



Ck No. 2007/196934/23 VAT No: 4030265740

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Dear all,

Thank you for attending the public meeting on 22nd July 2014

We would like to draw your attention that these minutes were drawn from notes taken from the Public Meeting; please provide corrections / additions if applicable.

We would like to advise that while utmost care was taken to record your comments accurately and faithfully, there may be some discrepancies between what has been written in the minutes that follow and what was actually said. We apologise for this and request that you contact us should you wish to have something changed.

Many thanks for your participation at the meeting, as well as for your understanding regarding the minutes.

Regards

Judith Alford
Mokgope Consulting cc
Cell: 076 876 2672



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**Proposed “Kronos-Perseus” 765kV Transmission Power line & Substations
Upgrade, Northern Cape and Free State Provinces
DEA Ref: 14/12/16/3/3/2/438**

**Meeting with I&APs held at 10h00 on 22nd July 2014 at Mokala National Park,
Northern Cape**

Attendees:

Judith	Alford	JA	Mokgope Consulting
Victoria	Somo	VS	Mokgope Consulting
Bruce	Sebolai	BS	Mokgope Consulting
Lerato	Mokgwathheng	LM	Eskom
Wimpie	Henning	WH	Eskom
Linda	Haarhoff	LH	Eskom
Koketso	Kotsoe	KK	SANParks
Jahn	Hohne	JH	Jag Ventures cc
Jennifer	Hohne	JEH	Jag game ventures cc
Greg	Edwards	GE	Magersfontein Safaris
Hugo	Bezuidenhout	HB	SANParks
Deon	Joubert	DJ	SANParks
Natalie	Birch	NB	Hunt the sun safaris
John	Wayland	JW	Fort Richard farms
Shirley	Wayland	SW	Fort Richard farms
Freddie	Besselaar	FB	
Tomie	Langenhoven	TL	E.M Langenhoven
Mynhart	Van der Merwe	MV	
J & B	Visser	JBV	
Ken	Dugmore	KD	

Unknown in list above will be indicated as **I&AP in discussion below.*

Item No	Item Description	Response / Comment
1.	JA: Welcome and Introduction	
2.	JA: Presentation	
3.	<p><u>DISCUSSION</u></p> <p>DJ: I am concerned with the preference ratings of the Avifauna. He prefers Corridor 3, yet this corridor crosses the park and that is where breeding colonies occur. Is there a mistake with these ratings?</p> <p>In terms of the Heritage impacts, Corridor 2 and 3 would pass through bushmen engravings that exist in the park.</p> <p>FB: My opinion is that Eskom can build the power line over Mokala National Park, because parks like the Kruger National Park have several power lines through the park.</p> <p>I&AP: Hoekom wil Eskom slegs Mokala Park beskerm en nie affekteerde boere in die verband? (<i>Why do you only want to protect Mokala and not landowners which the line is going to affect?</i>)</p> <p>JW: How are you going to consider the impact on our hunting areas? We also have bushmen engravings and lots of electric fencing. How is the power line going to affect our farming?</p> <p>HB: Birds are nesting in Mokala and there</p>	<p>JA: The Avifauna's option is Corridor 3 due to partly being close to existing lines but he recommends that should Corridor 3 be chosen, it should avoid Mokala.</p> <p>JA: The Heritage assessment has indicated that this region has existence of battle fields. Part of his recommendations is to avoid heritage sites that the final route comes across during construction phase.</p> <p>JA: The existing power lines in the Kruger were constructed before the laws were implements for protecting national parks. Today, National Parks are included as protected areas. Hence a proposed power line has to be assessed and granted Environmental Authorisation prior construction.</p> <p>JA: The final route chosen would have to go through a negotiation process with all affected landowners. Hence not only Mokala is of concern. At that stage, the landowner would also have to list concerns and recommendations to minimise any possible impacts on the farm. Everyone's concerns are considered and hence we have to come to an agreement and also weigh the levels of impacts. If they cannot be completely avoided then we'll need to minimise them. Mitigation measures would need to be included in the EMPr to be adhered to during the construction phase.</p> <p><u>Post meeting note:</u></p> <p>LM: Mokala has been proclaimed as a National Park. Mokala is therefore protected by legislation to not allow certain development to occur within or through it. Developments of National Importance are only allowed through National Parks if there is no other area of where they could go through.</p> <p>JA: Within the 2km corridor the line would be able to be realigned to avoid certain areas of concern. This would need to be discussed thoroughly during the negotiation process.</p> <p>JA: Your comments have been noted. The</p>

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	<p>are big Camel Thorns in those specific areas where the birds are nesting and breeding. Raptors also occur in this area. Hence the area and its surroundings are regarded as sensitive. My point is that we are trying to protect a natural area and we want to create an area where we lessen negative impacts.</p>	<p>avifauna specialist has a list of mitigation measures for the impacts on birds and this must be adhered to. For instance placing bird flappers on the line and constructing away from the buffer zone of bird habitats.</p>
	<p>GE: Line 2 and 3 would run about 300m in front of my hunting lodge and it's an established clientele of foreign hunters. For us, it would be the end of our business hence it is not even negotiable.</p>	<p>JA: Noted with thanks.</p>
	<p>GE: I would like to know why these routes cannot follow existing servitudes. It does not make sense to me. There are 5 to 6 lines east of Jacobsdal running to De Aar and from De Aar they could run up to Copperton. This would also avoid visual pollution that we all want to avoid.</p>	<p>LH: We already have complaints from landowners saying <i>"I already have 7 lines on my property and another line would just decrease the value of my property and the properties have sentimental values"</i>. Landowners suggest that Eskom combines all the lines and make it one big line and on the other hand the landowners suggest that other farmers should give away their land for the servitude. Eskom is aware of these pros and cons. However in this scenario it's important for us to go for the Northern alignment. It is called Phase 5 of the Cape Corridor. It is a future project as it is not even on the 10 year plan for construction. Currently There is another proposed project called Phase 4. It runs parallel from Dealesville via De Aar to Cape Town. In this case we went for the Northern Alignment because there are a lot of solar activities occurring in this area. Hence it is very important for us to pick up all the generation happening in this area. Also in the west coast, there are a lot of wind farms that Eskom need to evacuate from there. So, that was the main purpose to plan for the transmission line to run through the Northern Alignment and not as part of the main back bone (the main corridor – where Eskom generates in Mpumalanga going to Cape Town). The other problem with the back bone is for example: If a veld fire occurs in this area, all the lines will be affected by the veld fire and hence trip out all the lines. Consequently, the whole of the eastern region would have power interruptions. In other words, Eskom has already got a lot of lines in the eastern region and the risk of having more lines parallel to each other is quite high. It</p>

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	<p>JH: That is a very good response GE. The sensitive areas are between Perseus and Hydra and that is where you have the argument of 7 lines running parallel with each other. Surely those lines are old and could be obsolete. My suggestion is to replace the existing lines with the power capacity of the proposed monster line going through our properties and sensitive areas, and then still comply with your Northern Alignment which comes off Hydra to Kronos.</p> <p>We agree with you that you need that infrastructure. The sensitivities through Perseus to Hydra and the consideration of putting the big line on existing servitude in my opinion is a very strong consideration, particularly if you reconsider replacing old lines. That is a recommendation that I make.</p> <p>Further, my second point is that it is quite compelling to see the specialist studies having made a very strong argument against Corridor 2 & 3 and mostly approve Corridor 1. At what stage in this procedure do you heed to all of those recommendations and make a decision that Corridor 2 and 3 is a non-option, so that we can stop concentrating on Corridor 2 and 3 which so badly affects the Magersfontein Battle Field area and Mokala Game Reserve?</p> <p>Magersfontein Battle Field and Mokala Game Reserve are two of the top 5 tourist destinations in the Northern Cape and the Kimberly area. Constructing a power line in those two areas would be completely suicidal to the general economy of the Northern Cape.</p> <p>KD: There is one concern about the comments that were made at the previous meetings. In your presentation you state that "landowners are concerned about the power line crossing their properties" We are not concerned about it, we strongly oppose to it! It does not matter which route is chosen. We</p>	<p>is therefore important to go for a totally different route that we call the Northern Alignment, which would cross through the Northern Cape province.</p> <p>Comments noted with thanks.</p> <p>From an environmental perspective with considerations from all inputs from specialists and I&APs, the suitable route would be Corridor 1. Our recommended route would be reviewed by DEA who would make the final decision. We anticipate receiving response from DEA mid next year.</p> <p>Comments noted.</p> <p><u>Post meeting note:</u> LM: It is also important to note that the areas with power lines once used to be pristine too. The landowners reached some compromises with Eskom for power lines to pass through their</p>

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	<p>are sitting in the Northern Cape in a pristine area which we have protected, in our case for a hundred and plus years. Now you want to construct this huge monstrous line over our area!</p> <p>GE mentioned earlier about his specific case that the power line would pass very close to his lodge. Overseas hunters and tourists that come to our properties to hunt and enjoy the pristine scenery would be visually impacted even if the power line is miles away because it is a huge power line.</p> <p>It's not only Mokala that we are concerned about. We are also concerned about pristine game farms, ecotourism and an environment which has been preserved for many years. Therefore we do not accept these power lines over our areas.</p> <p>I do understand the reason that some of the farmers have suggested for building an extra power line. JH's idea of upgrading might be the solution and also the suggestion of building the line in areas that don't have pristine environments. If the power line is built in non-pristine farm lands, then the farmer may continue livestock activities under the power line. It won't affect them because their land is not in pristine conservation and ecotourism promoted areas. Hence look at that option because this proposed option is affecting the pristine Northern Cape environment.</p> <p>Even with the solar panel developments, we are already upsetting the pristine environments. Those developments are being pushed away into the back areas and hopefully when we have overseas visitors we will avoid driving the visitors those solar panels due to the visual impact on the landscape.</p> <p>In this case, Mokala together with a lot of game farms are concentrated on Corridor 2 and 3. So just per chance, Corridor 1 is an option and that I would be supporting.</p> <p>I&AP: Eskom kom met meer problem as wat Eskom die plaas boere se regte en veiligheid te verseker omrede hulle maak en doen net soos hul; wil op hulle gronde en hulle sal nie toelaat dat dit weer gebeur nie. (<i>Eskom</i></p>	<p>properties for the country's economy sake, and most importantly for me and you to have electricity in our houses.</p> <p>Comments noted with thanks.</p>

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	<p><i>comes and go on the properties and does not take into consideration the safety of farmers. The farmers will not allow that history to repeat itself).</i></p> <p>JH: I would like to ask Eskom if they have considered the new European power lines where they are successfully placing high voltage conductors underground. These are gas filled conductors that provide a high efficiency of conductivity. They are costly but Eskom should start considering those in the high sensitive areas. And drop them out of the way from our pristine areas.</p>	<p>LH: Normally the highest voltage that Eskom can get current going through an underground transmission cable is about 400kV and only for short distance. In this case, by pushing up the voltage to 765kV means we may increase the distance further to about 450km before we connect to a switching station otherwise the lines become impossible to operate. Hence in general, that is why Eskom opts to go to existing sites to reduce building new 765kV yards and other associated structures. The only alternative we've got for our 765kV is HVDC. Instead of the normal AC, we would rather go for a DC current that is for example, the link between Morombassa in Mozambique and Apolo in Pretoria. In this scenario, its only one conductor and you don't see the 3 phases. It is smaller, but with the HVDC Eskom can do about 2000km before connecting to a switching station. This would mean we would run a direct link from Johannesburg or Mpumalanga right down to Cape town without switching stations in between. The problem with this is that we need to go through the Northern Cape to pick up loads and generated electricity from solar and wind farms. By us opting for an HVDC would be impossible to build a switching station. We would need to build a whole converter station for HVDC. The whole procedure would involve converting an AC into a DC and this is a whole big complex procedure on its own. However, with HVDC there is the advantage for example, if the conductor burns down, the current may be pushed underground and it will pop out on the other side at the right place. This is because Eskom has put electrodes in Apolo in Pretoria and in Morombassa in Mozambique.</p> <p>JH: Well then there is your answer, an HVDC with no lines.</p> <p>LH: It's not the answer because farm wires would get wrecked and heat up. So it's not ideal for the ground and it is also not a good conductor material. In addition, if the cable is underground that means a trench needs to be dug. The trench area would need to be rehabilitated, which results to a much bigger area of disturbance over a longer period than</p>

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		<p>constructing towers & stringing lines overhead. Also, fault finding is a lot more difficult if the cable is underground.</p> <p>Eskom would rather keep it in a solid steel type of conductor so that we can transfer it without having lots of loses on the line. Coming back to loses, for example, if Eskom builds a longer line going down from De Aar to Cape Town, at some stage the loses will be so high and its impossible from a financial point of view. This would cause electricity rates to increase at 20% on a yearly basis just because of loses on the line with electricity that Eskom cannot sell.</p> <p>The higher the voltage, the lesser the losses. Eskom would rather keep on 765kV running to specific points and then from there distributing to electricity users.</p> <p>Even landowners with hunting farms need electricity. For the current electricity we are using, somebody signed for that line to pass through their farms. I am not suggesting Eskom should build the power line on your farms, I am just saying that we all need to keep in mind that somebody also signed for us to have electricity supplied to you.</p>
	<p>JH: Thank you, but it still remains in the most sensitive areas.</p> <p>Is there a possibility of dropping AC lines to 400kV dual lines which would become 800kV lines, of which you are proposing? Maybe this could be a possible technology.</p>	<p>LH: No it's not a possibility because with 400kV lines would need a distance of about 160km before connecting to a substation. With 765kV, we can go up to 450km before connecting to the next substation. Although Eskom would run 2x400kV lines, as per your suggestion, the 400kV line won't get past that point of having switching stations and having more substations in between. Furthermore, the losses would be more at that voltage.</p>
	<p>JH: For the sake of the upgrading the existing line, isn't it better to have two extra substations in the sensitive areas, than having whole big new line, the sensitive areas?</p> <p>GE: With regards to the solar farm developments, surely one of the things that were taken into consideration before licenses</p>	<p>LH: No, it's definitely not feasible from a loss point of view. For distances it does not make sense. It makes sense to push up the voltage to reduce the losses on the network.</p> <p>LH: In terms of Solar farms, Eskom can only quote them if Eskom can evacuate the generated power. So from all the current</p>

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	<p>were issued to these operations was how the energy would be injected back into the grid. Why were licenses granted to solar areas that didn't have transmission infrastructure that Eskom is now proposing?</p>	<p>projects, Eskom can evacuate the power from there. Consequently, we are building new substations and there is a lot of other integration that needs to happen. These are future plans, which are not solving today's problem. It is a matter of solving problems that would come in 10 years from now. Eskom therefore needs to have a master plan on the table indicating where all the developments and generation is happening and where the load is sitting and how Eskom would evacuate the load from one point to the next. Eskom knows Northern Cape is a very weak network and this is also part of strengthening the Northern Cape network.</p>
	<p>HB: How did you come up with the three options? And why did you not consider using existing railway roads and not crossing pristine areas?</p>	<p>LM: We use "Google Earth" and sometimes do conduct a fly-over of the study area. The ideal situation is to have a straight line from point A to point B. We also consider the following: costs involved in building the power line; existing servitudes with lines; and where we can align the proposed line to the existing line; how impacts may be minimised; we try to minimise encroaching into pristine areas; and terrain dictates where we can place the line (e.g. mountainous, wetlands, irrigation areas, etc.). We consider risks, for example, if there is a veld fire and all power lines are situated in the same area, they will all be destroyed. This is a collective effort to investigate where proposed lines may be established.</p> <p>Having selected the proposed alternative routes, Eskom then provide the proposed corridors to the appointed environmental consultants to investigate further and assess other constraints that were not picked up at the initial route selection. These proposed corridors are subject to changes by the professional team.</p>
	<p>KD: Choosing those three routes was really a poor decision. The first thing that should have been checked before we came to the first meeting is the lines running over Mokala, which at this day and age is totally unacceptable.</p> <p>When impact studies are conducted, field surveys also need to be done. I don't think field surveys were conducted because nobody in this room has had specialists coming to their farms. Those studies were</p>	

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	<p>done far away from our properties. I question Eskom's route selection process because they missed the important block in the whole thing, which was Mokala. I question all your impact studies because not a single specialist came to assess in our areas. Hence they have not done their studies properly.</p> <p>KK: If possible can you please follow up with the Endangered Wildlife Trust because they conducted surveys two week ago and your proposed lines were included in their surveys. Let the Avifauna get in touch with Dr Andrea Botha from EWT. They will have more information on avifauna in this area.</p> <p>NB: I have to concur with KD that specialists did not do their ground work and it is evident in the reports that very little is mentioned of the hunting industry in the area. In this area, we've got the Mokala and Magersfontein, which are two tourist spots. When you are driving along this road coming into Mokala you can see that there are a number of private hunting lodges that would be directly affected. We can't compete with the international market if there are big Eskom lines running through the farms. The blue corridor without the deviation runs directly over our lodge and if that was the case we might as well close down the business. Hence you need to provide statistics of the affected hunting farms surrounding Mokala. The Social Report mentions that the hunting season is from May until August and that is our busy period. However with a CAE Certificate hunters can hunt at any time of the year. So that is a little bit misleading in terms of what the industry delivers to the area as a whole. You can check with institutions like</p>	<p>JA: As stipulated in our contracts with the appointed specialists, they had to conduct a field survey. However they were not expected to visit each and every farm due to the width of the corridor, time and budget constraints of the EIA Process. During their field surveys they did provide proof of which areas they visited, which is in their reports. It is important to note that the preliminary-profiled servitude within the approved corridor will be thoroughly walked and surveyed / ground-worked by some of the specialists to ensure that the tower positions are outside the sensitive areas.</p> <p>JA: Thank you for the information this will be forwarded to the avifauna specialist.</p> <p>JA: Your comments have been noted and will be forwarded to the relevant specialists to check if there are any gaps that need to be filled in.</p>

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	<p>Professional Hunting Association to get figures as to what the Northern Cape delivers in terms of income from hunting.</p> <p>In the report, it mentions that the recommended route is the blue corridor 1 with the deviation. I want to know if Eskom is happy with this recommended line.</p> <p>KD: What is the procedure from here? When are you going to contact us and what can we expect?</p>	<p>LH: Yes we support this route but it is not in our hands to decide which route will be final. The final decision would be made by DEA.</p> <p>WH: In addition, Eskom by law would have to build within the corridor. If Eskom is not satisfied with DEA's decision and/or conditions, Eskom will have to follow the appeal process as per legislation. DEA will then review and assess Eskom's reasons of appeal and provide an informed decision. This may be in Eskom's wishes or not.</p> <p>JA: From this meeting I have the comments and concerns. When I return to the office I'll compile the minutes which would have to be sent back to you for verification. At the same time I'll compile a Comments and Response Report which you would also review. Once these documents are finalised, they will be included in the Final report to be submitted to DEA by end of October. Subsequently, notification to review and comment on the final report would be sent to you. The Reports would be distributed to the various libraries and we can arrange to send them electronically to individuals upon request.</p>
4	Meeting declared closed.	