

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

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

**REVISED DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
REPORT**

FINAL MINUTES OF PUBLIC MEETING

PRETORIUS SAAL, GANSBAAI

23 MAY 2011

18:00 - 20:00

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PREFACE

This is a final record of the proceedings of the Public Meeting held at the Pretorius Hall in Gansbaai on 23 May 2011 in terms of the Public Participation Process for the proposed Eskom Nuclear Power Station and Associated Infrastructure. Participants who attended the meeting were afforded 14 days upon receipt of the minutes to notify the Public Participation Office (n1gansbaai@gibb.co.za) in writing of any changes or additions to be made to the minutes. Draft minutes were made available to participants via post and e-mail on 13 June 2011.

“**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 issue 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 – Interested and Affected Parties

- As per attendance register.

1.2 Attendance – Applicant: Eskom Holdings Limited

Name	Position/ Role
Deidre Herbst	Senior Manager: Generation Environmental Management
Tony Stott	Senior Manager: Stakeholder Management
Dave Nicholls	General Manager: Nuclear Engineering
Mervin Theron	Manager: Regulation and Localisation
Lorraine Ndala	Senior Environmental Advisor
Samson Malaka	Senior Advisor: Project Management
Lerato Sedumedi	Senior Advisor: Regulation and Localisation
Mandla Mbusi	Senior Advisor: Stakeholder Management
Beryl Blaeser	Middle Manager: Projects
Mike Gillard	Project Manager: Nuclear-1
Jan Norman	Infrastructure Manager
Gert Greeff	Infrastructure Manager
David West	Corporate Manager

1.3 Attendance – Independent Environmental Consulting Team

Name	Organisation	Role in the EIA
Jaana-Maria Ball	Arcus GIBB (Pty) Ltd	Nuclear-1 EIA: Project Manager
Reuben Heydenrych	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist

2. WELCOME AND INTRODUCTIONS

The independent Chairperson, Dr. David de Waal, welcomed everyone to the meeting. He explained that the presentations were in English but that participants were welcome to use the language of their choice as the EIA Team could communicate in Afrikaans/ Xhosa.

He advised participants that the meeting is being recorded to ensure the accuracy of the minutes and for record-keeping. He further advised the participants that the proceedings would be translated, as and when necessary.

3. CHAIRPERSON'S INTRODUCTORY REMARKS

3.1 Conduct at Meeting

The Chairperson read through the points presented on the slide, which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and

discussion. These points are contained in the main presentation, which was provided in Appendix 2 of the Draft Minutes of the public meeting. He requested all participants to assist the team by having a constructive debate at the meetings.

3.2 Objectives of the Public Review Meetings

The purpose of the Public Meetings is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- ❑ To present the conclusions and recommendations of the Revised Draft Environmental Impact Assessment Report.
- ❑ Provide an opportunity to Interested and Affected Parties to comment on the specialist study findings and the outcomes of the EIA.

4. PRESENTATION: FINDINGS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB (GIBB), presented the findings on the Revised Draft Environmental Impact Report (EIR).

By way of introduction, Ms Ball, EIA Project Manager, thanked all present for their time and indicated that GIBB is pleased to be at the stage of presenting the findings of the specialist investigations and the outcomes of the Environmental Impact Assessment phase.

Ms Ball and Mr Heydenrych then presented the findings on the Revised Draft EIR (refer to presentation slides provided in Appendix 2 of the Draft Minutes which was made available to participants on 13 June 2011).

The issues raised and discussed following Arcus GIBB's presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: "Final Record of Issues Raised and Discussed" details the issues, comments and concerns, which were raised and discussed at the meeting.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

Ms Ball indicated that the EIA Team would endeavour to distribute the minutes of the meeting to I&APs shortly after the meeting.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the public review period of the Draft EIA Report ends on 07 August 2011.

Ms Ball encouraged all present to submit their comments to the GIBB Public Participation Office using one of the following methods:

By mail: GIBB Public Participation Office, Nuclear-1 EIA, P.O. Box 3965, Cape Town, 8000

By phone: 021 469 9180 (Office hours: Mon to Fri – 09:00 to 13:00 excl. public holidays)

By fax: 021 424 5571

By e-mail: nuclear1@gibb.co.za / nuclear-1@gibb.co.za

Comments received on the Revised Draft EIR will be used to produce the Final EIR, which will then be submitted to the Department of Environmental Affairs (DEA) (the decision-making authority for the EIA) for their consideration.

The timeframe for submission of the Final EIR will depend on how long it takes to finalise the report as well as on the quantity and type of comments that are received from I&APs during the review period.

A letter will be sent to all registered I&APs informing them of the Authorities' decision.

6.3 Chairperson's Concluding Remarks

The Chairperson thanked everyone for constructive engagement and encouraged I&APs to submit written comments and closed the meeting.

APPENDIX 1: FINAL RECORD OF ISSUES RAISED AND DISCUSSED

Please note: In some instances, the names that were given by the speaker at the meeting did not correspond with the names provided in the attendance register.

GANSBAAI PUBLIC MEETING (23 MAY 2011)			
No	Name	Comment	Response
1	Wilfred Chivell, Dyer Island Conservation Trust	Mr. Chivell asked why the presentation mainly deals with environmental impacts associated with the Thyspunt site, as Gansbaai may be impacted on by the construction of a nuclear power station at the Bantamsklip site. Mr Chivel would like to see a presentation dealing with impacts associated with the Bantamsklip site.	Ms Ball explained that a public meeting was held in Gansbaai in March 2010 during which GIBB presented the findings of the Draft Environmental Impact Report (EIR). Interested and Affected Parties (I&APs) subsequently requested changes to be made to a number of specialist studies and the main environmental report. The key aim of this meeting is thus to present the key changes made to the Report. Most of those changes revolve around the Thyspunt site. This is the preferred site as stated in the Draft EIR and the local communities situated near the Thyspunt site appointed their own specialists to assess the potential impacts of a nuclear power station. The results of those specialist studies has to be evaluated and addressed in the Revised Draft EIR and the relevant specialist studies. There are also changes to the information presented on the potential impact Bantamsklip site, which includes a further review of potential impacts to heritage resources in the area.
2	John Williams, Stanford Conservation Trust	The Bantamsklip site is still being on the list of possible sites for Nuclear-1. Even though the preferred site for Nuclear-1 is Thyspunt, Bantamsklip may still be used as a nuclear site in the future. He wants to know what the status is of the Bantamsklip site.	Ms Ball confirmed that the status of the Bantamsklip site has not changed since the publication of the previous Draft EIR. Thyspunt remains the recommended site for environmental authorisation by the GIBB, subject to a number of conditions. Bantamsklip remains a site that Eskom may consider for the future construction of a nuclear power station. However, this site is not the preferred site for Nuclear-1 by GIBB, The DEA is the decision-making Authority.

GANSBAAI PUBLIC MEETING (23 MAY 2011)			
No	Name	Comment	Response
3	John Williams, Standford Conservation Trust	<p>Mr Williams went into detail on the size of present nuclear power stations in countries such as France and Finland. He stated that the 9 600 MW of nuclear generation required by the Integrated Resource Plan (IRP) would result in an additional nine power stations of the size of the Koeberg Nuclear Power Station, having to be constructed. Thus, there are more than three power stations being planned by Eskom. This implies that nuclear power stations would be built on all three sites currently being considered for Nuclear-1.</p> <p>The question is where the other stations will eventually be placed. He wished to confirm if Bantamsklip may be used in future and whether other sites are going to be revisited with a new EIR. He wanted to confirm if this EIA is for single nuclear power station or for six power stations.</p> <p>He further asked whether, assuming the recommendations of the Draft EIR remains the same, but that the Department of Environmental Affairs (DEA) decline the recommendation that Thyspunt be considered for environmental authorisation, if the status of the Bantamsklip site will also remain the same.</p>	<p>Ms Ball stated that some of these questions were answered in the presentation. She confirmed that this EIA is for a single 4 000 MW nuclear power station. (Koeberg Power station is 1800MW, to meet the 9600MW in the IRP 3 power station of 2 - 3 units each would be required.) Should Eskom wish to construct a nuclear power station that exceeds this generation capacity, the utility will have to undertake a new EIA. Thyspunt was the preferred site recommended in the Draft EIR. Nothing has changed in this regard during the revision of the Report, except that new specialist studies have been undertaken to confirm that our assumptions and recommendations are correct. The recommendation still stands that Thyspunt is the recommended site, but with very significant conditions. GIBB had to consider alternatives as required by the National Environmental Management Act (Act 107 of 1998) and the Environmental Impact Assessment Regulations of 2006. GIBB therefore considered five alternative sites for this EIA, and three of these sites were taken forward into the impact assessment phase for further detailed studies. All the specialist studies undertaken for this EIA were focussed on these sites.</p> <p>Ms Ball stated that GIBB cannot pre-empt what the DEA (and the other commenting authorities) may decide, but they will have to examine and take cognisance of the contents of the Revised Draft EIR together with the specialist study findings. The Authority will have to decide whether they agree with the assessment made in the Revised Draft EIR that Thyspunt be considered for environmental authorisation, subject to the conditions provided in the Report. The DEA could disagree with the findings and recommendations in the Report and decide that, for instance, the Duynefontein site is more preferable from an environmental perspective or that none of the sites be</p>

GANSBAAI PUBLIC MEETING (23 MAY 2011)			
No	Name	Comment	Response
			<p>authorised.</p> <p>Ms Ball again confirmed that this EIA is only for one nuclear power station of 4 000 MW. The EIA Team, including all the appointed specialists, based their assessments on an envelope of criteria (i.e. the Consistent Dataset included as an appendix in the EIR) and that if any of those assumptions are invalidated then a new EIA process will need to be undertaken or part of the process which would need to be communicated with the public.</p> <p>Ms Ball further stated that GIBB had arranged a series of public meetings to discuss the findings on Revised Draft EIR. The dates and venues of these meetings were provided in advertisements placed in national, regional and local newspapers and letters to registered I&APs, which stated that this presentation at the meetings will focus on the key changes provided in the Revised Draft EIR. In the previous meetings, which Mr Williams attended, the findings of the Draft EIR were discussed.</p>
	Mike Kantey, Coalition Against Nuclear Energy	Mr Kantey stated that this issue was vitally important and that the Government not grant authorisation for a nuclear power station to be constructed on three sites. The Minister, in recent announcements, is talking about one nuclear reactor being built. He further stated that this public meeting is crucial for any legal process that is ongoing with respect to this EIA. He referred to a large amount of money required for the proposed nuclear power station.	Ms Ball stated that Mr Kantey's comments were noted. Ms Ball also asked the Chairperson to take note that the questions had taken time from the allotted presentation time and requested the Chairperson to extend the presentation time allotment.

4	Eugene Henry, Pearly Beach Ratepayers Association	Mr Henry, representing the Pearly Beach Ratepayers Association (PBRA), asked for a definition of 'spoil' and whether it may be radioactive water waste being pumped into the ocean.	Mr Heydenrych explained that spoil is sand and rock that was excavated for the construction of the proposed nuclear power station. One of the disposal options considered and recommended in this EIA is to dispose this over-burden material in the ocean. Spoil would be during construction and would not include radioactive waste.
5	Eugene Henry, Pearly Beach Ratepayers Association	With regards to the water required for the cooling of the power rods. Is that retained on site or is it also disposed of on in the ocean?	Mr Heydenrych commented that the water required for the cooling of the power station is taken from the sea and used for once through cooling, it is pumped back into the ocean. This is a closed system. At no point does this water come into contact with the fuel rods or other radioactive material in the power station.
6	Eugene Henry, Pearly Beach Ratepayers Association	Mr Henry wanted to confirm whether the decision taken by the Minister of Energy to provide 9 600 MW for nuclear energy in the Integrated Resource Plant (IRP) was subject to public participation?	Ms Ball answered that the IRP 2010 (Revision 2) was accepted by cabinet in March 2011 and went through an extensive public participation process, which ran through most of 2010. The commenting process was extensively advertised in the media.
7	Eugene Henry, Pearly Beach Ratepayers Association	Mr Henry wished to state that the PBRA was not party to any of those discussions and were not able to provide any input to the IRP.	Ms Ball stated that she cannot speak on behalf of the Government but she is aware that there were advertisements placed in newspapers advertising the process and requesting input from the public. She is also aware that the public participation process was extended and that public hearings were held. Ms Ball requested that Mike Kantey provide more feedback to the participants of the meeting in this regard, as he was intimately involved in the process.
8	Mike Kantey, Coalition Against Nuclear Energy	Mr Kantey, representing the Coalition Against Nuclear Energy (CANE), confirmed that the IRP process was well advertised in national newspapers and was well publicised in the public media. The question is, however, whether the PBRA were consciously approached to participate in the public participation	The comment was noted by all present at the meeting.

		<p>process for the IRP. It is obvious that the PBRA was not approached.</p> <p>Mr Kantey informed the PBRA that they can reserve their right to participate according the provisions made in the Constitution regarding public participation.</p> <p>With regards to civil society's response to the IRP, Mr Kantey reported that 430 submissions were made. Mr Kantey further stated that the majority (99.9 %) of these submissions were in support of the PBRA's concerns, but is of the opinion that these submissions were ignored by Government.</p>	
	Mr Rob Fryer, Overstrand Conservation Foundation	Mr Fryer, representing the Overstrand Conservation Foundation (OCF), wished to confirm if a separate EIA process will be required for the housing and related infrastructure needed for the 7 700 workers and their dependents who will be involved in the construction process and whether the Environmental Management Plan (EMP) for the power station has addressed this concern.	Mr Heydenrych stated that the principal policy of Eskom is to make use of existing housing in the area where the power station would be built, if authorised, as far as possible. However, if housing is required and Eskom cannot identify an area that is already zoned for residential use, a separate EIA process will be required. Mr Heydenrych confirmed that the impacts associated with housing are not considered in the EIA for the nuclear power station, as it considers only the impacts associated with the power station itself and its immediately associated infrastructure. A separate EIA process for housing may therefore be required in future. The social aspects associated with accommodation have been considered in this EIR.
9	Mr Rob Fryer, Overstrand Conservation Foundation	Mr Fryer stated that this is a major flaw in the EIA process. He asked if there were any investigations made as to whether the area (around the Bantamsklip site) can support 7 700 workers and their dependents. He is of the opinion that there is no such infrastructure in area.	Mr Heydenrych stated that due to the nature of this EIA, which looks at three alternative sites, Eskom cannot plan to develop such infrastructure if it is not sure which of the sites will be approved for the construction of the power station, if any. However, Eskom has undertaken preliminary discussions with local authorities at the Thyspunt site to identify areas that they

			consider suitable for the development of housing infrastructure. Eskom also engaged with the local authorities regarding infrastructure around the Bantamsklip site.
10	Mike Kantey, Coalition Against Nuclear Energy	Mr Kantey stated that the question is whether not considering housing in the Nuclear-1 EIA constitutes a fatal flaw. The answer provided by Mr Heydenrych that discussions were held with local authorities near the Thyspunt site is not referred to in the Revised Draft EIR and asked that this be noted.	Mr Heydenrych confirmed that the Nuclear-1 EIA only considers the proposed nuclear power station and its immediate associated infrastructure, and that it does not include housing. If housing were to be required at the Thyspunt site (or any other site) then the associated impacts will be considered in a separate EIA process.
11	Mr Rob Fryer, Overstrand Conservation Foundation	<p>The OCF is of the understanding that the EIA process for the transmission lines for the proposed Bantamsklip power station is to continue, irrespective of the outcome of the EIA for the proposed Nuclear-1 power station.</p> <p>At a previous public meeting for the Bantamsklip transmission lines EIA, a conclusion was made that the appointed specialists would confer and provide a suitable route for the transmission lines to the proposed power station and present their findings to the public.</p> <p>Mr Fryer stated that he conferred with several of the specialists and came to the understanding that there was not a feasible route for the transmission lines. Mr Fryer wanted to confirm what the status of this EIA process is and whether a feasible route has been identified.</p>	Ms Ball stated that she is also the appointed Environmental Assessment Practitioner (EAP) for the Bantamsklip Transmission Lines EIA. She confirmed that this EIA process has been put on hold by Eskom Transmission. The process was halted at the conclusion of the last multi-stakeholder workshops held in Bredasdorp and Worcester, and that feasible routes for the transmission lines had as yet not been identified.
12	John Williams, Save Bantamsklip and the Stanford Conservation	Mr Williams noted that the Bantamsklip EIA and EIR are fatally flawed because the biodiversity of the area surrounding the Bantamsklip site is of global	The comment is noted.

	Trust	importance. He further stated that he is of the opinion that there are no mitigation measures to adequately address the potential impacts of the power station on marine and terrestrial ecosystems. The potential impact of spoil and heated water released into the ocean is an important issue and must also be noted.	
	John Williams, Save Bantamsklip and the Stanford Conservation Trust	Mr Williams asked why no recognition was given to the Buffeljagsbaai community, which is situated 3 km east of the EIA footprint. The Buffeljagsbaai community is not mentioned in any of the specialist studies or EIA documents and is not shown in any of the maps provided in the Revised Draft EIR. The community is 500 strong 'in the season' and when added to the community of Pearly Beach there are 5000 people living within 7 km of the footprint of the EIA. Mr Williams stated that the Buffeljagsbaai community has not been consulted and asked if the community may have to be relocated.	Ms Ball welcomed the members of the Buffeljagsbaai community to the meeting. She stated that she is aware of the Buffeljagsbaai community and has met with members of this community during the Bantamsklip Transmission Lines EIA public meetings. She confirmed that they are considered within the Nuclear-1 EIA and will confirm whether members of the community are noted within the I&AP database. Ms Ball also confirmed that there are no recommendations to move any of the communities situated within the vicinity of any of the three sites.
13	John Williams, Save Bantamsklip and the Stanford Conservation Trust	<p>Mr Williams wished to again state that the Buffeljagsbaai community has not been placed in any of the maps produced for the Revised Draft EIR.</p> <p>Furthermore, it must be noted that nature reserves have been rezoned over the EIA footprint. These reserves have now been incorporated into the EIA footprint.</p> <p>Mr Williams stated that this is purposeful deception in terms of mapping and recording existing demographics and land use as no acknowledgement was given to the Buffeljagsbaai community or to the status of Groot Hagelkraal, Soetfontein and Pearly</p>	<p>The comment was noted.</p> <p>Post-meeting note: Although the Buffeljagsbaai Community is not indicated on any of the maps in the main Revised Draft EIR, the community is mentioned within the Social Impact Assessment Report (Appendix E18), Visual Assessment (Appendix E19), Economic Assessment (Appendix E17) and Human Health Risk Assessment (Appendix E24). The Economic Assessment specifically acknowledges the Buffeljagsbaai community's dependence on non-commercial fishing.</p> <p>The Groot Hagelkraal Farm has been declared as a Natural</p>

		Beach Nature Reserves. The status of the reserves as protected areas must be acknowledged in the EIR.	Heritage Site at Eskom's (landowner) initiative. The Pearly Beach and Soetfontein Nature Reserves are managed by Cape Nature and border the Bantamsklip Site (Groot Hagekraal Farm).
		Dr De Waal called Mr Williams to order based on personal comments made towards the EAP. Mr Williams' response was that GIBB is ignorant of the facts that he noted.	
13	Dave Whitelaw: Private Landowner and Conservationist	Mr Whitelaw asked whether the outcomes of the Nuclear-1 EIA will be revisited should further EIAs, such as for the construction of housing for workers and their dependents, identify any fatal flaws.	<p>Ms Ball explained that one of the key EIAs that Eskom is also undertaking is for the transmission lines associated with the proposed power station. Authorities have met with both sets of independent consultants, which in the case of the Bantamsklip Transmission Lines EIA is also GIBB. The Authorities will aim to make their decisions in an integrated manner, but due to the different programmes for these EIAs, this may prove difficult. However, the DEA is kept informed of the progress on all the EIAs. GIBB has looked at cumulative impacts and subsequent EIAs that may be undertaken and submitted to the DEA will need to assess cumulative impacts of the proposed power, as well as the proposed development at hand.</p> <p>Ms Ball further stated that the transmission lines EIA serve as a good example. Should the power station receive a position decision but the transmission lines a negatives decision, obviously the proposed project cannot proceed, as a power station needed electricity to be brought into the site and power generated to be evacuated from the site onto the national electricity grid. The same principle applies if the nuclear license and the additional 20 permits required are not granted. All these required authorisations must first be obtained before the power station can be constructed.</p>

14	Dave Whitelaw: Private Landowner and Conservationist	Mr Whitelaw asked whether any of the results on studies done regarding increased flooding and sedimentation was derived from computer modelling or by means of site visits and field research.	Mr Heydenrych explained that computer modelling was used, but that the data was based on research conducted over a number of years to determine in which direction and at what velocities the currents are flowing. This information was therefore obtained based on information obtained in the field and based on computer modelling.
15	Mr Dean James. Gansbaai Sand and Stone	Mr James requested that the aerial photograph of the Bantamsklip site be shown on the projector. Mr James pointed out where his mining company is located and asked if his property may be affected by the development.	The photograph was shown and the mining company depot located.
16	Mr Dean James. Gansbaai Sand and Stone	Mr James asked whether the spoil material could not be transported inland where it can be crushed and reused. By reusing this material, it will also save money.	Mr Heydenrych pointed out that GIBB and the appointed specialists did consider alternative options for disposing of the spoil material. As the spoil will consist of many million cubic meters of material, transporting and disposing of it inland will result in very large heaps of sand and stone. The transport of that sand and stone inland will also result in potential additional impacts. The Revised Draft EIR therefore recommends that the spoil be disposed of in the ocean. Mr Williams can, however, request Eskom if he can make use of the spoil material. Mr Dave Nicholls from Eskom explained that there will be two types of spoil created by construction activities, namely sand and rock. Eskom is of the opinion that alternative means of disposal for this material can be considered on a case by case basis and Eskom could consider providing a portion of the spoil to private concerns.
17	Chris Pretorius, resident of Wolvengat	Mr Pretorius stated that in the initial EIR GIBB stated that a 40 MW power station will be constructed, with an exclusion zone of 8 km in which no person will be	Mr Heydenrych stated that since the start of the EIA process in 2007, it was stated that a 4 000 MW station is proposed to be constructed. There are two different radii of exclusion zones,

		allowed to reside. Now that a 4 000 MW station is considered, what is the required exclusion zone?	namely a 800 m zone in which no development will be allowed and a 3 km zone in which there will be specific restrictions on development. The zones would, however, need to be confirmed by the National Nuclear Regulator and are an assumption to the EIA. Mr Heydenrych confirmed that Eskom owns all the land in the 800 m exclusion zone at all three of the alternative sites.
18	Chris Pretorius, resident of Wolvengat	Mr Pretorius wanted to confirm whether in the original EIR the proposal was for a smaller station but that the subsequent EIR made provision for a larger station.	Mr Heydenrych explained that although the EIA application was for 4 000 MW, Eskom had requested that GIBB investigate whether a 10 000 MW station can be accommodated at any of the three sites. However, the EIA Application is still for a single 4 000 MW nuclear power station.
19	Chris Pretorius, resident of Wolvengat	Mr Pretorius stated that in the original EIR GIBB clearly stated that there will be an 8 km exclusion zone where no residential development will be allowed, then a 12.5 km exclusion zone in which agriculture will be allowed but which will have to be monitored and then a further 16 km in which people will be allowed to reside. So what are the exclusion zones?	Mr Heydenrych stated that there are different exclusions zones for different types of nuclear power stations. The 16 km zone that Mr Pretorius referred to is for the Koeberg Nuclear Power Station, which is an older generation power station. The power station proposed for Nuclear-1 is a Generation III nuclear power station, which has more advanced technology and has different safety zones. So if the proposed power station conforms to criteria in this EIA then the exclusion zones of 800 m and 3 km will apply.
20	Chris Pretorius, resident of Wolvengat	Mr Pretorius asked if the first EIR is therefore incorrect.	Mr Heydenrych stated again that the initial EIR is correct and that the Koeberg Nuclear Power Station has larger exclusion zones than the power station proposed for Nuclear-1. He also stated that if Mr Pretorius is willing to stay after the meeting, they can review the maps together to confirm which maps indicate a larger exclusion zone.
21	Chris Pretorius, resident of Wolvengat	Should that a 3 km exclusion zones will be put in place, will the community of Buffeljagsbaai be relocated, considering that they are situated 2.3 km from the site?	Mr. Nicholls explained the emergency planning zones work under the European Utility Regulations. These Regulations state that no person is allowed to reside within 800 m of the site. However, in the case of a nuclear accident, those people residing within 800 m to 3 km from the site, short term relocation of up to 1 month may be required if there was an

			accident.
22	Mike Kantey, Coalition Against Nuclear Energy	<p>It should be noted that the company undertaking the Pebble Bed Modular Reactor (PBMR) programme requested a 800 m exclusion zone. It was never accepted by the National Nuclear Regulation and is not stipulated in the regulations published under the National Nuclear Regulator Act 47 of 1999 (NNRA). The exclusion zone stipulated in these regulations is for 16 km in which no development is to take place.</p> <p>With regards to the Koeberg Nuclear Power Station, there are disagreements between the City of Cape Town and the Authorities because the City is rapidly expanding in the direction of Koeberg and is not allowed to construct any infrastructure in the Koeberg site as per the NNRA. If Eskom is able to successfully change the Act in their favour by reducing the exclusion zone to 800 m, as per the PBMR literature, then yes perhaps, but if you consider that the exclusion zones put in place by the International Nuclear Atomic Agency (INAA) for Generation III Nuclear technology is way beyond 10 km, the Buffeljagsbaai community will have to be forcibly removed.</p>	<p>Ms Deidre Herbst from Eskom, confirmed that the exclusion zone for the PBMR was 400 m. It is important to note that there are currently people living within 2 km of the Koeberg Nuclear Power Station. So it is possible for people to live within this exclusion zone, even in the case of Koeberg, which has a larger exclusion zone than the one proposed for Nuclear-1. For this reason, no one will be relocated from any of the proposed sites for the Nuclear-1 power station.</p>
23	Mr Daniel Niemand, resident of Buffeljagsbaai.	<p>Mnr Niemand het genoem dat sy gemeenskap die kelp projek by Buffeljagsbaai van die Staat ontvang het in 2001. Mr. Niemand's het genoem dat dit die enigste vorm van werkskepping is in hulle omgewing. Die plasing van die kragstasie gaan hulle affekteer omrede dit ook die area geleë is waar hulle kelp neem van die see en dit hulle gebied dus kleiner sal maak. Hy is bekommerd dat die warm water vanaf die</p>	<p>Mnr Heydenrych het genoem dat die potensiële impak wat die kragstasie op die gemeenskap sal hê met betrekking tot die area waar hulle kelp van die see kan neem, is 'n impak wat geïdentifiseer en in ag geneem moet word. Omrede daar sekuriteitssones rondom die kragstasie sal wees, kan die gemeenskap met Eskom vergader om moontlik toegang tot die perseel te verkry deur middel van 'n permit.</p>

		<p>kragstasie die kelp negatief sal affekteer.</p> <p><i>Mr Niemand stated that his community received their current land from the Government in 2001 and that the harvesting of sea kelp is their only source of work in the area. He stated that should the exclusion zones be put in place, it will reduce the area in which they are currently harvesting kelp. He is also concerned that the water being pumped in and out of the proposed power station may negatively affect kelp in the area.</i></p>	<p>Mnr Heydenrych het ook genoem dat die marine spesialis gevra was om die impak van stasie op marine spesies soos kelp te identifiseer. Die doel van die studie was, onder andere, om die afstand en diepte waar die verhitte water vrygelaat moet word te bepaal, sodat marine spesies nie negatief beïnvloed word nie. Al is die water 12 °C warmer as die water wat inge-eem word, sal dit by 'n diepte en afstand vrygelaat word waar dit nie die kelp negatief sal beïnvloed nie.</p> <p><i>Mr Heydenrych stated that the potential impact of the power station on the reducing the area in which kelp can be harvested by the Buffeljagsbaai community, is an impact that would need to be identified and considered. Considering that there will be security zones around the station, the community may be able to arrange with Eskom and other authorities that members of the community can gain access to the site through a permit system to harvest kelp.</i></p> <p><i>Mr Heydenrych explained that the marine specialist appointed for the Nuclear-1 EIA was requested to determine the impact of the proposed power station on marine species such as kelp. One of the aims of the study was to determine at what distance and depth the heated water from the station can be discharged into the ocean without affecting marine species such as kelp. Although the discharged water will be approximately 12 °C warmer than the water being pumped into the station, it will be discharged at a depth and distance which will not affect kelp species.</i></p>
24	Ms Sarah Niemand, resident of Buffeljagsbaai.	<p>Mev Niemand het genoem dat die kelp in hulle area koue water benodig om te oorleef.</p> <p>Mev Niemand het ook genoem dat hulle gemeenskap</p>	<p>Mnr Heydenrych het genoem dat GIBB bewus is van spesies soos kelp en perlemoen wat afhanklik is van koue water om te oorleef. Die spesialis wat aangestel is vir die studie het hierdie feit in ag geneem in haar studie en bevind dat daar geen impak</p>

		<p>verskil van die naby Koeberg in dat die Buffeljagsbaai gemeenskap heeltemal afhanklik is van die see vir hulle inkomste. Daar is geen ander industrieë in die area wat die gemeenskap kan ondersteun nie.</p> <p><i>Ms Niemand stated that kelp in their area is very dependent on cold water.</i></p> <p><i>Ms Niemand also stated that there is a difference between the communities residing close to Koeberg and the Buffeljags community in that the members of her community are dependent on the sea for their livelihoods. There are no other industries in the area that can support the community or provide them with employment.</i></p>	<p>op kelp sal wees nie solank Eskom haar spesifikasies gevolg word.</p> <p>Mnr Heydenrych het ook genoem dat daar wel gemeenskappe naby die Koeberg stasie is wat afhanklik is van marine bronne soos kelp vir hulle lewensbestaan, en dat studies in die area gewys het dat daar geen impak op kelp in die area is nie.</p> <p><i>Mr Heydenrych stated that GIBB is aware that species such as kelp and abalone are dependent on cold water conditions. The appointed specialist did consider this potential impact and her findings show that there will be no impacts on kelp or abalone as long as Eskom follows the specifications she provided.</i></p> <p><i>Mr Heydenrych also pointed out that there are communities living adjacent to the Koeberg Nuclear Power Station that are also dependent on the harvesting of marine resources such as kelp for their livelihoods and that studies undertaken in that area showed that there was no impact on marine species.</i></p> <p>Ms Deidre Herbst of Eskom stated, in English, that if the exclusion zones may negatively affect the livelihoods of the Buffeljags community then this must be considered and assessed in the EIA.</p>
25	Dave Whitehall, Landowner	<p>Mr Whitehall pointed out that a section of the Revised Draft EIR stated that the temperature of sea water can vary between different locations and that generalisations cannot be made.</p> <p>Mr Whitehall also pointed out that apart from the impact on kelp forests in an area such as Walker Bay, the impacts on penguins and fish populations must also be considered.</p>	<p>The comment was noted.</p> <p>Mr Heydenrych stated that the marine specialist also looked at species such as and penguins and sharks, as there is shark diving in this area, and the results indicate that none of these species will be affected by the proposed power station.</p>

26	Mike Kantey, Coalition Against Nuclear Energy	<p>Mr Kantey noted that bottom feeders such as mussels and abalone can be impacted on by the accumulation of radioactive substances (e.g. Strontium and Ceasium) in them.</p> <p>Mr Kantey stated that the Black Mussel populations has been be affected by the proposed power station. A report providing 20 years of research done on black mussel populations adjacent to Koeberg was produced. It has shown radioactivity in their bodies.</p> <p>Another point is that the radioactivity of the sea water comes precisely from the discharge of Strontium 19 and Ceasium 137 as by-products. In the opening remarks of the presentation the assertion is made that nuclear energy is clean but this does not take into consideration that the routine emissions of Strontium and Ceasium 137 have half-lives of several thousand years. So the radioactive decay of Strontium and Ceasium 137 over hundreds of years continues to have an impact on abalone and mussel populations.</p> <p>Stated that the Buffeljags community is dependent on the sea for their livelihoods so these types of impacts will negatively affect them.</p> <p>Mr Kantey further noted that it is important to consider all the marine tourism activities such as whale watching and shark diving and potential impacts on these activities from a biological, radiological, and zoological perspective. This stated that this constitutes a fatal flaw in the EIA.</p>	<p>Mr Heydenrych explained that those aspects regarding radioactivity and its potential impacts on marine life have been considered in the EIA and specifically dealt with in the marine ecology report. The levels of radiation found in areas surrounding the Koeberg Nuclear Power Station has been monitored for the past 20 years and it has been found that there are no impacts associated with the presence of these elements. It should be noted that these elements occur naturally in the atmosphere and in the sea water since atmospheric nuclear testing started in the 1940s. However, the finding of the marine specialists is that these elements have no health effects on marine species at the Koeberg Nuclear Power Station.</p>
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27	Mike Kantey, Coalition Against Nuclear Energy	Mr Kantey asked that it be noted in the minutes of the meeting that the sound equipment is faulty and that it is highly irregular that a public meeting be disrupted due to poor sound management.	The point was noted.
28	Mike Kantey, Coalition Against Nuclear Energy	The environmental science laboratory reports produced by Eskom show that substantial amounts of Caesium 137 and Strontium in relation to volume of abalone. Any attempt to pretend that there are no environmental impacts is disappointing. I would be happy to provide these reports and the figures and tables drawn from them. Having said that, and having noted the response with regard to Nuclear testing in my own analysis of the allegations in your own report and representations to the public I think that one must argue that if you look in the way that the wind regime operate in the northern and southern hemisphere, it is such that 99.99 percent of weapons testing above ground prior to cessation in 1972 demonstrates very little penetration in the southern hemisphere. Moreover, one would expect that after 1972, the volume of Caesium 137 would decline. Studies produced by Eskom's own researchers have shown that the Strontium 90 level actually increases. This follows that the assumption that the levels of these elements in the atmosphere are caused by nuclear fallout is unscientific. It follows that the contamination in abalone is due to the nuclear facility.	Mr Heydenrych stated that he stands by his initial statements and that this is based on studies undertaken by prominent scientists at the University of Cape Town, namely Professor Charlie Griffiths and Dr Tammy Robinson.
29	Lesley Richardson, Flower Valley Conservation Trust.	Ms Richardson referred to the scoring of the three different sites and asked if, should the EIA be undertaken again from the start and if other sites besides these three would be assessed and whether	Mr Heydenrych explained that the three sites currently being considered were identified in the Nuclear Site Investigation Programme, which began in the 1980s. There were initially five sites identified for initial assessment in this EIA. These include

		they would have provided a different range of outcomes. Why were these three sites chosen?	the three sites assessed in the impact assessment phase of the EIA as well as two other sites that were situated in the Northern Cape. Additional sites such as the Coega Industrial Development Zone have also been suggested, but for various reasons were found to be unsuitable for the construction of a nuclear power station or could not be considered further in the EIA for Nuclear-1.
30	Lesley Richardson, Flower Valley Conservation Trust	Ms Richardson asked whether there will be exclusion zones off-shore that may inhibit people from fishing close to the proposed power station.	Mr Heydenrych explained that there will likely be a 1 to 2 km security exclusion zone on the sea surrounding the proposed station. This will be identified through an investigation that will be undertaken by the National Intelligence Agency.
31	Lesley Richardson, Flower Valley Conservation Trust	Ms Richardson asked whether there is environmental monitoring on site during construction and maintenance and if there is a body that can undertake this monitoring.	<p>Mr Heydenrych explained that with most EIAs, there is a recommendation that an independent Environmental Control Officer (ECO) be appointed to monitor construction activities to ensure that they comply with the provisions set out in the EMP, if approved by the DEA. It will be suggested in the EIR that the ECO report to an Environmental Monitoring Committee (EMC) which will consist of specialists, government representatives and local community members. The ECO will also have the right to report any transgressions directly to the Authorities.</p> <p>Ms Herbst of Eskom explained that the authorities have set out environmental control measures for all their sites. There will be an independent ECO as well as two to three Environmental Officers appointed by the individual contractors to monitor compliance on site. There could therefore be up to 15 people on site that monitor environmental compliance. External auditors are also appointed to monitor the sites every three to six</p>

			months. This monitoring continues during the operation of the facility, it is a requirement from the authorities that internal and external audits also take place.
32	Lesley Richardson, Flower Valley Conservation Trust	Ms Robinson asked if there will also be monitoring undertaken to assess long term environmental impacts associated with the power station.	<p>Ms Herbst stated that Eskom is committed to the long term conservation of the areas surrounding their power station. An example is the new pumped storage scheme in the Drakensberg, which is situated in an environmentally sensitive area. That facility is now part of an 8 000 ha conservation area that is managed by Eskom. All environmental baseline studies were undertaken 6 months prior to commencement of construction and there will be ongoing monitoring to assess potential future impacts.</p> <p>Eskom will be held accountable for the long term conservation of such areas. In the case of Bantamsklip, Eskom have met with nature conservation authorities to develop a conservation area surrounding the site, should it be recommended as the preferred site and environmental authorisation has been provided.</p>
33	John Williams, Save Bantamsklip and the Stanford Conservation Trust	<p>Mr Williams referred to the question by Ms Richardson regarding the selection of the 5 original sites.</p> <p>Mr Williams wished for it to be noted that the Bantamsklip site was originally chosen by the Apartheid government because it was situated close to the previous De Hoop Nuclear Complex, which was erected with the aim of launching nuclear armed missiles. Mr Williams stated that, given the fact that South Africa has dismantled its nuclear weapons and abandoned its nuclear programme, the Bantamsklip site would not have been selected by the present government, given the environmental sensitivity of the</p>	Comment noted.

		<p>surrounding area.</p> <p>Mr Williams pointed to the Bantamsklip site maps and indicated areas in the vicinity of the site that is currently under conservation. These include the Cape Agulhas National Park, as well as the Soetfontein and Pearly Beach Nature Reserves. Mr Williams also wished for it to be noted that this area is recognised globally as a world heritage site, and that the land must therefore be donated to the South African National Parks (SANParks).</p>	
34	Eugene Henry, Pearly Beach Ratepayers Association	<p>Mr Henry asked whether the recent events in Japan, where several nuclear reactors were damaged due to earthquakes and subsequent tsunamis, were taken into account, and whether there is any feedback from GIBB regarding these events.</p>	<p>Mr Nicholls of Eskom stated that a presentation will be given after the conclusion of the public meeting that will explain the events that transpired in Japan and its relevance to the proposed Nuclear-1 project.</p>
35	Unidentified I&AP	<p>The interested party stated that in the first EIR, it was stated that there are no marine mammals of any significance in the area surrounding Bantamsklip. He stated that he has personally seen southern right whales with their calves in this area.</p> <p>There were also several sections in the report which stated that the impact on marine mammals in the area is 'unlikely', and asked that clarification be provided as to the definition of this word.</p>	<p>Mr Heydenrych responded that there are cases where it is possible to quantify the impact that heated water may have on the environment, as certain thresholds can be identified where it becomes an impediment to marine species. In the case of the release of spoil into the water, the marine specialists were able to determine that there will be times during the year when, if the spoil exceeds a certain threshold, it would affect marine species.</p> <p>In all cases, however, an EIA remains a predictive tool and the Environmental Assessment Practitioner relies on the feedback provided by the specialists to determine the level of environmental impacts associated with a given development. These results can be based on quantified figures or their expert knowledge that was gained with experience working in their respective fields.</p>

			The word 'unlikely' can be defined as having a low probability.
36	Mr George Adelaide	<p>Mr Adelaide wished to note that he has witnessed Eskom dismantle transmission lines, and left the remains of the pylons on the ground where they are still visible. He asserted that in this case, the environmental monitoring on site was poorly managed.</p> <p>Mr Adilade also wished to note that Eskom has identified 17 sites in the Western Cape for pumped storage schemes, 14 of which are situated in protected areas.</p>	<p>Comment noted.</p> <p>Post meeting note: This is an unacceptable process. Eskom is investigating this situation (Ms. Deidre Herbst).</p>
37	Mr Rodney Anderson, Gansbaai Ratepayers Association.	Mr Anderson asked what the process of decommissioning of a nuclear power plant entails.	<p>Mr Nicholls stated that Generation III nuclear power stations have an operating life of between 60 to 80 years. He explained that when a nuclear power station is decommissioned, it is literally taken to pieces and that all radioactive material and plant will be taken to the Northern Cape for disposal at the Vaalputs site. The nuclear fuel will be kept on site for a period of 10 years, after which it will be buried underground in granite formations.</p> <p>However, in the case of the Koeberg Nuclear Power Station or future sites for Nuclear power stations in South Africa, it is likely that these sites will be used again for the construction new power stations, as existing services such transmission line servitudes are already connected to those sites.</p>
38	Mr Rodney Anderson. Gansbaai Ratepayers Association	Mr Anderson asked whether there are any other nuclear power stations in the world that has been decommissioned and turned into greenfield sites	Mr Nicholls confirmed that there has been other nuclear power stations which have been converted into greenfield sites. The first of which is a PWR station constructed in the USA which is now back to a greenfields site.

39	Mr Rodney Anderson. Gansbaai Ratepayers Association	Mr Anderson wished to note that, because we, and our grandchildren will not be alive for the decommissioning of the station, we have to ensure that construction of the station is never undertaken in the first place.	Comment noted.
40	Ms Lyn Eager	Ms Eager asked why the other two sites of the original five were scoped out.	Ms Ball explained that the other two sites in the Northern Cape are both very long distances away from the transmission network and from the areas where the electricity is required. For this reason, long new transmission lines would have been required. The impacts associated with transmission lines are high and much more land would have had to been secured to build the lines. However, Eskom has stated publicly that it may still consider these sites as future locations for nuclear power stations.
41	Mike Kantey, Coalition Against Nuclear Energy	<p>Mr Kantey stated that the decommission story is interesting because while it is likely to take place in 80 years he has inside knowledge to talk about many reactors constructed before Three-Mile Island. What is interesting is that after the German Vice Chancellor, Ms Merkel, proposed to extend the lives of 17 reactors, she lost the province of Warten Witzenberg. So the authorities may believe that it is in the interest of the public to extend the life of nuclear power stations, but many citizens disagree. This is because of the age of these stations and the overall decay of the metals that protect the core of the reactors.</p> <p>There is no civilian reactor built in the 1970s for which we have the authority to say that it can last for more than 40 years. Now that we have reached 2011, the anniversary of that timeline, there will be many nuclear power stations that will be deactivated, long before</p>	Comment noted.

		they have any positive impact on reducing global warming. They will have to be replaced and their lives not extended.	
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APPENDIX 2: PRESENTATION OF REVISED DRAFT ENVIRONMENTAL IMPACT REPORT

PLEASE REFER TO THE PRESENTATION MADE AVAILABLE TO PARTICIPANTS ON 13 JUNE 2011 AS PART OF THE DRAFT MINUTES OF THE PUBLIC MEETING HELD ON 13 MAY 2011 AT THE PRETORIUS HALL IN GANSBAAI.

APPENDIX 3: ATTENDANCE REGISTER

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

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

**REVISED DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
REPORT**

FINAL MINUTES OF PUBLIC MEETING

**HUMANSDORP COUNTRY CLUB
HUMANSDORP**

02 JUNE 2011

18:00 - 20:50

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PREFACE

This is a final record of the proceedings of the Public Meeting held at the Humansdorp Country Club in Humansdorp on 02 June 2011 in terms of the Public Participation Process for the proposed Eskom Nuclear Power Station and Associated Infrastructure. Participants who attended the meeting were afforded 14 days upon receipt of the minutes to notify the Public Participation Office (n1humansdorp@gibb.co.za) in writing of any changes or additions to be made to the minutes. Draft minutes were made available to participants via post and e-mail on 21 June 2011.

“**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 issue 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 – Interested and Affected Parties

- As per attendance register.

1.2 Attendance – Eskom Holdings Limited - Applicant

Name	Position/Role
Deidre Herbst (DH)	Senior Manager: Generation Environmental Management
Dave Nicholls (DN)	General Manager: Nuclear Engineering
Lerato Sedumedi	Senior Advisor: Regulation and Localisation
Lorraine Ndala	Senior Environmental Advisor
David West	Auditor

1.3 Attendance – Independent Environmental Consulting Team

Name	Organisation	Role in the project
Jaana-Maria Ball (JMB)	Arcus GIBB (Pty) Ltd	Nuclear-1 EIA: Project Manager
Reuben Heydenrych (RH)	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Jacqueline de Goede	Arcus GIBB (Pty) Ltd	Public Participation Officer
Walter Fyvie	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist (Minute-taker)

2. WELCOME AND INTRODUCTIONS

The independent Chairperson, Dr. David de Waal, welcomed everyone to the meeting. He introduced all the players in both Eskom Holdings Limited (Eskom), and Arcus GIBB (GIBB).

He explained that the presentations are in English. He explained that participants are welcome to use the language of their choice as the EIA Team could communicate in Afrikaans and there were Xhosa translators on hand.

He advised participants that the meeting is being recorded to ensure the accuracy of the minutes.

3. CHAIRPERSON'S INTRODUCTORY REMARKS

3.1 Conduct at Meeting

The Chairperson read through the points presented on the slide, which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and discussion. These points are contained in the main presentation, which is provided in Appendix 2.

He requested all participants to assist the team by having a constructive debate at the meetings. It would be an "old fashioned", polite, structure meeting and the following would apply:

- Work via chairperson
- Give your name every time you ask a question
- Please keep questions till the end
- Raise your hand and only speak when given the opportunity to
- Everybody should be given the chance to ask questions
- Remain polite

He ran through the proposed agenda which was accepted by all.

3.2 Objectives of the Public Review Meetings

The purpose of the Public Meetings is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- ❑ To present the conclusions and recommendations of the Revised Draft Environmental Impact Assessment Report.
- ❑ Provide an opportunity to Interested and Affected Parties to comment on the specialist study findings and the outcomes of the EIA.

He explained what it means if a point "is noted".

Discussion then followed regarding who was allowed to ask questions on the night. Issues raised were as follows:

Name	Comment
Chris Barrett (St. Francis Bay / Kouga resident)	Is this an open meeting? At last night's Sea Vista meeting, only 'locals' were given an opportunity to comment; I was not given an opportunity. Can you confirm if this is an open meeting, and is anyone, including outsiders, aloud to comment tonight?
Dr. De Waal (Chairperson)	Uncomfortable with this "no outsider" issue. If no "outsiders" are allowed to comment, then he had best leave as he is from Pretoria.

Name	Comment
Unidentified I&AP	For those people who stay here in the area, we must have the opportunity to ask all the questions we want to ask, as opposed to just having people talking to us.
Jaana-Maria Ball (EIA Manager, GIBB)	With respect to this EIA it is important to obtain input from I&APs all over the country. It is vital to obtain input from local communities around the proposed alternative sites and hence GIBB has been having meetings in different localities over the past two weeks. It is good to see so many people here from the Kwanomzamo community, as well as people who have driven here from further away. GIBB wants to hear questions from everyone, and this meeting will continue tonight until everyone has had a chance to ask questions.
Chris Barrett (St. Francis Bay/ Kouga resident)	Presumably this process is being minuted because people are not identifying themselves, not saying who they are, before they speak. I am a resident of the Kouga.
Dr Yvette Abrahams (Commissioner for Gender Equality)	A public meeting means anyone has the right to ask questions. The disruptions at last night's Sea Vista meeting were politically motivated. Disruptions came from three sources, an ANC councillor, the ANC Youth League, and a municipal employee paid by GIBB.
Jaana-Maria Ball (EIA Manager, GIBB)	It is imperative to GIBB that everyone is given a chance to speak. It should be noted that GIBB is not paying anyone from the municipality to assist them on this EIA.

Ms Deidre Herbst of Eskom stated that if time permits, Mr Dave Nicholls will be giving a presentation after this meeting on the nuclear incident in Japan. It will not form part of this EIA meeting, but will also be open to anyone who is interested.

4. PRESENTATION: FINDINGS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB (GIBB), presented the findings on the Revised Draft Environmental Impact Report (EIR).

By way of introduction, Ms Ball, EIA Project Manager, thanked all present for their time and indicated that GIBB is pleased to be at the stage of presenting the findings of the specialist investigations and the outcomes of the Environmental Impact Assessment phase.

Ms Ball and Mr Heydenrych then presented the findings on the Revised Draft EIR (refer to presentation slides provided in Appendix 2 of the Draft Minutes which was made available to participants on 21 June 2011).

The issues raised and discussed following Arcus GIBB's presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: "Record of Issues Raised and Discussed" details the issues, comments and concerns, which were raised and discussed at the meeting.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

JMB indicated that the EIA Team would endeavour to distribute the minutes of the meeting to I&APs shortly after the meeting.

Minutes were distributed to I&APs and a 14 day comment period was provided.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the public review period of the Draft EIA Report ends on 07 August 2011.

Ms Ball encouraged all present to submit their comments to the GIBB Public Participation Office using one of the following methods:

By mail: GIBB Public Participation Office, Nuclear-1 EIA, P.O. Box 3965, Cape Town, 8000

By phone: 021 469 9180 (Office hours: Mon to Fri – 09:00 to 13:00 excl. public holidays)

By fax: 021 424 5571

By e-mail: nuclear1@gibb.co.za / nuclear-1@gibb.co.za

Various pieces of documentation have been made available as hardcopies in the Humansdorp Library, as well as available in Port Elizabeth, St Francis Bay, Humansdorp and Oyster Bay. Electronic copies of the Report are available on the GIBB and Eskom websites. She mentioned that there were also a number of DVD copies of the report available tonight (30 DVD copies of the Report were distributed to attendees after the meeting).

Comments received on the Revised Draft EIR will be used to produce the Final EIR, which will then be submitted to the Department of Environmental Affairs (DEA) (the decision-making authority for the EIA) for their consideration.

The timeframe for submission of the Final EIR will depend on how long it takes to finalise the report as well as on the quantity and type of comments that are received from I&APs during the review period.

A letter will be sent to all registered I&APs informing them of the Authorities' decision.

6.3 Chairperson's concluding Remarks

The Chairperson thanked everyone for constructive engagement and closed the meeting at 20h50.

APPENDIX 1: FINAL RECORD OF ISSUES RAISED AND DISCUSSED

Please note: In some instances, the names that were given by the speaker at the meeting did not correspond with the names provided in the attendance registers.

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
1	Sam van der Merwe (Koukamma area resident)	Concerned that this study is bound to the properties already owned by Eskom. What about alternatives? We know that the present power demand is as a result of Coega. Is there no way we could look at suitable alternative sites comparable to Thyspunt, but closer to Coega? If you look at the area east of Coega, there is a large unutilised area. Very little would be affected if that site was used. Why can't that be used?	<p>Reuben Heydenrych (RH) responded that the alternative sites were identified back in the 1980-90s, through the Nuclear Site Investigation Programme (NSIP). Nuclear safety is of paramount importance, and there are not many coastal sites in South Africa that would be suitable for a nuclear power station. Five sites were identified by independent consultants from UCT as being the most suitable sites investigated by the study and these formed the starting point of this EIA with respect to alternative sites. Regarding the Coega Industrial Development Zone (IDZ) as a candidate site, one of the challenges is that limited seismic monitoring has been done there. At the other candidate sites at detailed seismic monitoring has been carried out over several years. It would take at least five years to bring the Coega IDZ site up to the same level of detail as the three preferred sites are today. Other challenges include the fact that it is in an area of very deep sands. There is also a Coega fault, which has not been studied in-depth. Hence the recommendation has been made that for Nuclear-1, the Coega IDZ cannot be considered as an alternative site. It may well however be considered by Eskom in the future as a nuclear site.</p> <p>Jaana-Maria Ball (JMB) clarified that this nuclear power station is not driven by the Coega IDZ, but rather</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		<p>You place emphasis on ecological effects on the limestone fynbos area. What about the coastal fynbos; it is also endangered? Don't underplay the importance of the word "could" when it says "it could be reduced" through the development.</p> <p>Regarding seismic activity, I understand that the presence of a geological contact zone caused you to plan your site in a specific area. Isn't that a warning that there is a seismic risk in the area?</p> <p>Regarding the marine ecology, many people depend on the sea as a food source. More studies may be needed to determine the exact effects on the sea currents.</p>	<p>because the lifespans of the existing coal-fired power stations in South Africa are coming to an end and also because of the increasing electricity demand (3% increase per annum) in the country.</p> <p>RH stated that there is coastal fynbos at Thyspunt, and the botanical specialist did look at this. It is however not as localised as the limestone fynbos. The specialist has stated that the coastal fynbos occurs in many areas outside the site and hence the impacts on coastal fynbos would not be that significant.</p> <p>RH explained that contact zones are lines where two different rock types come together; it is not a fault. From a seismic point of view, they are not features that cause earthquakes, but from an engineering point of view, critical buildings like the reactors should not be placed across these contact zones. From an earthquake risk point of view Thyspunt is actually the best alternative site.</p> <p>RH responded that extensive modelling of the marine environmental has been done in the oceanographic study, which was based on number of years of monitoring. The impacts of ocean conditions have been modelled. This information has been included into the Revised Draft EIR.</p>
2	Clifton Booyesen (Humansdorp resident)	Want to make a statement, not ask a question. I have visited the Koeberg Nuclear Powers Station. For me the issue is about development and sustainable job creation. The station should not	Comment noted.

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		go anywhere else; it must be here. We need the jobs.	
3	Juline Prinsloo (from Tourism Sector)	<p>It was stated that it will take 9 years to build, and will create 7 700 jobs. Are these jobs going to be local jobs, and do the 7 700 jobs include technical jobs?</p> <p>Can the existing infrastructure accommodate the expected influx of people?</p> <p>The expected 960 new vehicle trips through Humansdorp will require proper planning, and a proper route would have to be found to the R330. The four-way stop and the taxi rank will pose problems.</p> <p>Regards the Chokka industry and the heating the sea water, you have proposed multiple release points but has the success of this been proven elsewhere?</p> <p>You want to build cut-off walls to protect the wetlands. You didn't elaborate on the type of materials that will be used, or how you would look at the environmental aspects of the site etc.</p>	<p>RH stated that the 7 700 jobs will be created at the peak of construction (i.e. year 6). This includes all jobs, including manual labour and technical jobs. GIBB's recommendation is that at least 25% of these jobs must be for locals. Eskom will have to do training for the local people like has been done at Medupi Power Station.</p> <p>RH explained that the issue of the existing infrastructure is an important issue because there are already backlogs in infrastructure delivery. A key recommendation of the Environmental Impact Report (EIR) is that Eskom should agree with municipalities as to who will provide this infrastructure before construction starts.</p> <p>RH noted that the team is rethinking the transportation issue, and will consider alternative access routes passing around Humansdorp.</p> <p>Dave Nicholls (DN) said that, yes, discharge of water into sea is a standard, common technology used all over the world. If one mixes the water quickly, the temperature comes down quickly. Within a few hundred metres of the release point the water has returned to its original temperature.</p> <p>DN explained that the cut-off wall would be a barrier 20 m deep to the bedrock. It would stop water from seeping into the site. The wall is normally made of clay slurry. It</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		<p>Not much has been said about tourism impacts. We would like to have inputs in this.</p> <p>Regarding the heritage impacts, there wasn't much said about storage of the radioactive waste, how do you store it etc.</p>	<p>has been used before and the same technology was used at the Koeberg Nuclear Power Station in the 1970s. Eskom does not foresee environmental issues with this barrier.</p> <p>RH stated that the tourism specialist was required to consult with all relevant stakeholders and GIBB will get the specialist to contact Mrs Prinsloo.</p> <p>RH explained that spent fuel would be stored on the site. It firstly goes into wet storage for 20 - 30 years, and thereafter goes into dry containers, encased in concrete and stays on site.</p>
4	Chris Barrett (St. Francis Bay/ Kouga resident)	<p>We have raised the issue of transport before. What you are envisaging at the moment, is one heavy-duty truck going down Saffrey street every 24 seconds, and also going down the R330 where there are kids crossing the road to school. This is excluding any existing traffic.</p> <p>This traffic issue must be looked at, because it affects the social and economic studies, and hence they must all be reviewed. I have heard it said that that no expenditure on the road between Humansdorp and St Francis would be required. This is nonsense.</p>	<p>JMB noted that the transport issue had been raised as a key issue over the last few days. GIBB will be asking the transportation specialist to relook at their recommendations and try to alleviate the traffic going through Humansdorp itself, and the traffic issues in Cape St. Francis and St. Francis Bay areas.</p> <p>JMB agreed that if the traffic report changes significantly then the other reports would have to be updated.</p>
5	Dr Yvette Abrahams (Commissioner for Gender Equality)	<p>In Hankey we have had a similar issue regarding underpasses for pedestrians. Every underpass costs R70 million. If you redo the transportation report, every time that you add an underpass can you please add R70 million to the project cost, and explain who will pay for it. With regards to bulk services, who pays for those; the national tax payer, the municipal taxpayer or Eskom?</p>	<p>JMB stated that this issue had been raised before and that the economic specialist will be asked to look at this, if relevant.</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
6	Renan Stuurman (Community leader)	Concerned that we are talking as a non-global player. We are talking as if there is no electricity crisis. We need to pre-empt the crisis. People's objections stem from a small town mentality. People are saying the power plant can be built anywhere but not here. People want to use their democratic rights to disadvantage others through their decisions. How many times will you come here before we build this plant? Energy is not a luxury; it is a need and will become even more so in future. Time is running out. What is the next step? We can't waste anymore time. There are needy people here. We cannot tolerate objections as if we don't have a past. This is our chance for us to live close to Thyspunt, close to resources. Let the power plant come.	Comment noted.
7	Dries du Preez (Jeffrey's Bay, developer of Fountain Mall)	The economies of Humansdorp and Jeffrey's Bay are in serious trouble, and are in desperate need for something to change. We need a driver to get business going again. We need something to happen very soon. We know about the changes that came to Ellisras (Lephalale) with the announcement of the Medupi Power Station. We need that kind of announcement in this area. How are you going to protect the jobs for locals, and ensure they are not lost to the inflow of workers from outside?	<p>RH responded that this has been raised in the Social Impact Assessment. Unfortunately people cannot be stopped from moving around or into the area, but it has been recommended that locals must get preference. Eskom has experience in engaging with local bodies to ensure locals get preference.</p> <p>Deidre Herbst (DH) stated that on previous projects Eskom has engaged with formal community representatives to determine who is local and who is not, to ensure locals do get preference. At Medupi Power Station Eskom agreed on a 70 km radius to identify locals, and transported people within that area. Eskom also had recruitment offices at areas removed from the site. One cannot stop impacts related to migration of people completely but there are ways to minimise it and ensure local employment.</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		I've heard that engineers, possibly Aurecon, were appointed to look at a coastal road alignment linking Paradise Beach, St Francis, and Jeffrey's Bay. Is it happening and is it a separate study? My concern is that this region will not benefit from Thyspunt if this road is not built. We need to look at more than just the Thyspunt power plant on its own, but development in the whole area. Need to make sure we get that coastal road.	RH replied that GIBB was aware of a coastal road proposal from Jeffrey's Bay to St Francis, but it's not part of the Nuclear-1 EIA. DH explained that there have been various discussions about transport routes, but the coastal option was not part of this EIA. Once Eskom is at a stage where they know where the access points will be, they will start an EIA looking at building roads. At present Eskom is concentrating on determining road access coming from N2 directly down to site.
8	Frank Tamboer	It is worrying that people who are also previously disadvantaged are opposing this proposal; but some people are also concerned that this development will give "darkies" the opportunity to live in the white areas, and whites are concerned about this. I am speaking for a collective of the community, not defending my own kingdom.	Comment noted.
9	Bruce Oliphants (Kwanomzamo resident)	Want to commend people from Jeffrey's Bay in sharing the same view in terms of job opportunities and economic improvement. My view is that should the project go ahead, jobs will be created and the economy of Kouga will improve. This is in line with one of the five key focus areas of the African National Congress (ANC) in its manifesto. But I am concerned with the estimated percentage of the local labour force that will be employed, only 25%. This doesn't deal with the crisis of unemployment here at the moment. Is this figure cast in stone? Migration of people from other areas to Kouga is natural and we can't change it. The present population is about 100 000 and 7 700 jobs are to be created. In Cape Town, most people residing there	RH responded that the recommendation of 25% local labour is a minimum but hopefully more than that would be achieved. DH explained that 25% is what Eskom would specify as a minimum in contracts. Sometimes it would be 50% and other times 10%, depending on the type of contract. However, there will be many other opportunities outside of the 7 700 created e.g. support services, food, and laundry etc.

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		<p>are those who have moved there from the Eastern Cape looking for greener pastures. The same in Gauteng, and many have gone there from the Eastern Cape. I recommend that Eskom urgently start compiling a database of local people here but should not cut off those who are migrating in.</p> <p>In past presentations it was shown that a high volume of vehicles will be using our roads. We agree that the present infrastructure is not sufficient and it is out of the question for vehicles to use the main road of Humansdorp or Saffrey Street. We are happy to hear that alternatives will be considered. Why don't you consider developing a road from the N2, an alternative road, which then joins into the road to Oyster Bay? Through this Eskom could create jobs through the construction of roads.</p> <p>I don't want to use this as a political platform, but earlier on a doctor made political statements which undermined a political organisation. We don't want to hear about the ANC or ANCYL which has nothing to do with the project. We are here to hear about Thyspunt.</p>	<p>RH commented that any roads used by Eskom would have to be upgraded and Eskom would have to maintain the roads. The suggestion of a link between the N2 and the Oyster Bay road will be taken to the transportation specialist for consideration.</p>
10	Dries du Preez (Jeffrey's Bay, developer of Fountain Mall)	The 7 700 jobs is only a small part of the improvements that would come to Thyspunt. If you consider the growth to supporting industries, it could probably create a further 10 000, 20 000 or 50 000 jobs.	Comment noted.
11	Godfrey Africa (Student of economics; law firm partner and a community worker)	What resource planning has Eskom done? It is a 9-year construction project, and we are a few years away from starting, so we should be able to identify enough young kids in grade 11 or 12 in the area that could be trained up to be engineers or artisans so that by the time the project starts, we have local technical skills	DH explained that not much resource planning has been done yet, but as soon as there is more certainty regarding the chosen site, Eskom will need to start doing that soon. In terms of identifying local young people for education, Jongi Dyabaza and representatives from

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		<p>available. This could increase the minimum of 25% to a better number.</p> <p>To what extent will Eskom be able to influence BBEE and local employment in the tenders? To what extent will you be able to ensure that the process doesn't end up with only friends of friends benefiting. What safety mechanisms are there to ensure this doesn't happen?</p>	<p>Eskom Development Foundation, has been going to schools closest to the site. Eskom has not started considering bursaries yet but will be getting the training manager to start on this soon.</p> <p>DN stated that Eskom has strong policies regarding local content. When Eskom started negotiating for nuclear units three years ago (which subsequently stopped because of the financial crisis), there were very strict clauses for local training, employment, etc. Eskom is presently driving this Thyspunt process, but it will eventually become a government lead process, and they will require local content. Dave West, who is here at this meeting, is from Eskom's Audit and Forensic Department and because of the significance of this project; the whole process is being audited by an external auditor. On every contract we require an external audit number to confirm it is fair.</p> <p>DN added that Eskom's Chief Executive is very strict on this. He and a number of Eskom staff went on a business trip to China. When they were presented with expensive watches by their hosts as gifts, he cancelled the trip and brought everyone back.</p>
12	Eugene Goliath (Kouga Municipality resident)	<p>How is Eskom planning to develop local skills before the plant is developed? I am actually supporting the development, but will the Kouga people become the future gardeners and sweepers at the plant? What is Eskom doing to develop skills in this area's schools? Eskom is not presently developing skilled artisan here. All the people here leave to be trained in other areas. Eskom should build</p>	<p>RH agreed that these were good suggestions and stated that GIBB would make sure that the Social Impact Assessment considers these, and where necessary, make these recommendations.</p> <p>DN noted that he runs the engineering department of</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
		<p>a training college here so that we have trained locals ready by 2013 or 2015 approximately. Of the 25% that will be local workers, at least 75-80% of those should be skilled workforce.</p> <p>When will your planning start? You said Jongi went looking at schools this week. This won't help much. You need to look at building a school. Eskom should do an Oprah Winfrey on us in this area.</p> <p>Maybe look at building a school where extra lessons in Maths and Science can be given by those who are already doing it in this area, like Mr Sammy Jantjies.</p> <p>The top technicians in this area are not from this area, they came here for the jobs. We want someone from this area, working on the project. This project gets my vote. One of the municipal CFOs in the Western Cape comes from this area. You said you have some people from Cape Town, at Koeberg. Similarly we would like to have people from this area, for this project. Local sustainability and development is needed.</p>	<p>Eskom's nuclear group. The nuclear engineering manager at the Koeberg Nuclear Power Station is Mr Cedric Davis, a coloured man from Cape Town. The head of standards is a coloured man from Cape Town. In general, about 70% of Eskom's members of staff are PDI individuals. All of his senior managers are PDIs, one of whom was sent to the United States for three years to get a PhD. Eskom is very keen to develop people.</p> <p>DN agreed. Regarding sustainability, this project will last for 80 - 90 years and it is unlikely that once established, that Eskom will ever stop using it. This project will still be going when we are all gone.</p> <p>DH explained that at Medupi, there was a long construction period and plenty of opportunity to train people, but what is more important is when operations start. When Eskom started construction they appointed people from the local community, all locals, and they will be operating and maintaining the Medupi plant once operational. All are from the local community.</p>
13	Unidentified I&AP	<p>Also supports transformation and empowerment but we must remember that this is not a Kouga thing, it is a South African need. When we say local we mean local South Africa, not Zimbabwe, or Namibia etc.</p>	<p>Comment noted.</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
14	Chris Barrett (St. Francis Bay/ Kouga resident)	<p>Education and the future of the country is paramount. How many hundreds of millions of Rands have you spent on land here, and how much are you planning to invest in developing people?</p> <p>I'll leave it as the question was asked and unanswered.</p> <p>I asked about local training figures, not national figures. I asked for the amount spent on land as well.</p>	<p>DN said that he could not comment on planned spending in this geographical area specifically. Nationally, Eskom has taken on board about 4 000 learners, and has issued many bursaries. Eskom will be putting in place enough resources in this area to support the local requirements of the power station, and they have been very committed to people development in recent years.</p> <p>DH read from the 2010 Eskom Annual Report. In 2010, a total of 5 255 bursaries were in the Eskom pipeline, corporate social investment was R 58 million, and the amount spent on training was R758 million.</p>
15	Vernon Adams (Community representative)	<p>Need to know if the same thing that happened in Japan will happen here. People are spreading rumours in the community that the same thing will happen.</p> <p>What do we want? If there is no job creation in RSA, it's a problem. The opportunities are here for jobs. Let us stop arguing, and grab the opportunity. We have done a great job, and I don't feel that we will have a Japan incident here.</p>	<p>DN responded that the Japanese reactor accident happened for two reasons: the height of the plant above sea level and the height of the tsunami. The plant was basically flooded. The present plan is to build Thyspunt about 15 m or higher above sea level, which is higher than the Koeberg plant which is at 8 m. South Africa doesn't have tsunamis, but Eskom has modelled them for the power station. It should be noted that if the tsunami that hit Japan were to hit Koeberg, it would damage and maybe even destroy it, but it would not lead to a radioactive release. Koeberg was designed to a higher level of tsunami than the Japanese station. It is interesting that Japan is on the ring of fire, and still they designed to a lower standard than we did here in the 1970s. We have no fears over tsunami issues.</p>

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)			
No	Name	Comment	Response
16	Godfrey Africa (Student of Economics, law firm partner and a community worker)	<p>Has Eskom had records of accidents at the Koeberg Nuclear Power Station? Safety is vital. Is Eskom communicating these statistics to the public?</p> <p>To what extent has Eskom engaged the councillors and local municipalities in terms of their Integrated Development Planning for this project? How ready is the municipality to embrace this project from that point of view? What communications have been had regarding the infrastructure needs?</p> <p>This is not a political project. It is about our country and community, and people should not come here to score political points.</p>	<p>DN stated that the Koeberg Nuclear Power Station has had no incidents that have shown any health effects on the public. Eskom does measure how much radiation is released from the station during normal operation and they publish this data in their Annual Reports. The international standard for exposure to the public is 1 000 micro Sieverts (μSv) per year. Eskom's maximum limit imposed by the NNR¹ is one quarter of that, 250 μSv. The level in Eskom's last annual report is about 5 μSv. The lowest point, at which measurable health effects can be seen is 100 000 μSv.</p> <p>RH commented that Eskom does need to engage local authorities. This is only the first authorisation that Eskom needs, and Eskom doesn't have certainty yet that it would get the Thyspunt site. It is GIBB's recommendation that the DEA should consider authorising the Thyspunt site, but it is not certain yet. Eskom are therefore not in a position to start that communication and planning yet. They will commence once the site allocation is certain.</p> <p>Comment noted.</p>
17	Chris Barrett (St. Francis Bay/ Kouga resident)	<p>We have heard that various studies will be redone including the transport study, which will probably impact on the economic and cultural studies also. I have heard there will be a period of public review, presumably 45 days after their release. Is that correct? Will this apply to at least transport, economic, cultural, heritage and</p>	<p>RH responded that it will be 45 days and will apply to all the relevant studies that are influenced by the amendment of the traffic study.</p>

¹ National Nuclear Regulator

HUMANSDORP PUBLIC MEETING (02 JUNE 2011)

No	Name	Comment	Response
		marine/oceanographic reports, all of which are being looked at?	

APPENDIX 2: PRESENTATION OF REVISED DRAFT ENVIRONMENTAL IMPACT REPORT

PLEASE REFER TO THE PRESENTATION MADE AVAILABLE TO PARTICIPANTS ON 21 JUNE 2011 AS PART OF THE DRAFT MINUTES OF THE PUBLIC MEETING HELD ON 02 JUNE 2011 AT THE HUMANSDORP COUNTRY CLUB IN HUMANSDORP.

APPENDIX 3: ATTENDANCE REGISTER

PLEASE REFER TO THE ATTENDANCE REGISTER MADE AVAILABLE TO PARTICIPANTS ON 21 JUNE 2011 AS PART OF THE DRAFT MINUTES OF THE PUBLIC MEETING HELD ON 02 JUNE 2011 AT THE HUMANSDORP COUNTRY CLUB IN HUMANSDORP.

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

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

**REVISED DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
REPORT**

FINAL MINUTES OF PUBLIC MEETING

OYSTER BAY HALL, OYSTER BAY

30 MAY 2011

18:00 - 20:30

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PREFACE

This is a final record of the proceedings of the Public Meeting held at the Oyster Bay Hall in Oyster Bay on 30 May 2011 in terms of the Public Participation Process for the proposed Eskom Nuclear Power Station and Associated Infrastructure. Participants who attended the meeting were afforded 14 days upon receipt of the minutes to notify the Public Participation Office (n1oysterbay@gibb.co.za) in writing of any changes or additions to be made to the minutes. Draft minutes were made available to participants via post and e-mail on 22 June 2011.

“**Unidentified I&APs**” (**Interested and Affected Parties**) 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 issue 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 – Interested and Affected Parties

- As per attendance register.

1.2 Attendance – Eskom Holdings Limited - Applicant

Name	Position/Role
Deidre Herbst (DH)	Senior Manager: Environmental Management
Dave Nicholls (DN)	General Manager: Nuclear Engineering
Mervin Theron (MT)	Manager: Regulation and Localisation
Beryl Blaeser (BB)	Middle Manager: Projects
Lerato Sedumedi	Senior Advisor: Regulation and Localisation
Lorraine Ndala	Senior Environmental Advisor
Gert Greeff (GG)	Infrastructure Manager
David West (DW)	Corporate Manager

1.3 Attendance – Independent Environmental Consulting Team

Name	Organisation	Role in the project
Jaana-Maria Ball (JMB)	Arcus GIBB (Pty) Ltd	Nuclear-1 EIA: Project Manager
Reuben Heydenrych (RH)	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist
Jacqueline de Goede (JdG)	Arcus GIBB (Pty) Ltd	Public Participation Officer and Minute-taker

1.4 Attendance – Independent Chairman

Name	Organisation	Role in the project
David de Waal (DdW)	BKS Group	Chairman

2. WELCOME AND INTRODUCTIONS

The independent Chairperson, Dr. David de Waal, welcomed everyone to the meeting. He explained that the presentations were in English. He explained that participants are welcome to use the language of their choice as the EIA Team could communicate in Afrikaans.

He advised participants that the meeting is being recorded to ensure the accuracy of the minutes. He further advised the participants that the proceedings could be translated into Afrikaans and Xhosa, as and when necessary.

3. CHAIRPERSON'S INTRODUCTORY REMARKS

3.1 Conduct at Meeting

The Chairperson read through the points presented on the slide, which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and discussion. These points are contained in the main presentation, which is provided in Appendix 2.

He requested all participants to assist the team by having a constructive debate at the meetings.

The request was for an old fashioned meeting and one to raise ones hand when wishing to ask a question.

The Chairman confirmed that everybody will get a chance to ask their questions.

Furthermore, the Chairman requested from the I&APs that before they start with their comment or question that they first clearly state their name.

The presentation will be one (1) hour and thereafter the question session will commence.

3.2 Objectives of the Public Review Meetings

The purpose of the Public Meetings is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- ❑ To present the conclusions and recommendations of the Revised Draft Environmental Impact Assessment Report.
- ❑ Provide an opportunity to Interested and Affected Parties to comment on the specialist study findings and the outcomes of the EIA.

4. PRESENTATION: FINDINGS ON THE DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB (GIBB), presented the findings on the Revised Draft Environmental Impact Report (EIR).

By way of introduction, Ms Ball, EIA Project Manager, thanked all present for their time and indicated that GIBB is pleased to be at the stage of presenting the findings of the specialist investigations and the outcomes of the Environmental Impact Assessment phase.

Ms Ball and Mr Heydenrych then presented the findings on the Revised Draft EIR (refer to presentation slides provided in Appendix 2 of the Draft Minutes which was made available to participants on 22 June 2011).

The issues raised and discussed following Arcus GIBB's presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: "Record of Issues Raised and Discussed" details the issues, comments and concerns, which were raised and discussed at the meeting.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

Ms Ball indicated that the EIA Team would endeavour to distribute the minutes of the meeting to I&APs as soon as possible after the meeting.

Meeting attendees were sent the draft minutes and provided with 14 days to comment on them before they were finalised.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the extended public review period for the Revised Draft EIA Report ends on 07 August 2011.

Ms Ball encouraged all present to submit their comments to the GIBB Public Participation Office using one of the following methods:

By mail: GIBB Public Participation Office, Nuclear-1 EIA, P.O. Box 3965, Cape Town, 8000

By phone: 021 469 9180 (Office hours: Mon to Fri – 09:00 to 13:00 excl. public holidays)

By fax: 021 424 5571

By e-mail: nuclear1@gibb.co.za / nuclear-1@gibb.co.za

Comments received will be used to produce the Final EIR, which will then be submitted to the Department of Environmental Affairs (DEA) (the decision-making authority for the EIA) for their consideration.

The timeframe for submission of the Final EIR will depend on how long it takes to finalise the report as well as on the quantity and type of comments that are received from I&APs during the review period.

A letter will be sent to all registered I&APs informing them of the Authorities' decision.

6.3 Chairperson's Concluding Remarks

The Chairperson thanked everyone for constructive engagement and encouraged I&APs to submit written comments and closed the meeting at 20h30.

APPENDIX 1: FINAL RECORD OF ISSUES RAISED AND DISCUSSED

Please note: In some instances, the names that were given by the speaker at the meeting did not correspond with the names provided in the attendance registers.

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
1	Bill Trollip (Hermanus resident)	<p>Mr Trollip commented that until such time as the authorities choose what type of reactor is going to be installed, this whole assessment is a waste of time.</p> <p>For the simple reason that there are American, Japanese, Chinese, Korean, Russian and French reactors and each and everyone of them will have a different approach to the way they want it built. For example to bury it or not and the exact location. Surely a decision in this regard would be firstly required. Furthermore, where we are going to get the equipment from and what would the vendor's input be into the situation.</p>	<p>RH responded that unfortunately, one does not usually have the detailed plan and design of a proposed development when undertaking an Environmental Impact Assessment. The methodology that was used was that a consistent dataset was compiled by Eskom based on all pressurised water reactor plant types available internationally by various vendors.</p> <p>This is a conservative set of criteria that encompasses all the aspects of a nuclear power plant that potentially impacts the environment. If the proposed plant is authorised these criteria would be mandatory for potential vendors.</p>
2	Nick Bormann (Oyster Bay resident)	<p>Mr Bormann commented that the main concern for the people of Oyster Bay is the westerly access road that stretches between the Oyster Bay Community Hall and Umzamuwethu.</p>	<p>RH responded (referring to slide no. 42 of the presentation) that it was previously mentioned that the Oyster Bay mobile dune system is regarded by the biophysical specialists as very sensitive. For this reason GIBB has recommended that further impact on the dune system should be avoided. For similar reasons the proposed northern access road was found not to be acceptable.</p> <p>Already during the Scoping Phase of Environmental Impact Assessment, the Traffic Specialist looked at all the various road access routes and came to the conclusion which would be the best and preferred route from a traffic point of view.</p>

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		Mr Bormann continued to mention that he therefore thinks that the main concern is the noise. Especially, if you are talking about 600 plus vehicles, trucks and busses proposed to travel on this road. Why can we not look at the blue route as an alternative seeing that the noise factor is such a great concern for the residents of Oysterbay?	RH responded that a Noise Impact Assessment was completed as part of the Environmental Impact Assessment and looking specifically to the noise adjacent to Umzamuwethu. The Noise Specialist came to the conclusion that the most significant source of noise would come from the Open Cycle Gas Turbine ¹ plant that would operate at erratic intervals, from the high voltage yard situated north of the dune system. The noise would have to be mitigated to avoid undesirable noise impacts to residents of areas like Umzamuwethu.
3	Jaco Marks (Oyster Bay resident)	Mr Marks asked why the blue road access route cannot be connected midway with the purple route. If you connect these two roads then you would miss all the sensitive dunes. Mr Marks commented that currently the road is not being maintained by the local government and the	JMB said she is just going to talk about the bio-physical aspects because she is a qualified botanist. JMB replied that the dunes that would need to be traversed are hardened calcareous dune ridges and valley slacks and although the dunes look like degraded veld they are fairly sensitive in terms of vegetation communities. This fact has been highlighted by the Flora Specialist. When there is sensitive vegetation communities there are likely to be vertebrate and invertebrates as well. The specialists did not look at the mentioned crossing of the Oyster Bay Headland Bypass Dunes specifically. However, this crossing is unlikely to be feasible when one takes in consideration the Biophysical Specialists views. This would need to be investigated further. JMB replied that it is built in the EIA that the Applicant (i.e. Eskom) would need to maintain the road in the condition it is

¹ Open Cycle Gas Turbine

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		<p>impact on the road will probably increase three hundred times. Thus the question is who is going to maintain the road? The road is not maintained by the government and the questions remains who is going to keep the road in good condition.</p>	<p>found before the commencement of construction.</p> <p>RH further added that the road is currently not in a good condition and thus it is not feasible for Eskom to use the road in its current condition. It is noted in the Environmental Impact Report (EIR) that Eskom would need to bring the road up to feasible standard. During the first nine years of the construction period Eskom would be completely responsible for the maintenance of the access roads to the site.</p>
4	Johan Strydom (Oyster Bay resident)	<p>Mr Strydom said the following question is to Eskom. If the blue road access route is no longer being considered, why was Eskom still buying farmland on this route, as late as 2010?</p>	<p>RH responded that one of the key recommendations to Eskom in the Revised Draft EIR is that they are required to acquire extra land to ensure that areas such as wetlands (which are currently degraded) can be rehabilitated and conserved. Eskom is in the process of buying additional properties at their own risk, knowing full well that the Thyspunt site may not be authorised. Particular parcels of land and wetlands have been identified for acquisition and conservation.</p>
5	Jonathan Biko (Umzamuwethu resident)	<p>Mr Biko asked if he can speak Xhosa because his English is not up to scratch and could somebody please translate. The minutes contain the translated version of the issue raised (translator: Mr Jongi Dyabaza).</p> <p>Mr Biko heard all about all the discussions, assessments, the roads and what was already done. He also heard the number of employees that will be on site.</p> <p>Mr Biko asked is Eskom going to do develop the people of the disadvantaged communities that are</p>	<p>RH responded that the recommendation of the EIA is that 25% of all employment needs to go to local people. Furthermore, one</p>

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		<p>sitting right on the doorstep of this proposed nuclear power station.</p> <p>Mr Biko has seen on the TV news about what is happening in Medupi. What is Eskom going to do to avoid what happened in Medupi, at the proposed nuclear power station?</p> <p>Mr Biko further commented that Eskom is employing people from other areas that are not living close to the project because the local community are unskilled, uneducated and suitable for skilled jobs. What is Eskom going to do to alleviate this problem?</p> <p>What is happening to avoid employing people from far away and not employing people from close by?</p> <p>As black people we are just taken as workaholics or wheelbarrow labour but lucrative tenders are given to white people whose been opposing this proposed nuclear plant. However, now that they (white people) realise that the nuclear plant is coming to us, Eskom is offering the tenders to them. The white people then go to the townships to gather people for the job.</p> <p>The request is that they must also be considered when Eskom requirements are not for highly skilled people.</p> <p>An example is that tenders are given to currently to</p>	<p>needs to bear in mind that the 7 700 figure that was mentioned, is only applicable to employment for the peak years of construction. Highly skilled jobs would have to be recruited from outside. However, unskilled labour would be employed locally.</p> <p>DH responded that in terms of the Medupi Power Station project there was a strike, two weeks ago, for a period of several days. The strike was mostly about foreign welders that were brought in from Thailand. She added that there is a general shortage of welders in South Africa therefore welders from other countries are recruited on large construction projects. Eskom has established a process to train specialist welders over the next few years. Many local people were trained during the construction of the Medupi Power Station. People are given general training during the construction phase and others who have Matric or have completed school are trained in positions as operators at the plants. Therefore when operations commence these people are already trained. The idea is to train local people to operate the power station. Eskom's intention with the new nuclear station is similar.</p> <p>Post-meeting note (from Eskom):</p>

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		white people on site even though the requirements are not for such highly skilled people but not given to them because they are black. Tenders are only given to white people.	Eskom is very serious about ensuring that local, previously disadvantaged communities do get opportunities. The tenders referred to in the meeting are related to land management and removal of invasive plants. Eskom has to follow the commercial processes, this requires that people are registered on the Eskom data base so that when the tender goes out they can be part of the tender process. Eskom has had meetings with local Business Forums and hope that they will assist in identifying people and companies that can register on the Eskom database.
6	Sini (Surname unidentified) (Umzamuwethu resident)	Tired of the political twist and turns.	Comment noted.
7	Unidentified I&AP (Oyster Bay resident)	The unidentified I&AP announced that he had attended one of the EIA meetings last year in March and he had made a comment that was not minuted. In his opinion, if he had the time to follow-up and was paid what he believes he is worth then he would have challenged the case and tried to rectify the matter. He further mentioned that the reason he is standing up today is that there is definitely a bit of a political twist to these things invariably. However, the government has done an enormous amount to enable people to receive training.	DdW reiterated that the meeting was called to discuss and debate the Revised Environmental Impact Report. Furthermore, the election is over and the community has spoken. Furthermore, politics have nothing to do with this EIA and he called on the discussion to focus on the EIA for the proposed Nuclear-1.
8	Mizandi (Surname unidentified) (Umzamuwethu resident)	Mizandi commented that he is very disappointed because Eskom is taking so long to get started and the people from Umzamuwethu are looking forward to the proposed development.	Mervin Theron of Eskom responded that Eskom did not know when the Government would approve the proposed Nuclear-1, and indeed if they would approve it. The appointed Vendor would be responsible to develop local skills.

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		<p>What is Eskom's responsibility in terms of monitoring victimisation of the workers? What is going on?</p> <p>Eskom is already in bed with some popular public person as they are working on the tender already.</p> <p>I also heard about the training that Eskom is going to provide. We need the date when the scheduled training will commence.</p> <p>Majority of people need the development and Eskom should keep this in mind.</p>	<p>Comment noted.</p>
9	Joseph Williams (Umzamuwethu resident)	<p>Mr Williams commented and referred to the access road indicated with the pink line that cuts through Umzamuwethu and Oyster Bay and stated that people move across this road. Also, people work in Oyster Bay and live in Umzamuwethu. People from Umzamuwethu also go to the beach in Oyster Bay. What are the safety standards that will be in position when the road is actually in use?</p>	<p>RH responded that there is definitely a concern for pedestrians crossing the access roads, especially around the Humansdorp, Sea Vista and Umzamuwethu areas. Therefore, traffic specialists recommended either an overpass or underpass be used in these situations. Hundreds of vehicles will be travelling on these roads and thus the overpass or underpass will be required to alleviate safety concerns.</p>
10	Zolani Maluni (Umzamuwethu resident)	<p>Mr Maluni asked if Thyspunt is a suitable site for a nuclear power plant?</p> <p>Are you working hand in hand with the local municipality for any deals or community trustees?</p>	<p>RH responded that three sites were assessed and recommended as being suitable for Nuclear-1. The site selection process preceded the EIA in the form of the Nuclear Site Investigation Programme. Suitable alternative sites for the construction of a nuclear power station were independently researched in the 1980s.</p> <p>DH responded that Eskom has engaged with the local authorities. This engagement would increase from now on and</p>

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		<p>During that time of the elections many people were victimised at the site where they were cutting bushes.</p> <p>If the nuclear plant is sustainable on the Thyspunt site then it should happen sooner rather than later. We need to emphasise we are for nuclear but if beneficial to the community.</p> <p>Before the construction site commences the houses first need to be built and this is going to help us.</p> <p>Everybody is looking at Eskom and asking when are they going to do that.</p> <p>When is it going to happen?</p>	<p>will become more concentrated as the certainty that this site will be authorised grows.</p> <p>Comment noted.</p> <p>Comment noted.</p> <p>Post meeting note: There are several authorisations that are required prior to this site being confirmed as the first site for a nuclear power stations. The Department of Energy and Eskom are working together to determine the process to be followed. It is hoped that this process will enable the tender process for the main vendor to commence in within the next 6 months.</p>
11	Nick Walman	Mr Walman commented that the 6 km exclusion zone around the nuclear power station excluded other development. What happened to that? I know it was reduced to 1 km but since then it has sort of disappeared.	RH responded there were larger exclusion zones in the early Scoping Phase. The design of the nuclear power station has changed and the exclusion zone is now based on international recommendations. The smallest exclusion zone is 800 m and no private development is allowed within this. Secondly there is a zone of 3 km within which there will be restrictions on future development. The owner controlled zone of Eskom is within 2 km of the power station, but is not required by legislation and is governed by Eskom's internal policies.
12	Unidentified I&AP (Oyster Bay resident)	The unidentified I&AP commented that the road will become a lot busier. Thus the question is what the	RH responded that the tourism assessment for Nuclear-1 found that the highest potential negative impact on tourism could

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		<p>impact will be on tourism in the area.</p> <p>Furthermore, is the nuclear power station specifically going to have an impact on the tourism in the area? If increase of vehicles on roads, what impact will this have on tourism?</p> <p>What is the impact going to be on tourism if nuclear plant is built in this area?</p>	<p>occur at the Thyspunt site. The impact on tourism has been quantified in bed nights and the negative or positive impacts of the proposed power station have been predicted during construction and operation. He added, however, that it has been the experience at other power stations such as the Medupi Power Station that local business-based tourism can increase substantially as a result of the influx of Eskom employees and contractors.</p>
13	Ilse van Lingen (Resident of St. Francis Bay and DA Member of Parliament)	<p>Ms van Lingen commented that the International Atomic Energy Institute (IAEI) told them through the NNR in parliament that the safety zones are not being deviated from the 16 km, 30 km or 50 km zones. This is according to the European standard which is not approved by the IAEA. This is what the manufacturers reckon is safe because they want to pass or get their product sold. This is not correct and we are investigating the correct information through IAEA at the moment. We must not believe what we see here.</p> <p>Ms van Lingen further commented that one must not confuse emergency planning zones with international standards and land ownership. We must understand that it has got to do with exit and safety routes to get out in case of an emergency.</p>	<p>David Nicholls of Eskom responded that There are no international norms and standards on the exclusion zone. The European Utilities standards recommend the 800 m and 3 km zones, the NNR in parliament indicated that they would consider changes to the emergency zones. Each site is studied and the emergency planning zones are confirmed based on these studies. Eskom has assumed the EUR standards based on the safety of the technology proposed for the plant.</p> <p>The Chairman noted the point.</p>
14	Philemon Mafikeng (Umzamuwethu resident)	<p>Mr Mafikeng commented that Eskom said it has a skills development project. The question is why can you not develop the people's skills before the start of the power station?</p>	<p>DH responded that this is a very good suggestion but Eskom is required to gain all the necessary approvals first before commencing with the construction of nuclear plant. This includes skills development.</p>

OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
		Last year the community asked Eskom if they can give to the primary school in Umzamuwethu. Please advise if this is still on track.	DH responded that Eskom did come to the meeting and the school issue was raised. Eskom Development was asked to look at how to assist the Umzamuwethu school. She cannot guarantee what Eskom Development Foundation will give but she can say that they are visiting site this week and a proposal will be submitted.
15	Joseph Williams (Umzamuwethu resident)	Mr Williams asked where Umzamuwethu is located in this control zone is and will Umzamuwethu have space to grow as a community?	RH responded that the largest control zone is 3 km. Oyster Bay is about 5 km from proposed nuclear plant. Thus Oyster Bay and Umzamuwethu fall outside the control zone. JMB responded that in EIR it is recommended that the plant be placed in the least sensitive area of the Thyspunt site. RH further commented and re-explained the Thyspunt map slide and pointed out the distance of 5.5 km on the map.
16	Unidentified I&AP (Umzamuwethu resident)	The unidentified I&AP commented that he was one of the people that went to the Koeberg Nuclear Power Station last year in September. He would prefer that Eskom and GIBB not confuse the community. They are saying 5.5 km and that Umzamuwethu is outside the zone.	RH responded that there are different types of reactors. The Koeberg Nuclear Power Station was built in 1970s when nuclear reactors required larger emergency planning zones compared to today. The newer nuclear plant designs require much smaller emergency zones.
17	Unidentified I&AP (Oyster Bay resident)	The unidentified I&AP asked where the waste generated at the nuclear plant will be taken.	RH responded that there are two types of waste that require different forms of disposal. There is only one nuclear waste disposal site in the Northern Cape called Vaalputs waste Disposal Site. Low and intermediate level waste would be transported to this site in special containers. A special license is also required for radioactive waste transport. The second type of waste is high level waste. It is managed under very controlled


OYSTER BAY PUBLIC MEETING (30 MAY 2011)			
No	Name	Comment	Response
			conditions and is kept on the site of the nuclear power station for the life time of the power station (i.e. 60 years).

APPENDIX 2: PRESENTATION OF REVISED DRAFT ENVIRONMENTAL IMPACT REPORT

PLEASE REFER TO THE PRESENTATION MADE AVAILABLE TO PARTICIPANTS ON 22 JUNE 2011 AS PART OF THE DRAFT MINUTES OF THE PUBLIC MEETING HELD ON 30 MAY 2011 AT THE OYSTER BAY HALL IN OYSTER BAY.

APPENDIX 3: ATTENDANCE REGISTER

PLEASE REFER TO THE ATTENDANCE REGISTER THAT WAS MADE AVAILABLE TO PARTICIPANTS ON 22 JUNE 2011 AS PART OF THE DRAFT MINUTES OF THE PUBLIC MEETING HELD ON 30 MAY 2011 AT THE OYSTER BAY HALL IN OYSTER BAY.



ESKOM HOLDINGS LIMITED

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR A PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE
DEA REF. No.:12/12/20/944

Public Meeting: Sea Vista
Revised Draft Environmental Impact Report

1 June 2011

Slide 1




AGENDA

1. Welcome and introductions
2. Aim and expected outcomes of meeting
3. Development need, authorisation process and project background
4. Presentation of key changes in the Revised Draft EIR
5. Way forward
6. Discussion
7. Closure

Slide 2

Meeting conduct


- Please wait for the discussion session to ask questions
- Introduce yourselves prior to asking a question and
- Indicate your specific interest
- You are welcome to ask the question in your mother tongue. Presentations will be in English
- One person at a time
- Work through the Chairman
- Show respect
- Focus on the issue not the person
- Be constructive
- Agree to disagree



PROJECT MOTIVATION

- Increasing demand for electricity (> 3% growth per annum)
- Projected requirement 40 000 MW of new electricity generating capacity over next 20 years
- Government's commitment in approved 2010 Integrated Resources Plan (IRP): 9 600 MW of nuclear power by 2030


Slide 4



FORMS OF POWER GENERATION

- In SA:
 - Base load generation = coal, nuclear and imported hydro power from Cahora Bassa (Mozambique)
 - Peaking and emergency electricity generation = gas turbines, hydroelectric power stations and pumped storage schemes
 - Optimal to build coal plants near to coal fields for efficiencies and cost
 - Nuclear electricity life cycle contributions to greenhouse gas emissions is small compared to coal-fired electricity generation
 - Renewable energy sources such as solar and wind energy have low greenhouse gas emissions

Slide 5




PROPOSED ACTIVITY

- Eskom proposes the construction, operation and decommissioning (after approximately 60 years) of a conventional nuclear power station and associated infrastructure either in the Eastern or Western Cape
- Nuclear power station of Pressurised Water Reactors (PWR) type technology e.g. Koeberg Nuclear Power Station
- The transmission power lines are subject to separate environmental authorisation processes

Slide 6

AUTHORISATION PROCESS


- Two key authorisations needed from two regulatory authorities:
 - Department of Environmental Affairs (DEA) grants Environmental Authorisation in terms of NEMA, Act No. 107 of 1998
 - National Nuclear Regulator (NNR) grants a Nuclear Installation License in terms of the National Nuclear Regulator Act, Act No. 47 of 1999
- NNR and DEACo-operative Governance Agreement
- Specialist radiological studies (e.g. Human Health Risk Assessment) included in EIA- DEA will not make a decision on radiological safety



Slide 11

PROJECT BACKGROUND


- Proposal includes the power station and directly associated infrastructure for single nuclear power station of maximum 4 000 MW
- The proposed nuclear power station will include nuclear reactor, turbine complex, spent fuel, nuclear fuel storage facilities, waste handling facilities, intake and outfall pipelines, desalination plant and auxiliary service infrastructure (e.g. access roads, OCGT plant, HV yard, visitor centre)



Slide 12

PROJECT BACKGROUND


- Construction period in excess of 9 years, first unit commissioned by 2023 / 2024
- Labour requirements: Construction – 7 700 persons at peak of construction; Operation – 1 400 persons
- Vehicle trips (all vehicles, incl. private vehicles, buses and trucks per day at peak construction - year 6):
 - Duynfontein and Bantamsklip: Approx. 984 morning and 1390 afternoon
 - Thyspunt:
 - Eastern Access Road: 686 morning, 960 afternoon
 - Western Access Road: 288 morning, 430 afternoon



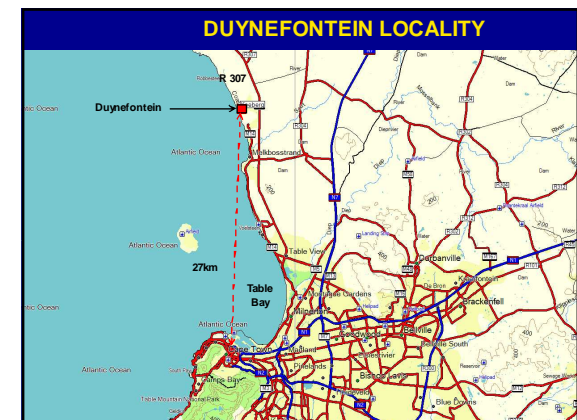
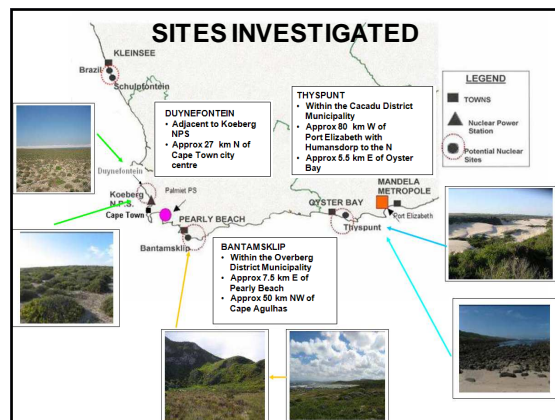
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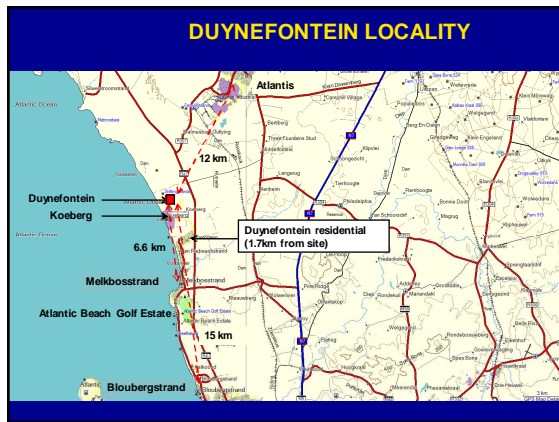
ENVELOPE OF CRITERIA

- Detailed description of proposed nuclear plant is not available, as preferred supplier has not been selected
- Approach used has been to specify enveloping environmental and other relevant requirements, to which the power station design and placement on site must comply
- Enveloping criteria represent the most conservative parameters associated with the various plant alternatives within the available Generation III PWR technology



Slide 14

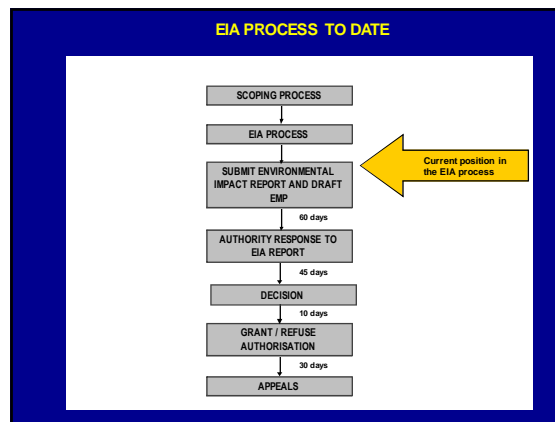




WHERE WE ARE NOW

- Draft EIR published for an extended public review period: March to June 2010
- Based on comments and concerns some specialist reports revised
- Revised Draft EIR now available for public comment
- Presentation focuses on the key changes between the original Draft EIR and Revised Draft EIR


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KEY CHANGES TO REVISED DRAFT EIR

- Completion of Groundwater Monitoring Study undertaken from January to December 2010
- Debris flow assessment at the Thyspunt site
- Completion of a waste specialist assessment covering general, hazardous and radioactive waste
- Identification of an alternative route around Humansdorp for heavy construction vehicles
- Heritage assessment: Thyspunt could be regarded as a "Cultural Landscape" as defined by the UNESCO World Heritage Convention
- Consideration of two cooling water outflow options at Thyspunt near-shore and off-shore
- Assessment of impact of the disposal of spoil on surfbreaks near Thyspunt

Slide 25



KEY CHANGES TO REVISED DRAFT EIR

- Photomontage from Reblersrus was prepared as part of the Visual Assessment
- Plans for the Pebble Bed Modular Reactor Demonstration Power Plant at Duynfontein have been abandoned
- Areas of the sites and footprint of a Nuclear Power Station on each sites have been revised as follows:

Site	Site Area (ha)	Recommended Footprint area (ha)
Duynfontein	2 849	293
Bantamsklip	1 708	172
Thyspunt	1 638	174

- EMP is site-specific to Thyspunt


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SPECIALIST STUDIES

- **Physical Impacts**
 - Geology and geological risk
 - Seismic risk
 - Geotechnical suitability
 - Geo-hydrology
 - Hydrology
 - **Debris flow**
 - Freshwater Supply
 - Assessment of the 1:100 year floodline
 - **Oceanographic conditions and surf breaks**

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SPECIALIST STUDIES

- **Biophysical Impacts**
 - Dune geomorphology
 - Flora
 - Fauna (invertebrate and vertebrate)
 - **Freshwater Ecosystems (wetlands)**
 - **Marine biology**
 - Air quality

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SPECIALIST STUDIES

- **Socio-economic Impacts**
 - Social
 - Economic
 - Noise
 - Visual
 - **Heritage and cultural resources**
 - **Waste**
 - Tourism
 - Agriculture
 - **Transport**

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KEY SPECIALIST STUDY AMENDMENTS

Wetlands

- Ground water monitoring undertaken Jan – Dec 2010
- Effects on Langefonteinlei at **Thyspunt** can be mitigated by:
 - Increases confidence in wetland mitigation
 - Langefonteinlei fed by groundwater from mobile dunes to the north
 - Southern portion of the Langefonteinlei and the western section of the northern half are perched above the groundwater table of the Algoa Aquifer
 - Groundwater drawdown of the Algoa Aquifer caused by abstraction or dewatering to below these parts of the wetland is therefore unlikely to have any effect on wetland hydrology
 - Cut-off walls around the drawdown area during construction will be effective mitigation
 - Extension of conserved wetland area
 - Implementation of dewatering design for controlled distribution of extracted groundwater back into the aquifer
 - Additional monitoring to inform final placement of the nuclear power station footprint

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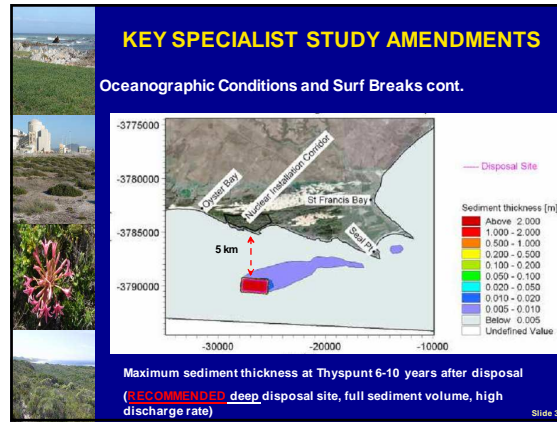
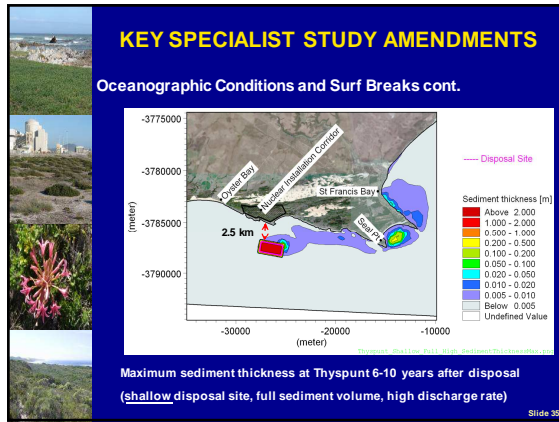


KEY SPECIALIST STUDY AMENDMENTS

Oceanographic Conditions and Surf Breaks

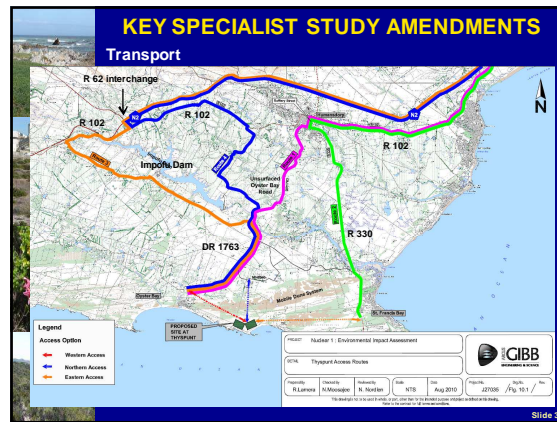
- Deep offshore spoil disposal remains preferred alternative at all sites
- Minimal impacts of disposal on surf breaks at Thyspunt assuming recommended deep marine spoil disposal site is used
- Sand movement modelling indicates:
 - Increased sediment at Seal Point may affect manner in which wave breaks
 - No increased sediment thickness at St. Francis Bay
 - No impact at Bruce's Beauties
 - Spoil would not reach as far north as Jeffrey's Bay = no impact on surf conditions

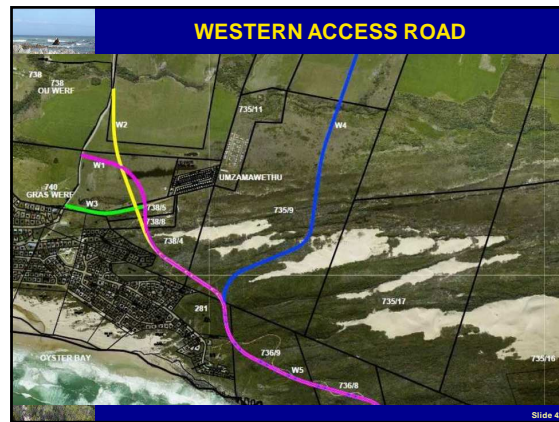
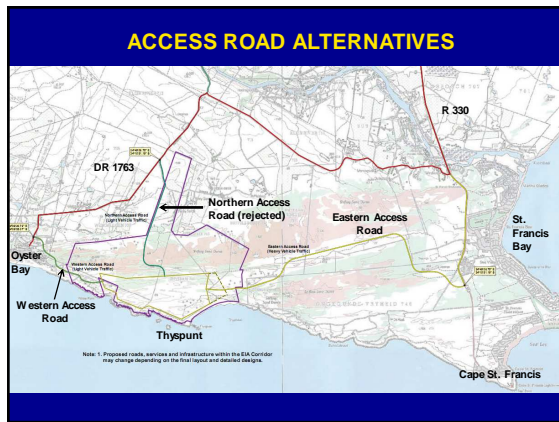
Slide 34



- ### KEY SPECIALIST STUDY AMENDMENTS
- Debris Flow
- New assessment undertaken of the risk of debris flows, liquefaction and flooding of the R330 road at Thyspunt
 - Conclusions:
 - Slopes not conducive to debris flow and no evidence in Thyspunt area = no risk
 - Footprint south of mobile dune fields and no evidence along eastern or western access roads = minimal risk.
 - Culverts beneath R330 sufficient to handle most flooding events. Repair of wing walls recommended
 - Nov2007 flood = 1:200 year flood event preceded by high rainfall events and fire, which reduced infiltration and increased runoff
- Slide 37

- ### KEY SPECIALIST STUDY AMENDMENTS
- Marine Ecology
- 2 main sources of impact:
 - Heating of seawater
 - Marine disposal of spoil
 - Heating of seawater mitigated by:
 - Tunnelled release system, multiple release points
 - Releasing water above sea bottom at high flow rate maximise mixing with surrounding cool water
 - Impact of spoil disposal and heating of sea water on chokka squid is minimal in context of its large spawning area (area affected by increased water temperature <1% of coastal spawning ground)
 - Small portion of squid catches taken in area affected by spoil
 - 5m shallow inshore cooling water outflow option recommended
- Slide 38





KEY SPECIALIST STUDY AMENDMENTS

Heritage and Cultural Resources

- Significant heritage resources at all three sites
- Thyspunt could be regarded as a Cultural Landscape (in terms of UNESCO World Heritage Convention) due to scenic quality of landscape, combined with quantity and quality of heritage resources

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KEY SPECIALIST STUDY AMENDMENTS

Waste

- Assessment covers general, hazardous (but non-radioactive) and radioactive waste
- Sufficient capacity at waste sites for non radioactive wastes – long term agreements needed to secure disposal space
- Recycling: radioactive and non-radioactive wastes must be separated. Recycling potential to be closely examined - may be inefficient and expensive due to challenge of separating the radioactive fraction

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KEY SPECIALIST STUDY AMENDMENTS

Radioactive waste generated:

- Low-level radioactive waste: ± 940 drums (50 – 100 kg per drum) per year
- Intermediate-level waste: ± 160 x 6.3 ton concrete drums per year
- High-level waste: ± 1 880 tons of spent fuel over life of power station
- National Radioactive Waste Management Institute established by the National Radioactive Waste Management Institute Act (Act No. 53 of 2008)
- Radioactive waste subject to NNR legislation

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KEY SPECIALIST STUDY AMENDMENTS

- Sufficient capacity at Vaalputs Waste Disposal Site (N Cape) for additional low-level and intermediate-level radioactive wastes
- Vaalputs = only authorised facility in SA for Low-level and Intermediate-level radioactive waste
- High-level radioactive waste to be stored on-site (only alternative in SA; common practice internationally). Waste contained within protected area in line with management practices approved by NNR

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KEY SPECIALIST STUDY AMENDMENTS

Visual

- Photomontage from Rebelsrus Nature Reserve (3 km from the site)



- Visual impacts during the construction, operation and decommissioning at all sites range from low to medium significance

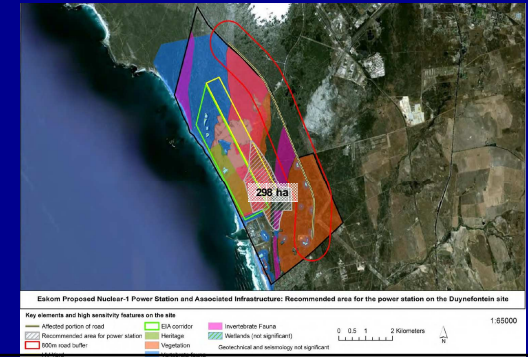
NUCLEAR PLANT LAYOUT



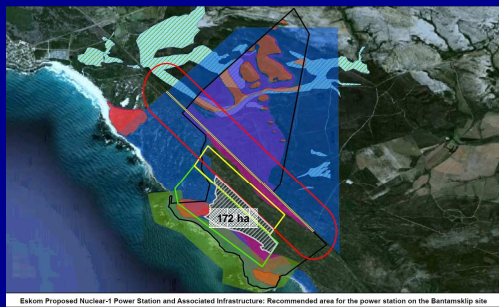
- Sensitivity maps of all specialist studies integrated and composite maps produced indicating areas of high environmental suitability for each alternative site
- Finalisation of the site layout plans will require detailed investigations, in conjunction with relevant qualified and experienced specialists

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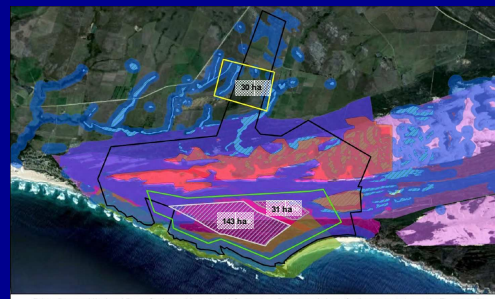
SITE SENSITIVITY: DUYNEFONTEIN – RECOMMENDED FOOTPRINT



SITE SENSITIVITY: RECOMMENDED FOOTPRINT




SITE SENSITIVITY: THYSPUNT – RECOMMENDED FOOTPRINT



SITE SELECTION

- Site selection was based on:
 - Results of independent specialist studies: the significance of potential impacts, with mitigation, at each of the alternative sites
 - An integration workshop, involving all specialists, where potential impacts and ranking of the sites was agreed
 - Costs
 - Technical requirements (e.g. transmission integration, seismic suitability)


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SITE SELECTION

- 256 impacts identified
- Following impacts filtered out:
 - Impacts of low and low-medium significance (e.g. geotechnical suitability, hydrology, geohydrology)
 - Impacts that have the same significance at all sites (e.g. most visual and social impacts)
- The key factors for decision-making:
 - Transmission integration
 - Seismic suitability
 - Impacts on dune geomorphology
 - Impacts on wetlands
 - Potential conservation benefits
 - Impacts on heritage resources
 - Economic impacts
 - Impacts on invertebrate fauna
 - Impacts on vertebrate fauna


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SITE SELECTION

- Each of the factors was given a score in terms of their importance to the decision making process
- A score was also given to the significance of the impacts (positive / negative and low to high significance)
- Scores for each site were then added together to give following scores for the sites:
 - Duynfontein: -8
 - Bantamsklip: -8
 - Thyspunt: +5

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SITE SELECTION

- Thyspunt has the highest relative score which indicates that it is the preferred site from an environmental and technical perspective
- Conclusion tested using qualitative comparison—end result remained the same
- Noted that the overall Thyspunt site is more sensitive from perspective of heritage resources and some biophysical impacts
- Recommended site is dependent on confirmation from archaeological investigations if excavation approval received from SAHRA

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WAY FORWARD

- Comment Period – 9 May to 7 August (90 days)
- Websites:
 - www.eskom.co.za/eia under the "Nuclear 1-Generation" link
 - <http://projects.gibb.co.za> under the "Nuclear 1 EIA" link
- Executive Summaries (EIR and all Specialist Assessments) are also available in Afrikaans and Xhosa
- Public Participation Process Office has changed to:
 - Arcus GIBB (Pty) Ltd Public Participation Officer
 - PO Box 3965
 - Cape Town 8000
 - Tel: 021 469 9180
 - Fax: 021 424 5571
 - E-mail: nuclear-1@gibb.co.za / nuclear1@gibb.co.za
- Submission of Final EIR to authorities – late 2011
- Decision / Appeal opportunity

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THANK YOU

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ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EIA: 12/12/20/944

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

**REVISED DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
REPORT**

FINAL MINUTES OF PUBLIC MEETING

**ST. FRANCIS BAY LINKS GOLF CLUB
ST. FRANCIS BAY**

31 MAY 2011

18:00 - 23:30

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PREFACE

This is a final record of the proceedings of the Public Meeting held at the St. Francis Bay Links Golf Club in St. Francis Bay on 31 May 2011 in terms of the Public Participation Process for the proposed Eskom Nuclear Power Station and Associated Infrastructure. Participants who attended the meeting were afforded 14 days upon receipt of the minutes to notify the Public Participation Office (n1stfrancisbay@gibb.co.za) in writing of any changes or additions to be made to the minutes. Draft minutes were made available to participants via post and e-mail on 21 June 2011.

“**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 issue 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 – Interested and Affected Parties

- As per attendance register.

1.2 Attendance – Eskom Holdings Limited

Name	Position/Role
Ms Deidre Herbst	Senior Manager: Environmental Management
Mr Tony Stott	Senior Manager: Stakeholder Management
Mr Dave Nicholls	General Manager: Nuclear Engineering
Mr Mervin Theron	Manager: Regulation and Localisation
Ms Beryl Blaeser	Middle Manager: Projects
Ms Lerato Sedumedi	Senior Advisor: Regulation and Localisation
Ms Lorraine Ndala	Senior Environmental Advisor
Mr David West	Forensics and Assurance

1.3 Attendance – Independent 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 Jacqueline de Goede	Arcus GIBB (Pty) Ltd	Public Participation Officer
Mr Walter Fyvie	Arcus GIBB (Pty) Ltd	Senior Environmental Scientist (Minute-taker)

2. WELCOME AND INTRODUCTIONS

The independent Chairperson, Dr. David de Waal, welcomed everyone to the meeting. He introduced all the players in both Eskom, and GIBB. He explained that the presentations were in English. He explained that participants are welcome to use the language of their choice as the EIA Team could communicate in Afrikaans.

He advised participants that the meeting is being recorded to ensure the accuracy of the minutes.

3. CHAIRPERSON'S INTRODUCTORY REMARKS

3.1 Conduct at Meeting

The Chairperson read through the points presented on the slide, which provided guidelines with respect to the conduct of all participants and for achieving a constructive debate and discussion. These points are contained in the main presentation, which is provided in Appendix 2.

He requested all participants to assist the team by having a constructive debate at the meetings. It would be an "old fashioned" meeting and the following would apply:

- Work via chairperson
- Raise your hand and only speak when given the opportunity to
- Everybody should be given the chance to ask questions
- Remain polite
- Give your name every time you ask a question

He indicated that the presentation would run for approximately 1 hour. Questions would be taken after the presentation.

3.2 Objectives of the Public Review Meetings

The purpose of the Public Meetings is three-fold, viz.:

- ❑ To present and discuss findings of the various specialist studies undertaken during the Impact Assessment Phase.
- ❑ To present the conclusions and recommendations of the Revised Draft Environmental Impact Assessment Report.
- ❑ Provide an opportunity to Interested and Affected Parties to comment on the specialist study findings and the outcomes of the EIA.

Mr Dave Nicholls was to give a presentation after the meeting on the nuclear incidents in Japan. It will not form part of this EIA public meeting, but will be open to anyone who was interested. **Post-meeting note: Mr Nicholls presentation was not made because the main meeting finished late (23h30).**

4. PRESENTATION: FINDINGS OF THE REVISED DRAFT ENVIRONMENTAL IMPACT REPORT

Ms Jaana-Maria Ball and Mr Reuben Heydenrych representing the Independent Environmental Assessment Practitioners, Arcus GIBB, presented the findings on the Revised Draft Environmental Impact Report (EIR).

By way of introduction, Ms Ball, EIA Project Manager, thanked all present for their time and indicated that Arcus GIBB is pleased to be at the stage of presenting the findings of the revised specialist investigations and the outcomes of the Environmental Impact Assessment phase.

Ms Ball and Mr Heydenrych then presented the findings on the Revised Draft EIR (refer to presentation slides provided in Appendix 2 of the Draft Minutes which was made available to participants on 21 June 2011).

The issues raised and discussed following Arcus GIBB's presentation are captured in the table presented in Appendix 1.

5. ISSUES AND COMMENTS RAISED AND DISCUSSED

5.1 Issues and Comments raised

The table contained in Appendix 1: "Record of Issues Raised and Discussed" details the issues, comments and concerns, which were raised and discussed at the meeting.

6. WAY FORWARD AND CLOSING REMARKS

6.1 Minutes of Meetings

Ms Ball indicated that the EIA Team would endeavour to distribute the minutes of the meeting to I&APs as soon as possible after the meeting.

The meeting minutes were distributed on 21 June 2011 and all attendees were afforded a 14 day comment period on the draft minutes before they were finalised.

6.2 Timeframes

In terms of the timeframes, I&APs were reminded that the public review period of the Revised Draft EIR ends on 07 August 2011.

Ms Ball encouraged all present to submit their comments to the GIBB Public Participation Office using one of the following methods:

By mail: GIBB Public Participation Office, Nuclear-1 EIA, P.O. Box 3965, Cape Town, 8000

By phone: 021 469 9180 (Office hours: Mon to Fri – 09:00 to 13:00 excl. public holidays)

By fax: 021 424 5571

By e-mail: nuclear1@gibb.co.za / nuclear-1@gibb.co.za

Comments received on the Revised Draft EIR will be used to produce the Final EIR, which will then be submitted to the Department of Environmental Affairs (DEA) (the decision-making authority for the EIA) for their consideration.

The timeframe for submission of the Final EIR will depend on how long it takes to finalise the report as well as on the quantity and type of comments that are received from I&APs during the review period.

A letter will be sent to all registered I&APs informing them of the Authorities' decision.

6.3 Chairperson's concluding Remarks

The Chairperson thanked everyone for constructive engagement and encouraged I&APs to submit written comments and closed the meeting at 23h30.

APPENDIX 1: FINAL RECORD OF ISSUES RAISED AND DISCUSSED

Please note: In some instances, the names that were given by the speaker at the meeting did not correspond with the names provided in the attendance registers.

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
1	Chris Barrett (Thyspunt Alliance and St. Francis Kromme Trust)	<p>Mr Barrett said he was not happy with the EIA process that has been conducted. There has been a lack of independence, which is a requirement of the NEMA (National Environmental Management Act). Items which have been put forward by I&APs have been ignored. The goal posts have changed over time. Every time we seem to have a different set of criteria that we are looking at. Items are added or subtracted. The whole process has changed. ACER Africa has been excluded. Why?</p> <p>We are only given two hours tonight to make comment on a document which is thousands of pages long. This equates to only about 15 seconds of comment time per person here tonight.</p> <p>We feel excluded. For example we asked for an extension in time. Why were other parties told three weeks ago that the extension has been granted, but not us? Surely all I&APs should be told that right away?</p> <p>There have been errors and omissions in all the documents given us. For example, St. Francis Bay was first shown as ~30 km from the site. In the second round it was shown as 16 km away instead of 10 km, which is now shown. The current report comments on the</p>	<p>Jaana-Maria Ball (JMB) responded to the question about why ACER Africa was excluded, that one of the reasons that GIBB has taken over this phase of the public participation process is to ensure that minutes of the public meetings are completed timeously. GIBB are endeavouring to get the minutes out as soon as possible after the various meetings. GIBB is using alternative minute-takers for each meeting to ensure that the minutes are compiled quickly.</p> <p>JMB answered that all I&APs that have lodged comments in writing with the PPP Office requesting an extension of the Comment Period, have been notified of the extension. The extension has also been announced at all the public meetings that have been held up to now. The previously set comment period was up to the 23 June 2011. Before this date all registered I&APs will receive written notification of the extension of the comment period.</p> <p>Post-meeting Note: The announcement of the extension was made only one week prior at the Gansbaai Public Meeting. All registered I&APs with email addresses received</p>

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
		<p>dangers of light emissions from Thyspunt on the Danger Point Lighthouse, which is approximately 700 km away.</p> <p>There has been a lack of transparency. Minutes have to be queried every time. Regarding of the process by which the different sites were rated, it took a legal letter sighting PAIA (the Promotion of Access to Information Act) to get this information from the consultants. Surely this info should be in the public domain? We heard tonight that this rating was done from a qualitative point of view. We query that and believe that it is totally subjective. We have requested focus group meetings with specialists but this has been denied.</p> <p>We believe that the whole process lacks credibility, and are not the only ones who say that; Eskom asked for a peer review. A quote from this peer review document: <i>“Despite the apparent exaggeration of the impact significance and issues described earlier with respect to baseline assessment, it seems clear that of the three sites, Thyspunt is relatively the most sensitive”</i>. Furthermore, under Recommendations it states: <i>“Strengthen the significant rating criteria and ensure it is consistent with the principles that should apply as detailed in the review.”</i> This has not been done.</p>	<p>email notification of the extension to the Comment Period on 10 June 2011. Those with only postal addresses were sent letters notifying them of the extension, which were dispatched on 11 June and 13 June from the Central Post Office, Cape Town.</p> <p>Post-meeting Note: There is one reference to Danger Point on page 83 of the Visual Impact Assessment, with reference to the impact of lighting at the power station of existing lighthouses. Seal Point is incorrectly referred to as “Danger Point”.</p> <p>Post-meeting Note: GIBB has responded to the DEA on the issue regarding GIBB’s independence. The letter of response from GIBB to the DEA is included in the Revised Draft Environmental Impact Report.</p>

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
		As far back as June last year, the DEA wrote to the EAP (Environmental Assessment Practitioner) and stated <i>"It is clear that Thyspunt is the most sensitive and therefore it does not make sense that Thyspunt is recommended as the preferred site". Based on the above analysis we have reason to believe that your independence may have been compromised".</i> We believe it has been compromised throughout the process.	
2	Hylton Thorpe (Thyspunt Alliance and St. Francis Bay Residents Association)	Regarding notification of the extended response period, why could a bulk email not have been sent to all I&APs so as to ensure they were all notified at the same time of the extension?	<p>JMB answered that approximately 60% of those on the current I&AP database use post as their primary means of communication with the EIA Team. Only the remaining 40% of I&APs use emails. GIBB hopes to obtain the email addresses of additional and existing registered I&APs during the course of this round of public meetings and send an email to all of those I&APs with email addresses early next week. GIBB will not wait until 23 June to send email notification of the extension to the comment period. The letters to the other I&APs, with postal addresses only, will also be sent as soon as possible, but the post office can only guarantee delivery within 5 to 7 working days.</p> <p>Post-meeting Note: All registered I&APs with email addresses received email notification of the extension to the Comment Period on 10 June 2011. Those with only postal addresses were sent letters notifying them of the extension, which were dispatched on 11 June and 13 June from the Central Post Office, Cape Town.</p>
3	Chris Barrett	One of the reasons for the delay in minutes is because it goes to	JMB responded that the minutes go to all stakeholders,

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
	(Thyspunt Alliance and St. Francis Kromme Trust)	<p>Eskom for comment before it is published, which is unacceptable.</p> <p>The chairperson of this meeting said earlier that he is prepared to keep this meeting running the whole evening. We have experienced these meetings in the past being cut by the EAP and have been asked to go home, and were told that they would schedule another meeting, which never happens.</p>	including Eskom for comment. As is typical of all EIAs, the Applicant does get to review all documentation before it goes out to the public. Eskom reviews the minutes before they are sent out to I&APs and then all registered attendees of the meeting have an opportunity to do so.
4	Chris Barrett (Thyspunt Alliance & St. Francis Kromme Trust)	We now know why we get biased minutes.	Comment noted.
5	Trudi Malan (Thyspunt Alliance and Cape St. Francis Civics Representative)	<p>Would like to have transcribed minutes of this meeting i.e. a verbatim record of the meeting. What happens presently is that post-meeting comments are added to the minutes and we do not get the opportunity to respond to the post meeting comments.</p> <p>Regarding the Revised Draft EIR, I was hoping the specialist</p>	<p>JMB responded that in GIBB's opinion, this is not true. I&APs are given 14 days to comment on the minutes, including the post-meeting notes. GIBB have noted the request for verbatim minutes and will consider it. We feel it is necessary to add post meeting notes because we don't have all the documentation in front of us during the meetings, but I&APs do get the chance to comment on these notes.</p> <p>Post-meeting Note: GIBB has considered the request for verbatim minutes but has decided in the interest of readability of the minutes that they will not be issued verbatim. All the points made at the various meetings will however be captured in the minutes and all registered attendees of the meetings will have an opportunity to verify this.</p> <p>Comment noted.</p>

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
		<p>studies would speak to each other, but it is still not the case. The distances still differ in all the specialist studies.</p> <p>In Chapter 6, the Project Description, and this speaks to Eskom, point 3.8.7 states; <i>“Eskom has completed investigations into housing at all three sites. They have spoken to the various municipalities and current development around Humansdorp and Jefferies bay would accommodate all these housing needs and no further EIAs would be required.”</i> I have contacted Environmental Affairs in the Eastern Cape and they disagree. We have been given the assurance throughout this process that once they have decided where they want to build the staff village, there will be an EIA done. This will impact on us as rate payers; our municipality is overburdened from a sewerage, waste management and water perspective. Every house that gets allocated to an Eskom staff village is one house less house for a person in our community; someone who has been living here for years without housing. I’ve asked before at meetings for Eskom to indicate where these planned areas are that have been discussed with the local authorities. Neither Eskom nor the local authority will tell us what is going on.</p> <p>In Chapter 6, the Project Description, it states that <i>“no detailed design is yet available for the intake and outlet tunnels”</i>. Unless a detailed design forms part of this EIR, no environmental department would be able to issue a record of decision because we don’t know where the tunnels will be or what they will look like. None of us have had opportunity to comment on the appended Eskom 2011 tunnel feasibility report. I’m concerned that the specialists would have made comments on tunnels, not knowing what they will look like.</p>	<p>Deidre Herbst (DH) said that Eskom has responded to this previously. Eskom has engaged with municipalities’ at all three alternative sites to understand what the accommodation options would be. Studies on these areas have not yet been completed. In Bantamsklip area it is clear that a new area would need to be rezoned for housing. Duynfontein has residential areas available which could be used and hence we would not need to rezone or do an EIA there. At Thyspunt there is the possibility that Eskom could build on an area already zoned for residential. Eskom would want to establish the construction village in the Humansdorp area, while permanent staff may establish themselves in the Jeffrey’s Bay area in existing established areas. The construction village is the most significant area, and we anticipate this will be in the Humansdorp area. If it was in an area not zoned residential, then it would need an EIA. If the site was in an area already zoned residential, it would not need an additional EIA.</p> <p>Reuben Heydenrych (RH) responded that there is a set of criteria in the EIR called the “consistent data set”. It is an appendix to the EIR (Appendix C). It indicates the various parameters of the conceptual design e.g. the inlet and outlet pipes, number of the pipes, diameter of the pipes, depth at which they would be buried, the distance they would run out to sea, etc. GIBB’s approach has also been to allow the specialist to make recommendations as to the acceptable limits of how</p>

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
		<p>In the Coastal Engineering Investigation, done as part of the site safety report for the NNR, reference is made to the Agulhas slump saying <i>“a quantitative assessment of the risks of occurrence and the geometry of future slump events along the SA coast is not available at present and should be studied”</i>. When will this study be completed, because this is important in the case of Thyspunt? It has to do with tsunamis because Thyspunt is rated the highest of all the sites in terms of tsunami impacts. I would also like to know when all the recommendations that are made in the Coastal Engineering Investigation are going to be implemented because unless they are done, this EIA is not a complete document. Page 11 of this study says <i>“the impact structure details are not yet defined. No coastal structures have been superimposed and considered in the calculations. The results will be subject to review once the design of the intake and terrace have advanced and the coastal structure can be incorporated in the assessment.”</i> Until these studies have been completed, the EIA is not a complete document and no department can issue a record of decision when we don't even know what it looks like.</p> <p>This study is in the EIA. It is called the Coastal Engineering Investigations.</p>	<p>these infrastructure items should be designed, and which designs they would prefer. The specialists have done that in their reports.</p> <p>RH responded that all the engineering feasibility studies on which the EIR is based have been made available to I&APs. This engineering feasibility study you are referring to is apparently is not yet completed. It would be up to Eskom to make that study available. RH stated that he was personally not familiar with the study. The National Nuclear Regulator's (NNR) process is a separate process to the EIA process. The oceanographic specialist had access to all the information he needed for the purpose of the EIA.</p> <p>RH stated that GIBB would look at it and get back to Ms Malan.</p> <p>Post-meeting Note: The Coastal Engineering Investigations are appendices to the Oceanographic Assessment (Appendix E16 of the Revised Draft EIR).</p>

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
6	Trudi Malan (Thyspunt Alliance and Cape St. Francis Civics Representative)	<p>I want to respond to Deidre's comment that Eskom has not yet completed the studies into the location of the housing village by quoting from the report: "Eskom has completed investigations and no EIA will be required". Where exactly in Humansdorp is this residential zoned area that you have chatted to the municipality about? Where is the exact location of the staff village?</p> <p>I have spoken to Mr Greeff regarding this issue of the staff village and he said he knows nothing about it and doesn't deal with it. He told me to speak to Deidre Herbst. I have asked you this questions three times and you keep referring to areas around Humansdorp. Why then in your report do you say that Eskom has completed an investigation into housing?</p>	<p>DH responded that an exact location has not been found. Mr Gert Greeff, who has been handling the property discussions, is unfortunately off sick. I personally do not know exactly where it is, but I think it would be on the outskirts of Humansdorp. These discussions will only be held in detail once we know which of the three candidate sites for the nuclear power station will be authorised, if any. Until we know that Thyspunt will be authorised, Eskom will not be entering into discussion regarding exactly where the staff village will be established.</p> <p>DH stated that this was not Eskom's report; it is the independent specialists report. Eskom has had discussions with the municipalities but have not concluded that the village would be at a specific location. If you look at the Issues and Response Report (IRR), in the response section, you will see the same response has been given. There has been no decision taken on this but Eskom hopes to find an area already zoned residential.</p> <p>Tony Stott (TS) said he would like to clarify a point regards the housing issue by reading from the EIR. The EIR makes the statement that Eskom has completed an "initial investigation". The word "initial" was left out from the statement by Ms Malan regarding this issue. Towards the end of the section it says "it is highly unlikely that an EIA would be done because it is already zoned residential". So the report does not say EIAs are not necessary.</p>
8	Greg Christy	Regards the Marine Ecology Report, am shocked that it was not	RH responded that with the marine impacts not being

ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
	SASMIA (South African Squid Management Industrial Association)	<p>included in the list of key factors for the rating of the alternative different sites. This is despite there being approximately 6.37 million m³ of sand that will be pumped out to the ocean, wherever it may be; 2km out, or 5km out to sea. That is approximately 500,000 - 750,000 trucks of sand to be dumped in the ocean. SASMIA is still of the opinion that the Marine Ecology Report is inadequate and flawed. The Economic Report, which is based on the Marine Ecology Report, is therefore also flawed. How it will affect our industry is not adequately explained. Effects on our industry have been downplayed to a mere 1%. This assumption is also flawed. GIBB has agreed to a focus meeting in Cape Town between squid experts and the marine specialist who wrote this report. The main concerns are the dumping of the spoil, the discharge of warm water and brine, and also chemicals released (cooling waters and the desalinated water are full of chemicals). Releases of chemicals have not been specified in the report.</p> <p>Also concerned that the Marine Living Resources Act of 1998 has not been mentioned at all. This is important legislation and is not alluded to at all.</p>	<p>considered as one of the key decision factors in the choice of the preferred site because this was a joint decision by GIBB and all the EIA specialists, including the marine specialist, because the impacts could be effectively mitigated. The warm water could be released at a point where it would not have an impact on squid. It is released above the sea bottom, from multiple release points, at a high flow rate in order to quickly diffuse the heated water. With regards the spoil, the potential squid impacts were a key consideration in the marine specialist's assessment of Thyspunt, particularly the depths and distance from shore where the squid spawns. This is why a deep disposal option approx. 5km offshore has been recommended.</p> <p>RH responded that the Marine Living Resources Act of 1998 was indeed listed in Section 6 of the EIR (on page 6-46).</p>
9	Hylton Thorpe (Thyspunt Alliance and St. Francis Bay Residents Association)	<p>The entire EIA is based on the premise that Eskom will be using Generation III technology, which is claimed to be state of the art technology in the nuclear industry with a number of improvements on Generation II. Eskom maintains that this justifies a reduction in the emergency planning zones, from 5 km and 16 km, the accepted international criteria, to 800 m and 3 km. This is in terms of what they call the EURs (European Utility Requirements). The EURs were drawn up by approximately 8 – 12 nuclear industry members in Europe. They are good, but that is the basis on which Eskom is planning to set up these power stations. About two years ago the South African government said that Generation III technology is not</p>	

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		<p>affordable. My questions from this are:</p> <p>What is the present position regarding Generation III? Is government reconsidering its position, and have they identified a technology and a vendor?</p> <p>What is the government's attitude to Generation III?</p> <p>What is the motivation for reducing the emergency planning zones?</p> <p>In Chapter 3, Project Description, reference is made to minimising the issue of the control of urban developments that will potentially threaten the viability of nuclear sites, and the NNR has admitted that they are considering reducing these emergency zones because it interferes with urban development. In other words, they are saying that urban development is more important than the safety of persons or property.</p> <p>If a Generation III plant is built is there any conceivable event in which there would be a need to evacuate people outside the 3km zone? Is this a scientific position or a marketing position?</p>	<p>TS responded that a vendor has not yet been chosen and therefore the actual design has not been chosen.</p> <p>TS responded that Eskom cannot speak on behalf of Government as he is not a Government employee. The whole question of the procurement process has yet to be decided.</p> <p>TS responded that the obvious answer to that is to reduce the amount of emergency planning actions that might have to be taken. The EUR requirements say, for example, that you must design a plant such that you would never have to evacuate people outside of the 800 m zone. So it is intended for that purpose.</p> <p>TS responded that these issues will be dealt with by the NNR, but EURs require that the design should be such that you wouldn't have any type of accident that would need you to evacuate people beyond the 3 km zone, but you might have to undertake other emergency actions. As has been communicated in all meetings and</p>

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		<p>Are the proposed reduced emergency planning zones for Generation III in terms of the EUR recognised by the International Atomic Energy Agency or by the United States Nuclear Regulator or by any other regulator?</p> <p>St. Francis Kromme Trust raised questions about these emergency zones, and received a written answer from Jaana Ball to the effect that <i>“because South Africa does not have specific regulations for the selection of sites, we follow the requirements of the United States Nuclear Regulatory Commission.”</i> Their requirements are still 10 miles and 50 miles i.e. 16 km and 80 km zones, which go beyond Jeffrey’s Bay. There are contradictions here. The EIA is based on the assumption of the EUR requirements, while we have a written statement that we are following the American requirements. American requirements do not allow for 3 km zones.</p>	<p>documents, the NRR will decide what emergency planning action would be required.</p> <p>TS responded that the EUR requirements are recognised by Western European Nuclear Regulators Association who themselves have issued requirements, but they don’t specify an emergency zone size, but they specify the same sort of requirements as the EUR. The IAEA won’t specify a precise size for the emergency zones, because that is up to the national authority of each country to decide. You cannot have a generic requirement. You need to look at each site on its own merits.</p> <p>TS said he disagrees with the statement. American requirements will allow for what is appropriate for the particular design of power station, and particular position of the power station. They do not have blanket rules, but review it on a case by case basis. They license each plant individually, like is done in South Africa.</p> <p>Post-meeting Note: The United States Nuclear Regulatory Commission Regulations, in accordance with which the Seismic Assessment (Appendix E4 of the Revised Draft EIR) has been conducted, requires geological and geophysical investigations of increasing resolution in concentric regulatory radii of 320 km, 40 km and 8 km around each proposed site. These distances do not refer to emergency planning zones, but to the radius of the study area for assessing seismic risks. The answer provided by GIBB, referred to by Ms</p>

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			Malan, referred to the radii of the seismic study area, not to the size of the emergency planning zones.
10	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg bay resident)	The I&AP, Hylton Thorpe, is talking about a particular correspondence from Arcus GIBB, and yet the proponent is answering the question. Surely that statement by Ms Ball is a matter of reference in this process, and so any debate on the content of the letter is irrelevant.	JMB responded that there are many volumes of letters, and she did not have the particular letter in front of her during the meeting, but will review it after the meeting, and make a post meeting note if needed.
11	Hylton Thorpe (Thyspunt Alliance and St. Francis Bay Residents Association)	What would implications be for the EIA if Government decided to apply for a technology which did not conform to Generation III specifications?	RH responded that if the power station fell outside the criteria that have been specified in this EIA, then this EIA would not be valid, and a new EIA or parts of an EIA would be required.
12	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg bay resident)	<p>Regarding human health impacts, the EIA hasn't really assessed the impact on human beings. What is fascinating about the Fukushima incident is the level of exposure of human beings to radioactive isotopes, particularly the long lived isotopes such as Caesium 137, a particularly "nasty" isotope.</p> <p>Impacts on human health starts with airborne emissions, and liquid effluents released during normal operations. Mr Kantey indicated that he has in his possession 30 years worth of emissions data for Koeberg.</p> <p>The reason we talk about Caesium 137 and Strontium 90 is because they are the two most common by-products of the process and the most long lived (Strontium 90 half life is 28 years, and Caesium 137 has half life of 30 years). This is the problem with Chernobyl, and will be the problem at Fukushima. The problem is not from background radiation but from that which gets into the human body through inhalation and ingestion. Once it gets inside</p>	<p>RH responded that there have been 25 different specialist studies, of which a number assessed the social issues, economic issues, and bio-physical issues, so it is not correct to say we haven't looked at the full suite of environmental impacts. You refer to the tourism impacts; the EIA has specifically looked at the tourism bed night impacts at all three of the sites. The tourism impact has been quantified and this has fed through to the economic impact assessment. There is also a Human Health Risk Assessment conducted.</p> <p>It must furthermore be kept in mind that there is a cooperative governance agreement between the DEA and the NNR, and in terms of this, the NNR will be the decision-making authority on all aspects relating to nuclear safety and health. The DEA will not make a decision on these facets of the study.</p>

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		<p>there are problems e.g. Strontium 90 is a bone seeker and can cause lymphoma and leukaemia, particularly in children, and Caesium 137 has impacts on soft tissues causing ovarian, breast and pancreatic cancers. These toxic compounds will lie around for decades. In the case of the dairy industry, a study in Long Island showed high levels of Strontium in baby teeth. Studies worldwide have shown routine nuclear power plant operations to have negative impacts on human health. We don't have the cancer studies for Koeberg; these have not been forthcoming. The WHO has been held hostage by the International Atomic Agency, and so we are not expecting to get credible results from investigations and hence we are left with our own devices.</p> <p>The issue also extends further into the economic impacts, including impacts on chokka industry, fruit growers, dairy industry, and the eco-tourism industry, which is the greatest asset of this place and the garden route in general. Many people have invested into B&Bs, guesthouses, the Billabong, and it forms a substantive portion of the economics of the Kouga Municipality. Surely the jobs and bed nights could be counted and one could come up with some figures and juxtapose those against the proposal for the power plant. One wonders what the outcome of that would be.</p> <p>People have a right to choose where they want to live, this is enshrined in the constitution, and therefore the opposition to his power station actually starts tonight. Want to pay tribute to Trudi Malan, Hylton and Chris and others of the Thyspunt Alliance. And to the Supertubes Foundation in Jeffrey's bay, but you people here need to get behind your colleagues, you can't leave it to them. You need a united opposition and we as the Coalition will support you, not only politically but also in terms of your legal challenge. We are contemplating a class action.</p>	

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13	Chris Barrett (Thyspunt Alliance and St. Francis Kromme Trust)	Regarding the last comment about the NNR and the agreement, we have asked the EAP for copies of correspondence between Eskom and the NRR. We have been waiting for 15 months. This would provide greater insight into this issue.	JMB responded that GIBB has no copies of correspondence between Eskom and the NNR. Such a request would have to be referred to Eskom itself.
14	Riaana Tolan (Greenpeace Africa)	<p>Have just been to the Fukushima area. Interested in the 3km emergency zones planned for Nuclear 1, considering that I was measuring the impacts of radiation at Fukushima up to 60km from the nuclear power plant. Radioactive impacts from nuclear incidents are not limited to 3km.</p> <p>Regarding waste, the waste management practice will depend on the reactor type and the fuel used. Table 5.4 of the EIR gives key features of the Nuclear 1 station, and the nuclear fuel. Are these numbers maximum numbers of specific numbers? If they are specific numbers, this then limits the number of reactor types that could be considered.</p> <p>The specification talks about enrichment, but doesn't mention other options. Does this mean that Mixed Oxide fuel will not be allowed in the reactor? Mixed Oxide fuel is a mixture between uranium and plutonium fuel, and is associated with increased safety risks.</p> <p>It was identified that high risk waste will be kept on site, up to 10 years after decommissioning i.e. up to 70 years from commissioning. How do we know that there will be a solution for the storage of the waste after 70 years? The nuclear industry has been looking for a solution for 60 years already without any progress.</p>	<p>RH responded that the figures in Table 5.4 are the maximum figures. GIBB worked on a set of criteria, and considered the worst case scenario of the many different types of nuclear plants that could be considered.</p> <p>TS responded that the actual design of the reactor has not yet been decided, so Eskom cannot comment on the use of MOX fuel at this stage. At this stage, the use of MOX is not envisaged. We do not use MOX fuel at the Koeberg Nuclear Power Station, but he cannot comment on what might happen in 20 – 30 years time.</p> <p>RH responded that there are no guarantees that this will be addressed in 70 years time. The Vaalputs Waste Site is currently licensed for only low and intermediate level nuclear waste but is being considered for high level waste. However, this is in the far future and dependent on the relevant authorisation processes.</p>

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		How will the safety of the spent fuel on site be guaranteed? One of the main problems at Fukushima is the spent nuclear fuel storage pond which needs to be cooled.	TS responded that Eskom believes there is a solution to the issue of used fuel. Either it is processed and disposed of, or disposed of as is. Finland is currently building their final depository after all their testing and research. Sweden is also about to start building theirs. USA has operated a waste isolation pilot plant since 1999, and has over 11 years of experience in doing this. It is not true to say the world doesn't have experience with doing this.
15	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg bay resident)	Regarding this talk about the reactor type not having been chosen yet, the evidence is compelling for the Areva EPR. For example it is mentioned by name in the IRP 2010. They also talk about 9 1600 MW. If dividing that by 6, the only possible reactor technology that could meet that specification is the Areva EPR. One gets the impression that the decision to build EPR has already been taken.	Comment noted. Post-meeting Note: Eskom confirms that no technology has been chosen and the modelling information in the IRP may have been based on 1 600 MW. The commercial process will only be started later in 2011.
16	Riaana Tolan (Greenpeace Africa)	Eskom says reprocessing of waste is an option but the EIR says it not option because it is too expensive.	Post-meeting Note: Page 31 of Chapter 3 of the Revised Draft EIR states the following: <i>“Two options for the long-term management of spent fuel are pursued internationally:</i> <i>(a) direct final storage of the spent fuel in a deep underground geological storage facility (referred to as Geological Disposal);</i> <i>(b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and storage of the residual (about 3 – 4 % of the spent fuel) high level waste in a deep underground geological storage facility.</i>

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			<p><i>In South Africa, where there are currently no facilities for the reprocessing of fuel or for geological storage, all the HLW will remain in the fuel facility inside the plant (as is the case at Koeberg)</i>".</p> <p>The Executive Summary of the Waste Assessment (Appendix E 29 of the Revised Draft EIR) states the following: <i>"While reprocessing of spent fuel is not excluded as an option for spent fuel management, there is no intention to reprocess the Nuclear-1 Nuclear Power Station spent fuel at present. The main reason being the very high cost associated with spent fuel reprocessing."</i></p>
17	Andre Fouche (St. Francis Bay resident)	<p>Concerned about the preferred transport route, the R330. Not enough emphasis has been placed on the impacts on people's lives over the next 10 years. This is as long as some of us will live here. There will be an unbearable noise for the next 10 years. You have looked at flora etc, but what about people and the value of our property? We came here to live for peace and quiet and paid a lot of money for our property. Would you buy a house here now with enormous lorries coming across here? We should all be up in arms about this. It is probably the most important point.</p> <p>What about the other two sites? They probably don't have as many numbers of houses impacted. In all the points listed as being relevant to the choice of site, nothing was mentioned about houses and the impact on people's lives.</p> <p>I live on the river and even with the current traffic flows, if there is an easterly wind blowing, the noise from normal traffic flow is already bad.</p>	<p>RH responded that a Noise Impact Assessment (NIA) has been conducted as part of EIA. It looked at various sources of noise including the roads, the R330, and the Oyster Bay Road. It concluded that the additional noise would not be an impact of high significance. There are certain areas where the Noise Impact Assessment did predict a significant impact, particularly at the Umzamuwethu informal settlement, which is close to the western access road to the power station site.</p>

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18	Randall Arnolds (Jeffrey's Bay resident)	<p>I am a coloured person. What is striking about the three sites is that they are in areas where coloured people were allowed to stay. What motivated Eskom to do that? Also, the nuclear dumping site is in Namaqua land, close to the Nama people. We appreciate the chairman's way of handling the meeting, but do not trust the chairman's politeness considering how Arcus GIBB has handled these meetings up until now.</p> <p>The Humansdorp community have been waiting for houses for ages. Madiba came and launched a million houses, including in Humansdorp. The housing waiting list in Humansdorp is large. I don't know about any land that is available for Eskom to build houses. Again you are robbing the coloured community of land and we are getting tired of it.</p> <p>Last time I was here I reminded Mr Stott about the earthquake, 5 on the Richter Scale that we had under the sea. I asked him if this plant was earthquake resistant. He said sarcastically that "there are earthquakes all over the country, and these things are built to withstand earthquakes". As a Christian I believe that when a Christian asks questions with honest motives, God will raise the standard here.</p>	Comment noted.
19	Peter Bosman (Resident of St. Francis Bay)	<p>Want to reiterate the issue of the social impacts of the transport plans in this area. The noise will be terrible. One of the reasons for choosing this road over the other one is because the noise impact at Umzamuwethu is significant. But here these vehicles will travel through residential areas which extend 3-4 km. At one point the residential area is on one side, and the primary school is in the other side of the road. The 950 vehicles per day will make the road significantly more dangerous. The other route, apart from</p>	<p>Comment noted.</p> <p>Post-meeting note: GIBB will be reinvestigating the access roads to the Thyspunt site in order to further minimise potential impacts, including noise.</p>

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		<p>Umzamuwethu, passes through no residential area at all. A transport consultant who recommends that the main route for heavy traffic should be diverted from Main Road Humansdorp to Saffery Road, doesn't fill me with confidence.</p> <p><i>Written comments were handed over to GIBB.</i></p>	
20	Dr Yvette Abrahams (Commissioner for Gender Equality)	<p>In response to complaints, we have begun to monitor this particular consultation. We are concerned as to whether this consultation upholds the Constitution and PAJA (Promotion of Administrative Justice Act) principles. There is no case law that says that the national interest must precede the local interest. In fact in most cases the local interest is considered paramount.</p> <p>Need to raise a few points of national interest: PAJA section 6.2e, and case law, states that if any incorrect or incomplete information is given as part of this process, then the EIA becomes illegal. I will be submitting a full written statement. My concerns are firstly regarding costs:</p> <ul style="list-style-type: none"> • decommissioning costs aren't shown; • the costs of a nuclear incident are not included. The insurance industry will not insure nuclear, therefore I expect you to be discounting actuarial cost over life of the project. After Fukushima, the Japanese government is now upping tax by 1.5% to pay for it. • costs of externalities; tarring of roads, bulk sewage services etc. Is this cost for the ratepayers? • low and intermediate waste will apparently be disposed of at Vaalputs, but how will it get there? Does the transport route not become part of EIA? <p>• The revised EIA proposes many new measures, but you haven't</p>	<p>RH indicated that with regards to decommissioning costs, the Economic Assessment reports that 15% of the capital cost of the power station needs to be allocated for decommissioning. In 2009 prices, which is what the report was based on, this amounts to R17.5 billion for decommissioning. This is based on international experience of decommissioning.</p> <p>RH responded that there is no EIA for the transport to the Vaalputs Waste Site. The waste will be transport via public roads, in containers designed as per specifications of the NNR. Eskom does need to obtain a license from NNR for this transportation.</p> <p>RH responded that the costs remained constant at 2009</p>

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		<p>revised your costs accordingly.</p> <p>With regards to heritage issues, I hold a PhD in Khoisan history. I have about 150 issues with your heritage study and will supply them in writing.</p>	<p>prices because the purpose of the economic assessment was to determine the preferred site from an economic point of view. So a comparison was made between the sites, and this would not differ with updated costs. The relative differences between the sites would remain the same.</p> <p>Comment noted.</p>
21	Dr Yvette Abrahams (Commission for Gender Equality)	The answer regarding adjusting costs has not addressed my question. The transport plan is changing to 5 km instead of 2.5 km; your costs are doubling.	JMB responded that the economic specialist has said that these new mitigation measures are insignificant in terms of the total costs.
22	Dr Yvette Abrahams (Commission for Gender Equality)	On what basis are you reaching your 15%? What power station decommissioning is this based on? To best of my knowledge, no power station has ever been decommissioned.	David Nicholls (DN) responded that very few of the Koeberg-type reactors have been decommissioned because they have a 40 year design life. However, Shippingport in the United Kingdom, the first reactor of its type, has been reduced to a greenfield site and is back to public use. Zion in the United States of America has been largely decommissioned and is in its final stages. So decommissioning has been done and the costs are understood and well documented.
23	Unidentified I&AP	What was the size of the Shippingport reactor?	DN responded that he was not sure, possibly 80 MW. Zion was over 2x 1 000 MW, which is larger than the Koeberg Nuclear Power Station, and was shut down about 15 years ago. Most components have left site and they are finalising the job. So decommissioning has been done. The fact of life is that these stations, like the Koeberg Nuclear Power Station, were built in the 1970s, and will end life in the 20s and 30s of the 21 st Century, therefore we're not into decommissioning this type of

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			reactor yet, but it has been done because the United States shutdown happened quite early.
24	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg bay resident)	Do you have any idea of the route that the nuclear waste to Vaalputs might be travelling on?	RH responded that there is no set route and that it may differ.
25	Chris Barrett (Thyspunt Alliance and St. Francis Kromme Trust)	Who will bear the costs of services, roads, sewage, fire brigades, etc?	RH responded that upgrades of infrastructure such as roads will be Eskom's cost. Maintenance of roads through the construction phase will also be for their cost. The EIA recommends that other infrastructure e.g. sewage works will need upgrading, because some of this infrastructure is not even capable of meeting current needs. Eskom will need to negotiate with municipalities to agree on the apportionment of financial responsibility for such upgrades.
26	Trudi Malan (Thyspunt Alliance and Cape St. Francis Civics Representative)	Ms Malan said Jaana Ball mentioned that the economic specialist indicated costs associated with the revised measures are small and insignificant. But Eskom proposed to string power lines across the dune fields by helicopter. I have costs for such procedures; they are significant. If Eskom incorporates these costs in their planning, it would immediately make Thyspunt the most expensive site.	JMB responded that, to clarify her point, the question was asked that between the first EIR and Revised EIR, where there new mitigation actions proposed, and have those be brought into the Economic Assessment? This was the question that was answered earlier. The stringing of the power lines by helicopter was a mitigation action proposed in the draft EIR, and the economic specialist was given those costs.
27	Dr Jansen (Newcastle, KZN)	It was announced today that Germany is planning to close all nuclear power plants by 2022. If they are closing theirs, why are we building more? Met a marine geologist from Cape Town on this coastline. He said	Post-meeting Note: The Oceanographic and Hydrological specialist studies considered feasible tsunami events based on sub-sea earthquakes and slumps. The largest tsunami predicted to be possible at the Thyspunt

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		that there was, at one stage in history, a huge tsunami of higher than 30m here.	site is a “meteo-tsunami (a tsunami coinciding with extreme meteorological events” of approximately 14.8 m above sea level. However, no evidence of tsunamis at the Thyspunt site has been found. Should I&APs have scientifically valid evidence of such events, they are welcome to forward such evidence to the EIA Team.
28	Donna (Humansdorp resident)	Familiar with Saffery Street. There are three schools in the proposed transport corridor and a hospital. One block up from Saffery Street, possibly Du Plessis Street, is a high school. Three or four blocks down is a primary school, plus a primary school in Kwanomzamo. This must all be considered.	RH responded that the EIA team takes note of the facts presented. The Traffic Impact Assessment has recommended that there should be overpasses or underpasses at relevant points, especially where schools are present.
29	Hylton Thorpe (Thyspunt Alliance and St. Francis Bay Residents Association)	Would like to make a proposal that no road access to Thyspunt should pass within 1 km of any urban edge. Eskom should figure out how to get that right. The present proposal is extremely disruptive to local communities.	The request is noted. Post-meeting Note: GIBB will be reinvestigating the access roads to the Thyspunt site in order to further minimise potential impacts, specifically related to schools.
30	Andrea von Holdt (Environmental Manager of Coega Development Corporation and also a Rebulrus homeowner)	Rebulrus is within the 3 km emergency planning zone. I have five questions: <ul style="list-style-type: none"> • The wetland study apparently says the Langefontein wetland was not linked to the construction footprint therefore wont be impacted on by the dewatering. But then the specialist recommended feeding the wetland with water pumped out of the construction site. This implies there could be a link, otherwise why would you artificially supplement a natural wetland system? • The Waste Impact Assessment confirmed that enough waste site space was available for radioactive waste. But where will the non-nuclear hazardous waste be taken to? The only site I know of in the area is Aloes at PE, and it has a limited life span. 	RH responded that the recommendation refers to the coastal seep wetlands not to the Langefontein wetland. The coastal seep wetlands are fed by groundwater from the central portion of the site. RH responded that specific sites have been identified. I do not have their names at hand, but will have to get back to the speaker.

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		<ul style="list-style-type: none"> • Is our country and the Kouga Municipality really ready for nuclear? 	<p>Post-meeting Note: The Aloes Waste Disposal site is the only site in the Eastern Cape that can accept hazardous waste. Although this site has an estimated life span only for the next five years, upgrading and expansion of the waste site is planned.</p> <p>Post-meeting Note: Please note that the proposed Nuclear-1 Power Station is not the first instance of the application of nuclear science and nuclear energy within South Africa examples of which can be found at the Eskom Koeberg Nuclear Power Station and Necsa's Pelindaba Facility. Eskom is aware that it needs to engage with local authorities and that these authorities may not be in a position to take responsibility for the infrastructure upgrades in support of the power station. This fact is acknowledged in the Social Impact Assessment (Appendix E18 of the Revised Draft EIR) and in the EIR. It is fully recognised that the Kouga Municipality faced major service backlogs. It is therefore recommended that Eskom must agree with the relevant services providers (including municipalities) on the apportionment of responsibility for service upgrades before the start of construction for Nuclear-1.</p> <p>Although Eskom does not have certainty yet that it</p>

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		<ul style="list-style-type: none"> • Has Fukushima had any impact on Eskom's planning for nuclear in South Africa. Please can you elaborate on your response in your response report. • If a negative environmental authorisation is issued by DEA, what is Eskom's plan for power provision? If a power plant is not to be built at Thyspunt, would Eskom retain the land at Thyspunt? 	<p>would get authorisation for the Thyspunt site, the utility is engaging with local municipalities on the upgrading of certain infrastructure, including roads and educational facilities, as the Kouga Municipality does not have available funds for such upgrades on its own.</p> <p>TS responded yes. The Minister has stated that the Japan incident will be taken into account in planning our nuclear programme.</p> <p>TS responded that if a negative authorisation is issued for Thyspunt, Eskom would look at the other two sites. If negative decisions are received on those also, we would look at other sites, or request amendment of the IRP. The obvious option is more coal-fired power stations, but it would be government's decision. If Eskom couldn't build on this site, it would sell the land.</p>
31	Bridget Elton (St. Francis Bay Resident)	<p>There are seismic readings occurring here at the moment. Along what fault lines are they occurring? There was an earth tremor this morning and a couple of weeks ago. Are readings being taken on site and do they influence what is recorded in the document?</p> <p>The report says it is based on seismic readings of the last 8 years. But it needs to consider what is happening now because it is serious, because the world is moving, things are changing e.g. Iceland volcanic eruptions and Fukushima. We feel the tremors right here on our doorsteps.</p>	<p>RH answered that he cannot answer regarding recent seismic events; it is the responsibility of the Council of Geoscience's to do ongoing monitoring of seismic events. GIBB do have a seismic assessment report completed earlier this year which was based on decades of monitoring.</p> <p>DN responded that Eskom has an ongoing seismic monitoring programme. Eskom can't comment on recent events but they are being captured. We monitor all the candidate sites and will doing so as long as we intend to build something on it.</p>

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		<p>Reuben touched earlier on a UNESCO site. Please elaborate.</p> <p>Can Eskom clarify if they are a member of any conservation group here in the St. Francis area or not?</p>	<p>RH answered that UNESCO stands for the United Nations Educational, Scientific and Cultural Organisation. They govern the international convention on World Heritage sites, which are sites of value to the whole of humankind. There are various criteria in terms of that convention, for example, for landscapes of cultural and scenic value. There are currently seven world heritage sites in South Africa. A nominated site has to go through a long evaluation process to approve it as a World Heritage Site. In the opinion of the heritage specialist, this site has the potential to become one of these World Heritage Sites.</p> <p>DH responded that Eskom belongs to the conservancy area that the site is included in. Eskom is an active member. This is the St. Francis Bay Conservancy and Gert Greeff is the Eskom member.</p>
32	Chris Barrett (Thyspunt Alliance and St. Francis Kromme Trust)	<p>The EAPs have specifically said that Eskom is not a member of the conservancy, and as a result one of their positive points was that the whole nature of the area would change and it would be a terrific plus.</p> <p>(Comment by Bridget Elton: This was in the letter dated 20 March 2010 to the Kromme Trust, from Jaana. It was response number 12.).</p> <p>Eskom historically have not cleared the site of what they should have. They only started clearing it now. Why should we think that because there is a nuclear power station, things are going to continue in a bed of roses?</p>	<p>JMB responded that GIBB will look at Response 12 in the IRR (Issues and Response Report) and correct it if necessary.</p> <p>Post-meeting note: Eskom has confirmed that it is a founding member of the St. Francis Conservancy and remains one of the active members.</p> <p>Deidre Herbst responded that the issue about improvements for the area is not about a conservancy. It was about possibly proclaiming the area as a nature reserve, which would give it greater protection than if it were just a conservancy.</p>

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			<p>Post-meeting Note: The statement that Eskom has only started clearing now is incorrect. Eskom has had an ongoing alien clearance programme at Thyspunt for many years.</p>
33	Graham Wilman (St. Andrew College)	<p>We have been on the site for more than 55 years. We were all here a year ago, and Mr Christy raised the issue to the specialist regarding the marine issues, and these have been brushed aside and we have not been adequately answered regarding the ckokka industry.</p> <p>Regarding the routes for transporting the waste; the specialist gave the routes; it would all be transported by road. It would go through Knysna, Wilderness and then through George. This was raised as a concern in case of an accident; Knysna has no bypass. I don't believe that this has been addressed during the last year.</p> <p>The transport for personnel from Humansdorp was going to be via the Oyster Bay Road, which is a gravel road. There was no intention to upgrade it to a tarred road. This brought questions from the dairy people. Don't believe this have been addressed in the last year.</p> <p>It was clearly stated that the Van Stadens Bridge is underrated for the size of equipment that has to be transported over it. This has not been addressed. The same applies to the bridge over the Kromme River.</p>	<p>JMB responded that GIBB commissioned an independent waste study. GIBB took every issue raised, in meetings and in the IRRs, and compiled a huge document, categorised it per specialist study and provided that to the specialists. Many of the specialist studies have undergone significant changes. Regarding the marine aspects, Dr Tammy Robinson and Prof Charles Griffiths consulted the Squid Working Group. JMB said she has personal confirmation of that this week, from a member of the Squid Working Group. The marine specialists have revised their study but have come to the same conclusion that the chokka industry will not be significantly impacted. A specialist meeting between the specialists, the industry and the squid working group has been arranged in Cape Town. If there is disagreement between specialists and the working group, then it will be recorded in the final EIR and presented to the DEA for them to decide. Specialists do sometimes disagree with each other.</p> <p>RH indicated that there have been investigations conducted for the Traffic Impact Assessment, and these investigations found that the Van Stadens and Kromme River bridges are structurally adequate for the projected traffic flows for Nuclear-1.</p>

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		<p>Regarding the heritage issues, we've been involved with the site for a long time. There are fish kraals that will be destroyed. There are underwater systems, and Khoi middens and these have not been addressed. The 200m green zone from the shoreline is not adequate.</p> <p>What progress has been made in a year? I have a feeling of no confidence in this EIA.</p>	<p>Comment noted.</p> <p>Comment noted.</p>
34	Unidentified I&AP	<p>Question to Eskom; how much are you influenced by consultants? Consultants seem to think this is the right place for the plant to be, but I think they are biased. How much are you influenced by the consultant's decision?</p>	<p>JMB said that during the assessment process GIBB's recommendations have swayed both ways. GIBB have agonised over their recommendation. Secondly, we as the independent consultants do not make a decision. We present all the facts to DEA to allow them to make the decision. GIBB have made a recommendation, based on significant conditions, but we do not make the decision.</p>
35	Ian Mcknee (Resident of Santareme)	<p>The Germans have decided to close their nuclear capacity in the next 10 years. What does the German government know, one of the most advanced countries in the world, that we are not being told?</p>	<p>Comment noted.</p>
36	Mr Kuleku (Cape Town, Bet Live)	<p>Lets be honest; these 7000 jobs are not sustainable. Look at the people toyi-toying at Medupi because the jobs were just temporary. Are we prepared to destroy the economy here, hospitality, fishing and farming, for this?</p>	<p>RH responded that the estimated number of jobs, at the peak of construction, is 7 700. This would be in approximately year six of the nine year construction period. Most of these jobs would be skilled jobs filled by people outside the area but our recommendation, from the specialist, is that 25% of jobs should go to local people.</p> <p>DH added that there was unrest at the Eskom Medupi</p>

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		<p>I was at the Sea Vista public meeting the day before yesterday. GIBB was holding a meeting there. About 20-25 people were there. They were asking real questions about jobs, health etc. but they could not answer them.</p> <p>I am from Cape Town and will go back to the activists and inform them of this process. We must work together to make sure the people, especially the black people, are not misled.</p>	<p>Power Station because of welders brought in from Thailand. RSA does have a shortage of welders and this shortage is being addressed through training programmes to uplift South African skills. With regard to the Medupi Power Station, there has been much business created in the area for small businesses e.g. catering, laundry, etc. All operators from the plant and some technical staff have come out of the local area. So there are sustainable jobs created. For Medupi the number of jobs is about 1 000, not as much as at a nuclear plant.</p> <p>RH indicated, regarding the open house which was held at Sea Vista, this was held at the request of the community, through the Centre for Environmental Rights which represents them. The message GIBB gave is exactly the same as that given at all the other meetings.</p>
37	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg Bay resident)	<p>Regards the waste report, pg. 61 of the revised draft EIR, v2.0, March 2011: the bullet summary on pg. 61 does not do justice to the issue of nuclear waste. For example, it assumes decommissioning after 60 years which has no precedent in the world; the average is 25 years. Bullet 5 of last sentence reads <i>"It is generally agreed that these arrangements are interim and do not represent a final solution"</i> What is long-term? Reuben has suggested 70 years, but considering the half-lives of some isotopes we should be talking thousands of years. We don't have this length of experience. To say we have 9 years experience in nuclear waste management is silly.</p> <p>Next bullet point at says <i>"underground research labs made a very positive contribution to waste isolation research."</i> But again the</p>	JMB noted a point of correction in Mr Kantey's comment that the closure for the comment period is 07 August.

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		<p>issue of time is not taken into consideration. We are not talking historical time, but geological time.</p> <p>At the bottom of the page it reads <i>“the assessment results indicate that with implementation of appropriate mitigation measures, all the potential impacts are low.”</i> This is a common theme running through the EIR; <i>“with the proper mitigation impacts will be low”</i>. The impacts are high and we don’t know how successful the mitigation will be. How do we define <i>“proper mitigation”</i>, and who gets to measure <i>“proper”</i>? This is a fatal flaw. This waste document has not been properly done.</p>	
38	Lynn Andrews (Squid industry)	<p>Do you know that squid is mostly an export product. Would you buy squid from an area near a nuclear plant? The wind and currents prevail from the west so it will affect all areas from here to PE. Our whole industry will be affected.</p> <p>I’m not talking about the land but the ocean.</p>	<p>JMB said she can’t comment on the squid industry, but around the Koeberg Nuclear Power Station there are wines grown and produced which are exported to all over the world.</p> <p>RH replied that the impact of radiation on marine organisms was looked at by specialists in the marine report. Those are the same specialists who have done monitoring at the Koeberg Nuclear Power Station since before the power station was built. Their conclusion based on 20 years data is that there is no impact on marine organisms.</p>
39	Helmie Tilders (Member of Foster, affiliated to Thyspunt Alliance)	<p>What has happened in the one year since the last EIA? Wind directions were shown as NW a year ago. We wrote comments about this but it is still shown as NW, which is convenient because if there are problems, all contaminants will blow out to sea. However we actually have a SW wind, which is the predominant wind here, and the contaminants will blow our way.</p>	<p>RH displayed wind roses for Thyspunt site and St. Francis. Dominant direction is west to north-west. More of a north-westerly wind in winter.</p>

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		<p>The last draft EIA agricultural report showed a positive impact of 10-15%. We queried it. It is still shown as a positive impact of 10-15%. How do you get 15% more farming out of this area? About 90% of income in this area is dairy farming. The dairy farms produce 572 million litres per annum, which is sold nationally. It's a fine balance. If they produce more, they have a surplus; if less, someone else produces it. So where does the 15% extra milk go? The answer is given that the extra people coming into the area will consume it. I have done the maths. Each man, woman and child of the newcomers will have to consume 10-15 litres per day. This has been dealt with in a haphazard manner and is not good enough.</p> <p>I asked farmers about possibly changing to other types of farming but farmers said that vegetables, fruit, and wheat would not work here because of the climate. Seems dairy is the only option.</p>	<p>RH replied that the agricultural assessment by the specialist is based on increased numbers of people entering into the area. Farmers can use the opportunity to produce more.</p>
40	Bridget Elton (St. Francis Bay Resident)	We dispute the wind direction. If you look at dune system, it shows the wind direction.	<p>Post-meeting Note: The wind roses¹ in Figures 2-25, 2-26 and 2-27 clearly show that the wind direction experienced most frequently is westerly. The longest "spokes" around the circle indicate the wind direction with the greatest frequency. It is clear from all three the above-mentioned figures that a westerly wind occurs most frequently, throughout the seasons, at both Thyspunt and at Cape St. Francis. This is consistent with the east-west orientation of the Oyster Bay mobile dune system, in that sand is blown from</p>

¹ A wind rose is a graphic tool used by meteorologists to give a succinct view of how wind speed and direction are typically distributed at a particular location. They show the frequency of winds over a long time period plotted by wind direction, with colour bands showing wind ranges. The directions of the rose with the longest spoke show the wind direction with the greatest frequency. The spokes radiating from a wind rose show the frequency of winds blowing *from* particular directions.

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			Oyster Bay in the west to St. Francis Bay in the east.
41	Hylton Thorpe (Thyspunt Alliance and St. Francis Bay Residents Association)	Please put up a map of the area. Please explain how a headland bypass dune system could exist here if the wind blows in a NW direction as you propose it does. The headland bypass dune field shows which way the wind has been blowing for thousands of years. Windblown sand is picked up from Oyster Bay and travels to the canals system at St. Francis Bay. The next one goes from Thysbaai and goes straight to Sea Vista and St. Francis. The third system is a small one going from Cape St. Francis beach over the headland. Can't see how anyone can say that SW is not the prevailing wind.	RH said he is not an expert, but we have a report by a dune geomorphologist specialist which addresses the dune dynamics. Post-meeting Note: The dune geomorphology specialist report is Appendix E2 of the Revised Draft EIR.
42	Riaana Tolan (Greenpeace Africa)	Your Thyspunt wind roses are only measuring between Jan 2008 and Sept 2009, which only gives you one season's worth of measurements. From a scientific point of view, this is not enough to determine the prevailing wind.	Post-meeting Note: It is only the wind roses for the Thyspunt site itself that are based on a limited period of monitoring data. The data for Thyspunt itself is from January 2008 to September 2009. However, the wind roses for Cape St. Francis are based on data from 2004 to 2008.
43	Pixie Anderson (St. Francis resident)	A comment regarding the Economic Cost study. Are you planning to build a different type of station at Duynefontein, i.e. is the cost here different from the cost there. How is it possible that Thyspunt can be R0.5 billion cheaper to build when considering that this is the site where all the mitigation has to be done, including the fact that this site is where an open cycle gas turbine is to be built? In terms of costs and your transport study; we have only discussed costs from Humansdorp. What about costs from PE? Will the turbines come from PE or Coega, and what about all the other bridges that the reactor would have to pass under? Have you	RH replied that costs for other sites are higher. Bantamsklip would be the most expensive because it is remote and requires transport upgrades for roads and bridges. This factor is responsible for most of the cost difference between Thyspunt and the other two sites. The costs for the associated transmission lines have also been taken into account RH replied that in the case of Duynefontein and Bantamsklip, the planned harbour is Saldana harbour. For Thyspunt it would be Port Elizabeth harbour. Certain interchanges will have to be ungraded and they are

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		<p>looked at bridge heights?</p> <p>Who will monitor the mitigation works? Will it be government or private? How will we have legal representation if it is not done?</p>	<p>indicated in the transport report.</p> <p>RH responded that all mitigation measures recommended by specialists are included in the Environmental Management Plan (EMP). This EMP also has to be reviewed by the DEA and will have to be approved before works commence. A team of independent Environmental Control Officers (ECOs) will monitor construction, and will report to an Environmental Monitoring Committee (EMC) which will include representatives from the community. The DEA will also do its own monitoring via the Green Scorpions.</p>
44	Trudi Malan (Thyspunt Alliance and Cape St. Francis Civics Representative)	<p>The costs of transmission lines should not be included in the costs comparisons for this EIA. Eskom decided to split the transmission line EIA from the main power station EIA. The transmission lines are not part of the study and so that cost should not be included.</p> <p>If cumulative impacts are being considered, why then haven't all cumulative impacts of the transmission lines been considered? For example, agricultural impacts. The transmission lines will impact on the pivot watering systems. This was not considered. Seems there is selective integration of the two studies. Seems strange that the power lines are not part of the EIA yet it is said that the integration of the site is its positive point.</p>	<p>RH responded that GIBB is, as environmental assessment practitioner, also required to consider cumulative impacts and that is one of the cumulative impacts.</p> <p>JMB responded that, where possible, GIBB has considered cumulative impacts.</p>
45	Basil Webber (St. Francis Bay resident)	<p>A comment regarding the agricultural contribution this project will make. I am a farmer. If there is increased consumption in this area, retailers will source supplies wherever they can get it cheapest. With beef and chicken production, farmers on the highveld can produce it cheaper than we can here. Retailers will import meat from the reef and actually drive local prices down. You</p>	<p>Comment noted.</p>

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		<p>will probably drive some local farmers out of business. Recommend you terminate your agreement with your agricultural consultant.</p> <p>As father of four kids, will this road down here be widened? What work will be done on it? Has any costing been done re expropriation requirements?</p> <p>How will a schoolbus pass a truck with a heavy load? How will this happen practically?</p> <p>To the consultants, be wary of your recommendations you make. You constantly refer to you specialists, such as your economic specialist. As a chartered accountant I have some insight into these things. You will be held accountable for your recommendations. I will make sure you are held accountable. The gaping holes in all your work show that you cannot come to a conclusion on which site to recommend. Until you have done a very thorough study of the economic reality of this project, how can you responsibly make a recommendation to Eskom?</p> <p>Are you comfortable that you have made a comprehensive, responsible recommendation to the client?</p>	<p>RH replied that there are no plans to widen the roads outside the current road reserves or to expropriate any neighbouring land.</p> <p>RH replied that certain extra heavy loads will only be moved outside of peak hours.</p> <p>RH replied that there are requirements in the EIA regulations regarding the independence of environmental assessment practitioners and specialists.</p> <p>RH and JMB replied that they were comfortable with the recommendations.</p>
46	Gregg Christy (St. Francis Bay resident)	Who owns this EIA document? Eskom? Arcus GIBB? Who does one pass the buck to? If the report is found to be faulty, who does one go after?	JMB responded that each specialist study is signed off by the specialist and their companies. As far our EIR is concerned, the EAP, which is Reuben and myself, we take the responsibility on behalf of GIBB.
47	Dr Yvette Abrahams (Commissioner for Gender Equality)	The Human Rights Commission has a mining desk and investigates complaints from the public as does the Office of the Public Protector. If there is someone at the DEA or Department of Energy	Comment noted.

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		that you feel is not doing their job, you can complain to the Public Protector. The Gender Equity Commission is also empowered to handle public complaints and we report to parliament. People don't make enough use of our services.	
48	Chris Barrett (Thyspunt Alliance and St. Francis Kromme Trust)	Have two questions. What has changed about the roads and bridges that now they don't need upgrading? We were told before that they would need upgrading. For example, we were told especially that the bridge over the Kromme River needs attention. What has changed with that bridge? What PI cover does your company carry?	RH responded that preliminary transport studies show that the Van Stadens and Kromme Bridges are structurally sufficient, but may need minor upgrades. Will go back and consult the specialist report and confirm that they are structurally sufficient for the anticipated loads. Post-meeting Note: It is stated on page 80 of the Transport Assessment (Appendix E 25 of the Revised Draft EIR) that " <i>Initial assessment of the Kromme River Bridge indicates that the bridge will be capable of carrying the increased loading during the construction period</i> ".
49	Rudolf McDonald (Cape St. Francis resident)	A question for Eskom, not the consultant. Reading from the report " <i>Eskom identified five sites for the construction of Nuclear 1</i> ". These sites were given to their consultants. Where and when was the decision made to look only at five sites in the whole of RSA? I heard that it was about 30 years ago. If this is true, then I think it was poor form to begin the selection process with data from 30 years back. In those days they would not consider places like the Transkei. Is this correct? When we started this process in 2005, why didn't we start again, because in 2005 the politics and factors in RSA were very different from 30 years ago.	TS replied that Eskom did start the nuclear site investigation programme in the 1980s. It was done by consultants, e.g. the Environmental Evaluation Unit at UCT did the environmental investigation. This continued to the early 1990s. Eskom looked at where we believed the electricity demand would be – along the coastline. Also looked at the geology, assuming it would be a Koeberg type reactor. A lot of Kwa-Zulu Natal was excluded because it was either too built up or the geology wasn't suitable. We stayed away from homelands and major cities. Also considered the environment, existing and projected populations, and tidal and wave actions. There were very few sites

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			<p>identified as suitable on the coastline. We gave these five sites to the consultants and asked them to review what was done and determine if these five sites were still valid. Although they were identified 30 years ago, the EIA still has to look at the present conditions for each of these sites.</p> <p>JMB added that TS is correct. Specialists had access to all the original documents, but had to assess each site on its own present merits.</p>
50	Trudi Malan (Thyspunt Alliance and Cape St. Francis Civics Representative)	<p>Can the consultants give us their written review of the original nuclear site investigation programme?</p> <p>She stated that she would like to quote from the International Atomic Energy Association's publication Standard Safety Series: Site Evaluation for Nuclear Installations, which our country is a signatory to.</p> <p>Point 2.13: <i>"For nuclear power plant, the total nuclear capacity to be installed on the site should be determined, as far as possible, at the first stages of the siting process. If it is proposed that the installed nuclear capacity be significantly increased to a level greater than that previously determined to be acceptable, the suitability of the site shall be re-evaluated as appropriate"</i>. It has not been done in this case. The original site was planned for a 1 800 MW plant; it was not planned for a 4 000 MW plant.</p> <p>Secondly the Nuclear Site Investigation Programme had no public participation involved. The first that the public in this area heard about it was via an announcement in Humansdorp. We then had to use the PAIA (Promotion of Access to Information Act) to get the</p>	<p>JMB responded that GIBB's review report of the Nuclear Site Investigation Report (NSIP) is an appendix to the Scoping Report. It is a review of the process that was undertaken; it is not a thorough review of every specialist study that comprised the Report.</p> <p>TS replied that is what this EIA process is, a detailed review of the suitability of the alternative sites being looked at.</p>

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		<p>information because it was considered confidential. It was kept confidential so that the public would not know of Eskom's intentions to buy land here so that they would not increase their selling prices. I maintain that the decision to build at the five previously identified sites is unconstitutional. Eskom has had enough time to think were they should build the plant in the new South Africa but have ignored this at their own peril.</p> <p>We are busy with an EIA on a previously selected site. This is not a site selection process. We are contending that Eskom should have relooked at the whole country when they did the Nuclear Site Investigation Programme. They are in contravention of the International Atomic Energy Association's Standard Safety Regulations for Site Selection.</p>	
51	Kobus Reichert (Heritage representative for the Gamtkwa Khoisan Council)	<p>Jaana Ball stated that the heritage report was done with consultation with the Gamtkwa Khoisan Council. She did not, however, state that we oppose this proposal. Gamtkwa people will not accept this misleading information that has been shared.</p>	<p>JMB responded that the heritage specialist for the EIA, GIBB and Eskom did have a key focus group meeting with the Gamtkwa Khoisan Council. Minutes of this meeting were included in the Revised Draft EIR. The Council members raised the issue of the cultural landscape, which wasn't addressed in the previous version of the heritage report. The heritage specialist therefore took this into account and has since addressed it in the Revised Draft EIR. GIBB has had a meeting with the South African Heritage Resources Agency (SAHRA) regarding the potential of this site to be considered for an UNESCO site, as well as discussing the findings of the Revised EIR and the permit application for the excavations in the central portion of the site. The excavation permit has been granted and the excavations will take place shortly. In no way has GIBB in its Revised Draft EIR dismissed the cultural landscape</p>

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		<p>For example, your HIA specialist made it clear that they had consulted with Dr Johann Binneman who has 25 years experience in the study area. They said he shared information with them which was taken into account. I have it in writing from Dr Binneman that this is false. He said this exchange happened at a social gathering and nothing was discussed at length. He says he has data on the site which would change the recommendations of the specialist. He has photographic evidence of an early stone age site, the size of a rugby field, situated under the sand at the site. Why has this information not been obtained from Dr. Binneman? Why are you giving misleading statements in your responses to us? Why are you contravening the NEMA regulations by not including this information in your report? Why are you shifting your process responsibilities over to the Gamtkwa Khoisan people; we have to now prove our existence and our link to the study area to you.</p> <p>I asked three weeks ago via email, who is the author of the responses you provided us with. I received no reply, similarly to many other emails I've submitted in the past. We cannot respond to issues on that letter when you are not the author of those responses. I'm asking again, give us the names of the people who authored those responses; those who said the Khoisan people of this area did not lose their land by force; those who said there is no</p>	<p>issues. On review of the Report it will be seen that after mitigation it is still a potential impact of high significance (refer to Tables in Chapter 9).</p> <p>Post-meeting Note: The table number was mentioned during the meeting. It is Table 9-54 in Chapter 9 of the revised Draft EIR.</p> <p>JMB replied that Dr. Binneman is an expert on the Thyspunt area, and Dr. Hart and Dr. Halkett from the UCT Archaeological Contracts Office both recognise this and know Dr. Binneman. They have referenced his research material in their specialist report. She further stated that she could not answer on behalf of the heritage specialists as to when the conversation took place, but will follow up on that and include as a post-meeting note.</p> <p>Post-meeting Note: Dr. Binneman, previously of the Albany Museum, spent an evening with the Heritage Impact Assessment (HIA) team during their fieldwork at the Thyspunt site, at the invitation of the HIA team and shared information with the team.</p>

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		<p>link between the Khoisan community and the archaeology at Thyspunt.</p> <p>We have asked you to do your research properly and if you did it, you would have had the answers to all those questions. You will find the answers in the Jeffrey's Bay library. Am getting sick and tired of people playing with words when we are dealing with fairly straight forward issues.</p> <p>If this is a cultural landscape in terms of UNECSO definition, how can putting a power station there mean a positive impact to the cultural landscape? Moving the power station back 200 m would have no effect whatsoever. It will still destroy the cultural landscape totally. Don't tell me the site is not listed in terms of UNESCO; if it has the potential to be declared a WHS, then it should be respected and this should have excluded Thyspunt from the process.</p> <p>If it is true that you have consulted with the local historians, then you are aware that Bart Logie has written books about the area. Has he been consulted? If Dr. Binneman has been consulted, then I refer you to your mitigation report: <i>"An open day was held at UCT, where the mitigation report was formulated by inviting academics from all over the country as well as students and other stakeholders. The area that will be most affected by any mitigation work will be the Eastern Cape and all of the artefacts and archaeological material will have to be curated in the Eastern Cape, and the only facility currently is the Albany Museum."</i> Why was the Albany Museum, who will deal with the artefacts, deliberately excluded from this process?</p>	<p>JMB responded that, regarding consultation with local historians like Mr. Logie, GIBB will get back to the specialist and include feedback in the post- meeting notes.</p> <p>Post-meeting Note: Initial brief consultation was undertaken with Dr. Bartel Logie during the Scoping Phase of the EIA. Consultation has been focused on professional academics whom are knowledgeable about the specific issues at the site and surrounds.</p> <p>JMB responded that GIBB was not involved in the open day and mitigation workshop at UCT; it was not part of the EIA. Dr. Tim Hart arranged the workshop on his own</p>

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		<p>To say that SAHRA will still make their decision is a lie. The SAHRA has made their decision. I spoke to Mariagrazia Galimberti from the SAHRA, who said that it doesn't matter what information you bring out of your excavation works, it will not change the SAHRA's decision. They have made their decision already.</p>	<p>accord, and therefore GIBB cannot comment on the proceeding of the workshop, but can say that we have discussed the curation of artefacts, should authorisation be given. The SAHRA, Eskom, Dr. Hart and GIBB are well aware of the capacity of Albany Museum. Eskom has undertaken that should mitigation need to take place, Eskom would consider a facility to curate and store these artefacts.</p> <p>JMB responded that Mr. Reichert is correct. The SAHRA has written to GIBB regarding the Draft EIR. SAHRA's communications have been included as an appendix to the report, so GIBB is not trying to hide it any communication from the Authority. As soon as the letter was received by GIBB it was posted onto the EIA's websites. What has been agreed with the SAHRA during a meeting held on 24 June 2011 is that the SAHRA will provide further comment on this Revised Draft EIR within the Comment Period. As has been indicated at the meeting tonight, the SAHRA has given permission for the test excavations to occur in the central portion of the Thyspunt site. Once the results of these excavations are known then the SAHRA will provide comment to the DEA on the Final EIR.</p> <p>Post-meeting Note: Copy of the Final Minutes of the meeting with the SAHRA confirming the statements made above are available on the two EIA websites.</p>
52	Charles Lead (St Francis	Regarding access to the power station on the R330, does GIBB intend persisting with their recommendation that the R330 still be	RH responded that GIBB will take the comments to the relevant specialists and review the recommendation.

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No	Name	Comment	Response
	Resident)	used as the access road? Considering the vehement opposition to this by the residents, is GIBB going to consider the feelings of the residents?	Post-meeting Note: GIBB and the relevant specialists will be reinvestigating the access road alternatives to further minimise the potential impacts to the communities of Cape St. Francis, St. Francis Bay, Sea Vista, Oyster Bay, Umzamuwethu, Humansdorp and other settlements.
53	John Hammond (St Francis Bay resident and pub owner)	I generally have a pro-nuclear attitude but I think it is a disgrace the way these consultants are ignoring the concerns of the residents of St. Francis Bay. This proposal of taking traffic through Humansdorp is ridiculous. The impact on people and children is a disgrace. We will toy-toying in the roads if need be, but we will not allow vehicles to come down the R330. We will stop them.	Post-meeting Note: GIBB and the relevant specialists will be reinvestigating the access road alternatives to further minimise the potential impacts to the communities of Cape St. Francis, St. Francis Bay, Sea Vista, Oyster Bay, Umzamuwethu, Humansdorp and other settlements.
54	Hylton Thorpe (Thyspunt Alliance and St. Francis Bay Residents Association)	The road proposals are part of the social impact assessment in this EIA. Social impacts have been totally neglected as part of this EIA. It was not identified as one of the 8 or 9 key impacts identified. The Social Impact Report is the same pathetic document we saw a year ago. It is hypothetical and plays down everything. A recommendation from the Nuclear Site Investigation Programme reads: "small holiday resorts along the coast should be unaffected". Ha-ha. So we will be unaffected by all these hundreds of trucks coming right past us? Exactly the same problem in Humansdorp. I re-emphasise my proposal that no road access to Thyspunt should occur within 1km of any urban edge, including the R330 at Humansdorp and this end. The playing down of social impacts is scandalous and it's one of the biggest concerns we have. There has been no mention this evening of the informal settlements that are likely to develop here if the road comes this way. We will have	RH responded that GIBB would take these comments back to the author of that specialist report. Regarding the social impacts not making it onto the list of eight key decision factors - that decision was made at the specialist integration meeting, made together with all the 24 specialists, including the social specialist himself.

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No	Name	Comment	Response
		a situation where the population of informal settlements is greater than the population of the permanent residents here. They will be unemployed and living in squalour. The consequences are mind-blowing. Implications for Sea Vista are frightful. It will happen if this road comes this way. The mitigation plans proposed by the social impacts specialist are all just talk; they hold no teeth or power. It talks about the municipalities imposing bylaws on the informal settlements but municipalities do not have the ability to implement by-laws (if they exist). This social impact assessment is a non-starter and we really need to object strongly.	
55	Bridget Elton (St Francis Bay Resident)	<p>You said Bantamsklip is too isolated, and the roads to access the site would cost too much. But you want to bring the transport right through St. Francis Bay. Why can't you built the roads away from us? If you are going to factor in that cost, then maybe Thyspunt is more expensive. Why can't you do us the courtesy of protecting us, our sense of place, and our lives, instead of directing all these trucks through our village? You have a social responsibility to those of us who live here to look at putting the road somewhere else and then factoring in that cost. Then maybe Bantamsklip might be cheaper; it is more remote and there are no villages on your doorstep.</p> <p>I think GIBB is just proposing this route because it is going to cost the client less, but maybe the client needs to look into this alternative road idea. Please look into this and don't just bulldoze us.</p>	<p>Post-meeting Note: GIBB and the relevant specialists will be reinvestigating the access road alternatives to further minimise the potential impacts to the communities of Cape St. Francis, St. Francis Bay, Sea Vista, Oyster Bay, Umzamuwethu, Humansdorp and other settlements. The cost of these new road alternatives will be included in the economic assessment.</p>
56	Mr Elwin Malgas Sea Vista Resident	The consultant comes here every time with the same story; blatant lies! The farmer who spoke about meat prices: he spoke about his kids. Well I have three kids. Our children will have to walk on these roads with the 900 trucks. There is already a problem in the	RH responded that the traffic study has recommended bridges or subways across or under the roads at certain areas such as schools. We take note of your comments and will pass them onto the specialist.

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No	Name	Comment	Response
		<p>mornings around the schools; we are already battling to get kids over the roads. Eight hundred and forty five trucks in the morning! What will happen?</p> <p>I support Hylton Thorpe's recommendation that they have no road within 1 km from any town area. Who is this traffic specialist? He does not live here and does not know the conditions here.</p>	
57	Leanne Swannepoel	Proposing a bridge or a walkover is not acceptable. People will walk under bridges or climb over fences etc. so that they don't have to walk over the bridge.	Comment noted.
58	Greg Christy, SASMIA (SA Squid Management Industrial Association)	<p>Regards the outflow and inflow pipes, are they the same as the spoil pipe, or are there 3 separate pipes going to be flowing out?</p> <p>Has there been an Engineering feasibility study on laying a 6 km pipe out into the ocean? Not sure if this will be over or under the sea bed. This would be a first for this country. If this hasn't been done, why?</p> <p>We are being asked to comment on the EIR when we don't yet know the type of nuclear technology to be used, and we don't have the engineering feasibility for one of the main aspects of the project, the pipelines out to sea. Yet we have a comment deadline of the 07 August 2011.</p>	<p>RH responded that the lines will not be the same. There will be three types of pipelines: one for spoil³, an inflow line for cooling water and an outflow line for cooling water.</p> <p>DN responded that the proposed inlet duct piping will be a physical, hard rock tunnel about 17 m below the seabed going out. It is approximately 6 m diameter by 1 km long. The inlet point would be about 700 m off the coast. The outfall pipes will be about 500 m long pipes set into the seabed. They will be covered pipes, not tunnels, and will discharge the warm water at a 5 m depth. The spoil pipe will be a temporary pipe. This one will be a challenge; Eskom will have to build it to get it 5 km offshore. Eskom has looked at studies with the pumping organisations and believe we can get high enough pressure to pump in one stage. In normal conditions, you would use a booster station every 1 km.</p>

³ To be used only during construction

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No	Name	Comment	Response
		<p>So there has been no costing done on this pumping issue, because there is no engineering feasibility. How can one do a comparison if you don't have the costing on it yet?</p> <p>Also, we were told earlier that the release depth would be 500 m, not 5 m.</p> <p>Jaana please confirm that your specialist has consulted with the squid working group, because the working group deny this. I sit on the scientific working group and that consultation hasn't happened.</p>	<p>But the present thought is that we can build a big enough pump station on shore to pump it 6 km.</p> <p>DN replied that the indicative costing has been done. Eskom has similar studies previously when it did the Nuclear-1 tender, and got prices from two vendors; one to pump the sand to the Cape St. Francis Beach (over 11 km), and the other was to truck it on the site. So Eskom does have indicative costs, but the true costs will only come out at the end. The current view is we have adequate costing.</p> <p>RH responded that, with regards the depth issue, one of the slides shown indicated that one of the changes is to release the warm water at a 5 m depth.</p> <p>JMB responded that GIBB's specialist has given GIBB a list of people with whom they have consulted, one of which is Hans Verwey.</p> <p>JMB stated that the marine specialists have given GIBB a list of five or six people they consulted with, some of which were members of the Squid Working Group.</p> <p>JMB responded that she is not sure if it was a consultation or a conversation, but will get back to the specialist.</p>

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No	Name	Comment	Response
		<p>I spoke to Mr Hans Verwey². He is not a specialist on squid and he told the scientist involved that the people they have to speak to is the scientific working group. Jaana you have been misinformed. You spoke to someone that is on the working group, but have not necessarily consulted the working group. There is a difference. Was it a consultation or a conversation?</p>	<p>Post-meeting Note: The marine specialist report (Appendix E15 of the Revised Draft EIR) indicates that the following squid specialists have been consulted in the preparation of this report:</p> <ul style="list-style-type: none"> • Dr. N. Downey, Bayworld Centre for Research and Education; • Ms. J. Mwicigi, Offshore Resources, Fisheries Branch, Department of Agriculture Forestry and Fisheries; • Dr. M. Roberts, Ocean Environment, Biodiversity and Research, Department of Environmental Affairs; and • Dr. H. Verheye, Ocean Environment, Biodiversity and Research, Department of Environmental Affairs. <p>All the above researchers are members of the Squid Working Group.</p> <p>Dr Verheye referred the marine specialist team via email to other members of the Squid Working Group, as he indicated that other members of the group would be better qualified and/or experienced to answer the issues.</p>
59	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg Bay	Regards who owns the EIA process, the EIA procedure is regulated and falls under the NEMA. The NEMA process itself is subject to section 26 of the Constitution. The right to a healthy environment has been enshrined. The point that Dr Abrahams made about local	Comment noted.

² The correct spelling is "Verheye", but for the sake of accuracy of the minutes, the pronunciation used during the meeting has been maintained.

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No	Name	Comment	Response
	resident)	concerns is valid e.g. the case of the petrol pump lady who challenged successfully, even though they tried to put a slap suite on her. She won the slap suite as well and they were forced to pay costs. So there is legal precedence as Dr Abrahams suggested for a challenge to an EIA process. Another example would be Roodefontein in Plettenberg Bay. This entire process is not owned by Eskom or GIBB, it is owned by the public. Rest assured that we are governed by our constitution.	
60	Trudi Malan (Thyspunt Alliance and Cape St Francis Civics Representative)	<p>As a word of warning, go back to your marine ecology report, where it says “no sites of special biological significance occur within the designated area”. I don’t understand how two of the specialist studies can contradict each other. The Marine expert says that long term climate change indicates a decrease in water temperature, yet the oceanographic specialist says exactly the opposite, that temperatures along the coastline will increase.</p> <p>The marine specialists say following: “entrainment is not anticipated to have important ecological impacts”. You should research what has happened in US. Have submitted a paper (Californian Energy Commission) to you on how to determine ecological impacts of entrainment of biological species in the area of a nuclear power station. Don’t tell me that they have studies it at Koeberg, because comparing Koeberg and Thyspunt is like comparing apples and bananas. The US is now looking at phasing</p>	<p>RH replied that all the reports were required to look at the impact of global warming. The marine report however indicated that contradictory to the general trend around the country, there has been a decrease in sea surface temperature at the Thyspunt site. GIBB will check the report again to confirm.</p> <p>Post-meeting Note: The following is a quote from page 33 of the Marine Assessment (Appendix E15 of the Revised Draft EIR) with respect to the Thyspunt site): “ ... long-term climate change induced decreases in sea-surface temperatures along this section of coast (Rouault et al. 2009)”.</p> <p>RH replied that GIBB will take this comment back to the marine specialist. However, the specialists have to base their studies on South African conditions, which is why the marine report has been based largely on the extensive monitoring that has been done at the Koeberg Nuclear Power Station over more than 20 years</p> <p>DN responded that from his understanding there is a</p>

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No	Name	Comment	Response
		<p>out Once Through Cooling systems. Why is Eskom not looking at any other alternatives for cooling their nuclear power station? In the US it is recognised that entrainment has a much bigger impact than previously thought. I have supplied the document to the EAPs twice now.</p> <p>Why in the EIA are there no references made to flight routes, while in the original Nuclear Site Investigation Programme, the following was noted: "All light aircraft must follow the coastline. They are not allowed to fly over the sea within 15 nautical miles from PE and must fly below 500 feet ... a nuclear power station in the Oyster Bay area, would have an inhibiting affect on light aircraft. They would be forced to fly inland, closure to the mountains. It would mean that they would have to increase their altitude to 1500 feet above the mountain ranges and then descend to sea level at PE airport. The traffic controller at the PE airport considered this to be dangerous". Why if the original site investigation pointed this out, is this now no longer a problem anymore?</p> <p>Regarding the marine specialists using long terms studies, he is referencing work done in 1984 and 1988. The 1988 study actually called for more information about the benthic environment. To date it has not been done because it was seen as being too costly. Your marine specialist based most of his information on desktop studies prior to the year 1988. I am warning you again, he should talk to us because we have since had a study done.</p>	<p>move in the USA to do away with once-through cooling systems, but the majority of plants being built are using coastal cooling as is the proposal for Nuclear-1.</p> <p>RH replied that he is unable to answer but will forward the query to the transport specialist and get an answer.</p> <p>Post-meeting Note: The issue will be addressed in a revision of the Traffic Assessment.</p>
61	Rene Royal (St Francis Bay property owner and Enviro Consultant)	<p>Regards the intake and piping. Can we not get a more detailed development plan, showing cross sections of cut and fill areas, and where roads will be, buffer zones on wetlands, where the plant will go etc. It is now a year further down the line. Surely more site specific detailed plans can be provided? Why can we not have a</p>	<p>JMB replied that GIBB has recommended that should authorisation be given, detailed "walkdowns" of site be undertaken by the relevant specialists.</p> <p>DN responded that Eskom has conceptual designs but</p>

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No	Name	Comment	Response
		<p>detailed development plan?</p> <p>But surely we can get a more detailed plan at this stage. The report says we need to keep a 200 m corridor between the high watermark and the power plant. How are you going to achieve this; surely you will need to have fencing, pipes etc traversing this corridor? How do you know you can make this work if you haven't drawn it up on a plan?</p> <p>The cut and fill required to get foundations in also concerns me. Looking at the site, you have to move as far west as you can, where the difference between the rock and sand dune is at least 60m. Have these calculations been taken into account for this western area?</p> <p>For the record, at this stage, one should have a good idea of what constraints are on the site, and hence should have more detailed designs available for a project of this magnitude and cost.</p>	<p>are not able to do detailed site layouts until they have one of the three sites approved, and a footprint area assigned to them. Eskom has been moving the plant around the site many times because of the environmental constraints. The layout will also depend on the technology used, which hasn't been decided. Once Eskom knows what the final conditions are going to be from the EIA, Eskom can then start working.</p> <p>DN replied that Eskom is working on the principle that there will be a temporary cut and fill of about 100 m wide, from the site to the coast, to get in to install the pipe work. Apart from this, the coastal area will be left untouched. A fence will be built around it and Eskom will not be going on the ground outside the fenced area.</p> <p>DN responded that Eskom is constrained by the area of least sensitivity given by the EIA consultants. The short answer is that the off-shore pumping is a function of how sand is removed off-site. The terrace is going to have to be at least 15 m, required in terms of the tsunami study, but it may be as high as 18 m. This is why it is difficult to provide a drawing; it depends on the technology selected, even the tunnelling technology. Any drawings we did give would be confusing because they would change month by month.</p> <p>JMB responded that from an environmental perspective, GIBB has detailed mapping of constraints from specialists, for example the wetlands, flora and fauna etc.</p>

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No	Name	Comment	Response
		<p>So why can they not put a design on it then?</p> <p>But then what if it doesn't work? Why can't we see conceptual designs? At this far along in the process there should be at least a conceptual design.</p>	<p>DH responded that detailed designs cost a lot, and Eskom only has the concept monies approved for this project. Government and Eskom's Board will have to give approval for detailed design. Until Eskom has definite approval for the plant to go ahead, Eskom will not get detailed design approval.</p> <p>DH replied that Eskom has an idea of where the plant can be placed on the site, but the conceptual designs keep changing because of changing environmental constraints.</p> <p>DN added that five different technologies are being considered, with approximately six or seven layouts per technology. Eskom is looking at commercially sensitive information which looks at what is the advantage of one type of technology over another. On a deal of this size, 1% is well over a billion rand. So if Eskom starts showing how we are going to do the layout, the vendors will use that against us. Eskom has at least two solutions for each of the technical problems. For example, if we go offshore through rock, do we go for a lined tunnel or a bare rock tunnel? Do we go for a machined tunnel, a boring machine or drill and blast? There are many options and we can make many of them work. Which one do you want to hear? I can give you 16 different scenarios.</p>
62	Chris Barrett (Thyspunt Alliance and St. Francis Kromme Trust)	Maybe we can minute that we are concerned about how an EIA report can be finalised without knowing these engineering options. Are they going to blast, or bore etc? The EIA has to look at these aspects and they haven't done this as yet.	

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No	Name	Comment	Response
		<p>Jaana has come up with figures as to why Thyspunt is the desired site. She says that these are based on the specialist's get together. Can you tell us whether the specialists considered any change to those rating as a result of the revised EIA and specialist studies?</p> <p>So I take it they were not consulted at all?</p> <p>It is noted in the executive summary that the department in the Eastern Cape, DEDEA, have to comment on the report. When do their comments come into the public domain? Is it before or after it goes to DEA?</p>	<p>JMB replied that the specialists take responsibility for their assessment and reports. They use a methodology that is prescribed by the DEA. GIBB provided the specialists with standard assessment tables to ensure they report in a uniform manner. GIBB had an integration meeting where it, with all the specialists, discussed the significant impacts and recommendations of all the studies, at all the alternative sites. It was discussed which particular studies should be used in the assessment of the preferred site. It is GIBB's responsibility to do the overall assessment. So GIBB's specialists did not get involved in the various tables assessing the preferred site that are in Chapter 9 but these significance ratings for potential impacts come from the specialist reports.</p> <p>JMB responded that that is not what she said. GIBB has not had a follow up integration meeting, but GIBB has interacted extensively with the specialists in terms of their revised reports.</p> <p>JMB responded that during the process, the authorities have a chance to comment on the report. There are minutes in the report of meetings GIBB has had with the DEA&DP⁴, and we have planned a meeting with the DEDEA⁵ (Eastern Cape) next Tuesday (07 June 2011), and those minutes will also be in the report. All comments that have already been provided are included</p>

⁴ Western Cape Department of Environmental Affairs and Development Planning

⁵ Now called "Department of Economic Affairs, Environment and Tourism"

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No	Name	Comment	Response
			in this report. If a commenting authority chooses not to comment, GIBB cannot force them to.
63	Hylton Thorpe (Thyspunt Alliance and St Francis Bay Residents Association)	<p>The problem at Fukushima was that the cooling system failed. I presume a modern PWR system would also require the same level of cooling? If so, can Eskom guarantee that the inlet system in the sea will function perfectly for the lifetime of the plant? If they get blocked or cracked will Thyspunt be just as vulnerable as the Fukushima plant?</p> <p>Will the cooling towers be like those we see at coal fired power stations?</p>	<p>DN responded that Fukushima failed because the electrical supply failed. Some modern systems are passively cooled and do not require a separate cooling system. However if Eskom does not use such passive systems at Thyspunt, then it would be required to build separate cooling towers on site, which will allow Eskom to keep the plant cool without needing the sea e.g. if an oil tanker dumped oil on the beach and clogged the intakes. It will not function at full power, but will be sufficient to keep the plant cool for shut down. The reason for two tunnels is that one of the tunnels can be closed so that maintenance can be done on one while the other one operates.</p> <p>DN responded that they will only be about 5 - 6 m high, and will only be use for cooling the essential systems for shut down, not for normal operations. They will not be visible from outside the power station.</p>
64	Mike Kantey (Coalition Against Nuclear Energy / Plettenberg Bay resident)	<p>A comment was made that someone was cited as being consulted by a specialists, but when that person was asked, they denied having been consulted. I think it was Mr Verwey that was mentioned.</p> <p>Similarly it was reported to me by Prof Johnny Meyers from UCT that his name was used in one of the health specialist reports after only having had a 2-3 minute telephone conversation. The question is put to GIBB; who judges the verity of the specialists reports? Who vets the content and accuracy of those reports? We've heard</p>	JMB responded that GIBB has requested the public to be part of the review process from the beginning. GIBB is very glad that this community has appointed specialists to act on their behalf. That is one mechanism of peer review. GIBB also reviews the specialists reports, but not from a technical point of view, but from a methodology point of view. Earlier on in the EIA process GIBB also had technical peer reviews of all specialist reports undertaken. These are the three types of review that have been done. The DEA has also appointed a

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No	Name	Comment	Response
		<p>of the very big holes in the reports. One begins to question the authority of those specialists. Similarly Dr Reed in Cape Town asked how and by what external peer review process was this process of identifying the three candidate sites conducted. What scientific or mathematical process was used to get this -5, +8? What is that, and does it have status in the peer review literature?</p> <p>When an issue of substance is dealt with in the report, it is always referred elsewhere. At no point do the genuine impacts arise in the report and are given substantive answers which can stand peer review.</p>	<p>panel of independent reviewers, with specific areas of expertise, to review the EIR and its specialist reports.</p>
65	Andre Fouche (St. Francis Bay resident)	<p>When it comes to cost, we score very well here in Thyspunt. It is because we are providing an enormous subsidy in terms of existing infrastructure, e.g. a road which is about to be hijacked, which is getting Eskom in here on the cheap. Eskom mentioned they have budget constraints, and we are being used here unfairly because we have existing infrastructure.</p>	<p>Comment noted.</p>
66	Greg Christy SASMIA (SA Squid Management Industrial Association)	<p>Regarding the process review that has been done by SE Solution, and the recommendation thereon, are you going to be acting on this?</p>	<p>JMB responded that GIBB has already acted on it and hence some of the methodology has changed and Chapter 9 of the EIR has been amended. Please let us know if you feel we have not dealt with everything. GIBB has communicated the peer reviewer's recommendation as well as GIBB's subsequent changes to the DEA.</p>
67	Shaun Thyme	<p>How much will this project cost?</p> <p>You said that it would cost R 5 billion more to build it at the other sites. If you are spending R170 billion, what is an extra R 5 billion?</p>	<p>RH responded that the capital costs of this project is approximately R170 billion.</p> <p>JMB responded that R5 billion sounds like a small sum but it equates to low cost housing in RSA for a whole year.</p>

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No	Name	Comment	Response
68	Trudi Malan (Thyspunt Alliance and Cape St Francis Civics Representative)	<p>Two things we would like to request. Firstly, the EIA should be revised and all references to the European Utility Requirements must be removed, because the European Utility Requirements, the group of companies themselves, state that they are not a statutory body. It is strange that the emergency planning document in this EIA only refers to the EURs. Those EURs are not accepted. I phoned the American Nuclear Regulator. The answer that I was given was that irrespective of whether it is Generation III, or Generation II, the exclusion zone in America will remain 16km and 80km, and they are now looking at revising it. So every study in this EIR that refers to the EURs must be rectified, because those exclusion zones are ungrounded. Finland is busy building Olkiluoto, a Generation III plant, which has a 20km exclusion zone. I also phoned France, and they have defined an internal 5km and a 10km external exclusion zone at the Flamanville plant. So why are we proposing 800 m and 3 km here in RSA? This is unacceptable if it is not in line with world standards.</p> <p>Secondly, I make the request again that we would like to have a focus group meeting with the specialists. I have been told by Deidre that they don't want to expose the specialists to the public again. But if a specialist makes a statement, he must be willing to defend it in front of the world. We are not asking for a public meeting; we are asking for a focus group meeting, like we had last time. Deidre said she would prefer one-on-one, but we don't want that, because the public in this area has the right to know what's going on.</p> <p>When the specialist glibly states that there is no such thing as a debris flow, it has huge implications for the roads that you are going to put in. It is not mentioned anywhere in his reports on Prof Fred</p>	<p>JMB responded that references to the EUR requirements, as has been stated before, are one of the key assumptions of the EIA. If any of the assumptions in the consistent data set or regarding the 800 m and 3 km exclusion zones are incorrect, this EIA would have to be started again.</p> <p>Post-meeting Note: Prof Ellery has not supplied GIBB with a study. He supplied a selection of photographs and referred the EIA Dune Geomorphology specialists to a number of related specialists in the Eastern Cape who may have similar information and evidence. Although Prof. Ellery indicated that a Masters thesis was in preparation on the Oyster Bay dune fields, no such study, or background research for such a study, was supplied, despite attempts by the EIA team to obtain such information.</p>

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No	Name	Comment	Response
		<p>Ellery's study. We never said there were debris flows in only the Sand River; we referred to several other debris flows as well. The fire the Reuben was referring to happened on the other side of the R330 and had no implication on that flood.</p> <p>Lastly we would like to request that a full review of the Economic Impact Assessment and the Agricultural Impact Assessment be done immediately. We have done it; we've taken it to an actuary in JHB who looked at it and there are a huge number of costs that are not included for the Thyspunt site costing, which actually pushes the Thyspunt site to way beyond the costs of any of the other sites. We would prefer that the costs of every mitigation activity be included in the Thyspunt site costs. For example, the costs of the heritage mitigation, including the curation structure which Eskom will build, R25 million worth, should be added to the Economic Impact Assessment. We are asking for this because Arcus GIBB have decided in their weighting that transmission lines and integration gets the number 1 rating, and secondly economic impact. The Agricultural Impact Assessment pushes the Thyspunt site into the preferred site position. That is one of the worst agricultural assessments I have ever seen and we've also taken that to an independent specialist. And it is an embarrassment when this independent specialist phones me back saying that the author of the original agricultural report probably never got up from behind his laptop. You cannot do that to a community. Eskom should bring those scientists here and let us put these questions to them and give this community opportunity to interrogate these people that have decided that we will be the preferred site, in spite of the fact that in all the ratings, this site is the most sensitive site. They have decided this because it suits Eskom because of the existing transmission lines here.</p>	<p>JMB said she replied to Ms Malan's email this afternoon and agrees that the public needs answers. GIBB have asked people who do have questions for specialists to list their issues regarding the studies and then we will consider meetings with specialists. The points about the economic and agricultural studies are noted and will also be considered.</p>


ST. FRANCIS BAY PUBLIC MEETING (31 MAY 2011)			
No	Name	Comment	Response
		We would like a key focus group meeting with the specialist, as per our email, to which we have had no response. This community will take all necessary steps to get what they want. We will not stop before the Constitutional court.	

APPENDIX 2: PRESENTATION OF REVISED DRAFT ENVIRONMENTAL IMPACT REPORT

PLEASE REFER TO THE PRESENTATION MADE AVAILABLE TO PARTICIPANTS ON 21 JUNE 2011 AS PART OF THE DRAFT MINUTES OF THE PUBLIC MEETING HELD ON 31 MAY 2011 AT THE ST. FRANCIS LINKS GOLF CLUB IN ST. FRANCIS BAY.

APPENDIX 3: ATTENDANCE REGISTER

PLEASE FIND THE UPDATED MINUTES ATTACHED.



ESKOM HOLDINGS LIMITED

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR A PROPOSED NUCLEAR POWER STATION AND ASSOCIATED INFRASTRUCTURE

DEA REF. No.:12/12/20/944

Public Meeting: Atlantic Beach Golf Club
Revised Draft Environmental Impact Report

25 May 2011


Slide 1



AGENDA

1. Welcome and introductions
2. Aim and expected outcomes of meeting
3. Development need, authorisation process and project background
4. Presentation of key changes in the Revised Draft EIR
5. Way forward
6. Discussion
7. Closure


Slide 2



PROJECT MOTIVATION

- Increasing demand for electricity (> 3% growth per annum)
- Projected requirement 40 000 MW of new electricity generating capacity over next 20 years
- Government's commitment in approved 2010 Integrated Resources Plan (IRP): 9 600 MW of nuclear power by 2030


Slide 3



FORMS OF POWER GENERATION

- In SA:
 - Base load generation = coal, nuclear and imported hydro power from Cahora Bassa (Mozambique)
 - Peaking and emergency electricity generation = gas turbines, hydroelectric power stations and pumped storage schemes
 - Optimal to build coal plants near to coal fields for efficiencies and cost
 - Nuclear electricity life cycle contributions to greenhouse gas emissions is small compared to coal-fired electricity generation
 - Renewable energy sources such as solar and wind energy have low greenhouse gas emissions


Slide 4



PROPOSED ACTIVITY

- Eskom proposes the construction, operation and decommissioning (after approximately 60 years) of a conventional nuclear power station and associated infrastructure either in the Eastern or Western Cape
- Nuclear power station of Pressurised Water Reactors (PWR) type technology e.g. Koeberg Nuclear Power Station
- The transmission power lines are subject to separate environmental authorisation processes


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AUTHORISATION PROCESS

- Two key authorisations needed from two regulatory authorities:
 - Department of Environmental Affairs (DEA) grants Environmental Authorisation in terms of NEMA, Act No. 107 of 1998
 - National Nuclear Regulator (NNR) grants a Nuclear Installation License in terms of the National Nuclear Regulator Act, Act No. 47 of 1999
- NNR and DEA Co-operative Governance Agreement
- Specialist radiological studies (e.g. Human Health Risk Assessment) included in EIA - DEA will not make a decision on radiological safety


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PROJECT BACKGROUND

- Proposal includes the power station and directly associated infrastructure for single nuclear power station of maximum 4 000 MW
- The proposed nuclear power station will include nuclear reactor, turbine complex, spent fuel, nuclear fuel storage facilities, waste handling facilities, intake and outfall pipelines, desalination plant and auxiliary service infrastructure (e.g. access roads, OCGT plant, HV yard, visitor centre)

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PROJECT BACKGROUND

- Construction period in excess of 9 years, first unit commissioned by 2023 / 2024
- Labour requirements: Construction – 7 700 persons at peak of construction; Operation – 1 400 persons
- Vehicle trips (all vehicles, incl. private vehicles, buses and trucks per day at peak construction - year 6):
 - Duynefontein and Bantamsklip : Approx. 984 morning and 1390 afternoon
 - Thyspunt:
 - Eastern Access Road: 686 morning, 960 afternoon
 - Western Access Road: 288 morning, 430 afternoon

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ENVELOPE OF CRITERIA

- Detailed description of proposed nuclear plant is not available, as preferred supplier has not been selected
- Approach used has been to specify enveloping environmental and other relevant requirements, to which the power station design and placement on site must comply
- Enveloping criteria represent the most conservative parameters associated with the various plant alternatives within the available Generation III PWR technology

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NUCLEAR-1 EMERGENCY PLANNING ZONES

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SITES INVESTIGATED

DUYNEFONTEIN

- Adjacent to Koeberg NPS
- Approx 27 km N of Cape Town city centre

THYSPUNT

- Within the Cadadu District Municipality
- Approx 80 km W of Port Elizabeth with Humansdorp to the N
- Approx 5.5 km E of Oyster Bay

BANTAMSKLIP

- Within the Overberg District Municipality
- Approx 7.5 km E of Pearly Beach
- Approx 50 km NW of Cape Agulhas

LEGEND

- TOWNS
- ▲ Nuclear Power Station
- Potential Nuclear Sites

DUYNEFONTEIN LOCALITY

DUYNEFONTEIN LOCALITY



BANTAMSKLIP LOCALITY



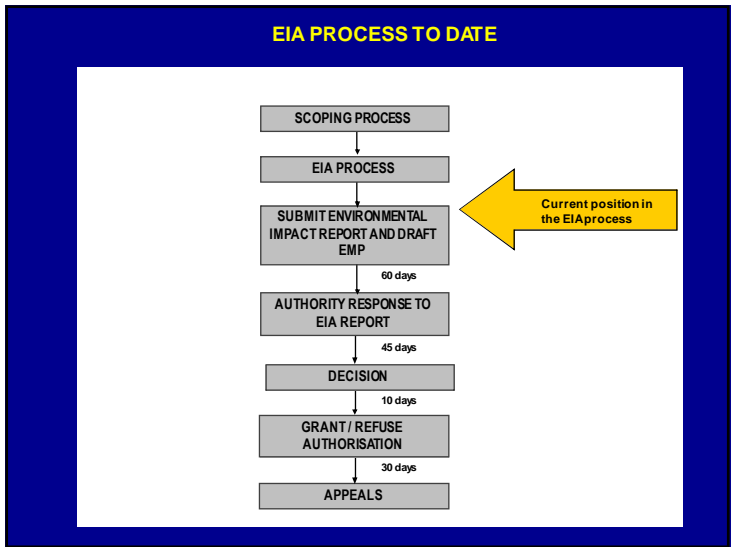
THYSPUNT LOCALITY



WHERE WE ARE NOW



- Draft EIR published for an extended public review period: March to June 2010
- Based on comments and concerns some specialist reports revised
- Revised Draft EIR now available for public comment
- Presentation focuses on the key changes between the original Draft EIR and Revised Draft EIR



PUBLIC PARTICIPATION

- Advertisements in 14 newspapers at national, regional and local levels from 3 to 8 May 2011
- Six public meetings: 23 May to 2 June 2011
- Seven public open houses: 23 May to 2 June 2011
- Letters (English, Afrikaans and Xhosa) to registered I&APs regarding public meetings, open houses and comment period
- Thirty five public venues where copies of the Revised Draft EIR are available for review
- Public Participation Process office

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KEY CHANGES TO REVISED DRAFT EIR

- Completion of Groundwater Monitoring Study undertaken from January to December 2010
- Debris flow assessment at the Thyspunt site
- Completion of a waste specialist assessment covering general, hazardous and radioactive waste
- Identification of an alternative route around Humansdorp for heavy construction vehicles
- Heritage assessment: Thyspunt could be regarded as a "Cultural Landscape" as defined by the UNESCO World Heritage Convention
- Consideration of two cooling water outflow options at Thyspunt: near-shore and off-shore
- Assessment of impact of the disposal of spoil on surf breaks near Thyspunt

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KEY CHANGES TO REVISED DRAFT EIR

- Photomontage from Rebelsrus was prepared as part of the Visual Assessment
- Plans for the Pebble Bed Modular Reactor Demonstration Power Plant at Duynefontein have been abandoned
- Areas of the sites and footprint of a Nuclear Power Station on each sites have been revised as follows:

Site	Site Area (ha)	Recommended Footprint area (ha)
Duynefontein	2 849	293
Bantamsklip	1 708	172
Thyspunt	1 638	174

- EMP is site-specific to Thyspunt


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SPECIALIST STUDIES

- **Physical Impacts**
 - Geology and geological risk
 - Seismic risk
 - Geotechnical suitability
 - Geo-hydrology
 - Hydrology
 - **Debris flow**
 - Freshwater Supply
 - Assessment of the 1:100 year floodline
 - **Oceanographic conditions and surf breaks**

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SPECIALIST STUDIES

- **Biophysical Impacts**
 - Dune geomorphology
 - Flora
 - Fauna (invertebrate and vertebrate)
 - **Freshwater Ecosystems (wetlands)**
 - **Marine biology**
 - Air quality


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SPECIALIST STUDIES

- **Socio-economic Impacts**
 - Social
 - Economic
 - Noise
 - Visual
 - **Heritage and cultural resources**
 - **Waste**
 - Tourism
 - Agriculture
 - **Transport**

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KEY SPECIALIST STUDY AMENDMENTS

Wetlands

- Ground water monitoring undertaken Jan – Dec 2010
- Effects on Langefonteinvelei at **Thyspunt** can be mitigated by:
 - Increases confidence in wetland mitigation
 - Langefonteinvelei fed by groundwater from mobile dunes to the north
 - Southern portion of the Langefonteinvelei and the western section of the northern half are perched above the groundwater table of the Algoa Aquifer
 - Groundwater drawdown of the Algoa Aquifer caused by abstraction or dewatering to below these parts of the wetland is therefore unlikely to have any effect on wetland hydrology
 - Cut-off walls around the drawdown area during construction will be effective mitigation
 - Extension of conserved wetland area
 - Implementation of dewatering design for controlled distribution of extracted groundwater back into the aquifer
 - Additional monitoring to inform final placement of the nuclear power station footprint

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KEY SPECIALIST STUDY AMENDMENTS

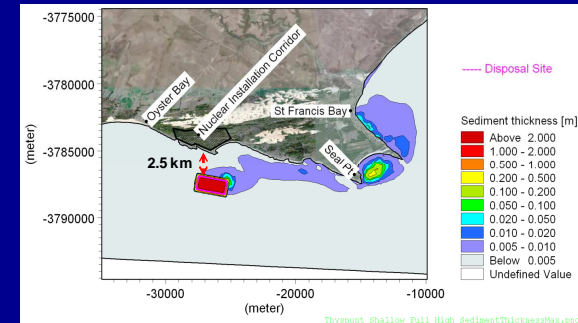
Oceanographic Conditions and Surf Breaks

- Deep offshore spoil disposal remains preferred alternative at all sites
- Minimal impacts of disposal on surf breaks at Thyspunt assuming recommended deep marine spoil disposal site is used
- Sand movement modelling indicates:
 - Increased sediment at Seal Point may affect manner in which wave breaks
 - No increased sediment thickness at St. Francis Bay
 - No impact at Bruce's Beauties
 - Spoil would not reach as far north as Jeffrey's Bay = no impact on surf conditions

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KEY SPECIALIST STUDY AMENDMENTS

Oceanographic Conditions and Surf Breaks cont.

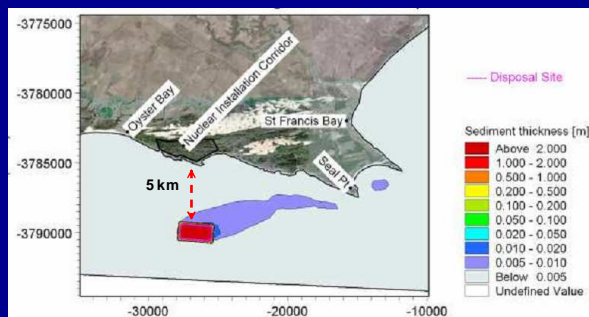


Maximum sediment thickness at Thyspunt 6-10 years after disposal
(shallow disposal site, full sediment volume, high discharge rate)

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KEY SPECIALIST STUDY AMENDMENTS

Oceanographic Conditions and Surf Breaks cont.



Maximum sediment thickness at Thyspunt 6-10 years after disposal
(**RECOMMENDED** deep disposal site, full sediment volume, high discharge rate)

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KEY SPECIALIST STUDY AMENDMENTS

Debris Flow

- New assessment undertaken of the risk of debris flows, liquefaction and flooding of the R330 road at Thyspunt
- Conclusions:
 - Slopes not conducive to debris flow and no evidence in Thyspunt area = no risk
 - Footprint south of mobile dune fields and no evidence along eastern or western access roads = minimal risk.
 - Culverts beneath R330 sufficient to handle most flooding events. Repair of wing walls recommended
 - Nov 2007 flood = 1:200 year flood event preceded by high rainfall events and fire, which reduced infiltration and increased runoff

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KEY SPECIALIST STUDY AMENDMENTS

Marine Ecology

- Heating of seawater mitigated by:
 - Tunnelled release system, multiple release points
 - Releasing water above sea bottom at high flow rate maximise mixing with surrounding cool water
- Impact of spoil disposal and heating of sea water on chokka squid is minimal in context of its large spawning area
- Area affected by increased water temperature <1% of coastal spawning ground
- Small portion of squid catches taken in area affected by spoil
- 5m shallow inshore cooling water outflow option recommended

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KEY SPECIALIST STUDY AMENDMENTS

Transport

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KEY SPECIALIST STUDY AMENDMENTS

Figure 10.1d
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KEY SPECIALIST STUDY AMENDMENTS

Heritage and Cultural Resources

- Significant heritage resources at all three sites
- Thyspunt could be regarded as a Cultural Landscape (in terms of UNESCO World Heritage Convention) due to scenic quality of landscape, combined with quantity and quality of heritage resources

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KEY SPECIALIST STUDY AMENDMENTS

Waste

- Assessment covers general, hazardous (but non-radioactive) and radioactive waste
- Sufficient capacity at waste sites for non radioactive wastes – long term agreements needed to secure disposal space
- Recycling: radioactive and non-radioactive wastes must be separated. Recycling potential to be closely examined - may be inefficient and expensive due to challenge of separating the radioactive fraction

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KEY SPECIALIST STUDY AMENDMENTS

Radioactive waste generated:

- Low-level radioactive waste: \pm 940 drums (50 – 100 kg per drum) per year
- Intermediate-level waste: \pm 160 x 6.3 ton concrete drums per year
- High-level waste: \pm 1 880 tons of spent fuel over life of power station
- National Radioactive Waste Management Institute established by the National Radioactive Waste Management Institute Act (Act No. 53 of 2008)
- Radioactive waste subject to NNR legislation

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KEY SPECIALIST STUDY AMENDMENTS

- Sufficient capacity at Vaalputs Waste Disposal Site (N Cape) for additional low-level and intermediate-level radioactive wastes
- Vaalputs = only authorised facility in SA for Low-level and Intermediate-level radioactive waste
- High-level radioactive waste to be stored on-site (only alternative in SA; common practice internationally). Waste contained within protected area in line with management practices approved by NNR

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KEY SPECIALIST STUDY AMENDMENTS

Visual

- Photomontage from Rebelsrus Nature Reserve (3 km from the site)



Photomontage view of Nucleon-1 from Rebelsrus Nature Reserve

- Visual impacts during the construction, operation and decommissioning at all sites range from low to medium significance

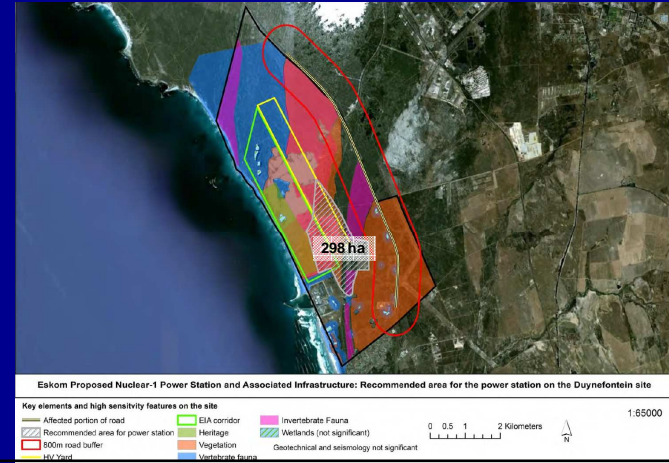


NUCLEAR PLANT LAYOUT

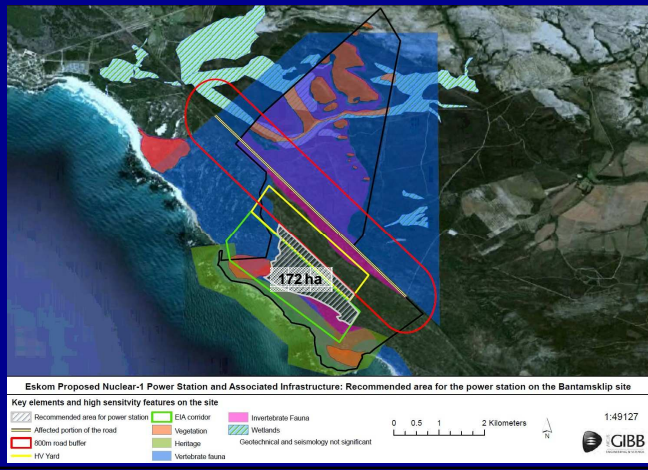
- Sensitivity maps of all specialist studies integrated and composite maps produced indicating areas of high environmental suitability for each alternative site
- Finalisation of the site layout plans will require detailed investigations, in conjunction with relevant qualified and experienced specialists

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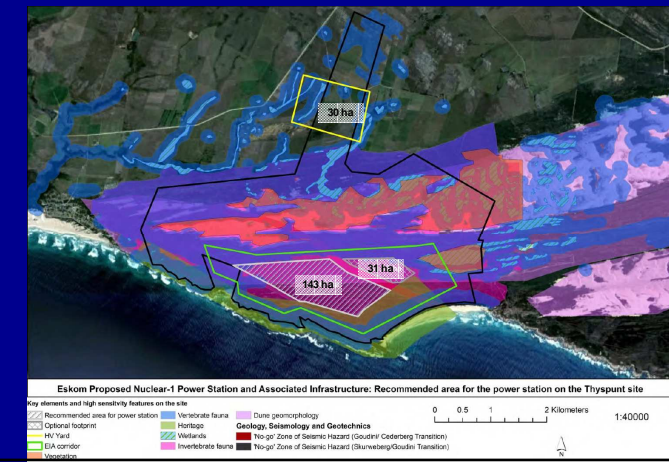
SITE SENSITIVITY: DUYNEFONTEIN – RECOMMENDED FOOTPRINT



SITE SENSITIVITY: RECOMMENDED FOOTPRINT



SITE SENSITIVITY: THYSPUNT – RECOMMENDED FOOTPRINT





SITE SELECTION

- Site selection was based on:
 - Results of independent specialist studies: the significance of potential impacts, with mitigation, at each of the alternative sites
 - An integration workshop, involving all specialists, where potential impacts and ranking of the sites was agreed
 - Costs
 - Technical requirements (e.g. transmission integration, seismic suitability)


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SITE SELECTION

- 256 impacts identified
- Following impacts filtered out:
 - Impacts of low and low-medium significance (e.g. geotechnical suitability, hydrology, geohydrology)
 - Impacts that have the same significance at all sites (e.g. most visual and social impacts)
- The key factors for decision-making:
 - Transmission integration
 - Seismic suitability
 - Impacts on dune geomorphology
 - Impacts on wetlands
 - Potential conservation benefits
 - Impacts on heritage resources
 - Economic impacts
 - Impacts on invertebrate fauna
 - Impacts on vertebrate fauna


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SITE SELECTION

- Each of the factors was given a score in terms of their importance to the decision making process
- A score was also given to the significance of the impacts (positive / negative and low to high significance)
- Scores for each site were then added together to give following scores for the sites:
 - Duynfontein: -8
 - Bantamsklip: -8
 - Thyspunt: +5

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SITE SELECTION

- Thyspunt has the highest relative score which indicates that it is the preferred site from an environmental and technical perspective
- Conclusion tested using qualitative comparison – end result remained the same
- Noted that the overall Thyspunt site is more sensitive from perspective of heritage resources and some biophysical impacts
- Recommended site is dependent on confirmation from archaeological investigations if excavation approval received from SAHRA

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WAY FORWARD

- Comment Period – 9 May to 7 August (90 days)
- Websites:
 - www.eskom.co.za/eia under the "Nuclear 1-Generation" link
 - <http://projects.gibb.co.za> under the "Nuclear 1 EIA" link
- Executive Summaries (EIR and all Specialist Assessments) are also available in Afrikaans and Xhosa
- Public Participation Process Office has changed to:
Arcus GIBB (Pty) Ltd Public Participation Officer
PO Box 3965
Cape Town 8000
Tel: 021 469 9180
Fax: 021 424 5571
E-mail: nuclear-1@gibb.co.za / nuclear1@gibb.co.za
- Submission of Final EIR to authorities – late 2011
- Decision / Appeal opportunity

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THANK YOU

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