

**Meeting title:**

Isundu Sub-station

**Location:**

Eskom Offices - PMB

**Date:**

12 November 2015

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Present: Eskom, Acer Consultants and  
RCL

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In attendance:

Acer: Paul Scherzer and Pieter Heinsohn.

Eskom: Annah Motalane, Nkosozana Leseka, Mohammad Nabbie, Bernadette Soloman,  
Steven Van Houten

Rainbow: Aldine Armstrong, Sanjay Maharaj, Tyrell Govindsamy and Alan Reddy.

1. PS of Acer presented the preliminary findings of the EIA process.
2. Acer had taken RCL's concerns into account and had appointed 14 specialists.
3. EMF's: PS noted that there was a 275KV line across the Rainbow properties since 1970's. The specialists confirmed that there were no EMF effects from this KV line or any anticipated from the proposed KV line.
4. Biosecurity: PS stated that the sub-station would not "unduly" increase the risk of bio-security. This risk revolved around transportation and staff. There would be no need to access the Rainbow properties from the sub-station site. 2 x 400 KV lines were going out south from the sub-station and not over the Rainbow property. 765KV line, the placing of which was still to be negotiated would either avoid the Rainbow properties completely or be fenced off. SM noted that the 765KV line was still to be negotiated.
5. Storm water and water: storm water would be directed away from the Rainbow properties. There would be portable toilets on site for the staff and the waste would be strictly controlled on site. (This is all dependent upon the compliance of the staff on site)
6. Lighting: PS stated that the visual impacts of lighting could be easily mitigated. They would be directed downwards. SM noted that it could still impact on the poultry as the houses were not closed houses. The light would enter the houses and the intermittent light would be distracting and harmful to the birds.
7. Noise: PS noted that the operational noise would not be greater than the existing noise inside the chicken houses which is more than 45 decibels. PS noted that the construction noise such as concreting etc would rise to about 57.8 decibels and would be both on a continuous basis and on a sporadic basis. He stated that in some instances the sound would be louder than 57.8 decibels. (It is not clear how Acer measured the noise level in the chicken houses). PS did say that this noise was modelled which in itself is not a pure or accurate science. It was noted that the noise inside the houses, whilst it may be around 50 or 55 decibels, was a continuous noise that the birds have become accustomed to and that any sudden noise resulted in death and smothering. PS requested that RCL

endeavour to provide details of the nature of the sudden noises and the decibel levels of those noises at which the birds react detrimentally. SM undertook to endeavour to get this detail.

8. Air quality and dust: PS stated that broilers could tolerate 5 000 grams per cubic meter of dust. The tolerance of rearers and layers was not considered. A figure of 3 600 grams per cubic meter was a more typical level. He stated that the experts said that an increase of more than 700 grams per cubic meter should not be allowed. He reduced this further still to 187.5 . The measurement was against the daily ambient average for humans at PM 10. In RCL's view this is not an accurate measurement because you cannot use human tolerances for birds. Acer's specialist relied on the national air quality target for ambient air particles. PS also noted that the weather conditions would affect dispersed concentrations of dust. He stated that it could be exceeded by 20 to 25 percent of the time over a 5 to 21 hectare area but believed that mitigation was 75% effective. However, the poultry specialist confirmed that the responses to the dust was dependent upon the amount of dust and the tolerance of the individual birds and that a significant amount of dust could be drawn into the houses through the vents and through the fans. The PM 10 target was repeated. The conclusion from PS is that there was still a high degree of uncertainty as to the impacts that the dust could have on the birds.
9. Blasting: there was still a lot of uncertainty around whether the blasting would be required and what the impacts of blasting would be. This was dependent upon the geotechnical investigation that still needed to be undertaken. It was noted that blasting could raise noise levels to 75 decibels which is not acceptable and cannot be tolerated by the RCL operation. The vibration and pressure wave impacts still needed to be determined. PS concluded that this would obviously not be significant during operation but that there were still serious concerns relating to the construction phase. Increased dust levels from the general construction activities and from blasting would result in birds flocking and smothering each other. Infections as a result of micro biological agents that might be transported as a result of the unsettling of the earth as well as blocking up fans may result in an increase in ammonia and the transmission of infections.
10. RCL representations: Acer's findings were not accepted by RCL without its formal review of the documents in due course. SM and AA confirmed that whilst discussion of the details of these impacts of the Substation could occur now it may be premature. The route of the pylons had not been confirmed, Rainbow had not been consulted and the route of the pylons may not be able to co-exist with the Rainbow operations, as the corridor traverses its properties and is in close proximity to the chicken houses. There was some debate due to the fact that the corridor had already been approved and AM and SvH from Eskom did not entertain any discussion on this. They agreed to reconsider the engineering design of a route which would fall outside of Rainbow's properties. Rainbow would require a sufficient buffer far enough away from the chicken houses so as not to create unacceptable impacts. RCL requested that they provide details of construction and engineering plans including the proposed positions of the pylons. The construction details required included timing, extent, duration and number of staff that would be required to attend to this. AA also requested further reasons why the Sigma site was no longer being considered and why there was no alternative site that was being considered. It was noted that both the corridor and the sub-station site were being imposed on RCL and that there was too much reliance on possible mitigation where avoidance might be the best practicable environmental option.
11. RCL recessed and submitted the following:
  - a. RCL's objective was not to be obstructive, but to protect its significant interests that are reliant on an environmentally sensitive value chain. The attendance at the meeting, the and the suggestions made by RCL did not in any way constitute acceptance of the proposal;

- b. That a route for the power line needed to be determined. If within the corridor it would have to avoid RCL's properties and be sufficiently far away not to create impacts that could not be tolerated By RCL. RCL would provide Eskom with the appropriate buffers. RCL required the details construction programme. DH undertook to provide this and SvH undertook to provide the route.
- c. Outstanding information: further investigation into dust that would still impact on the birds, blasting, vibrations, pressure waves, geo tech and details on the construction plan, activities and time lines;
- d. RCL undertook to try and provide details on noise impacts;
- e. RCL undertook to provide possible proposals to mitigate the light and dust issues which may include closing and cooling of the houses, and the costs thereof;
- f. RCL undertook to provide details of the option of fencing.
- g. All mitigation would be at the cost of Eskom, as would the costs incurred as a result of any disruptions.
- h. In considering the Substation proposal RCL requested that an alternate footprint position of the sub-station within the sub-station site be considered and that the sub-station footprint be placed as far away as possible from the Rainbow boundary. Acer undertook to ensure that this alternative was provided. It was also noted that SvH mentioned the possibility of lines coming in from the game reserve side but dismissed it as Eskom did not want to interfere with those parties. This same consideration was not afforded to Rainbow.