

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

**FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND
ASSOCIATED INFRASTRUCTURE**

DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

KEY FOCUS GROUP MEETING

REBELS RUS LANDOWNERS

24 MAY 2010

17H00 – 20H00

TABLE OF CONTENTS

TABLE OF CONTENTS	2
PREFACE	3
1. ATTENDANCE.....	4
1.1. Attendance – Rebels Rus Landowners	4
1.2. Attendance – Eskom Holdings Limited.....	4
1.3. Attendance – Environmental Consulting Team	4
2. WELCOME AND INTRODUCTIONS.....	5
3. FORMAT OF MEETING AND DISCUSSION POINTS.....	5
4. DISCUSSION SESSION.....	6
5. CLOSING REMARKS	29
ATTENDANCE LIST	30

PREFACE

Should participants who attended the meetings require any changes to these proceedings, please notify the Public Participation Office in writing within 14 days of receipt.

“**Unidentified I&APs**” refer largely to persons who attended the meeting and verbally raised issues without providing their names. This in no way diminishes the value of the issue raised. Should you recognise your input and would like to have your name recorded next to it, please advise the Public Participation Office.

In order to provide a structure and to enable the reader to follow the proceedings with ease the minutes have not been captured verbatim and post-meeting notes have been added for clarity and information purposes and are indicated in **bold**.

1. ATTENDANCE

1.1. Attendance – Rebels Rus Landowners

Name
Ms Frances Becker
Dr Anton Bok
Mr Michael Charlewood
Mr Duncan Davies
Mr Roland Gathercole
Mrs Angela Gathercole
Mr Chris Jones
Ms Chantal Oddy
Mr John Oddy
Mr Charl Rautenbach
Prof Warwick Sauer
Ms Andrea von Holdt
Mr Robroy von Holdt
Mrs Libby von Holdt

1.2 Attendance – Eskom Holdings Limited

Name	Position/Role
Ms Deidre Herbst	Senior Manager - Environment Generation Division
Mr Gert Greeff	Manager - Nuclear Sites
Mr Mervin Theron	Manager - Regulatory Affairs and Localisation
Mr Mandla Mbusi	Senior Advisor - Stakeholder Management
Mr Jan Norman	Nuclear -1 - Operations
Mr Johann Breytenbach	Nuclear 1 - Project Manager
Ms Lorraine Ndala	Senior Environmental Advisor
Ms Carin de Villiers	Manager - Stakeholder Management and Communication, Nuclear Division
Mr Andre Nel	Manager - Site Safety Report Team

1.3 Attendance – Environmental Consulting Team

Name	Organisation	Role in the project
Ms Jaana-Maria Ball	Arcus GIBB (Pty) Ltd	Nuclear-1 EIA: Project Manager
Mr Reuben Heydenrych	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Ms Bongzi Shinga	ACER (Africa)	Public Participation Consultant

2. WELCOME AND INTRODUCTIONS

Ms Ball welcomed everyone to the meeting and introduced herself as the independent Environmental Assessment Practitioner (EAP) from Arcus GIBB.

She then requested all attendees to introduce themselves. Introductions were done as per Sections 1.1 to 1.3.

3. FORMAT OF MEETING AND DISCUSSION POINTS

Ms Ball stated that the meeting with Rebels Rus landowners forms part of the EIA process and is being held after a number of requests were received during and after the recent public and key stakeholder meetings held in the Thyspunt, Cape St Francis and Francis Bay area. She hoped that the meeting would prove to be informative and constructive for all parties.

Ms Ball further mentioned that she was aware that there are a number of issues that the landowners would like discussed, as per an email received via ACER (Africa).

The issues are not limited to, but included the following:

1. Detailed maps and/or aerial photographs showing our properties and individual erf's within the RRNR in relation to the proposed Nuclear Power Station and the 800 m safety zone.
2. Detailed information on the extent of the impact on landowners - specifically landowners who are closer to the Nuclear Power Station, e.g. what does the Nuclear Power Station mean for the future of Rebels Rus properties?
3. Is the 800 m safety zone conclusive, or will this change, depending on the technology used for the NPS or depending on the NNR? Obviously the extent of the safety zone has a huge impact on some of the landowners within the RRNR.
4. Detailed information about our current access to the beach, alignment of proposed eastern road, construction impacts, etc.
5. Visual Impact Assessment and 3D Modelling.

Additional issues which were added at the meeting were as follows:

6. Expropriation
7. Potential health risks and safety as regards sea water
8. Sediment sludge from construction - disposal and movement of the sediment
9. Impact on groundwater and the effect of the potential groundwater draw-downs

4. DISCUSSION SESSION

This section details all issues, comments and concerns, which were raised and discussed at the meeting. Should you wish to make any corrections, please advise ACER within two weeks (i.e. 14 days) of receiving these minutes.

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
1	A Landowner Rebels Rus Nature Reserve	<p>The main priority for the Rebels Rus landowners is, are they going to be expropriated. If they are going to be expropriated, none of the issues raised in Section 3 will be applicable.</p> <p>He asked if there was any area that would require compulsory expropriation due to a nuclear facility.</p> <p>He asked if expropriation is therefore not essential in Rebels Rus area.</p> <p>He wanted to know if a person's property is within the 2 km exclusion zone and they choose to retain their property, would that be their own private choice.</p>	<p>Ms Herbst explained that Eskom used to have expropriation rights but they no longer have rights to expropriate. Eskom can initiate expropriation through the Department of Land Affairs. However, Eskom avoid expropriation and it would be the last option pursued.</p> <p>Ms Herbst said there was an area of about 2 km radius which Eskom would like to have under their own control. There are some sections of Rebels Rus property within this 2 km radius, which will be impacted. There would however be a process of discussions with the relevant landowners.</p> <p>Mr Greeff confirmed that it was not absolutely essential.</p> <p>Mr Greeff replied that this is not a preference. Mr Greeff explained that his function is to undertake the acquisition of the property for the nuclear sites. Ultimately he will also undertake the environmental management of such properties until such time as the proposed development takes place. There is a decision that has been made by Eskom, which indicates that Eskom would like to acquire all the property and manage all the property within the 2 km radius of the plant. Eskom would look at a 2 km radius outside the plant and all the properties involved bordering the inside of the 2 km radius. This is not to do with the actual Emergency Planning Zone (EPZ), which is</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			800 m, it is more to do with security and access onto the nuclear plant site itself.
2	A Landowner Rebels Rus Nature Reserve	<p>Has it been decided exactly where the plant would be constructed? Is it going to be built at Thyspunt and not any other area in the Eastern Cape?</p> <p>He then asked if this is a preferred site does Eskom know where it is going to be.</p>	<p>Ms Herbst replied that three alternative sites have been assessed in the EIA and Thyspunt has been identified as the preferred site. The motivation and Draft Environmental Impact Report (EIR) must still be submitted to the Authorities (the Department of Environmental Affairs [DEA]) and only then will a decision be made on whether the recommendations are acceptable. There are still some criteria that are going to influence that decision. One is the Integrated Resource Plan (IRP). South Africa has made a decision that nuclear will be included in the mix. The IRP 2 will assess how much coal, how much nuclear, how much gas etc. would the country need and who is going to build this. That draft plan will only be released in June 2010. The IRP will therefore determine how South Africa moves forward in terms of which generation technologies will be constructed.</p> <p>The next process that has to be undertaken is the nuclear licensing process which also requires authorisation. The EIA is one decision amongst many that would eventually determine whether this site would be a nuclear site.. Currently it is considered the preferred site.</p> <p>Ms Herbst explained that the exact footprint is going to have to be determined during final design with input from some of the specialists. The specialist studies have identified an area where it would be preferable to position the station in order to have the least negative environmental impact. For example, the specialist conducting the geohydrology study, the ground water and the wetlands study, is carrying out more detailed studies to determine exactly what the influence of the groundwater on the</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			wetlands are. This would assist in determining the buffer zone between the actual footprint of the site and the wetlands.
3	A Landowner Rebels Rus Nature Reserve	He understands that the footprint has moved approximately 3 km further east towards Rebels Rus, from the original zone, he asked why this has happened. He stated he saw some years ago that Rebels Rus Nature Reserve was originally 5km away from the Thyspunt site. Where the 2km line is shown in the current maps, it used to be 5km line.	<p>Ms Ball explained that only a recommendation has been made that Thyspunt is the preferred site, but no final decisions have been made. The DEA is the only Authority that can make this decision with respect to environmental matters.</p> <p>In terms of the positioning of the actual nuclear power station, there was no original preferred position by Eskom on the site. Site sensitivities and 'no-go' areas were investigated within each of the specialist's disciplines, these were mapped and there are a series of maps in the Draft EIR depicting site sensitivity. The sensitivity maps for each specialist discipline were then overlaid and an area has been found on this site that is the least sensitive. Within the least sensitive area, there is no pre-determined area for the power station footprint.</p> <p>There are also ongoing studies, e.g. the Wetland and Geohydrology specialists are collecting more data on site and have been doing so for the past year to try and get more certainty on their recommendations with respect to the nuclear power station preferred positioning to the wetlands and under groundwater flows.</p> <p>Mr Greeff explained that the first drawings presented were based on the Koeberg Nuclear Power Station footprint; this was at the time when the property was first purchased. Using a map, he showed that there were two footprints, one at Tony's Point and one at Thysbaai. He then showed the envelope of the power station based on current maps. Mr Greeff outlined the 2 km radius and showed the landowners which properties Eskom would like to purchase.</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			Some of the properties are part of the actual footprint of the road corridor centreline. The blue line showed 'clips' the property of Mr Charlewood and cuts about 20 m deeper. The alignment still needs to be refined with the specialists as the process unfolds in the field. The properties involved will be Portions 74218; 74614; 74687; 74623; 74624; 74625 and 74611.
4	A Landowner Rebels Rus Nature Reserve	In terms of purchasing, if it cuts off a section of a property does Eskom attempt to purchase the entire property, or can it be sub-divided?	<p>Mr Greeff replied that if it were a small section of the property impacted, Eskom would attempt to purchase just the small section and not the entire property.</p> <p>Ms Herbst said that it would depend on the negotiation process. If the landowner wanted to retain a portion of his property that could be negotiated. However, should they want to sell the entire property that could also be negotiated. Eskom has had some cases where a landowner has an adjacent property that he feels would not be of value without the expropriated piece, such cases could also be negotiated with Eskom for sale, i.e. for Eskom to purchase both properties.</p>
5	A Landowner Rebels Rus Nature Reserve	He wanted to know if there is no construction on the edge of the Thyspunt property, could the 2km radius be adjusted inwards.	<p>Mr Greeff said that this is possible but at this stage it appears that the properties will be impacted.</p> <p>Mr Theron explained that the 800 m is based on the international specifications, i.e. the European Utilities Requirements (EUR). This still needs to be confirmed with the National Nuclear Regulator (NNR). There is a global requirement that no activity may occur within the exclusion zone of 800 m from the perimeter of the power station.</p> <p>Ms Ball emphasised that this is a schematic representation at</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			<p>this stage as there have been no decisions made as yet.</p> <p>Mr Greeff said that he has been tasked with undertaking the valuations of the properties so that Eskom are aware of values. Only after the various decisions have been made will negotiations begin with the various landowners.</p>
6	Mr Chris Jones Landowner -Rebels Rus Nature Reserve	As a matter of clarification, the first process is land acquisition, which is a voluntary process. Should the negotiations with a particular landowner fail, then the willing buyer -willing seller will be applied, if this fails the Minister has to be approached for approval of the expropriation.	<p>Ms Herbst said that this was correct.</p> <p>Post Meeting note: Expropriation can only be exercised if Eskom is required through the regulations or license requirements to own the land in question.</p>
7	Mr Rob von Holt Landowner - Rebels Rus Nature Reserve	<p>Mr von Holdt asked who decided that the safety zone would be 2 km. He questioned why it could not be 1.4km.</p> <p>He further mentioned that the 2km boundary cuts across his property (Mr von Holdt), Mr Anton Bok, Mr Duncan Davies and borders Mr Charlewood. Mr von Holdt asked if the 2km radius was cast in stone.</p>	<p>Mr Greeff explained that this is a standard radius on all nuclear sites.</p> <p>Mr Nel stated that this came from a formal position paper that was approved by the Nuclear Division Safety Committee who stated that from a business perspective, they would purchase a 2 km radius around any plant. The 800 m is a EUR requirement. The NNR has made is very clear that decisions cannot be based on EUR requirements until the plant type has been approved and the full probabilistic safety assessments have been done. The NNR will decide what the emergency exclusion zones are. That however does not determine the land that Eskom has to own. From an Eskom business perspective, the decision was made that a 2 km radius around the plant must be purchased.</p> <p>Ms Herbst said that this was not part of legislation, it is a position paper based on internal business decisions. What is important is that this is not the final layout, it is the worst case scenario. The footprint of the power station will determine the</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		<p>Another landowner stated that the 2 km was probably cast in stone but the boundary was not.</p> <p>Mr von Holdt asked if this might move from the eastern side to the western side, thereby causing the boundary lines to move.</p>	<p>zones.</p> <p>Ms Ball said that there were some constraints on the site. There were some faults on the site and one of the key constraints on any nuclear site is seismic risk and the seismic experts have said that the actual plant cannot straddle a fault line. There are also biophysical sensitivities on the site from heritage resources (recommending a 200 m buffer away from the coast) and the wetland specialists (talking about the Langefontein wetland which is highly sensitive, unique, one of its kind, has the headland bypass dune system, etc). So, these constraints have been factored in as well and that is the guidance that has been taken from an environmental perspective.</p>
8	Ms Andrea von Holdt Landowner - Rebels Rus Nature Reserve	<p>Ms von Holdt stated that at previous meetings the 800 m zone had been mentioned, the 2 km was not really a focus. It has also been mentioned that no residential dwelling may occur within the 800 m. She asked if people could live between the 800 m and 2 km area.</p> <p>She went on to say that this makes a huge difference as they are within this area. The information presented at previous meetings has been different. The issue of the 2km zone had not been made clear at previous meetings.</p>	<p>The activities allowed between the 800 m and 2 km are subject to the National Nuclear Regulator (NNR) regulations.</p> <p>Mr Nel explained that within the owner-controlled boundary (800 m) there would be no residential dwellings allowed.</p>
9	A Landowner -Rebels Rus Nature Reserve	<p>He stated that this means they could loose their houses. He said the 2km radius was a huge issue. Eskom has made a decision that they want 2 km, unnecessarily, and there is no regulation regarding the 2km except that Eskom thinks it is nice. The 2km zone is going to impact on their lives.</p> <p>He stated that he feels that the business decision is</p>	<p>Ms Herbst said that discussions with individual landowners would be extremely important. This issue is open to discussion and negotiation. The 2 km was based on certain criteria and those criteria will have to be made known. If Eskom want to expropriate there has to be a valid and sound reason to do so. The Minister will not allow expropriation based on a feeling or a business decision without any grounds.</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		<p>not necessary.</p> <p>He added that if Eskom preclude any form of development the Rebels Rus landowners would fully support it and go along with it. They want to keep it as a small nature reserve and are very against any form of development. If possible, Eskom should leave Rebels Rus landowners where they live.</p>	<p>Ms Herbst said that this must be taken into account when Eskom examines the positioning of the power station. All the other biophysical issues also have to be considered. In addition, this would be looked at in terms of the business case, the criteria that has been used for the 2 km, owner controlled area and then a decision made on that basis.</p>
10	A Landowner -Rebels Rus Nature Reserve	<p>He stated that expropriation on the western side started in 1991 (according to a Newspaper which he has kept). Why were they expropriated then and yet the present landowners do not yet know if they are going to be expropriated or not.</p> <p>Why did Eskom not start negotiating with landowners 10 years ago?</p>	<p>Mr Greeff said that no one was expropriated then; it was a willing buyer - willing seller process.</p> <p>He explained that there have been two old footprints and based on the old footprints and the knowledge at that time, properties were bought on a willing buyer-willing seller process. He mentioned that, as an example Mr Wassenaar's property is not sold because he decided not sell at that time. So, all properties that were bought by Eskom many years ago were from willing sellers.</p>
11	Mr Reuben Heydendrych Arcus GIBB	<p>For information purposes, using sensitivity maps from the Biophysical Specialists explained the various areas and their sensitivity on the Thyspunt site. He showed the following:</p> <ul style="list-style-type: none"> ▪ Green area, which is the EIA corridor, which is the area within which the specialists focussed their assessments. ▪ Yellow area, which is the boundary of the corridor for the High Voltage Yard. ▪ Hatched areas, which are areas of wetlands (and also showed the Langefontein wetland). <p>He showed the area where the proposed power station could be located after all sensitivity maps had been overlaid.</p>	
12	A Landowner -Rebels Rus Nature Reserve	<p>He asked why the footprint was not more westwards towards Oyster Bay.</p>	<p>Mr Nel said that the dune system has to be avoided. There is also a requirement of the EIA that there must be an open</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			<p>corridor 200 m from the coastline.</p> <p>Ms Ball said that the specialist had examined, in detail, the EIA corridor and also its regional context.</p>
13	Ms Andrea von Holdt Landowner – Rebels Rus Nature Reserve	Ms von Holdt stated that if the dunes have to be avoided, the site is in the dunes. She asked what the difference was between vegetated and un-vegetated dunes.	<p>Ms Ball replied that according to the dune specialist and also the botanical and the faunal specialists as well as the wetland specialist, the mobile dune system is much more sensitive than the vegetated dune system. From a systems perspective, it is to allow the system to be impacted as little as possible.</p> <p>Ms Ball reiterated that this does not mean that the sensitive areas are no-go areas; in some cases there could be potential trade-offs or mitigation measures.</p> <p>Post-meeting note: Dr Werner Illenberger (Dune geomorphology specialist) further recommends that a 250 m buffer be established between the mobile dune system and any development in order to mitigate the impact of any development on the system.</p>
14	Landowner -Rebels Rus Nature Reserve	He noted that when he had purchased his property the dunes were not vegetated.	Ms Ball said that there was a key focus group meeting the next day (25 May 2010) at the Links Golf Course, and she invited all the participants of this meeting to attend. There will be a series of technical specialists at the meeting, who will present their findings and recommendations of their studies and be available to answer questions that I&AP's may have.
15	Landowner -Rebels Rus Nature Reserve	He asked if there was a map defining and showing the invasive and indigenous species in the dunes. The dunes have two separate issues, the sand, the invasive species and the indigenous vegetation.	Ms Ball said that this type of plan would be found in the Flora Specialist Study, Appendix E of the Draft EIR.
16	Ms Frances Becker Landowner – Rebels Rus Nature Reserve	She asked what if there is a decision to build more than 4000MW. Would Eskom need more land, meaning they eventually affect all landowners?	Ms Ball indicated that the EIA has assessed up to 4 000MW. Any nuclear power station above the assessed capacity would be subject to a new environmental authorisation process.

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		<p>She raised this question as a concern that landowners might agree to the 4000MW plant and then the applicant comes back and gives different information, in which case landowners will not be able to reverse the decision.</p>	
17	Ms Andrea von Holdt Landowner – Rebels Rus Nature Reserve	<p>Referring to the map, she pointed out that there is 73.79 ha, which according to site sensitivity is available for the proposed nuclear plant. Approximately half of the available area is required to build the proposed nuclear power station (31hectares). She wanted to know why would they move away from the preferred area, which is less sensitive.</p>	<p>Ms Herbst indicated that a sensitive area does not necessarily mean it is a no-go zone.</p>
18	Mr Rob von Holdt Landowner – Rebels Rus Nature Reserve	<p>Mr von Holdt said that Mr Greeff had said that the power station could be east of the red fault. If this is the case, would the eastern cut-off zone from which the 2 km is set move further west.</p> <p>If the footprint as it is called, is west of the fault, and Eskom cannot build across this fault, then the ground available, which is east of the fault, should have enough room to build all the ancillary buildings, etc. This would result in the properties in the east not being affected. Eskom already owns the ground to the west, so if this is well utilised there would be no need to purchase more ground. He asked what the 2km distance would be from where the green line of the footprint intersects with the red line close to the middle of the beach.</p>	<p>Mr Greeff said that this was not for the plant alone but the whole development. Mr Greeff said the cut-off zone would not move because this is based on the boundary line. This is the entire footprint of the plant and it includes ancillary buildings and parking areas, access roads, training centres, etc.</p> <p>Ms Herbst said that when the final footprint is established this will be taken into consideration.</p> <p>Mr Greeff explained that it is only the actual nuclear plant that is not allowed to straddle the fault. The remainder of the buildings may be built on either side of this fault.</p> <p>Mr Nel also explained that depending on the final technology selected, there could be one unit on the one side and three units on the other side. They could not split a unit on either side of the fault line</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		He stated that if the footprint is on the western side, then Eskom would not disrupt the Rebels Rus Landowners.	Ms Ball added that this EIA is for a 4 000 MW nuclear power station and depending on the commercial process, if authorisations are given, it would depend on the unit capacity of the reactors as to how many units would be potentially placed on the site.
19	Prof Warwick Sauer Landowner - Rebels Rus Nature Reserve	Does the pipe go off the beach and is this controlled? It is sub-terrain but would there be control on that section of the beach?	<p>Mr Greeff replied that as far as he is aware it would be extended out to sea.</p> <p>Mr Norman said that Eskom is not sure but may have certain restrictions imposed on them by the National Intelligence Agency. There may also be policies imposed by the NNR. The pipe will be buried so low that the security of the pipe itself will not be a problem. The area will be under surveillance and will be patrolled by security and people would not be allowed into the area after hours. Recreation will be within normal office hours and everyone will have to sign in and sign out of the area. This will also assist in identifying everyone in the area in case there is need for an evacuation. The beach area is therefore going to be open to the public.</p> <p>Mr Breytenbach stated that there is not a large security threat to the pipes because there are no pumps to the pipes, they gravitate the water to a large swimming pool which will be about 75 m x 50 m. The intake pipes will be either two pipes of 9 m in diameter or three pipes of 6 m in diameter. This will be a tunnel, which will be totally underground. The only pipes that might be seen are the outlet pipes. From the beginning, Eskom has stated that the boundary will be moved 100 m away from the high water mark. This was a limitation that was imposed similar to the 2 km radius. Eskom would like to construct the plant so that the public may have access to the beaches.</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			Ms Ball confirmed that access will be open, she said there will be no gates erected on the beach.
20	A landowner Rebels Rus Nature Reserve	He noted that the 2 km fence line goes right through Rebels Rus. The residents on the inside of this might be purchased. He then stated that for the residents outside there will be only one gate on the Eastern access road. This means that they will have to drive a long way to gain access to the beach.	Ms Ball explained that the 2 km line is an 'imaginary line', it is not a fence line. Ms Herbst and Mr Norman confirmed that that the beach would not be fenced.
21	A Landowner Rebels Rus Nature Reserve	The access to the beach is very important for everyone on the outside of the 2 km game fence line. Everyone will not be able to get on to the beach as some of the residents are using rights of way on the properties that Eskom wants to purchase. Will the fence run parallel to the beach for security reasons?	Mr Nel said that they must bear in mind that everyone is looking at the game fence line as at the 2km line. The access route going east could mean that the game fence could be negotiated into future plans along the access route. Mr Norman clarified that the security fence will be 200 m back from the high water mark. The game fence may be as it is at the Koeberg Nuclear Power Station, behind the first dune. He further stated that the intention is for the public to be able to go through the beach.
22	Ms Andrea von Holdt Landowner Rebels Rus Nature Reserve	Regarding public access to the beach, Ms von Holdt stated that as it stands the Rebels Rus Nature Reserve is an exclusive area; it is a privately owned nature reserve. The general public does not have access to the beach. In fact, there is no access road to the beach. So this needs to be taken into consideration, as the Rebels Rus Landowners would not like not to be deprived of the privacy they have enjoyed in their	Comment noted.

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		reserve.	
23	Ms Andrea von Holdt Landowner Rebels Rus Nature Reserve	Ms von Holdt said that the fencing could benefit the Rebels Rus Reserve because presently they have problems with people accessing the property and vandalising. So, if Rebels Rus landowners could negotiate fencing with Eskom, it would be great.	Comment noted.
24	A Landowner Rebels Rus Nature Reserve	He requested clarity on the controlled area from the sea.	Mr Greeff explained that the controlled area is 200 m from the high water mark.
25	A Landowner Rebels Rus Nature Reserve	He stated that he is worried about water and where it will be sourced. He further asked if underground water would be used.	Ms Ball explained that in terms of the EIA recommendations, a desalination plant has been firmly recommended. This would be a packaged plant, which would take approximately one year to construct. Water would have to be sourced from the municipal source during the construction period. The desalination plant would be operational for the construction and operational phase of the nuclear plant. Ms Ball said this was not a recommendation. Mr Breytenbach said that there would be a main vendor on site to begin the site preparations, the levelling of the site, etc. During that time, roads, sanitation and water must be supplied to site. Therefore 6 months prior to this vendor arriving on site, Eskom will be on site. During that time roads, sanitation and the desalination plant will all be constructed. Obviously when Eskom first arrives on site there will be no water and therefore for a period of approximately 6 months other sources of water will be used but it will be for a limited amount of people and a limited amount of activities. This could include the use of underground water.

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		If any underground water is to be used, he requested that an underground survey be conducted of where the dykes are. Everyone in Rebels Rus obtain water from fountains, which run over a sill into the sea. If that water drops by a slight amount then it will not run over the sill and that would mean that the residents would have no water.	<p>Ms Ball said that there was a geo-hydrologist on the team and he would be presenting his study at the meeting the next day (25 May 2010). She undertook to raise these issues with the specialist. He has recommended that the underground water resource should not be stressed.</p> <p>Ms Ball also explained that there has been long-term monthly monitoring on the site, which began a year ago.</p>
26	Landowners Rebels Rus Nature Reserve	Noise, dust impacts associated with construction.	<p>Ms Ball encouraged everyone to study the Environmental Management Programme (EMP), which deals with dust and noise. This is a legally binding document which will be handed to Eskom and this would have to be audited externally during the construction phase and would be binding on the main contractor and also on any sub-contractors during the entire construction period. Eskom also has an Operational Environmental Management Plan (OEMP).</p> <p>Ms Herbst added that the environmental authorisation requires Eskom to have an OEMP.</p>
27	Landowners Rebels Rus Nature Reserve	Sediment sludge from construction – disposal and movement of the sediment.	<p>Ms Ball stated that in terms of off-shore and in-shore spoil, the specialists had been asked specifically to investigate various alternatives in this regard. On-land dumping of sand that needs to be excavated to reach the bed-rock for the founding conditions. All of the potential sites would be within the EIA corridor and the biophysical specialist had made recommendations in terms of the most degraded areas where this stock-piling of spoil could be placed.</p> <p>An Oceanographic Assessment has been done which looked specifically at the movement of sediment based on ocean currents, based on where it is proposed to dispose off the</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			sediment. There are two options for the disposal of sediment, which will come from the excavations of the foundations of the power station, either to dispose it on land or in the ocean. The Oceanographic Specialist looked at that and the Marine Specialist has based his assessment on what has been found on the Oceanographic Assessment. According to the Specialists, they found that, it would sterilise a section of approximately 6 km ² offshore. That is the reason for the recommendation, which has been made by the specialists to dispose the spoil at least 1.5 km to 2 km offshore to avoid impact on the spawning grounds of the squid or chokka.
28	A Landowner Rebels Rus Nature Reserve	In terms of that I see that they had said that cooling water discharges may contain co-discharges such as chlorine. These co-discharges have not been qualified and therefore an assessment on the significance of impacts associated with them has not been done or carried out in the report. He wanted confirmation that the flow is 80 ³ m/sec.	Ms Ball said she would raise this with the marine specialist, as this is an important issue. Ms de Villiers added that chlorine is added to the sea water at Koeberg and ongoing studies on the Marine environment at Koeberg showed no significant change on the marine life. Chlorine is actually made from the sea water. Mr Breytenbach said that again this depends on the plant type but it is a maximum of 80 ³ m/sec. Mr Theron stated that the specifications referred to are in the consistent data set of criteria.
29	Mr Rob van Holt	Mr van Holt referred to the decision on the siting of the plant as it is critical to the residents and to their future use of the properties at Rebels Rus. He asked when a decision was expected.	Ms Ball explained that the first decision is the DEA's decision on whether they accept the recommendations of the study in terms of the preferred site. They have appointed an international panel to evaluate this project, as well as local experts. It is Arcus GIBB's experience that even though there are timeframes, this

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		<p>He asked if National Government has set a timeframe on this project, for example is it stipulated that this has to be constructed within 20 years.</p> <p>Mr van Holt then noted that they, as owners who would loose their property, do not know when this might occur.</p>	<p>will typically take a longer time to evaluate as it is a complicated study. The Comment Period is due to close on 31 May 2010, There have been requests to extend this date, which will be considered. After the end of the Comment Period the report will be submitted to the DEA, hopefully by July 2010. It is hoped therefore that a decision will be made by the end of 2010. During August/September the Integrated Resource Plan (IRP) 2 is expected from Government. Eskom would also need to examine the conditions laid out by the DEA and comply with these.</p> <p>Ms Herbst said that there was no set timeframe for the proposed project. The IRP would give an indication of the date when the Nuclear Power Station is needed. The timeframe would also be determined by various other authorisations, which are required for the operation of the plant and also the tender process.</p> <p>Mr Theron added that Eskom would need to go through a commercial process, i.e. to get a contractor to be able to define and present a safety case to the NNR.</p> <p>Ms Ball summarised that given that there is still the National Nuclear Regulator (NNR) site and plant process, which has to be completed, as well as 30 other authorisations. It can be said that a final decision to construct a nuclear power station on the Thyspunt site is still a while away.</p> <p>On the property acquisition issue, Mr Nel indicated that as funds become available from Eskom, and it has been confirmed that the Thyspunt site is preferred - if landowners have indicated that they would like to sell, Eskom will progress with the</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			negotiations.
30	Ms Andrea von Holdt Landowner – Rebels Rus Nature Reserve	There are some issues on the Visual Impact Assessment, which need to be addressed, need to better understand the visual impact from their properties, etc.	Comment noted.
31	A Landowner Rebels Rus Nature Reserve	He questioned if the property valuers would evaluate properties prior to negotiations.	Mr Greeff indicated that valuers would be coming into the area for valuing the properties as an evaluation that is older than 1 year would no longer be applicable.
32	Mr John Oddy Landowner – Rebels Rus Nature Reserve	He wanted to know if there would be a repeat of the Focus Group Meeting with Rebels Rus landowners as he has found the one-on-one engagement useful.	Ms Ball explained that the Draft EIR review is supposed to be the last meeting engagement with Interested and Affected Parties (I&APs), however there have been requests for an extension of the Comment Period, etc. The comments received during the Comment Period will determine whether there are additional engagements or stakeholders will be advised of the submission of the Final EIR to the Department of Environmental Affairs (DEA) for a decision.
33	Landowners Rebels Rus Nature Reserve	Pollution of seawater, emissions and air quality.	Mr Heydenrych used Slide No 36 to describe the allowable emissions.
34	A Landowner Rebels Rus Nature Reserve	Are there any more exclusion zones?	There is an 800 m exclusion zone, 2 km which is an owner controlled boundary and 3 km Emergency Planning Zone (EPZ). The 800 m and 3 km EPZs were used in the EIA for assessing of potential impacts of the proposed nuclear power station.
35	A Landowner Rebels Rus Nature Reserve	When are landowners going to know of the final/agreed exclusion zones?	Such information would be available once Eskom has a vendor and has presented the safety case to the NNR. In addition, the NNR will have a public participation process. Even if the EIA process has been completed, the nuclear licensing process has to be undertaken.

REBELS RUS LANDOWNERS			
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36	Ms Frances Becker	<p>She questioned why Eskom does not put the nuclear power station next to Koeberg where there is Eskom owned land already available.</p> <p>She further stated that if one reads the Draft EIA Report, everything is sensitive and then you come to a conclusion, which states that Thyspunt is a preferred site - it does not make sense.</p>	<p>Comment noted</p> <p>Post-meeting note: Eskom's Nuclear Site Investigation Programme (NSIP) in the mid-1980s investigated the technical feasibility of five alternative sites, namely Thyspunt (Eastern Cape), Bantamsklip and Duynefontein (Western Cape), Brazil and Schulpfontein (Northern Cape). All these alternative sites were found to be technically feasible for the construction, operation and decommissioning of a conventional nuclear power station. However, because of the difficulty to integrate with the transmission system (amongst other reasons) the Northern Cape sites were removed from further consideration at the end of the Scoping Phase of this EIA.</p> <p>Studies regarding transmission issues have noted that the development of the Duynefontein site will result in an increased capacity of the generation pool in the Western Cape, which means a concentration of generation in one area at the expense of another. Strategically this exposes the transmission system to more risk as opposed to diversifying the generation closer to major load centres. This is the overriding strategic transmission advantage of the Thyspunt site, which will provide a new base load generation pool in a weak part of the Eskom transmission network and enable future potential load growth for the Eastern Cape.</p> <p>The EIA process for Nuclear-1 is further comprised of two main phases, the Scoping and EIA Phases. An application was submitted to the DEA in May 2007 and then amended</p>

REBELS RUS LANDOWNERS			
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			<p>in July 2008 for a single nuclear power station of up to 4 000 MW. The Scoping Phase of the EIA is complete. The competent authority, the DEA, in consultation with the relevant provincial environmental authorities (the Department of Environmental Affairs and Development Planning [DEA&DP] of the Western Cape and the Department of Economic Development and Environmental Affairs [DEDEA] of the Eastern Cape) approved the Scoping Report in November 2008. This approval included the recommendation that two of the original five alternative sites assessed during the Scoping Phase, namely Brazil and Schulpfontein in the Northern Cape, be excluded from further consideration in the EIA. Their exclusion was based on the fact that the alternative sites would not constitute reasonable and / or feasible site alternatives for Nuclear-1 based on limited local demand and the lack of existing electricity transmission corridors associated with these sites. The DEA approved the Final Plan of Study (PoS) for EIA in January 2010.</p> <p>The comparative assessment of the three alternative sites by Arcus GIBB was based on the following:</p> <ul style="list-style-type: none"> • Results of the specialist studies: specialists have indicated the relative significance of potential impacts with mitigation at each of the three alternative sites; • An integration workshop, involving all specialists, on 24 and 25 November 2009, where potential impacts and ranking of the alternative sites was discussed; • Costs; and • Transmission integration requirements.

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			<p>Although there are obvious differences between the significance of the potential impacts of the three alternative sites, all specialists agreed that there are no fatal flaws at any of the sites (provided appropriate mitigation is implemented). The specialist further collectively agreed that all three alternative sites are suitable for development of a nuclear power station in time, given sufficient mitigation of impacts.</p> <p>The impacts of high and medium significance after mitigation were considered important for decision-making. These impacts were further filtered to a manageable number of key impacts for the purpose of decision-making. The following decision factors were selected as most important for decision-making:</p> <ul style="list-style-type: none"> • Transmission integration factors; • Seismic suitability of the sites; • Impacts on dune geomorphology; • Impacts on wetlands; • Impacts on vertebrate fauna; • Impacts on invertebrate fauna; and • Economic impacts. <p>The Bantamsklip alternative would be costly because its location would require longer and larger transmission lines than either of the other two sites (900 km of combined 765kV and 400kV transmission lines at Bantamsklip vs. 500 km and 190 km of 400 kV lines at Thyspunt and Duynefontein respectively). The road and bridge upgrades that would have to take place to transport extra heavy loads from Cape Town harbour to Bantamsklip also</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			<p>contribute to the high costs of this site. The Bantamsklip alternative would be R 8 billion less costs effective than either of the other two alternative sites. Despite the positive benefits that could potentially be realised through conservation of the northern portion of the site, bearing the cost and integration factors in mind, the Bantamsklip site was regarded as the least preferred site alternative and was removed from further consideration for this application. Only Thyspunt and Duynefontein were considered for selection of a recommended site and were compared using a numerical ranking model that takes only the weighted (filtered) decision factors into account. Thyspunt was identified as the preferred site for Nuclear-1.</p> <p>The most important argument in favour of Thyspunt with regards to biophysical impacts is the conservation benefits that would be realised through access control and active management of the site in the event of a nuclear power station being constructed there. This benefit would not be realised at Duynefontein, as the Koeberg Private Nature Reserve already includes the Duynefontein site. In addition the Thyspunt site has a considerably lower seismic risk profile, as well as being more favourably located in terms of Eskom's requirements for integration with the transmission system. The Thyspunt site is therefore recommended for authorisation in terms of this application. It is acknowledged that the Thyspunt site would experience environmental impacts of higher significance (particularly biophysical impacts) than Duynefontein. However, the conservation of the remainder of the site through access control and responsible long-term conservation management are significant positive impacts associated</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			with this site. Mitigation of identified potential negative impacts recommended by the specialists and in this EIR must be ensured.
37	A Landowner Rebels Rus Nature Reserve	What are the social benefits for having a Nuclear Power Station?	<p>Using the Koeberg Nuclear Power Station as an example, it was explained that the Station has utilised part of the surrounding land as a private nature reserve. Great care has been taken to conserve and restore the coastal landforms, wetlands and various forms of vegetation and animal life indigenous to the area. There are several hiking trails through the reserve and visitors are welcome all year round. Although the area is controlled, the public has access to the area.</p> <p>Ms Herbst also gave examples of what has happened at the area around the Ingula Pumped Storage Scheme, which is presently under construction. Eskom was required to purchase 8000 hectares to form a conservation area. The area serves as habitat for a variety of species. A partnership was launched between Eskom and conservation groups BirdLife South Africa and Middlepunt Wetland Trust, which is aimed at generating benefits to offset the negative effects of the construction and operation of the pumped storage scheme.</p> <p>The establishment of partnerships were done during the EIA Process. It is up to the landowners to consider how they would like to see the area being managed, should a power station be built at Thyspunt. Eskom's previous experience has shown that Partnerships provide an effective system for monitoring environmental impacts during the construction and operational phases of the project.</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
38	A Landowner Rebels Rus Nature Reserve	He requested clarity on the 22m wide roads and the reasons for more than one road.	<p>It was explained that 22 m is not the width of the road that will be built. The 22 m width include a road reserve.</p> <p>Mr Breytenbach explained that for operational reasons, Eskom requires one road. However, for construction, Eskom require 2 roads.</p> <p>Post-meeting note: The NNR do not stipulate that two roads are required during operation. However during the development of the safety case Eskom will be required to provide an evacuation plan which provides for various different emergency situations. It is therefore possible that Eskom will be required to have two exits from site during operation but it may not be necessary to have them both operational all of the time.</p>
39	A Landowner Rebels Rus Nature Reserve	Does Eskom have the money to fund this?	Through the Integrated Resource Plan (IRP) will determine what will happen with nuclear. The Department of Energy is working on the funding issue this question would be answered into the future. It is a question of whether the country can afford it and/or can the country afford not to do it?
40	Mr Rob von Holdt A Landowner – Rebels Rus Nature Reserve	<p>Mr von Holdt indicated that it is clear that the landowner properties which would be affected are as follows:</p> <ul style="list-style-type: none"> ▪ The von Holdts ▪ Mr and Mrs John Oddy ▪ Dr Anton Bok ▪ Mr Duncan Davies ▪ Mr Charlewood <p>He then stated that they would like to keep their</p>	Discussions would need to take place with the landowners. It is also not the intention for Eskom to remove landowners from the area.

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
		properties. Furthermore, none of the landowners will be willing sellers. He then questioned if there was any thing in Eskom's power that could assist them to keep their properties?	
41	A Landowner Rebels Rus Nature Reserve	<p>Will the water pipe outlet come out through the beach side?</p> <p>What is currently happening at Koeberg with regards to the intake and outlet water pipes and the changes in temperature?</p>	<p>Mr Breytenbach explained that the inlet and outlet pipe would not be from the same point. The outlet tunnel is completely below ground level.</p> <p>Ms Ball explained that in terms of sea water cooling, they have recommended specific mitigation measures in terms of a pipe out to sea and at a very fast pumping rate.</p> <p>At Koeberg Nuclear Power Station, the warm water is mixed with the surface water within a short distance and cools down to ambient temperature within one kilometre of the outlet. .</p>
42	Dr Anton Bok	<p><u>Groundwater situation in the area</u></p> <p>He complained about the water table, which has dropped significantly over the past 2 years. They understand that there has been some damage done since the drilling took place on site.</p>	<p>Ms Ball encouraged and invited landowners present at the meeting to attend the key focus group meeting at St Francis Links. The specialist (geohydrology) that are part of the EIA team that undertook the drilling and draw-downs can shed some light on the issue.</p> <p><u>Post-meeting note:</u> The Geohydrological Assessment attached as Appendix E7 to the Draft EIR states that at coastal nuclear sites such as Duynefontein, Bantamsklip and Thyspunt, the nuclear footprint is likely to be located very close to the coastline. In terms of the groundwater cycle, this means that it is located in a groundwater discharge zone. There are, therefore, certain general geohydrological characteristics that are likely to be common to such sites and that must be taken into consideration. One of these are that groundwater flow rates are likely to be relatively slow because of low hydraulic</p>

REBELS RUS LANDOWNERS			
No	Name	Comment	Response
			<p>gradients.</p> <p>The report also states that in terms of the primary aquifer, build-up of groundwater seldom occurs because of the high hydraulic conductivity of these formations.</p> <p>Furthermore in the presentation by the specialist at the St. Francis Bay Key Stakeholder Focus Group Meeting held on 25 May 2010, the specialist further stated (with reference to a groundwater flow map) that the groundwater flow is towards the coast and any drilling conducted would therefore not influence ground water levels at Rebels Rus. The boreholes were sunk in order to establish ground water levels only and not for abstraction purposes.</p>

5. CLOSING REMARKS

Ms Ball thanked all landowners for their time and valuable contributions into the EIA process. She encouraged all present to attend the meeting at St Francis Links on 25 May 2010 where specialists would be available to respond directly to stakeholders on the outcomes of the investigations.

ATTENDANCE LIST

Surname	First Names	Title	Co/Org	Rebels Rus Meeting 24 May 2010
Ball	Jaana-Maria	Ms	ARCUS GIBB	Attended
Becker	Frances	Ms	Rebels Rus Nature Reserve	Attended
Bok	Anton & Jill	Dr & Mrs	Rebels Rus Nature Reserve	Attended
Breytenbach	Johann	Mr	Eskom Holdings Limited	Attended
Charlewood	Michael	Mr	Rebels Rus Nature Reserve	Attended
Davies	Duncan & Cecile	Mr & Mrs	Rebels Rus Nature Reserve	Attended
de Villiers	Carin	Ms	Eskom Holdings Limited	Attended
Gathercole	Roland & Angela	Mr & Mrs	Rebels Rus Nature Reserve	Attended
Greeff	Gert	Mr	Eskom Holdings Limited	Attended
Herbst	Deidre	Ms	Eskom Generation	Attended
Heydenrych	Reuben	Mr	ARCUS GIBB	Attended
Jones	Chris & Bettie	Mr & Mrs	Rebels Rus Nature Reserve	Attended
Mbusi	Mandla	Mr	Eskom Holdings Limited	Attended
Ndala	Lorraine	Ms	Eskom Holdings Limited	Attended
Nel	Andre	Mr	Eskom Holdings Limited	Attended
Norman	Jan	Mr	Koeberg NPS	Attended
Oddy	John	Mr	Rebels Rus Conservancy	Attended
Oddy	Chantal	Ms	Rebels Rus Conservancy	Attended
Rautenbach	Charl	Mr	Rebels Rus Nature Reserve	Attended
Sauer	Warwick & Jacqui	Dr & Mrs	Rebels Rus Nature Reserve	Attended
Theron	Mervin	Mr	Eskom Holdings Limited	Attended
von Holdt	Andrea	Ms	Rebels Rus Nature Reserve	Attended
von Holdt	Robroy	Mr	Rebels Rus Nature Reserve	Attended
von Holdt	Libby	Mrs	Rebels Rus Nature Reserve	Attended