

From: Lee Kingma [REDACTED]
Sent: Friday, 11 June 2021 8:50 AM
To: RIT-T Consultations
Cc: Bronwyn Rosser; James Tydd
Subject: RIT - Managing safety and environmental risks on Line 18 (Kangaroo Valley – Dapto)

Attention - RIT-T Consultations Team

I am a grazier in the Tumut area with two 330kV lines running through our properties for a total of approximately 6km. These assets are of a similar age to the subject of this proposed project and the area is at risk of extreme weather and bushfire behaviour, with an existing tower having already collapsed on our boundary. In this context I am writing as an interested party both as a power consumer and a stakeholder who is impacted by TransGrid's asset management approach in general.

The general comment I have is that an alternative solution to reduce the risks would be to correct issues, especially minor corrosion, as they occur and before they present a risk to the asset and the community. This approach would reduce the cost and risks and may be more appropriate for high risk-assets such as these. For example, steel structure corrosion often initiates from areas where the coating is locally damaged during construction or operation, or has an application or preparation defect. An alternative maintenance practise which is usual in power generation, mining and heavy industry is to identify and correct localised corrosion before the corrosion spreads and the structure is compromised.

The project report doesn't provide enough information on the current extent and severity of structural steel corrosion to judge if this is, or would have been, appropriate. It does explain that *"a significant proportion of the steel transmission structures are impacted by various levels of deterioration and corrosion"* but there is not enough detail to understand if the proposed approach represents good value for money. The report indicates the post-project maintenance costs will not be reduced, and doesn't detail any past corrective or preventive measures taken resulting from the inspections in 2016 and 2019. This seems to imply that corrective actions are not being taken until the asset reaches a point where it is a danger to the community.

The report identifies a risk of structural failure due to corrosion of steel members, but there is not enough information to understand if this is likely. If the condition of the coating is being monitored, interventions should have been made before the base metal loses thickness. If there is a loss of base material, the report should identify the number of towers impacted, the locations and the severity. This would allow stakeholders to understand better how the conclusion about the risks were made. It would also allow stakeholders to make a judgement on the cost of the project and if this represents fair value.

TransGrid has experience of tower failures in the 330kV network with assets of similar age. It would be useful for TransGrid to explain their experience with these past failures and how they relate to this project. For example, explaining if past failures were resulting from the type of corrosion identified on this line, extreme weather, or if the original design was not appropriate to the conditions. This would help inform stakeholders if the proposed remediation works represent a good investment and the actual probability of a tower collapse or conductor drop due to corrosion.

Lastly, the images in the report show examples of fastener corrosion as justification for the project. Figure 2-3 in particular shows heavily corroded nuts but the bolts appear to still have their coating intact. An alternative approach for this project and in general would be replacing the nuts, or both the nuts and bolts identified as partly corroded during off-line maintenance inspections, before the issue becomes a community safety issue.

Thank you for the opportunity to comment on this proposed project. I hope this information is constructive for TransGrid.

Regards
Lee Kingma



Figure 2-3 Corroded conductor and earthwire fittings

