

Ref: P0009/WSP Wind Farm TIA Review



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For the attention of Mr Christo Bredenhann

Dear Sir

**INDEPENDENT PEER REVIEW
LETSOAI & ENAMANDLA SOLAR POWER FACILITIES TRAFFIC IMPACT ASSESSMENT**

I hereby confirm that I have undertaken a comprehensive review of the above-mentioned Traffic Impact Assessment (TIA) (*Ver 1.2, Project no. 21102, dated November 2016*) as per the following terms of reference:

- Is the methodology clearly explained and acceptable;
- Evaluate the validity of the findings (review data evidence);
- Discuss the suitability of the mitigation measures and recommendations;
- Identify any short comings and mitigation measures to address the short comings;
- Evaluate the appropriateness of the reference literature;
- Indicate whether a site-inspection was carried out as part of the peer review; and
- Indicate whether the article is well-written and easy to understand.

Please note that this is a desk-top review and no site-inspection was made as part of this review. In addition, please note that this review was undertaken with limited understanding of the project and its context, other than what was written in the supplied TIA document.

My comments are as follows:

- P. 17 – The heavy / abnormal vehicle route is mentioned and it is stated that special permits will be required. You should probably go one step further and recommend that a separate heavy/abnormal vehicle route management plan will be required which assesses the route from the closest port to the site, checks that there are no bridges or obstructions along the route, determines hours of operation and speeds; and determines road widening / upgrades required etc.
- P. 23 – E80 Summary – Why has a summary of the E80 loads not been undertaken in this TIA?
- P. 24 – Capacity Analysis. As with the other two reports, I agree that from a traffic capacity analysis perspective, no upgrades are required, however I am not so sure from a safety perspective. Upgrades of intersections in rural areas are mostly dictated by safety issues that arise due to large speed differentials. I assume The N14 has a speed limit of 100 or 120 km/h.

With an AADT of 1312, this development will significantly increase this number during the construction phase, most of which will be heavy / abnormal vehicles. So, a heavy vehicle stopping to turn right off the N14 onto an unsurfaced road, could potentially have a vehicle travelling at 120 km/h coming up behind it. Under these circumstances, I think you may find that the National Authorities would want these intersections upgraded to include a separate through-right or right-turn lane for safety reasons.

- P. 30 Section 7.2: As discussed above, I think that the potential impact on traffic safety will be an issue. Road accidents and deaths on high speed rural roads is a major issue these days. I suggest you add this as a factor and propose the mitigation discussed in the point above.
- Is the possible deterioration and damage to the unsurfaced access road and/or the construction of a new unsurfaced road an impact that should be considered here? (it is mentioned earlier in the report) I am sure the mitigation will be that they will have to regrade this road on a regular basis to keep it in acceptable condition, but a road materials engineer should probably be consulted. I am not sure if the construction of a new 18.4 km unsurfaced road is an impact that should also be considered?
- P. 34 Cumulative Impact – I agree that there is not much you can assess here if you do not have any information, but there is a possibility that even more heavy vehicles will be using the N14/Lus10 intersection, which makes the proposed intersection upgrades even more important.
- If an extreme accumulated worst-case scenario is required to be tested, then you could undertake a “what if” analysis assuming that at least one other development coincides with this one.

Please do not hesitate to contact me should you wish to discuss any of the above comments.

Yours faithfully
for UrbanEQ Consulting Engineers (Pty) Ltd



ANDREW BULMAN PrEng
Director