Once again I am disappointed there is an acceptance of assessing projects in a piecemeal fashion. Besides the Powell Creek 12,000 hectare solar project, the 800km long pylon line, and the undersea cables to Singapore, there is talk of still needing to see if there is enough groundwater, determining where to put an extra airport, a rail station, and a village for 3000 workers and all their requirements and enticements. I suggest rejecting this project until they have the whole plan to propose it properly.

Piecemeal assessment is recognised as compounding risk in environmental management in two ways:

- First, there is the risk that significant detail falls through the cracks: that some component of the larger project doesn't fit neatly into the identified assessments and is effectively forgotten.
- Secondly, piecemeal assessment bypasses appropriate consideration of the full scope of cumulative impact.

It is regrettable that such a significant project continues to be rewarded for this strategy.

Mega hot makes it hard

There's been a shocking 302 days over 40 degrees celsius recorded in Elliott in the past 5 years, including many week long mega heatwaves, some approaching a fortnight long. It is now usual for most of 7 months of the year at Elliott to experience maximums of over 35 degrees.

There seems no mention of remedies for staff working in such oppressive conditions. There should be an additional consideration of flood lights so workers can avoid the heat of the days and also the ecological impacts of light pollution.

So far the maximum temp recorded in Elliott was a definitely unworkable 46.5 degrees on 2/12/2007. How many days can a solar plant operate with workers unable to go outside?

It is predicted that in 2090, if we continue the existing action to tackle climate change, in Elliott, there will be:

- **241 days** above 35°C. This is an increase of **60 days**.
- **96 days** above 40°C. This is an increase of **50 days**.
- **118 nights** above 25°C. This is an increase of **70 nights**.

The Suncable project expects to work for 70 years, and adding in 5 years of construction and 5 years of decommissioning, that brings it to the year 2105, when we can expect the number of oppressively hot days to be even greater.

Too hot for solar panels

The other thing is is central Australia actually a good place for huge solar farms?
All evidence is that

1. climate change is accelerating,
2. we are yet to actually slow our massive pollution rates
3. It's going to get much hotter more often in Central Australia.

None of these bode well for efficiency of solar collectors which drop dramatically at such hot temperatures. Perhaps there will be a requirement to spray them with precious groundwater to ameliorate the extreme heat. Please ensure there is not an endless supply of scarce groundwater.

The groundwater is ancient and not being replaced at current usage, so adding in massive pulls of water will only exacerbate water scarcity and its widespread impacts on groundwater dependent ecologies, which often are also culturally significant and vital for all wildlife

Big floods happen

Mostly, the country is deeply dry, but sometimes there's water beyond the horizon and all the roads are closed. It's not really rare and I didn't see plans for what they'll do when this happens as it does every decade or so. How will they ameliorate impacts from such floods?

It is disappointing that these docs appear not available to the public, so I'm hoping the EPA has access to the documents lost in: Appendix C section 2.3 Hydrologic Model:

*"Catchment delineation was undertaken for the study area, as shown in **Error! Reference source not found**.. A RORB (v6.4.5) hydrologic model was developed for the site and an overview of the model parameters in provided in **Error! Reference source not found**."*

Big clearing can make for big erosion

I note it is observed that lack of vegetation already produces erosion and I am concerned that clearing vast areas could see big erosion happen and impact on the downstream creeks and Lake Woods.

"Erosion was observed along the Burke Creek - both long-term lowering of the creek floor below the surrounding landscape, and recent channels (rills and gullies) forming in the side of the creek bank where water is running off the surrounding landscape into the creek line. This recent erosion of Burke Creek bank indicated strong surface flow of water in the surrounding landscape, potentially exacerbated by recent fires and grazing activity reducing surface vegetation that would slow the flow of surface water."

There be bilbies

I would like to see this project avoid all the bilby country, as they are already in major decline.

To prevent killing upon bulldozing please ensure all animals are properly relocated first.
I would like to see the following strategy bumped up to actually ensure there is no killing of vertebrates.
"Develop and implement a Pre-clearing Procedure that includes surveys by suitably qualified ecologists to identify burrows in use by the Greater Bilby or Yellow-spotted Monitor, and accepted measures for ensuring animals are not present in the footprints when clearing commences."

All procedures and protocols should be developed and trained for well before the bulldozers arrive. Too often such measures are installed after the fact, or omitted entirely. The areas to be bulldozed should then be fenced and rechecked to ensure no one dies.

It is good to see some efforts being made, such as to prohibit driving between sunset and sunrise unless it is on a formed road with a cleared verge for good visibility, and speed does not exceed 25 km/h. But to actually prevent roadkill, the roads should have low fences and there should be well marked crossings with speed bumps. It is unlikely adherence to the very slow speed limit will be seen unless lots of speed cameras are installed, so passive efforts are vital.

There should also be offset efforts as this is a big smash in declining bilby country. I would like to see commitments by Suncable to make considerable efforts to eliminate major threatening processes by eliminating feral predators and reducing weeds and wildfires in the wider environment. This is another opportunity to give meaningful work to the traditional owners and enhance the local Rangers. Have aims and real efforts made to restore habitat for lost species in adjacent areas.

Good for the climate?

I would like to see more than vague promises that the project will be beneficial for the greenhouse gas bottom line. It seems little has been promised to the NT itself that will reduce the reliance on fossil fuels. Instead, like a cancer, this project seems bent on increasing energy demand with more AI and data centres and may make no drop in our massive reliance on fossil fuel.

The greenhouse gases of all big proposals should be estimated and measured and fully reported. This includes all the scopes from the exploration, pilots, landclearing, building, materials, transports, electricity, water, sewerage, staff activities, pylons, cables, materials replacements, decommissioning, rehabilitation: all the things.

Good for the environment?

The threat to biodiversity from the cumulative impacts of large centralised solar and wind farms of the type anticipated in the Northern Territory and regional development of other new land uses needs to be managed through strategic spatial planning with the assistance of conservation experts.