

ENVIRONMENTAL IMPACT ASSESSMENT (EIA)**EIA: 12/12/20/944****FOR THE PROPOSED ESKOM NUCLEAR POWER STATION AND
ASSOCIATED INFRASTRUCTURE****RECORD OF PUBLIC MEETINGS**

AREA	DATE	VENUE	TIME
Northern Cape, Houthoop	06 June 2007	Houthoop Shed	10:00 – 12:30
Northern Cape, Koingnaas	06 June 2007	Castle Hill, Koingnaas	15:00 – 17:00
Northern Cape, Kleinsee	06 June 2007	Blue Diamond Hall, Kleinsee	18:30 – 20:00
Western Cape, Atlantis	08 June 2007	Saxonsea Hall, Atlantis	09:00 – 11:30
Western Cape, Duynfontein	08 June 2007	Atlantic Beach Golf Estate	12:30 – 15:00
Western Cape, Milnerton	08 June 2007	Summergreens Hall, Milnerton	16:00 – 18:30
Eastern Cape, Oyster Bay	11 June 2007	Oyster Bay Hall, Oyster Bay	11:00 – 14:00
Eastern Cape, Humansdorp	11 June 2007	Humansdorp Community Centre	15:00 – 18:00
Eastern Cape, Jeffrey's Bay	12 June 2007	Jeffrey's Bay Hall	10:00 – 13:00
Western Cape, Gansbaai	13 June 2007	Pretoria Saal, Gaansbaai	09:00 – 12:00
Western Cape, Pearly Beach	13 June 2007	Pearly Beach Club	13:00 – 16:00
Western Cape, Elim	13 June 2007	Elim Church Hall	17:00 – 20:00
Northern Cape, Houthoop	11 July 2007	Houthoop Shed	10:00 – 12:30
Northern Cape, Komaggas	11 July 2007	Komaggas Community Hall	14:00 – 17:00
Eastern Cape, St Francis Bay	25 July 2007	St Francis Links	18:00 – 21:00
Eastern Cape, Sea Vista	26 July 2007	Sea Vista Community Hall	18:00 – 21:00
Western Cape, Atlantis	06 Aug. 2007	Thusong Atlantis Service Centre	18:00 – 21:00
Western Cape, Milnerton	07 Aug. 2007	Milnerton Golf Club	18:00 – 21:00
Western Cape, Hermanus	13 Aug. 2007	Overstrand Auditorium	18:00 – 21:00
Western Cape, Bredasdorp	14 Aug. 2007	Struisbaai Com. Hall	18:00 – 21:00

PREFACE

The Independent EIA Project Team (“the EIA team”) wishes to thank the many Interested and Affected Parties and representatives of various organisations and sectors, who attended the notification round of public meetings for this environmental impact assessment.

Notes:

- a) Due to bad weather and inaccessibility of the area, the meeting at Houthoop Shed, Northern Cape, scheduled for 6 June 2007 was cancelled. This meeting was replaced by a meeting on 11 July 2007 at the same venue.
- b) At Atlantis, the attendance at the meeting scheduled for 8 June 2007 was poor. Consequently the EIA Team scheduled an additional meeting on 06 August 2007 at an alternative venue in Atlantis.
- c) At Milnerton, at the meeting of 8 June 2007, there was a request that another meeting be held in the evening to accommodate other Interested and Affected Parties. This additional meeting was held on 07 August 2007 at the Milnerton Golf Course.
- d) Although meetings in Atlantis and Milnerton were repeated, the attendance was only a slight improvement.

The presentations at the meetings were uniform in nature and, therefore, one set of proceedings has been prepared. A summary of the presentations is provided in Appendix 2. Also, stakeholders raised a variety of issues at the meetings and for ease of reference; these have been captured in tables in Appendix 1, providing stakeholders from the meetings an opportunity to cross-reference issues raised at the respective meetings.

Should participants who attended the meetings require any changes to these proceedings, please notify the Public Participation Office (ACER Africa [ACER]) in writing within two weeks of receipt.

In some instances the name and organisation of the stakeholder were not provided, and hence, these details are not captured in these proceedings. Should you as a participant recognise your input, it would be greatly appreciated if you could provide ACER with your details.

There are three sets of minutes:

- Set 1 - Public Meetings.
- Set 2 - Key Stakeholder Workshops (per province, i.e. Eastern, Northern and Western Cape provinces).
- Set 3 – Various Focus Group Meetings (as requested by stakeholders)

All minutes are part of the public record and have been placed on the website www.eskom.co.za/EIA under the “Nuclear1” link. Should you wish to receive a specific set, kindly request them from the Public Participation Office

These minutes have been:

Compiled by: ACER (Africa) Environmental Management Consultants
Reviewed by: ARCUS GIBB (Pty) Ltd
Accepted by: Eskom Holdings Limited, Generation and Enterprises Divisions

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1. ATTENDANCE

1.1 Attendance - Interested and Affected Parties

Representation at these public meetings was mainly from the following groups:

- Local Government
- Provincial Government
- Environmental Authorities
- Conservation Interest Groups
- Environmental Interest Groups
- Ratepayers Associations
- Farmers Associations
- Tourism Associations
- Industry
- Estate Agents
- Media
- Non-Governmental Organisations
- Landowners
- Individuals (not affiliated with specific organisations or sectors)

Attendance registers are provided in Appendix 3.

1.2 Attendance – Eskom Holdings Limited

At the various Public Meetings, the Eskom attendance was from amongst the following:

Name	Eskom Division	Position/Role
Mr Tony Stott	Enterprises Division Nuclear Programmes	Senior Manager (Nuclear Stakeholder Management)
Ms Deidre Herbst	Generation Division Environmental Management	Environmental Manager
Mr Tyrone Singleton	Generation Division Environmental Management	Chief Environmentalist
Mr Dave Wynne	Generation Division Nuclear Portfolio	Corporate Specialist (Project Management)
Mr Mervin Theron	Enterprises Division Project Development	Chief Advisor / Project Manager
Mr Gert Greeff	Generation Division Koeberg Nuclear Power Station	Manager, Eskom Nuclear Sites
Ms Carin de Villiers	Generation Division Koeberg Nuclear Power Station	Senior Government and Media Liaison Practitioner
Mr Jongi Dyabaza	Generation Division Koeberg Nuclear Power Station	Stakeholder Management Practitioner
Ms Jenny Lekganyane	Corporate Division Legal Department	Chief Legal Advisor
Mr Dave West	Corporate Division Audit Department	Internal Auditor
Ms Lucette Blom	Corporate Division Audit Department	Internal Auditor

1.3 Attendance – Independent EIA Consulting Team

Name	Organisation	Role
Ms Jaana-Maria Ball	ARCUS GIBB (Pty) Ltd	EIA Project Manager
Mr Neal Carter	ARCUS GIBB (Pty) Ltd	Facilitator
Ms Bongji Shinga	ACER (Africa)	Public Participation Consultant
Ms Karin Bowler	Karin Bowler Enterprises	Facilitator

2. WELCOME, INTRODUCTIONS AND OBJECTIVES OF MEETINGS

2.1 Introductory Remarks

The facilitator - Ms Karin Bowler for most of the meetings, Mr Neal Carter for the Gansbaai, Pearly Beach, Elim and Milnerton (7 August 2007) meetings - welcomed all those present and thanked them for their participation in the meeting. The facilitator then introduced the Independent EIA Project Team ("the EIA team") members and the Eskom personnel present at the meeting.

2.2 Objectives of the meetings

By way of introduction, the Facilitator stated that these meetings were intended to announce the Environmental Impact Assessment (EIA) for the proposed Eskom Nuclear Power Station and associated infrastructure, and thus constituted the first engagement as part of the EIA process. Hence this was the first opportunity to introduce the EIA project, and the EIA Team and people that Interested and Affected Parties (I&APs) will need to engage with during the EIA process.

The primary objectives of the meetings were as follows:

- To introduce and provide Interested and Affected Parties (I&APs) with an overview of the proposed development by Eskom and to introduce the EIA Team and the relevant Eskom personnel.
- To provide I&APs with an overview of the EIA process including opportunities available to I&APs at the various stages of the process.
- To provide an opportunity for I&APs to comment, ask questions and raise issues to be addressed by Eskom and the EIA Team. This includes identification of issues and concerns for inclusion in the Draft Scoping Report.
- To undertake constructive debate and discussion.

3. MEETING PROCEDURES

The Facilitator presented procedures to assist with smooth running of the meetings. The Facilitator further encouraged all present to make use of the opportunities provided and make positive contributions. This included making use of rights enshrined in the Constitution, and the responsibilities and conditions attached to those constitutional rights.

4. ESKOM'S STRATEGIC OVERVIEW - PRESENTATION

The summary of the information presented is provided below. The issues raised and discussed following each presentation are summarised in Appendix 1.

Mr Tony Stott, Senior Manager, Nuclear Stakeholder Management, Eskom Enterprises Division (or alternatively Ms Deidre Herbst, Environmental Manager, Eskom Generation Division) presented a strategic overview. The following sections were covered in the presentation:

- Overview of electricity demand and supply in South Africa
- Primary energy resources and technological options for South Africa
- Major strategic drivers for nuclear power
- The proposed Nuclear-1 conventional nuclear power station

4.1 Overview of electricity demand and supply in South Africa

- From the 1980s through to early 2000s, the growth in demand for electricity followed a trend averaging between 2 and 3 % per annum. However, over the past few years the annual growth in peak demand for electricity has been higher than an average of 4% per annum.
- The Government's Accelerated and Shared Growth Initiative for South Africa (ASGISA) is aiming for the economy to grow by approximately 6% per annum into the future. An annual growth of 6% in the economy implies an annual growth of approximately 4% in the demand for electricity.
- Eskom planning into the future is therefore based on an average annual growth rate in the demand for electricity capacity of 4%.
- In 1980, the demand for electricity, the peak demand, was below 20 000 MW. The peak demand has continued to increase compared to previous years; this year the peak demand was just over 36 000 MW (the peak demand was recorded on 5 July 2007 at 36513 MW).
- At 4% annual growth in the demand for electricity, the peak demand will increase to just below 80 000 MW by 2025.
- Eskom's net electricity generating capacity is currently just below 40 000 MW. In addition Eskom imports approximately 1000 - 1500 MW of electricity capacity from Cahora Bassa in Mozambique (less when maintenance or repairs are being undertaken at Cahora Bassa or on the transmission lines between Cahora Bassa and South Africa). Eskom will thus need to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in 2025.
- Power stations do not last forever. They are maintained, and components can be repaired or replaced when necessary, but eventually it is no longer economically viable to operate, and it becomes more cost effective to shut down the old power station and construct a new power station. Hence in addition to meeting the projected demand, Eskom also needs to prepare for the replacement of power stations that will reach the end of their economic life span after approximately 2025.
- The challenge is to correctly match the supply and demand; economic growth and development will be hampered if the supply of electricity does not match the demand.
- Choosing the best options for electricity generation and the planning for the construction of new power stations must also consider the different types of power stations that are required and their cost (which impacts on the price of electricity), the time taken to construct them, the environmental considerations and their operating characteristics. The total demand for

electricity in South Africa is not constant; rather it varies on a 24-hour basis, with peak demand in the early morning and in the late afternoon / early evening. To optimally meet the total demand, it is thus necessary to have both “base load” electricity generating power stations designed specifically to generate electricity continuously at all hours, as well as “peaking” electricity generating power stations designed specifically to generate electricity only during the periods of peak demand. This is achieved by harnessing different energy sources and applying different technologies.

- In South Africa, coal and nuclear power is used for base load electricity generation, while the open cycle gas turbines (using liquid fuel, such as diesel), the two small hydro electric power stations on the Orange River, and pumped storage schemes, are used for peaking and emergency electricity generation.
- In October 2004, the South African Cabinet took the decision that Eskom will be responsible for at least 70% of the new electricity generating capacity that is required, with Independent Power Producers being responsible for the remaining 30%.

4.2 Primary energy resources and technological options for South Africa

- **Coal** is the primary energy source for electricity generation in South Africa - approximately 90% of electricity generation in South Africa is by coal-fired power stations. Eskom coal-fired power stations are specifically designed to burn low-grade coal, which otherwise would not be utilised and would be a waste product from the coal mines. South Africa has significant coal resources and hence coal will continue to be used in the future. However using coal to generate electricity also has its disadvantages: the transportation of coal is very expensive and hence coal-fired power stations are located as close to the mines as possible to maintain their economic viability - this implies that coal-fired power stations are located inland and hence, if wet-cooled, use considerable quantities of scarce water resources, or if dry-cooled are less efficient and still use quantities (although much less) of scarce water resources; the burning of coal gives rise to pollutants – in particular the burning of coal gives rise to emissions of carbon dioxide (CO₂), a greenhouse gas, which contributes to climate change. Eskom continues to monitor and investigate the progress internationally with the commercialisation of more efficient coal-fired power stations. Eskom is also researching underground coal gasification as a means to generate electricity from coal – a pilot facility is being established in Mpumalanga Province near the Majuba coal-fired power station. Eskom also monitors and participates in international forums investigating the possibility of capturing and storing carbon dioxide emissions.
- **Gas:** South Africa’s indigenous resources of natural gas are currently not available in sufficient quantities to fuel power stations – hence the South African Open Cycle Gas Turbines use liquid fuel (e.g. diesel). The Open Cycle Gas Turbines are used to help meet the demand for electricity during peak and emergency demand situations since they are very expensive to operate (the diesel price is linked to the dollar price of oil and also is subject to foreign exchange rates). In 2006/7 Eskom constructed two new Open Cycle Gas Turbines in the Western Cape Province, viz. Ankerlig power station at Atlantis, and Gourikwa power station at Mossel Bay, with a combined capacity of just over 1000 MW. Eskom has submitted the necessary environmental and other applications to extend these two power stations by an additional total 1000 MW. Eskom is continuing to investigate being able to access natural gas from the Kudu gas fields in Namibia, the Ibhubesi gas fields off the west coast of South Africa, the gas fields in Mozambique and liquid natural gas from international markets, to generate electricity in combined cycle gas turbine power plants. If sufficient natural gas becomes economically available (the gas price is also linked to oil prices and subject to foreign exchange

rates), the possibility exists to convert the new Open Cycle Gas Turbines to combined cycle gas turbines.

- **Renewable energy: Hydro power:** South Africa is a water scarce country and does not have large rivers for hydro power. Eskom has two hydro power stations on the Orange River, the 360 MW (4 units each 90 MW) Gariep power station and the 240 MW (2 units each 120 MW) Vanderkloof power station. The use of these two stations is restricted to peak and emergency electricity demand situations, subject to the availability of water in the Gariep and Vanderkloof dams. Investigations are in progress for an upgrade at Gariep power station.
Wind energy: An EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. Since the wind does not blow continuously, and since, apart from pumped storage schemes which use more electricity than what they produce, large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation.
- **Solar energy:** An EIA has been undertaken and an environmental impact report has been submitted to the Department of Environmental Affairs and Tourism for a research and demonstration project for a concentrated solar thermal plant of 100 MW near Upington. Mirrors reflect the sunlight onto a central point. The project aims to research and demonstrate the heating of a molten salt at the central point in an intermediate step before boiling water and creating steam to drive a turbine and generate electricity. In principle the molten salt would retain its heat and hence be able to boil water and create steam after the sun is no longer shining. If all the necessary approvals are obtained, Eskom could start construction of the solar thermal plant in 2008/9. If constructed, it would be the biggest facility of its design in the world.
- **Efficiency programme:** Eskom is continuing to investigate ways to improve the use of electricity. Eskom has a demand-side management and energy efficiency programme target of 3 000 MW by 2012 and 8 000 MW by 2025. 8 000 MW is equivalent to avoiding the construction of two large coal-fired power stations.
- **Importing electricity via the transmission network:** Eskom already imports electricity from neighbouring countries, primarily from the Cahora Bassa Hydro Electric Power Station in the northern part of Mozambique. Between 1000 and 1500 MW hydro power capacity is imported from Cahora Bassa, although some of this (about 300 MW) is sent back to the Southern part of Mozambique via South Africa. Eskom is participating in a project to harness the hydro power potential of the Inga Falls on the Congo River in the Democratic Republic of Congo. This is a long term project which includes the construction of a very long transmission line from the DRC, through Angola and Namibia into South Africa and Botswana. So as not to become over-dependent on our neighbouring countries for electricity, Eskom will limit the import of electricity.
- **Nuclear:** South Africa is rich in uranium resources which can be used to generate electricity in nuclear power stations. Eskom is thus investigating expanding its nuclear power generation capacity to help meet the future demand for electricity.

It is Eskom's stance that ALL of these primary energy resources need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.

4.3 Major strategic drivers for Nuclear

- Eskom needs new base load electricity generating capacity – only coal and nuclear power can at this stage provide base load capacity
- Climate Change and the contribution made by the burning of fossil fuels such as coal to this phenomenon are gaining an increasing amount of attention, both nationally and internationally. South Africa needs to reduce its emissions of greenhouse gases and nuclear power is one of the options for Eskom to achieve this objective.
- One advantage of nuclear power stations is that, unlike coal-fired power stations, they can be cost-effectively located away from the source of fuel, and hence can be located near the main economic growth centres. Currently, there is significant growth along the coast line (the Cape Town region in the Western Cape, the Port Elizabeth region in the Eastern Cape), and in the Upington/Sishen region in the Northern Cape. Locating power stations (of any kind) near the economic growth centres reduces the amount of electricity that has to be transmitted through the transmission network system and hence reduces the electricity losses incurred when transmitting electricity along long transmission lines.
- All thermal power stations need cooling of the steam used to drive the turbines. If located on the coast, they can use seawater for cooling and not scarce fresh water resources.
- If a coal-fired power station is located on the coast, Eskom would need to transport coal from the coal-fields in Mpumalanga or Limpopo Provinces to the areas where the power station is located. This is not economically viable. A large coal-fired power station of 3600 MW requires approximately 40 000 tons of coal per day when operating at full power. Assuming transportation by rail, that each train wagon can take a load of 80 tonnes, and that each train has 50 wagons, then 10 train loads of coal would need to travel from the coal fields and be off-loaded at the power station every day.
- A nuclear power reactor only requires to be refuelled once every 18 months with approximately 25 – 40 tonnes of fuel, depending on the size of the reactor. The fuel is easily transported to the nuclear power station from the factory where it is manufactured.
- South Africa has more than sufficient uranium deposits to meet the requirements for fuel for the proposed nuclear power station over its entire lifetime.

- ❖ Eskom requires 40 000 megawatts (MW) of additional electricity generating capacity to be constructed in phases over the next 20 years.
- ❖ The Eskom Board has approved the **investigation** of up to 20 000 MW of nuclear capacity by 2025. The other 20 000 MW will come out of other generation mixes, e.g. renewables, coal, gas etc.
- ❖ Eskom's target for savings associated with demand side management is 3 000 MW by 2012 and 8 000 MW by 2025. 8 000 MW is equivalent to two coal-fired power stations.

4.4 Nuclear Technology Selection

- Koeberg Nuclear Power Station has been safely operating for the past 23 years. The two nuclear reactors at Koeberg are the Pressurised Water Reactor (PWR) technology.
- Eskom, the National Nuclear Regulator (NNR), and the local suppliers of maintenance services are familiar with PWR technology.
- Eskom investigated the different nuclear power station technologies available in the world for large scale power stations and has deemed it prudent to continue with the PWR technology.
- The PWR technology for the proposed new nuclear power station would be a more advanced form compared to the technology used in the existing Koeberg Power Station.

4.5 Overview of the proposed nuclear power station infrastructure

A picture of a model of the Koeberg Nuclear Power Station and an aerial photograph of Koeberg were used to provide an overview of the infrastructure that would be required for the proposed nuclear power station. Some of the key features include the following characteristics:

- The footprint of the proposed nuclear power station is approximately 31 hectares.
- There are turbines, intake basin (uses sea water for cooling), administration buildings, transmission yard, engineering building, turbine hall (which consists of a turbine and generator), mechanical workshops, etc.
- Main security fence.
- Restricted area, which require permits to access.
- The conservation area, which is open to the public for recreational activities.

4.6 Regulatory Processes (associated with the nuclear power station)

- The Department of Environmental Affairs and Tourism (DEAT) is the lead environmental authority for the EIA for the proposed power station. Provincial environmental departments of the Northern, Western and Eastern Cape are commenting authorities. Five different sites are being investigated as part of the EIA.
- Transmission lines are required between the proposed power station and the existing national transmission network to enable the electricity generated by the proposed power station to be fed into the national transmission network. Separate EIAs will be undertaken for the proposed transmission lines. The EIAs for the proposed transmission lines will be co-ordinated to align as close as possible to the EIA for the proposed nuclear power station.
- An application for a nuclear installation licence will be submitted to the National Nuclear Regulator (NNR) in terms of the requirements of the National Nuclear Regulator Act. The NNR Act provides for the holding of public hearings.
- The NNR and DEAT will ensure that there is synergy between the Nuclear Licensing Process and Environmental Authorisation Process.
- An application to the National Energy Regulator of South Africa (NERSA) for an electricity generation licence will be made at the appropriate time.
- Zoning permits, water permits, disposal of domestic waste, and other authorisations will also be required. The respective applications to the relevant Authorities will be made at the appropriate time.

If all necessary approvals are obtained, construction could start in 2009 or early 2010 with the first unit coming into operation in late 2016.

5. ENVIRONMENTAL IMPACT ASSESSMENT PROCESS - PRESENTATION

The outline of the information presented is provided below. The issues raised and discussed following each presentation are summarised in Appendix 1.

Ms Jaana-Maria Ball, EIA Project Manager, ARCUS GIBB (Pty) Ltd presented an overview of the Environmental Assessment Process. The following sections were covered in her presentation:

- Purpose of the EIA Process
- Framework for the EIA Process
- Responsibilities of the various EIA role players
- Environmental Impact Assessment
 - Scoping Phase
 - Impact Assessment
- Potential Environmental Impacts
- Public Participation Process

6. WAY FORWARD AND CLOSING REMARKS

6.1 Facilitators concluding remarks

The facilitator stated that all issues raised had been captured and will be included in the minutes, which will be made available to stakeholders. The facilitator also reminded all stakeholders that all comments should be submitted to ACER using the various means available:

Tel: 086 010 4958

Fax: 035 340 2232

Email: nuclear1@acerafrica.co.za

Postal address: PO Box 503, Mtunzini, 3867

Website: www.eskom.co.za/eia on the "Nuclear 1" link

6.2 Submission of initial comments on Scoping

The original deadline date for the submission of comments during scoping was 20 July 2007.

Due to the large public interest shown in the proposed project, the initial comment period was extended by an additional five (5) weeks making the closing date 28 August 2007. All I&APs were requested to use the additional comment period to submit any or additional comments to ACER.

6.3 End of comment period and way forward

At the end of the comment period a Draft Scoping Report (DSR) will be prepared and made available to the public for review and comment. The DSR will be accompanied by an Issues and Response Report. All I&APs will have opportunities to review the report before it is finalised. Closer to the time, advertisements will be placed in the newspapers and letters will be sent to I&APs notifying them of exact details and venues for viewing the DSR and exact details concerning public meetings.

6.4 Thanks and Closure

The facilitator thanked all Interested and Affected Parties and the EIA team for their input and participation in the EIA and closed the meetings.

7. ISSUES AND COMMENTS RAISED AND DISCUSSED

The table contained in Appendix 1: "Record of Issues Raised and Discussed" details all issues, comments and concerns which were raised and discussed at the various public meetings. The "Response" column provides more detail than what may have been provided during the meetings.

Please note:

- ACER has captured and reflected as accurately as possible all issues raised at various public meetings.
- Should you wish to edit your comments, please advise ACER within two weeks of receiving these minutes.
- In some cases a name was not captured during the public meetings, this in no way diminishes the value of the issue or concern raised.
- Should you identify your input and would like your name to be registered next to it, please advise ACER.

APPENDIX 1: RECORD OF ISSUES RAISED AND DISCUSSED

Note: Should you as a participant at the meeting not agree to the way in which ACER has captured your issue, please submit your requested changes in writing within two weeks of receiving this document

No	Name & Organisation	Issue/Comment/Concern	Response	Elim
1	Mr Johan de Kock Haasvlakte Boerevereniging	<p>What happens within the 16 km radius of the Nuclear Power Station?</p> <p>Will farming activities be allowed within the 16 km radius?</p> <p>Will farmers be allowed to continue with their normal farming activities?</p>	<p>The 16 km refers to the emergency planning zone. The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>Yes.</p> <p>Yes.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Elim
		<p>Are there any negative impacts on cattle? Will farmers have 5-legged animals within the 16km radius?</p>	<p>Using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and diary farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the Northern Cape) will not hamper agricultural activities in the vicinity. This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Elim
2	Mr Dirk Human Nuwejaars Wetland	What emergency evacuation zone is Eskom looking at for the new power station?	<p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
3	Mr Dirk Human Nuwejaars Wetland	What happens with waste from the Nuclear Power Station? How long does spent fuel last?	<p>Radioactive waste is internationally categorised into three levels:</p> <p>Using Koeberg as an example: Low-level radioactive waste consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. It is compacted into metal drums (200 litre drums). These drums are transported by road to Vaalputs, the National Radioactive Waste Disposal site in the Northern Cape for near surface disposal. Vaalputs is managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. The level of radioactive in the metal drums decreases with time; after approximately 30 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Intermediate-level waste is solidified by combining it into a sand/cement mix, which is poured into concrete containers, which are transported to Vaalputs for near surface disposal. The level of radioactive in the concrete containers decreases with time; after approximately 300-400 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p>	EIA

No	Name & Organisation	Issue/Comment/Concern	Response	EiM
			<p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p> <p>For the proposed nuclear power station, Eskom intends to follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p>	

ENVIRONMENTAL IMPACT ASSESSMENT (EIA: 12/12/20/944)

No	Name & Organisation	Issue/Comment/Concern	Response	
4	Mr Johan Snyders Cape Agulhas Municipality	How many tons of waste is generated each year from a Nuclear Power Station?	<p>Using Koeberg (1800 MW net output as an example):</p> <p>Low level radioactive waste: Average of approximate 120 m³ per annum over the last 10 years</p> <p>Intermediate level radioactive waste: Average of approximately 50 m³ per annum over the last 10 years</p> <p>Spent fuel: Average of 73.2 spent fuel elements each year – Koeberg has 2 nuclear reactors. Each reactor is refuelled every approximately 18 months; during the refuelling 72 spent fuel elements are removed from the reactor and placed into the spent fuel pools. Since the start of its operation in 1984, up to March 2007, Koeberg has produced in total 1561 spent fuel elements.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. The proposed power station would be approximately double the size of the Koeberg power station. However, these latest designs are more efficient than older designs, and hence are expected to produce less waste per GWh of electricity produced.</p>	Elim
5	Mr Andre Joorst Tourism Heritage	<p>He feels that the advantages and disadvantages of nuclear power stations should be made known to the public. This should include all potential impacts.</p> <p>What are the consequences of accidental exposure of waste to the air?</p>	<p>Noted.</p> <p>The concrete containers and metal drums containing the intermediate and low level radioactive waste are exposed to the air without any adverse effects. Spent fuel emits a lot of radiation. The spent fuel is retained in water to protect against the radiation and also to cool it. When it is removed from the reactor, the spent fuel still generates a lot of heat. The level of heat being generated decreases with time, so that after 10 years the spent fuel no longer requires to be cooled. However, protection against the radiation that it emits is still required.</p>	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
6	A Stakeholder Elim Public Meeting	Are these five sites enough for the 20 000 MW that is required by 2025? What if some sites are no longer viable?	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	Elim
7	A Stakeholder Elim Public Meeting	Who pays ARCUS GIBB?	<p>In South Africa the Applicant for any EIA pays the service provider or the consultant. In the case of this project Eskom pays ARCUS GIBB, and they in turn pay their specialist subconsultants. Service providers belong to professional bodies and there is a code of conduct to which they must adhere.</p>	Elim
8	Mr Johan Snyders Cape Agulhas Municipality	<p>What is the radius in which we undertake public participation for a proposed site?</p> <p>He further suggested that the Project Team includes Bredasdorp community in their consultation.</p>	<p>The legislation does not contain a prescribed radius in which public participation needs to be undertaken as part of the EIA around any of the proposed sites. The EIA and public participation team is following best practice and will attempt to consult all interested and affected communities, within reason.</p> <p>Suggestion noted with appreciation.</p>	Elim
9	A Stakeholder Elim Public Meeting	How come there is no nuclear power station site in KwaZulu-Natal e.g. around Durban?	<p>The whole South African coastline was investigated as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites</p>	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
10	A Stakeholder Elim Public Meeting	It is important to note that agriculture and tourism have changed significantly over the past twenty years. Therefore, he is uncomfortable with the current five sites as they are based on studies, which may no longer be valid due to changes (biophysical, social and economic aspects) that have occurred over the years.	These studies will be revisited in the impact assessment phase of the EIA, i.e. confirm if the criteria that was used during the past 20 years are still applicable given the subsequent changes to the socio economic environment. It is likely that the underlying geology has not changed however the sites were not selected based only on geology, there were key social, economic and biophysical factors that influenced the selection criteria. All aspects will be assessed during the EIA with continual comparisons to the NSIP reports.	Elim
11	A Stakeholder Elim Public Meeting	Is Eskom looking at the demand side management?	Yes, Demand side management forms an integral part of Eskom's and Government's electricity planning strategy. Eskom has committed to achieving a goal of a saving of 3000 MW by 2012 and 8000 MW by 2025 through energy efficiency and various demand side management initiatives.	Elim
12	A Stakeholder Elim Public Meeting	Is there an EIA that will be looking at wind energy?	<p>Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100 MW The turbines are to be erected in an area that is approximately 25km².</p> <p>Eskom is continuously investigating new technologies for the cost-effective generation of electricity.</p>	Elim
13	Mr Bertus Hayward Cape Agulhus Municipality	<p>Would there be an appeal process?</p> <p>The government owns part of Bantamsklip site, what would happen to the land if Bantamsklip is the preferred site?</p> <p>Will there be expropriation?</p>	<p>Yes.</p> <p>Eskom will enter into negotiations with the current owners regarding the purchase of the site.</p> <p>Currently, of all the sites being investigated for Nuclear 1 the land is either already owned by Eskom, or is State land, or, in the case of Thyspunt a small farm is still under private ownership, and in the case of Schulpfontein the land is owned by De Beers.</p>	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
		How about the planning and rezoning of the sites that has/is currently taking place?	<p>It is therefore likely that once the preferred site has been identified Eskom will enter into discussions with the relevant person/organisation or department. Expropriation will only be considered as a last resort, and will follow due process</p> <p>These aspects will be considered and investigated during the Impact Assessment Phase of the EIA.</p>	
14	A Stakeholder Elim Public Meeting	The perlemoen and abalone industries are important in the area.	Comment noted.	Elim
15	Mr Johan Bredenham	Eskom needs 20 000 MW from the 5 sites, this means that all 5 sites will have nuclear power stations?	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	Elim
16	Stakeholder Elim Public Meeting	The impact of the power station will have on farming operations needs to be investigated as part of this EIA.	Noted. This will be undertaken during the Impact Assessment Phase of the EIA.	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
17	Mr Bertus Hayward Cape Agulhas Municipality	For this part of the country, our gold is above the ground, which is unlike Gauteng where gold is underground. The resources above the ground are mainly what constitute the tourism industry. Most people come to the area because of the aesthetic value.	Comment noted with appreciation. The comments will inform the economic, tourism and agricultural specialist studies, which will be undertaken as part of the Impact Assessment Phase.	Elim
18	Stakeholder Elim Public Meeting	What impact does Koeberg have on the marine environment?	<p>The coastline in the vicinity of Koeberg that is under Eskom's control is maintained by Eskom in a pristine condition. Sea water is used to cool the steam that drives the turbines. Approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. Independent studies conducted by the University of Cape Town before the station started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University). The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea.</p> <p>This information is applicable to the Koeberg site and must not be extrapolated to another site, as the dispersion and cooling of the outfall water depends on the receiving coastal conditions. This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p>	Elim
19	Mr Gerhard van Deventer	Our Western Cape Government decided that 15% of our energy needs should come from renewables. How does that fit in with Eskom's strategy?	Electricity is only one form of energy. In South Africa electricity accounts for less than 30% of all energy used (reference Integrated Energy Plan for RSA, 19 March 2003, available off the DME website www.dme.gov.za). In terms of its mandate Eskom is required to supply electricity to South Africa, taking into	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
			account the needs of South Africa as a whole. Eskom's strategy for electricity supply is aligned to Government's energy policies and strategies. Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100 MW.	
20	A Stakeholder Elim Public Meeting	There is a fault at the Bantamsklip site, is this correct? If yes, how is it going to be dealt with as part of the study?	The presence, and if present, the significance of geological faults will be assessed both during the EIA and as part of the site safety studies that are required by the National Nuclear Regulator. The EIA team includes specialists that will look at the geological conditions of all the alternative sites, including their associated seismic risks.	Elim
21	Mr Johan Snyders Cape Agulhas Municipality	The Cape Agulhas Municipality is an area with a very special climate. It is strongly dependant on tourism. He is very concerned about the future development of the area co-existing with a Nuclear Power Station.	Comment noted.	Elim
22	A Stakeholder Elim Public Meeting	He has no experience on Nuclear. Some people may not participate because they do not know much about nuclear power generation. It is easier for people to be also misled because they do not know about the proposed nuclear power station. Suggested that a process be undertaken to educate people about Nuclear, i.e. inform them about the advantages and disadvantages of a Nuclear Power Station.	Eskom will develop material as part of a Nuclear Awareness Programme. Workshops and meetings will be held focused on awareness regarding all aspects of nuclear power and be aimed at communities in the vicinity of the sites under investigation for the proposed nuclear power station.	Elim
23	A Stakeholder Elim Public Meeting	Why are some people anti nuclear power?	There can be many reasons. For example, some people are fundamentally opposed to nuclear power for personal reasons, others are opposed to development of any kind (not in my backyard syndrome), others are concerned about safety aspects, the long term management of radioactive waste, the exposure to radiation, etc. Hence the question is better addressed to the individuals concerned.	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>The National Nuclear Regulator (NNR) will not issue a license to Eskom if all requirements for constructing, operating and maintaining a Nuclear Power Station safely have not been fully complied with.</p>	
24	A Stakeholder Elim Public Meeting	Elim is planning to expand the dairy industry, including the processing of dairy products, etc. What would be the impact of a nuclear power stations?	<p>Using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and dairy farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the Northern Cape) will not hamper agricultural activities in the vicinity. This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p>	Elim
25	Mr Johan Snyders Cape Agulhas Municipality	The products, which are produced by the dairy industry, also need to conform to certain standards. Eskom needs to understand the economics of the area in order to understand the implications of a Nuclear Power Station on the dairy industry.	<p>Noted, see also previous response (No. 24).</p> <p>This will be incorporated as part of the economic, agriculture and tourism study of the area.</p>	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
26	A Stakeholder Elim Public Meeting	<p>Why is the proposed wind farm along the coast?</p> <p>Can wind farms be used for base load</p>	<p>The coastline is where the most suitable winds are found. If you move away from the coast, you start losing efficiency of the generation facility.</p> <p>Base load means generating electricity continuously every second of the day, night and weekend. Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation.</p> <p>Wind turbines also cannot operate during gale force winds nor do they operate if the wind speeds are too low. Wind energy is thus an important complement to other forms of electricity generation, rather than an alternative for those other forms.</p>	Elim
27	A Stakeholder Elim Public Meeting	How much power do we export to other countries?	In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.	Elim

No	Name & Organisation	Issue/Comment/Concern	Response	
28	Mrs Beatrice Bollman Pearly Beach Ratepayers Association	Eskom should provide clarity on what is a base source. She cannot understand why wind does not constitute the base load.	<p>Base load means generating electricity continuously every second of the day, night and weekend. Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation.</p> <p>Wind turbines also cannot operate during gale force winds nor do they operate if the wind speeds are too low. Wind energy is thus an important complement to other forms of electricity generation, rather than an alternative for those other forms.</p>	Pearly Beach
29	Mr Robert Knottnagel Pearly Beach Residents Association	There is gas pipeline from Pande gas fields in Mozambique that is used by Sasol. Why is Eskom not looking at it as source for energy?	<p>Yes, there is a source in Mozambique, the Pande and Temane Gas fields, which is mainly used by Sasol for their industrial operations. This is a joint venture between Sasol and the governments of Mozambique and South Africa. This provides gas to the plants and supply industrial demands in Secunda. Eskom is investigating getting access to some of this gas for electricity generation. Gas turbines operate efficiently along the coastline, but are less efficient at higher altitudes above sea level. The options for alternative economically viable energy sources, including gas are continuously being investigated.</p> <p>There is also the Kudu gas field off the coast of Namibia. The size of the gas field is currently estimated at being sufficient to supply an electricity generating plant of approximately 3 000 MW for its lifetime of about 25 years. Eskom is also investigating this opportunity.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach
30	Dr Sophia Brouckaert Local Resident – Pearly Beach	Nuclear energy is possible but nuclear waste lasts longer and Eskom does not know where to put the radioactive waste.	<p>The SA Cabinet approved a National Radioactive Waste Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy.</p> <p>Low-level and Intermediate level radioactive waste is sent for disposal at the Vaalputs National Radioactive Waste Disposal site, in accordance with the Government Policy and under the regulatory control of the National Nuclear Regulator.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel will be retained at the proposed nuclear power station in accordance with Government Policy and in a facility licensed by and under the regulatory control of the National Nuclear Regulator.</p> <p>Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3 - 4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p>	
31	Dr Sophia Brouckaert Local Resident – Pearly Beach	<p>Will uranium be sourced locally?</p> <p>How long does waste stay in the storage facility within Koeberg?</p>	<p>Yes, South Africa has large deposits of uranium. The Department of Minerals and Energy (DME) is planning to identify uranium as a strategic resource in the country.</p> <p>An interim storage facility exists at Koeberg for the concrete containers and metal drums containing Intermediate and Low level radioactive waste. Approximately every quarter drums and containers are transported by road to the Vaalputs National Radioactive Waste Disposal facility.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p> <p>The SA Cabinet approved a National Radioactive Waste Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy.</p> <p>Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3 - 4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p>	
32	Mr Johnnie van Wyk Pearly Beach Ratepayers Association	How is waste transported to Vaalputs?	<p>Concrete containers and metal drums containing Intermediate and Low level radioactive waste respectively are transported, approximately every quarter, by road to the Vaalputs National Radioactive Waste Disposal facility.</p> <p>Eskom expects the same transportation methods and frequency for the new Nuclear Power Station.</p>	Pearly Beach
33	Dr Sophia Brouckaert Local Resident – Pearly Beach	Is there any country in the world, which has come up with the solution for the high level waste? According to her, none of the countries have a solution for high-level waste.	<p>The technical solution for the long-term management of radioactive waste is well understood. Various countries are now performing the necessary studies to implement the solution. Finland is one of the countries most advanced in its studies and has commenced the construction of a deep geological disposal facility for spent fuel. (Reference www.posiva.fi).</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>One purpose-built deep geological repository for long-lived nuclear waste, the Waste Isolation Pilot Plant, for disposal of defence-generated transuranic radioactive waste, [clothing, tools, rags, residues, debris, soil etc contaminated with radioactive elements, mainly plutonium, but also others that have atomic numbers greater than uranium] is in operation in New Mexico in the USA (reference www.wipp.energy.gov).</p>	
34	<p>Mr Dougie Hay Baardskeerdersbos Home Owners Assoc.</p>	<p>What is the comparative size of this proposed project to the Koeberg Nuclear Power Station?</p> <p>What happens to the power station after 50 years?</p> <p>Where do workers go after the decommissioning of the Nuclear Power Station?</p>	<p>It is expected that the proposed Nuclear Power Station will have approximately double the output of Koeberg Nuclear Power Station. The actual footprint of the proposed nuclear power station is estimated to be approximately 31 hectares, similar to Koeberg. This is however dependent on plant type and final designs.</p> <p>Once the power station has come to the end of its economic life, it will be shutdown and will be decommissioned under the regulatory control of the National Nuclear Regulator.</p> <p>All Eskom employees will be managed in accordance to Eskom's internal human resource policies.</p>	Pearly Beach
35	<p>A stakeholder Pearly Beach Public Meeting</p>	<p>Why were some areas of the South African coastline not identified as potential sites for Nuclear Power Stations?</p>	<p>Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites.</p>	Pearly Beach
36	<p>A stakeholder Pearly Beach Public Meeting</p>	<p>Will the study look at the impact of the proposed power station on the tourism industry?</p>	<p>The socio-economic study will look at the impact of the Nuclear Power Station on the social environment.</p> <p>A separate tourism study will be commissioned in order to better understand the tourism impacts and feed into the economic study.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	
37	A stakeholder Pearly Beach Public Meeting	Suggested that a map of South Africa be provided which will show the actual sites (more specific). Also, requested that the map indicates where Vaalputs is located in relation to the proposed sites.	Suggestion noted with appreciation. This information has been made available on the Eskom website, www.eskom.co.za/eia under "Nuclear 1" link.	Pearly Beach
38	Mr Andre Bonthuys Baardskeerdersbos Home Owners Association	If waste will be transported to Vaalputs, how will it be transported and which road will be used? He is concerned because there is only one road (exit and entrance) at Pearly Beach.	Concrete containers and metal drums containing Intermediate and Low level radioactive waste respectively will be transported by road to the Vaalputs National Radioactive Waste Disposal facility. The impact of transportation will be addressed in the socio-economic and traffic impact studies as part of the Impact Assessment Phase of the EIA.	Pearly Beach
39	A stakeholder Pearly Beach Public Meeting	What happens to ±6000 workers in the area during the construction period? What happens to workers after construction has been completed?	This issue will be addressed in the social and socio-economic study as part of the EIA. It is anticipated that the construction workers will be employed in other construction projects once this construction has been completed.	Pearly Beach
40	Mr & Mrs Victor Breach Tierfontein, Conservancy Farm No. 51 Pearly Beach Conservation Society	If an interested person would like to look at the Bantamsklip site, will it be acceptable? How can people access the site?	Currently, there is free access to the Bantamsklip site.	Pearly Beach
41	Mr Allen Kriel Local Resident	If the environmental impact studies are only being done now, why did Eskom buy the sites in the 1980s?	In the 1980s Eskom undertook preliminary studies to investigate possible or future nuclear sites. At the time, Eskom decided to acquire the sites, as a proactive measure should a need arise for nuclear sites in the future. It is however important to note that the fact that Eskom owns some or part of the sites does not preclude them from following the necessary environmental authorization process requirements.	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	
42	A Stakeholder Pearly Beach Public Meeting	The Bantamsklip site has a seismic fault. Does that fault not put the site off as a potential site?	The presence, and if present, the significance of geological faults will be assessed both during the EIA and as part of the site safety studies that are required by the National Nuclear Regulator. The EIA team includes specialists that will look at the geological conditions of all the alternative sites, including their associated seismic risks.	Pearly Beach
43	A Stakeholder Pearly Beach Public Meeting	Wind generation is being used overseas, why not in South Africa?	<p>Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation. Wind turbines also cannot operate during gale force winds nor do they operate if the wind speeds are too low.</p> <p>Wind energy is thus an important complement to other forms of electricity generation, rather than an alternative for those other forms. This is true overseas and would be true also for South Africa.</p> <p>Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100 MW. The turbines are to be erected in an area that is approximately 25km².</p>	Pearly Beach
44	Pearly Beach Ratepayers Association	It is understood that studies were undertaken which identified the five potential sites. With reference to Bantamsklip. There has been significant change in the use of the area. There are a number of factors, which need to be taken into consideration for Cape Agulhas, as a lot of economic, social, biophysical factors have changed. Importantly, the Cape Agulhas National Park has also been established.	<p>Comment noted.</p> <p>These studies will be revisited in the impact assessment phase of the EIA, i.e. confirm if the criteria that was used during the past 20 years are still applicable given the subsequent changes to the socio economic environment. It is likely that the underlying geology has not changed however the sites were not only selected based on geology, there were key social, economic and biophysical factors that influenced the selection criteria. All aspects will be assessed during the EIA with continual comparisons to the NSIP reports.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach
45	A Stakeholder Pearly Beach Public Meeting	<p>In Pearly Beach there are boreholes, i.e. seismic boreholes, what has happened to the monitoring that has been carried out?</p> <p>Can Eskom make the results of the monitoring process and testing available?</p>	<p>There is ongoing monitoring of the sites and records are available.</p> <p>Ms Carin de Villiers, Koeberg Nuclear Power Station, undertook to take care of this request.</p>	
46	A Stakeholder Pearly Beach Public Meeting	<p>Is it correct for the public to assume that the PBMR technology will no longer be used now that Eskom is going to use PWR technology?</p>	<p>No, this is incorrect.</p> <p>The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. In particular, a demonstration power plant is under development. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for the PBMR demonstration power plant to be constructed on the Koeberg site. The EIA and nuclear licensing processes are in progress. If successful then Eskom will purchase from the PBMR (Pty) Ltd Company power stations that use the pebble bed modular reactor technology, subject to normal commercial and regulatory requirements (authorisations, licences, permits etc) being met.</p> <p>The Pressurised Water Reactor (PWR) type technology that Eskom is considering for the proposed nuclear power station under consideration for this EIA is a modernized version (i.e. more advanced) of the technology used at Koeberg.</p> <p>Eskom will continue to investigate alternative sources for generating electricity.</p>	
47	A Stakeholder Pearly Beach Public Meeting	<p>He lives next to the site and is concerned about exposure to radiation and effect on cattle and farming operations.</p>	<p>Everybody is exposed to natural background radiation everyday from, for example, the earth itself, the materials from which buildings are constructed, the sun, and on a less regular basis from medical exposures (X-rays).</p>	

No	Name & Organisation	Issue/Comment/Concern	Response
			<p>The quantity of radiation exposure and what is absorbed by the body is measured in microSieverts (μSv) per annum. The National Nuclear Regulator (NNR) sets the limit of exposure arising from operations at nuclear installations.</p> <p>Hence the limit for Koeberg is set at 250 μSv per annum, far below the exposure from natural background radiation (which is about 2500 – 3000 μSv per annum), and less than the international standard of 1000 μSv per annum. The Koeberg Nuclear Power Station has been in operation for over 23 years - the public exposure to radiation as a result of Koeberg's operations has been less than 20 μSv per annum in general and less than 6 μSv per annum in 2005/6 – reference NNR Annual Report 2005/6 tabled in Parliament – available off the NNR website www.nnr.co.za, far below the limit set by the NNR.</p> <p>With regard to the impact on farming activities, using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and dairy farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>Northern Cape) will not hamper agricultural activities in the vicinity. This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p>	
48	A Stakeholder Pearly Beach Public Meeting	He lives next to the site and is concerned about exposure to radiation and effect on cattle and farming operations.	<p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the Northern Cape) will not hamper agricultural activities in the vicinity.</p> <p>This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p>	Pearly Beach
49	Mnr Wessel Groenewald Local Resident	Why South Africa is not using wind turbines, which are used overseas to generate electricity?	<p>Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation. Wind turbines also cannot operate during gale force winds nor do they operate if the wind speeds are too low.</p> <p>Wind energy is thus an important complement to other forms of electricity generation, rather than an alternative for those other forms. This is true overseas and would be true also for South Africa.</p> <p>Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100 MW The turbines are to be erected in an area that is approximately 25km².</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	
50	Mr Etienne Fourie Cape Agulhas National Park	Why is Eskom delaying the Environmental Impact Assessment (EIA) for the transmission power lines? Should there be a fatal flaw on the routing of transmission lines, it will definitely affect the selection of sites.	<p>Comment noted.</p> <p>A fatal flaw in the EIA for transmission lines can invalidate a nuclear site. The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making.</p>	Pearly Beach
51	Dr Raymond Craft Landowner	As part of a transparent process, will the minutes of public meetings be made available to the public as part of the public record?	<p>Yes, the records of all meetings form part of a public record. All Interested and Affected Parties (I&APs) will have an opportunity to access all minutes of the meetings. I&APs will also have an opportunity to see the kind of issues that have been raised at other meetings.</p>	Pearly Beach
52	Mr Pieter Marais Local Resident	The economic impact of the proposed nuclear power station on the farming community should be better understood. This must be done in order to inform landowners of the extent of the impact on their properties.	<p>Using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and dairy farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the Northern Cape) will not hamper agricultural activities in the vicinity.</p> <p>This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	
		Landowners do not have a say. The Government has already decided on the construction of the nuclear power station.	This EIA is being undertaken in order to better understand the potential impacts and inform the decision-making process.	
53	Mr Andre Bonthuys Baardskeerdersbos Home Owners Association	Why must we pay R110 per month for electricity? He has paid up to R5000 for electricity reticulation. He is a pensioner.	There are costs associated with the provision of electrical infrastructure as well as with the use of electricity. The National Energy Regulator of South Africa determines the price of electricity.	Pearly Beach
54	Mr Chris Barnes Pam Golding	It is important that we understand the impact of a nuclear power station on animals?	<p>There is no confirmed impact of a nuclear power station on animals.</p> <p>Using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and dairy farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the Northern.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Party/Beach
		<p>Several people have stayed in close proximity of the transmission lines and have suffered from Leukaemia. What guarantee can Eskom give to people that they will not suffer from cancer, leukaemia, etc?</p>	<p>Cape) will not hamper agricultural activities in the vicinity. This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken</p> <p>There is no confirmed correlation between living in close proximity to transmission lines and to suffering from leukaemia.</p> <p>The potential impacts on human health and animals will be investigated during the Impact Assessment Phase of the EIA.</p>	
55	Dr Neil Ravenscroft University of Cape Town	<p>He is not aware of a uranium enrichment plant in South Africa. Therefore, the uranium that is used at Koeberg is not from South Africa.</p> <p>Why does Eskom give an impression as if South Africa has high quality uranium, when enriched uranium still needs to come from other countries?</p> <p>Which method will Eskom use for the processing of uranium? Will it be diffusion?</p>	<p>South Africa has significant reserves of natural uranium. Natural uranium consists mainly of two isotopes, uranium-238 (about 99%) and uranium-235 (less than 1%). All uranium, regardless from which country in the world it comes, must be enriched in the uranium-235 isotope (to about 3 – 5 %) to enable it to be used in the type of nuclear power stations (Pressurised Water Reactor) under consideration.</p> <p>South Africa previously had facilities to enrich uranium and manufacture nuclear fuel elements. These facilities were shutdown many years ago since they were not economically viable. Hence enrichment of uranium and the manufacture of nuclear fuel elements for Koeberg are currently performed overseas.</p> <p>Eskom has contracts for the enrichment of uranium from facilities that use diffusion or centrifuge technology.</p>	Party/Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach Pearly Beach Pearly Beach
56	A Stakeholder Pearly Beach Public Meeting	In terms of the transmission lines, what routes will they take and how big they will need to be?	The EIA process for the transmission lines will find the most environmentally and technically feasible alternative routes for the required transmission lines. The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making. It is expected that during the next round of public consultation the preliminary findings on the routing of the transmission lines will be available.	
57	A Stakeholder Pearly Beach Public Meeting	What is the current number of people employed at Koeberg?	There are currently 1000 - 1200 permanent employees at Koeberg, i.e. under normal operating conditions. During shut down and maintenance periods, an additional 500 people are contracted and come onto site.	
58	A Stakeholder Pearly Beach Public Meeting	Once Eskom has decided that it would be Bantamsklip, when will the public know?	All alternative sites will be evaluated through the various phases of the EIA. DEAT will evaluate the process and issue a decision on the preferred site as contained in the Environmental Impact Report. This decision may or may not support the proposed construction of the NPS. The Environmental Impact Report is expected to be submitted in 2008 with an EIA decision anticipated during 2009. The public will be kept informed throughout the EIA process.	

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach
59	A Local Resident Pearly Beach Public Meeting	<p>If this power station is being built at Pearly Beach it will have a major impact on our living conditions. All residents choose Pearly Beach as a home to live in peace.</p> <p>Can we raise and sign a petition against the proposed Nuclear Power Station?</p>	<p>Comment is noted for investigation during the Impact Assessment Phase of the EIA.</p> <p>An EIA is an assessment, which looks at all the potential environmental impacts of a proposed development, both positive and negative. Importantly, an EIA looks at the larger picture, which considers the three primary dimensions of the environment, i.e. social, economic and biophysical.</p> <p>An EIA is not about the numbers of people who have signed petitions or objections. I&APs are welcome to raise objections; however, the reasons for objecting should be clear and valid.</p>	
60	A Stakeholder Pearly Beach Public Meeting	<p>With reference to the 16km radius around the Koeberg Nuclear Power Station, is it possible to indicate the restricted area and give us details on how it works. There are rumours around about 3 km, 5 km and 16 km zone for the proposed power station. How does it work?</p>	<p>The 16 km refers to the emergency planning zone. The number and size of emergency planning zones for the proposed nuclear power station will be determined by the National Nuclear Regulator. Development may continue within the emergency planning zone up to a limit specified by the National Nuclear Regulator.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	Pearly Beach
61	Mrs Beatrice Bollman Pearly Beach Ratepayers Association	<p>Overseas they also experience problems with the sun not shining all the time, but they do have solar energy. In some areas they also do not have much wind but wind generation is an alternative source. How is this not possible for South Africa?</p> <p>In some instances, solar panels do feed power back into the grid. Does Eskom undertake similar studies on renewables?</p>	<p>Eskom has just completed an EIA for a proposed solar thermal power plant (100 MW capacity) in Upington in the Northern Cape, which will, when built, be the largest generation facility of its kind in the world. Eskom is also in the process of undertaking an EIA for a wind generation facility (100 MW capacity) on the West Coast near Vredendal.</p> <p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>The Government (Department of Minerals and Energy) is currently investigating incentives to promote renewable energy – this includes evaluating the concept of “feed-in” tariffs. The regulatory framework to facilitate these incentives will be developed by the National Energy Regulator of South Africa.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach
62	A Stakeholder Pearly Beach Public Meeting	Is Eskom committing the same financial resources to renewable energy sources as is the case with nuclear? It appears that Eskom is only looking at one alternative source.	<p>Nuclear energy is one of the alternative sources for power generation. There are various primary energy resources and technologies that can be harnessed to produce electricity. Eskom is continuously evaluating alternative sources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear etc. Numerous factors are considered during the evaluation of different options, including environmental impact, long term sustainability, operating characteristics, operability and maintainability, economic viability and life cycle costs, lead time for construction, whether the technology has been commercially proven, etc</p> <p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Eskom is also pursuing improvements in the utilisation of electricity. Eskom has a demand-side management and energy efficiency programme target of 3000 MW by 2012 and 8000 MW by 2025. 8000 MW would be equivalent to avoiding the construction of two large coal-fired power stations.</p>	
63	A Stakeholder Pearly Beach Public Meeting	Will the property prices be affected?	<p>The experience from Koeberg power station is that property prices increased dramatically.</p> <p>This issue will be investigated in the economic specialist study that will be undertaken during the Impact Assessment Phase, of the EIA.</p>	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach
64	Mr Andre Bonthuys Resident Landowner and farmer	My farm is within the 10 km radius of the Bantamsklip site, what is the impact on people, dairy, vegetables, etc?	<p>Using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and diary farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the Eastern Cape, two in the Western Cape and two in the Northern Cape) will not hamper agricultural activities in the vicinity.</p> <p>This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p> <p>Samples of fish, meat, vegetables, milk water, etc are regularly collected from the area around Koeberg and analysed to determine any possible effects on the food chain. Samples are also sent overseas for independent analysis and proof that Eskom is operating within the required limits.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Pearly Beach
			<p>Everybody is exposed to natural background radiation everyday from, for example, the earth itself, the materials from which buildings are constructed, the sun, and on a less regular basis from medical exposures (X-rays). The quantity of radiation exposure and what is absorbed by the body is measured in microSieverts (μSv) per annum. The National Nuclear Regulator (NNR) sets the limit of exposure arising from operations at nuclear installations.</p> <p>Using Koeberg power station as an example: The limit for Koeberg is set at 250 μSv per annum, far below the exposure from natural background radiation (which is about 2500 – 3000 μSv per annum), and less than the international standard of 1000 μSv per annum. Koeberg has been in operation for over 23 years - the public exposure to radiation as a result of Koeberg's operations has been less than 20 μSv per annum in general and less than 6 μSv per annum in 2005/6 – reference NNR Annual Report 2005/6 tabled in Parliament – available off the NNR website www.nnr.co.za), far below the limit set by the NNR.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
65	Mr Barry Johnson Private	We have all experienced power shortages. There seems to be a panic from Eskom's side to build power stations. Why has the planning been so poor in the past years?	When the Government changed in 1994, there was a moratorium from Government on Eskom not to construct any more power stations in South Africa with the view that this function would be taken up by Independent Power Producers (IPPs). However, IPPs did not materialise and in September 2004 Government lifted the moratorium and requested Eskom to provide 70% of the projected new electricity capacity requirements. From the 1980s through to early 2000s, the growth in demand for electricity followed a trend averaging between 2 and 3 % per annum. However, over the past few years the annual growth in peak demand for electricity has been higher than an average of 4% per annum. Consequently Eskom is having to accelerate the planning to construct new power stations.	Pearly Beach
66	A Stakeholder Pearly Beach Public Meeting	How much will the Alcan Smelter within the Industrial Development Zone (IDZ) at Coega near Port Elizabeth require?	The Alcan Smelter project will have a demand of approximately 1355 MVA after commissioning of both potlines. The potlines will be built in 2 phases - the full capacity of 675 MVA for the first potline will be required in about 2011 and the full capacity of 1355 MVA for both potlines will be required around 2014.	Pearly Beach
67	A Stakeholder Pearly Beach Public Meeting	Suggested that the Overstrand Local Municipality comments on this proposed development, as there are problems in the area with regards to waste, water and infrastructure in general.	Suggestion noted with appreciation. All municipalities are involved in the EIA process and the EIA team would welcome an opportunity to discuss the proposed Nuclear Power Station with the Overstrand Local Municipality. It was also noted that representatives from the Overstrand Municipality were present at the meeting.	Pearly Beach
68	Ms Susanne Fuchs Klein Paradijs Country House	The study team needs to look at the spatial development frameworks for the Pearly Beach area.	Comment noted.	Pearly Beach

No	Name & Organisation	Issue/Comment/Concern	Response	
69	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	He requires detailed information on economic figures and how they are calculated. This information should be made available to the public.	A socio-economic specialist is part of the team contracted by the EIA Consultant to perform specialist studies. All the specialist reports will be available to the public.	Gansbaai
70	Mr Tony Roper Stanford Ratepayers Association	How much electricity do we export to other countries?	In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.	Gansbaai
71	Mr Tony Roper Stanford Ratepayers Association	The graphical presentation indicates that as Eskom continues to build power stations, the life span is supposedly reduced. How does this work?	<p>The graphical presentation shows the total sum of the available generating capacity in MW. The total generating capacity increases as new power stations are constructed, but decreases as power stations are shutdown when they reach the end of their economic life (assumed to be 50 years for the purposes of the presentation).</p> <p>Hence in addition to meeting the projected demand, Eskom also needs to prepare for the replacement of power stations that will reach the end of their economic life span after approximately 2025.</p>	Gansbaai
72	Mr Tertius Carinus Algulhas Biodiversity Initiative	<p>We are all aware that the demand for electricity is going up, is someone looking at capping the demand? Eskom is mainly concentrating on alternative scenarios for energy generation.</p> <p>What is being done on the demand side management?</p>	<p>Eskom is also looking at the demand side management and energy efficiency. Government is also promoting energy efficiency.</p> <p>Eskom is continuing to investigate ways to improve the use of electricity. Eskom has a demand-side management and energy efficiency programme target of 3000 MW by 2012 and 8000 MW by 2025. 8000 MW would be equivalent to avoiding the construction of two large coal-fired power stations.</p>	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
73	Mr Tertius Carinus Algulhas Biodiversity Initiative	In Durban dumping sites are used for energy generation.	<p>Comment noted.</p> <p>There are various primary energy resources and technologies that can be harnessed to produce electricity. Eskom is continuously evaluating alternative sources include solar, wind, wave, ocean current, tidal energy, biomass, hydro gas, coal and nuclear etc. Numerous factors are considered during the evaluation of different options, including environmental impact, long term sustainability, operating characteristics, operability and maintainability, economic viability and life cycle costs, lead time for construction, whether the technology has been commercially proven, etc</p> <p>Eskom is also pursuing improvements in the utilisation of electricity. Eskom has a demand-side management and energy efficiency programme target of 3000 MW by 2012 and 8000 MW by 2025. 8000 MW would be equivalent to avoiding the construction of two large coal-fired power stations.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
74	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	He is living next to the proposed Bantamsklip Nuclear Power Station site. It is understandable that coal is the base load in South Africa. If that is the case, Eskom needs to make coal more environmentally friendly. Nuclear is not the only solution.	<p>Comment noted with thanks.</p> <p>It is Eskom's stance that ALL of the primary energy resources, including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear, need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>However many new technologies are not yet commercially proven. Once a technology becomes commercially viable Eskom will undertake the necessary studies for implementation in SA. Numerous factors are considered during the evaluation of different options, including environmental impact, long term sustainability, operating characteristics, operability and maintainability, economic viability and life cycle costs, lead time for construction, etc</p> <p>Eskom is also pursuing improvements in the utilisation of electricity. Eskom has a demand-side management and energy efficiency programme target of 3000 MW by 2012 and 8000 MW by 2025. 8000 MW would be equivalent to avoiding the construction of two large coal-fired power stations.</p> <p>Eskom continues to monitor and investigate the progress internationally with the commercialisation of more efficient coal-fired power stations. Eskom is researching underground coal gasification as a means to generate electricity from coal – a pilot facility is being established in Mpumalanga Province near the Majuba coal-fired power station. One of the major considerations is the carbon dioxide that is emitted when coal is burnt. Eskom monitors and participates in international forums investigating the possibility of capturing and storing carbon dioxide emissions.</p>	
ENVIRONMENTAL IMPACT ASSESSMENT (EIA: 12/12/20/944) SCOPING – RECORD OF PUBLIC MEETINGS HELD DURING 06 JUNE– 14 AUGUST 2007				47

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>However these coal-based projects would be in the vicinity of the coal fields in South Africa. But additional electricity generating capacity is required in the coastal regions, for which coal technologies are not suitable due to the very long distances from the coal fields.</p>	Gansbaai
75	Mr Johannes van der Walt Local Resident	In KwaZulu-Natal, Eskom has hydro-electric schemes. Why is Eskom not considering building more hydro-electric schemes around the country?	<p>South Africa is a water scarce country and does not have large rivers for hydro power. Eskom has two hydro power stations on the Orange River, the 360 MW (4 units each 90 MW) Gariep power station and the 240 MW (2 units each 120 MW) Vanderkloof power station. The use of these two stations is restricted to peak and emergency electricity demand situations, subject to the availability of water in the Gariep and Vanderkloof dams. Investigations are in progress for an upgrade at Gariep power station. However at this stage there is not more opportunity for large scale hydro-electric power in South Africa.</p> <p>Eskom also has four mini hydro power stations in the Eastern Cape, consisting of 10 units of various sizes between 0.4 and 14 MW, for a total of 61 MW.</p> <p>In addition to the hydro-electric schemes there are two pumped storage schemes, Palmiet in the Western Cape with a capacity of 400 MW and Drakensberg on the border between the Free State and KwaZulu-Natal with a capacity of 1000 MW. Pumped storage schemes use more electricity than what they produce. During off-peak periods, electricity from the national transmission network (i.e. produced by other power stations) is used to pump water from a reservoir at the bottom of a mountain to another reservoir at the top of a mountain. During periods of peak demand or emergencies situations, the water is allowed to run</p>	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
			<p>under gravity from the upper to the lower reservoir, in the process driving a turbine and generating electricity. Eskom has started building another pumped storage scheme, Ingula (previously known as the Braamhoek pumped storage scheme), also on the border between the Free State and KwaZulu-Natal. Eskom is also investigating other potential sites for pumped storage schemes.</p> <p>Eskom currently imports hydro power from neighbouring countries (mainly Mozambique) and is investigating other projects in the Southern African region.</p>	
76	Mr Lonnie Roos Green Zebra Development	How much power do we export to other countries?	In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.	
77	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	Concerned about wrong figures that are given to the public. The financial implications for the proposed Nuclear Power Station need to be provided to the public. He also needs to understand who is making the assumptions for the Nuclear 1 project and what are those assumptions based on?	Eskom would appreciate examples of wrong figures that are given to the public. To Eskom's knowledge, no incorrect figures have been given to the public. Eskom's financial statements are reported each year in the Eskom Annual Report. These financial statements are independently audited. The report and opinion of the independent auditors is also contained in the Annual report (page 25 in the Eskom Annual Report 2007).	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
			<p>All Eskom's large investments, such as those required for the building of new power stations, require approval, in terms of the requirements of the Public Finance Management Act, from the Minister of Public Enterprises and the Minister of Finance. Approval, and an electricity generating licence, is also required from the National Energy Regulator of South Africa (NERSA) prior to the construction of any new power station. NERSA determines the electricity prices/tariffs in South Africa. NERSA evaluates any application for an electricity generation licence in terms of its impact on electricity supply and demand and on the electricity tariffs. NERSA holds public hearings on applications for electricity generating licences.</p>	
78	<p>Mr Tertius Carinus Algulhas Biodiversity Initiative</p>	<p>In some countries, the local authority generates electricity for each household. In South Africa we do not have that incentive to generating your own electricity and storing it.</p> <p>Eskom needs to investigate the development of incentives, particularly for the domestic sector as it can reduce the overall electricity demand in South Africa.</p> <p>There has been a proposal done in close consultation with the local authority towards putting own wind turbines but the challenge is that they cannot store energy on the national grid.</p>	<p>In South Africa, some Local Authorities, for example Cape Town, Johannesburg and Pretoria, have their own power stations that generate electricity. However, apart from pumped storage schemes which use more electricity than what they produce, large scale storage of electricity is not yet possible.</p> <p>The Government (Department of Minerals and Energy) is currently investigating incentives to promote renewable energy – this includes evaluating the concept of “feed-in” tariffs. The regulatory framework to facilitate these incentives will be developed by the National Energy Regulator of South Africa.</p> <p>Large scale storage of electricity is not yet possible. Thus electricity must be generated at the same time that it is used.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
79	Mr Maarten Groos Nature Retreat & Fynbos Reserve	It was published in the Newspapers that there is a budget of about R6 billion for nuclear energy and a few millions for renewable energy. Can Eskom confirm these figures?	This information came from the Energy Summit on Renewable Energy. These figures were from Treasury and not from Eskom. In addition, these were figures for the Pebble Bed Modular Reactor (PBMR) and not for the proposed NPS.	Gansbaai
80	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	Have bids been called by Eskom in December 2006 for the PWR technology from suppliers. He understands that Areva and Westinghouse submitted bids, is this correct?	Eskom has not called for bids and has not yet entered into agreements with any of the potential suppliers To date, Eskom has only identified potential suppliers with whom Eskom intends to negotiate for the proposed nuclear power station.	Gansbaai
81	A stakeholder Gansbaai Public Meeting	What is spent fuel, where is it currently stored and what is the life span of spent fuel?	<p>Spent nuclear fuel, also called used nuclear fuel, is nuclear fuel that has been irradiated in a nuclear reactor to the point where it is no longer useful in sustaining a nuclear reaction.</p> <p>At Koeberg, the spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg. The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level radioactive waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p>	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
			<p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p> <p>For the proposed NPS, Eskom intends to follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p> <p>The technical solution for the long-term management of radioactive waste is well understood. Various countries are now performing the necessary studies to implement the solution. Finland is one of the countries most advanced in its studies and has commenced the construction of a deep geological disposal facility for spent fuel (reference www.posiva.fi).</p> <p>One purpose-built deep geological repository for long-lived nuclear waste, the Waste Isolation Pilot Plant, for disposal of defence-generated transuranic radioactive waste [clothing, tools, rags, residues, debris, soil etc contaminated with radioactive elements, mainly plutonium, but also others that have atomic numbers greater than uranium] is in operation in New Mexico in the USA (reference www.wipp.energy.gov).</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
82	Mr Tony Roper Stanford Ratepayers Association	There was a proposal to take low-level waste to be disposed of in a site in Cape Town. There were some discussions around that, what has happened to that proposal?	Low level radioactive waste can only be stored or disposed of at a facility licensed by the National Nuclear Regulator. There has never been a proposal to dispose of low level radioactive waste at a site in Cape Town. What was considered was the disposal of waste that had radioactive levels below the limits set by the National Nuclear Regulator for the classification of radioactive waste (keeping in mind that radioactivity is natural and that all materials, and even humans, are naturally slightly radioactive). This proposal has not been implemented.	Gansbaai
83	Ms Gill Eyre Gillan Stuttaford Farm Trust	For the EIA for transmission lines, will the study team provide public participation opportunities such as this public meeting?	Yes. Studies will be undertaken for all the identified sites in order to understand how the transmission lines will link into the grid. Public Participation is an integral part of any EIA.	Gansbaai
84	A stakeholder Gansbaai Public Meeting	Issues around the development sites, the line emissions, the efficiency of the transmission lines, distances between lines and sites, will they be addressed by the transmission lines EIA?	Yes. The transmission EIA will address all issues related to the construction of transmission lines. The EIA will also address all issues raised by the public during the process.	Gansbaai
85	Ms Nayna Schwegler Strandveld Flora CC	Has Eskom ever considered laying the transmission cables under the ground? Concerned about sensitive vegetation.	Eskom does investigate underground transmission cables, however as a result of the extensive land clearing due to the associated trenching, experience has indicated that potential impacts can be significant. It is significantly more difficult and expensive to maintain underground transmission lines. The potential for underground cables will be assessed in the Transmission line EIA.	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	
86	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	<p>There are 5 sites and need 20 000 MW, this means that each of the sites will get their share on nuclear generation - the question is when do we get it?</p> <p>It is clear from the presentation that all sites will be used, 4000 MW for 5 sites = 20 000 MW.</p>	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	Gansbaai
87	A Local Resident Gansbaai Public Meeting	<p>How can we stop this proposed Nuclear Power Station? The study team should note that we do not want a nuclear plant.</p>	Comment noted.	Gansbaai
88	Ms Monita Jacobs Pam Golding Properties	<p>What is the difference between Pebble Bed Modular Reactor (PBMR) and the Pressurised Water Reactor (PWR)?</p>	<p>Both the PBMR and the PWR are nuclear reactors that use enriched uranium. The nuclear fission reaction that takes place in the uranium atoms provides the required heat source. Neutrons in the uranium cause the uranium atoms to fission (split).</p> <p>Electricity generating capacity: The PBMR has a relatively lower electricity output, 165 MW compared to the 1000 – 1700 MW for modern PWRs.</p> <p>Nuclear fuel: In the PBMR, very small particles of enriched uranium dioxide are coated with layers of ceramic material which are then embedded in graphite in the form of small spheres, about the size of a tennis ball – these are the “pebbles” from which the PBMR gets its name. In a PWR the enriched uranium dioxide is manufactured into small cylindrical pellets, which are</p>	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
			<p>inserted into tubes about 3.5 meters long. These tubes are then “bundled” into fuel elements, each element having 264 tubes.</p> <p>Coolant: In the PBMR, helium gas is used to remove the heat from the nuclear fuel. The hot helium gas then drives a turbine and in turn drives the generator and produces electricity. In a PWR, water is used to remove the heat from the nuclear fuel. The hot water passes through a heat exchanger (called a steam generator) and then back again to the reactor. Water on the other side of the steam generator boils and the resultant steam drives the turbine which in turn drives the generator and produces electricity.</p> <p>Moderator: Both the PBMR and PWR technologies require a “moderator” which will slow down the neutrons in the uranium and improve the efficiency of the nuclear fission reaction. The moderator in a PBMR is a very pure graphite material, whereas the moderator in a PWR is the water that is used to remove the heat from the nuclear fuel.</p> <p>For more information refer to www.pbmr.com and www.world-nuclear.org</p>	
89	Ms Bronwyn Botha Overberg Crane Group	Once the specialists have compiled their reports, will the public have access to all the specialist reports?	Yes. There will be public review periods, which will be publicly announced at various stages of the process, these will include review of specialist reports. Also specialist reports accompany the integrated reports that are made available to the public for comment.	

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90	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	There are issues around potential earthquakes around the Bantamsklip Site, is Eskom going to look at those?	The presence, and if present, the significance of geological faults will be assessed both during the EIA and as part of the site safety studies that are required by the National Nuclear Regulator. The EIA team includes specialists that will look at the geological conditions of all the alternative sites, including their associated seismic risks.	
91	A stakeholder Gansbaai Public Meeting	At some point can we be able to get the actual coordinates for the Bantamsklip Site so we can look at it.	Yes. Subsequent to the public meetings and responding to I&AP queries, locality maps for the sites were made available on the Eskom website, www.eskom.co.za/eia under "Nuclear 1" link.	
92	Mr Tertius Carinus Algulhas Biodiversity Initiative	If Eskom transmits power from the various sites, there will be a need to look at the economic impact, loss of power on the transmission network, etc.	Absolutely. An EIA for the transmission lines will be undertaken. The economic impact and energy losses will be studied during the EIA for the transmission lines.	
93	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	It appears that there is no provision for time delays, is Eskom and the EIA Team not fast - tracking the process?	For any development, there are timeframes that any organisation will have to develop for the implementation of the project. Should there be any delays in the process, Eskom will have to manage them. At this stage, Eskom cannot pre-empt the nature of the delays that could arise as the process progresses.	

No	Name & Organisation	Issue/Comment/Concern	Response	
94	A stakeholder Gansbaai Public Meeting	Eskom needs to elaborate on the water requirements for cooling for the Nuclear Power Station. This should include information on freshwater requirements.	<p>Sea water is used to cool the steam that drives the turbines.</p> <p>Using Koeberg (1800 MW) as an example, approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. Independent studies conducted by the University of Cape Town before Koeberg started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University). The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea.</p> <p>This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p> <p>The fresh water requirements relate primarily to potable water for drinking. The water requirements will be addressed in the EIA process.</p>	Gansbaai
95	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	Who will be undertaking the economic specialist study? The socio-economic specialist and economic specialist look at two different aspects.	Imani Development (International) Ltd has been appointed to undertake the economic specialist study.	Gansbaai
96	Mr John Basson National Ports Authority	Light pollution should be addressed as part of the study. Currently, there are two lighthouses in the area. Additional light from the nuclear power station may potentially have a negative impact to the surrounding environment.	Comment noted with thanks. There is a Visual Specialist, which will look at the potential visual impacts during the Impact Assessment Phase of the EIA.	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
97	A stakeholder Gansbaai Public Meeting	At what stage will they know if the Bantamsklip Site has been eliminated?	<p>All alternative sites will be evaluated through the various phases of the EIA. DEAT will evaluate the process and issue a decision on the preferred site as contained in the Environmental Impact Report.</p> <p>The Environmental Impact Report is expected to be submitted in 2008 with an EIA decision anticipated during 2009.</p> <p>The public will be kept informed throughout the EIA process.</p>	
98	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	How do you get to project closure?	<p>An EIA is an assessment, which looks at all the potential environmental impacts of a proposed development, both positive and negative. Importantly, an EIA looks at the larger picture, which considers the three primary dimensions of the environment, i.e. social, economic and biophysical. The environmental impact report is submitted to the relevant authority (DEAT in this case) for a decision, positive or negative, in terms of environmental legislation / regulations.</p> <p>Other authorities, from whom licences / approvals / permits are required, also make decisions, positive or negative, in terms of the respective legislation / regulations.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
99	A stakeholder Gansbaai Public Meeting	There are boundaries and zones around the Nuclear Power Station, can Eskom explain how it works?	<p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
100	A stakeholder Gansbaai Public Meeting	<p>What limitations are in the area surrounding the Nuclear Power Station?</p> <p>Information on the comparisons of the sites in terms of the zones should be made available to the public.</p>	<p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>Comment noted. The NNR will however determine the extent of the required zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs. The NNR Act makes provision for public hearings related to an application for a nuclear installation licence.</p>	
101	Ms Bronwyn Botha Overberg Crane Group	Requested Eskom to provide a brief description of all sites, to enable the public to have an idea of the exact sites.	Comment noted. Subsequent to the public meetings, this information has been made available on the project website.	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
102	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	Would I be correct to say that if anything wrong happens, the disruption will be within the 2.5 km from the centre of a site only?	<p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	
103	A stakeholder Gansbaai Public Meeting	Can you estimate the amount of freshwater requirements for the new Pressurised Water Reactor (PWR)?	The fresh water requirements relate primarily to potable water for drinking. The water requirements will be addressed in the EIA process.	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
104	A Stakeholder Gansbaai Public Meeting	<p>Perlemoen are marine life, which are important in the area and need to be protected. Will someone look at the potential impact?</p> <p>What affect will the Nuclear Power Station have in the ocean?</p>	<p>Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p> <p>Using Koeberg as an example: Approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. Independent studies conducted by the University of Cape Town before the station started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University). The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea.</p> <p>This information is applicable to Koeberg site and must not be extrapolated to another site, as the dispersion and cooling of the outfall water depends on the receiving coastal conditions. This is also one of the studies that will be undertaken in the EIA.</p>	
105	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	<p>In terms of the Integrated Development Plan (IDP) for the Overstrand, the Municipality cannot develop within specific areas. Some of the areas fall within the 16 km Emergency Planning Zone (EPZ). Importantly, the area, which falls within the 16 km zone, is the most pristine area and biggest asset of the Overstrand Municipality.</p>	<p>IDPs, Spatial Development Frameworks (SDFs), etc will be considered by the specialists as part of their studies.</p> <p>These issues have been noted and will be investigated by the social, economic and tourism specialists.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
106	Ms Lesley Richardson Flower Valley Conservation Trust	<p>How does this proposed Nuclear Power Station fit in the whole national energy strategy?</p> <p>Has the legislative context or legislative environment changed, referring to the one used when Koeberg was built. Will it be different for the new Nuclear Power Station? Has the context of the legislative framework changed?</p>	<p>The demand and supply for electricity is analysed at a number of different hierarchical levels:</p> <p>The Department of Minerals and Energy (DME) has developed an Integrated Energy Plan (IEP) for South Africa, which looks at resources and considers what will best take care of energy requirements in South Africa. (refer DME website www.dme.gov.za). The IEP is currently being updated.</p> <p>The National Energy Regulator of South Africa (NERSA) has developed a National Integrated Resource Plan (NIRP), specifically addressing the demand and supply of electricity in South Africa (refer NERSA website www.ner.co.za). The NIRP is currently being updated.</p> <p>Eskom also performs integrated strategic electricity planning, projecting demand far into the future and evaluating the options for supplying that demand. Eskom's plans are regularly reviewed and updated.</p> <p>Koeberg Nuclear Power Station was built before Environmental Impact Assessments (EIAs) were a legal requirement, and hence at the time Eskom undertook its own "environmental assessment". The proposed power station will be evaluated under the latest legislative framework.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
107	Mr Tony Roper Stanford Ratepayers Association	There is an ongoing perception that Koeberg is struggling to keep up with its maintenance requirements due to operational requirements. What guarantee do we have that for the new Nuclear Power Station there will not be similar problems?	<p>Eskom is not struggling to keep up with the maintenance requirements for Koeberg. In any facility, whether an industrial complex or in a domestic situation, mechanical and electrical or electronic equipment can always fail and require repair or replacement. Eskom's top priority is nuclear safety and hence the nuclear reactors are shut down when equipment needs repair. The events that occurred in 2006 and 2007 were not related to the nuclear reactors, but rather to other equipment.</p> <p>Koeberg is maintained in accordance with the highest international standards. International peer reviews of the management, operations and maintenance of Koeberg are conducted on a regular basis to provide assurance that Koeberg is following the best practices.</p> <p>The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>Using Koeberg as an example, the NNR has inspectors permanently based at the power station who monitor the operations and maintenance. The NNR can take away a licence that has already been granted if the NNR feels that nuclear safety is being compromised.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
108	Mr Lonnie Roos Green Zebra Development	<p>There are a number of visitors to the area (referring to the Bantamsklip Site), some of which come to Pearly Beach specifically for diving. This will mean that they dive close to the proposed Nuclear Power Station site.</p> <p>He feels that it would be disastrous to tell people (i.e. potential tourists) of the proposed Nuclear Power Station development.</p> <p>He further suggested that Eskom undertakes a survey to help themselves understand how people (i.e. locals and tourists) would feel if they put a nuclear reactor in the area.</p>	<p>Comment noted, with thanks.</p> <p>The tourist specialist study will investigate these issues during the Impact Assessment Phase of the EIA.</p>	
109	Mr Stephen Muller Overstrand Municipality	<p>How is the 20 000 MW going to be made up amongst these 5 sites?</p>	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
110	A Stakeholder Gansbaai Public Meeting	4 000 MW is it the maximum capacity for each site? Can one site carry 20 000 MW?	<p>It is highly unlikely that one site could accommodate 20 000 MW. However, the maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	Gansbaai
111	A stakeholder Gansbaai Public Meeting	For the proposed Nuclear Power Station, Eskom should look at both the extent of the environmental impact and the economics.	This issue will be investigated in the economic specialist study that will be undertaken during the Impact Assessment Phase, of the EIA.	Gansbaai
112	Mr Johannes van der Walt Local Resident	He understands that the National Department of Environmental Affairs and Tourism (DEAT) is the main environmental decision-making authority. However, the study team needs to understand that if you talk about zoning of the areas around the sites, you need to deal to the Provincial Departments as they have more information and know the areas proposed for the Nuclear Power Stations intimately. What happens if the Nuclear Power Station has to be built in the Western Cape? How can you exclude the provincial environmental authority?	Although the main responsibility lies with the National Department of Environmental Affairs and Tourism (DEAT), all provincial departments (i.e. Western, Eastern and Northern Cape) will provide recommendations to DEAT.	Gansbaai
113	Mr Michael D'Alton Nuwejaars Wetland Special Management Area	This area is potentially a huge development node for tourism. There are national parks and private tourism enterprises. Requested that experts fully investigate the potential impacts that will be on the environment, tourism, and the impact on the international investors.	Comment noted, with thanks.	Gansbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
114	Mr Carinus Tertius Aghulhas Biodiversity Initiative	<p>There is great focus on the conservation of lowland fynbos in the area between Hermanus to Herventer. This forms part of the conservation development.</p> <p>This has received support from the Minister, Mr Marthinus van Schalkwyk. SANBI has bioregional plans for the Aghulhas area. He is alerting the study team that they are trading on an area where the government is also considering for conservation purposes.</p>	<p>Comment noted, with thanks. This information will also be forwarded to the botanical specialists.</p>	
115	Mr Richard Turner Local Consulting Engineer	<p>Would like to receive information on routing of pylons and sizes of transmission lines.</p>	<p>The EIA process for the transmission lines will find the most environmentally and technically feasible alternative routes for the required transmission lines. The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making. It is expected that during the next round of public consultation the preliminary findings on the routing of the transmission lines will be available.</p>	
116	Mr Rob Fryer Overstrand Conservation Foundation	<p>He is concerned that all studies will be done in the frameworks of the Western Cape. Once reports have been submitted to the National Environmental Authorities, these frameworks are not examined properly.</p>	<p>All provincial departments, e.g. the Western Cape Department of Environmental Affairs and Development Planning will provide recommendations to National Department of Environmental Affairs and Tourism (DEAT).</p> <p>The study team is aware of the Western Cape's rigorous guidelines for various specialist studies and public participation. These guidelines will be used for the relevant studies.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
117	Ms Gabrielle Jonker Local Resident	<p>The following should be looked at as part of the EIA:</p> <ul style="list-style-type: none"> ▪ Potential impacts of global warming ▪ Construction impacts, etc <p>An economic study should be separate as economic issues are really broad and cannot be dealt with appropriately in a socio-economic specialist study.</p> <p>We live within the 16km radius, for people who have a long-term vision of living in the area, need to better understand the kind of activities should we be looking at i.e. land use implications once there is a nuclear power station.</p> <p>The study team should provide information that can help people in the area to understand the impacts and continue living in the area.</p>	<p>Comments noted for investigation during the Impact Assessment Phase of the EIA.</p> <p>The climatology specialist will look at global warming as part of the studies.</p> <p>Subsequent to this public meeting, separate economic, tourism and agricultural specialist studies have been added to the EIA.</p> <p>The suggestions have been noted, with thanks.</p>	
118	A Stakeholder Gansbaai Public Meeting	<p>There are a number of Environmental Impact Assessments (EIAs) going on in the area. Some of the issues that are being looked at include transportation and traffic. This needs to be well coordinated.</p>	<p>Comment noted, with thanks.</p>	
119	Mr Roger Bailey Flower Valley Conservation Trust	<p>Will the road between Gansbaai and Pearly Beach be upgraded?</p>	<p>An infrastructure assessment will be undertaken during the EIA. This assessment will provide recommendations for potential infrastructure upgrades.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
120	Mr Michael Lutzeyer Grootbos Private Nature Reserve	<p>There are a number of nuclear sites that were identified 20 years ago. Currently, we are only looking at the 5 sites, is the study team not going to revisit all the original sites as the criteria used at the time may no longer be appropriate considering changes that have taken place over the years? At the same time, there is a possibility that the current sites may no longer be viable.</p> <p>Unless if subsequently, we also identify new sites that have the potential to be nuclear sites.</p>	<p>These studies will be revisited in the impact assessment phase of the EIA, i.e. confirm if the criteria that were used during the past 20 years are still applicable given the subsequent changes to the socio economic environment. It is likely that the underlying geology has not changed however the sites were not selected based only on geology, there were key social, economic and biophysical factors that influenced the selection criteria. All aspects will be assessed during the EIA with continual comparisons to the NSIP reports</p>	
121	A Stakeholder Gansbaai Public Meeting	<p>The discharge of the water, where are you going to discharge and at what depth?</p>	<p>Sea water is used to cool the steam that drives the turbines. Using Koeberg (1800 MW) as an example, approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. Independent studies conducted by the University of Cape Town before Koeberg started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University). The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea.</p> <p>This information is applicable to Koeberg site and must not be extrapolated to another site, as the dispersion and cooling of the outfall water depends on the receiving coastal conditions.</p> <p>This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Gansbaai
122	Mr Michael Duerr Bantamsklip Anti-Nuclear Group	<p>The following aspects are important:</p> <ul style="list-style-type: none"> ▪ A full lifecycle analysis of costs associated with construction, operation, etc. ▪ Details on the input and output analysis for a nuclear power station ▪ Expert input from coal and nuclear experts. ▪ Understanding of the implications of constructing a power station. ▪ There is a need for a public awareness programme. ▪ Understanding of what is happening with electricity. <p>Obviously, if we cannot get rid of nuclear as an energy generation option, we need to be prepared for all the consequences associated with nuclear energy. This may even require a change of our lifestyle.</p>	<p>Comment noted with appreciation.</p> <p>Some of these aspects will be taken up in the EIA process.</p> <p>Eskom has indicated that it will initiate a public awareness programme (subsequently, this programme has been launched).</p> <p>Eskom conducts feasibility studies for all its power station projects. The Life Cycle Analysis approach is one of the mechanisms used to provide input to such studies. The Board of Eskom Holdings Limited satisfies itself that projects are financially feasible and sustainable before it approves projects. Eskom is also subject to the requirements of the Public Finance Management Act, and approval from the Ministers of Finance and Public Enterprises is required for its large projects. The National Energy Regulator of South Africa (NERSA) must also approve the development of any power station project before construction commences to ensure that these projects are sustainable.</p>	
123	Ms Lesley Richardson Flower Valley Conservation Trust	<p>If we mess up with tourism and agriculture in this area, we should know that there would be nothing left of the area. There has been huge investment in the area, therefore one needs to better understand what will be the potential economic impact and consider the investment that will be lost.</p>	<p>Both the economic and tourism specialists will investigate these issues during the Impact Assessment Phase of the EIA.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
124	Ms Nayna Schwegler Heidehof Provincial Nature Reserve	The Cape Agulhas Biodiversity Initiatives should be supported. This will enable communities to be independent of Eskom, i.e. have an independent electricity grid. Would this not be cheaper for Eskom?	Comment noted. Eskom is required in terms of legislation to supply electricity to South Africa. One of the components of the supply is the national transmission network. In rural areas, where it is not cost effective at this stage to supply electricity from the national grid, off-grid supply options are investigated and, if appropriate, are implemented.	Gansbaai
125	Mr Jurie Le Roux Local Resident	Will the landowners living in the area be advised of any limitations or restrictions?	Yes. As information becomes available to the study team, it will be made available to the public as well.	Gansbaai
126	Mr Walter Fisher Blu Be Real Estate	What is particularly important about the selection of Thyspunt? Why the Thyspunt area?	The whole South African coastline was investigated during the 1980/90s as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. Thyspunt was one of the sites that were found to be suitable.	Jeffrey's Bay
127	A Stakeholder Jeffrey's Bay Public Meeting	How many sites are being investigated?	Currently, there are 5 alternative sites being considered in the EIA.	Jeffrey's Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
128	Mr Peter Neilson Nelson Mandela Metropolitan Municipality	<p>With regards to identification of Pressurised Water Reactor (PWR) technology, who made that decision?</p> <p>We are not nuclear experts in South Africa, it concerns him that a third party made a recommendation to the Eskom Board.</p>	<p>Eskom made the decision to stay with pressurized water reactor (PWR) technology for the proposed nuclear power station.</p> <p>On the contrary, South Africa does have nuclear experts. Eskom has the expertise in managing, operating and maintaining nuclear power stations. The National Nuclear Regulator has the expertise in regulating nuclear power stations of the PWR type.</p>	
129	Mr Wolsey Barnard En Bar Consulting	<p>Based on his current understanding, the Eskom Board sits with National Energy Regulator of South Africa (NERSA). They make decisions with an Independent Energy Consultant. Eskom is one of the participants in the Integrated Energy Plan and National Integrated Resource Plan. One of the plans that have been identified includes nuclear energy as one of the generation options for South Africa.</p>	<p>The Board of Eskom Holdings Limited and the National Energy Regulator of SA (NERSA) are independent of each other.</p> <p>Eskom is one of the organisations that provides input into the Integrated Energy Plan and the National Integrated Resource Plan (NIRP). The development of NIRP2 was conducted under the guidance of the NERSA NIRP Advisory and Review Committee (ARC). Eskom was part of the team, together with the Energy Research Institute of the University of Cape Town and NERSA that developed NIRP2 (refer NERSA website www.ner.co.za).</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
130	Mr Dereck Cook The Dunes Guest Farm	A few years ago, Eskom was looking at the Pebble Bed Modular Reactor (PBMR), all of a sudden Eskom has changed to Nuclear 1 – Pressurised Water Reactor (PWR) technology.	<p>The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for a PBMR demonstration power plant to be constructed on the Koeberg site. The EIA for the PBMR Demonstration Power Plant is in progress. Pending the successful operation of the Demonstration Plant, Eskom will purchase PBMR power stations, subject to normal commercial conditions and regulatory requirements (authorisations, licences, permits etc) being met.</p> <p>However, South Africa's electricity demands are growing at a fast pace. Eskom will need to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in 2025. The Eskom Board approved the investigation of up to 20,000 MW (of the total of 40 000 MW) of nuclear capacity by 2025. The 20 000 MW would comprise of the existing Koeberg power station, new conventional Pressurised Water Reactor (PWR) nuclear technology and PBMR technology that has been commercialised.</p>	
130	Mr Garth Robinson Billabong South Africa	Why concentrate it on areas where there are lots of people?	<p>The alternative sites that are currently being investigated are based on the Nuclear Site Investigation Programme (NSIP). The EIA will look at the potential impacts of the Nuclear Power Station on the social environment.</p> <p>In addition, one of the priority tasks for the specialists is to validate the findings of the previous studies undertaken as part of the NSIP.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
131	Mr Dereck Cook The Dunes Guest Farm	The community in Sea Vista, near St Francis Bay does not have an idea of what a nuclear power station is. How is Eskom going to deal with this? Some communities will not participate because of lack of knowledge.	Eskom has indicated that a nuclear awareness programme will be implemented. Workshops and meetings will be held focused on awareness regarding all aspects of nuclear power and be aimed at communities in the vicinity of the sites under investigation for the proposed nuclear power station. (subsequently, this programme was launched).	Jeffrey's Bay
132	Mr Garth Robinson Billabong SA	Do we export electricity to other countries?	In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.	Jeffrey's Bay
133	Mr Keimpe Weistra Kouga Business Forum	The following are important for this EIA: <ul style="list-style-type: none"> ▪ The economy of the area needs to be well understood and investigated. ▪ The potential impact of the Nuclear Power Station in the receiving environment. ▪ Does Eskom have any information available on what the impacts (positive and negative) of a Nuclear Power Station are on the area? If available, it would greatly assist the public. ▪ Perceptions of foreign visitors i.e. issues around a nuclear power station in a tourism area. ▪ Is a nature reserve going to be an expansion place for a Nuclear Power Station? 	Comments noted, with thanks. Amongst a host of other specialist studies, economic, tourism and biotic specialist studies will be undertaken. These studies will assess the significance and likelihood of potential impacts of the proposed nuclear power station. No predications of the likely results of these specialist studies can be made at this stage.	Jeffrey's Bay
134	A Stakeholder Jeffery's Bay Public Meeting	There have been significant changes in the environment where the sites are located over the past five years. There may be a need to re-look at the original site selection undertaken in the Nuclear Site Investigation Programme (NSIP) due to changes in economic, social and political environments.	Comment noted, with thanks. One of the priority tasks for the specialists is to validate the findings of the previous studies undertaken as part of the nuclear site investigation programme (NSIP).	Jeffrey's Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
135	A Stakeholder Jeffery's Bay Public Meeting	The carrying capacity of the sites? Will the 20 000MW be on one site or spread amongst the alternative sites?	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	
136	A Stakeholder Jeffery's Bay Public Meeting	It has been mentioned that there is a separate process that will look at feasibility of transmission lines that will take power out of the Nuclear Power Station. How is Eskom planning to get the processes running concurrently?	<p>The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making.</p> <p>It is expected that during the next round of public consultation the preliminary findings on the routing of the transmission lines will be available.</p>	
137	Mr Ryan Donnelly For a Clean Tomorrow	The fact that wind and solar power cannot support base load, will it make it viable to have a wind farm next to a pumped storage scheme to generate and store renewable energy?	<p>Pumped storage schemes use more electricity than what they produce. Hence their importance is related to being able to manage the demand for electricity. Feasibility studies would need to be undertaken to determine the financial viability of such a scheme, and would be dependent on the carbon credits or other incentives that could be available.</p> <p>Government (Department of Minerals and Energy) is currently investigating incentives to promote renewable energy – this includes evaluating the concept of “feed-in” tariffs. The regulatory framework to facilitate these incentives will be developed by the National Energy Regulator of South Africa.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
138	A Stakeholder Jeffery's Bay Public Meeting	<p>What were the findings on the 17 sites originally identified in the Nuclear Site Investigation Programme (NSIP)? Although, it is understood that the 5 sites are the most suitable sites, detailed information should be made available to the public.</p> <p>It is possible that the criteria that ruled out some of the 17 sites can be applicable to some of the 5 sites as there have been significant changes over the years. Should that be the case, Eskom may need to identify new sites.</p>	<p>This information is available on Eskom's website, www.eskom.co.za/eia under "Nuclear 1" link.</p> <p>One of the priority tasks for the specialists is to validate the findings of the previous studies undertaken as part of the nuclear site investigation programme (NSIP).</p>	Jeffery's Bay
139	Mr Dereck Cook The Dunes Guest Farm	Power stations are fairly safe. In this area, specific to Thyspunt site, it is safe because of the underlying geology. The concern is what if there is climate change? Climate change can potentially lead to earthquakes. How are you going to deal with potential climate changes?	Dr Mark Tadross of the University of Cape Town's Climatology Department, the specialist climatologist will be looking at the climatology component as part of this EIA. This study will investigate the potential impacts of climate change on the environment and the proposed project.	Jeffery's Bay
140	A Stakeholder Jeffery's Bay Public Meeting	At the end of the day, Eskom will be using all 5 alternative sites? Is Eskom going to select their most preferred site?	<p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology on one site.</p> <p>The maximum capacity for each of the 5 alternative sites will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p>	Jeffery's Bay
141	Mr Walter Fisher Blu Be Real Estate	The factors around population, tourism, land use, etc on the proposed nuclear sites were based on geographic composition. The factors and conditions have changed over time and need to be revisited.	Comment noted for investigation by the various specialists during the EIA.	Jeffery's Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
142	A Stakeholder Jeffery's Bay Public Meeting	How can a consulting firm be independent when the Applicant (i.e. Eskom) pays them? How can you not have a vested interest when there is a financial gain?	<p>In South Africa, the Applicant remunerates the Professional Service Provider (PSP).</p> <p>The PSP signs a declaration of independence which confirms that the PSP has no business, financial, personal or other interest other than fair remuneration for work performed in connection with the proposed activity.</p> <p>A PSP accepts professional responsibility for undertaking and producing the reports, which are part of the assignment. In addition, there should be no circumstances that compromise the objectivity of the PSP in undertaking the assignment.</p>	
143	A Stakeholder Jeffery's Bay Public Meeting	<p>If the local community in the Kouga does not want to have a Nuclear Power Station, will it carry much weight? What if the community has a completely different opinion? Will petitions work?</p>	<p>The EIA process does not work on numbers. It is not about the number of objections received or numbers of people who have signed petitions against a proposed development that will influence the decision.</p> <p>The decision-making process is the responsibility of delegated authorities'. All I&APs need to substantiate the concerns and articulate properly the issues they have regarding the proposed power station.</p> <p>I&APs are encouraged to provide reasons or raise issues during the EIA process.</p>	
144	A Stakeholder Jeffery's Bay Public Meeting	Are you considering that there is a dam (Mpofu) that supplies the Port Elizabeth area? This needs to be considered during the EIA investigations. The previous studies have also taken into consideration the dam, etc.	Comment noted for consideration during the EIA investigations.	

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
145	A Stakeholder Jeffery's Bay Public Meeting	Economic effect of the proposed Nuclear Power Station on the dairy, chokka industry and cattle. The Eastern Cape is one of the main exporters of agricultural products in South Africa.	Comment noted for consideration and investigation during the EIA.	
146	Mr Derek Cook The Dunes Guest Farm	<p>Of the 1000 hectares in the area, there is approximately 600 hectares of land invested in tourism. The comments around this are:</p> <ul style="list-style-type: none"> ▪ Visual impacts during construction period. ▪ Major problems with the influx of people during the construction period, etc. ▪ How the influx of labour will be housed, how are they going to be controlled, etc? ▪ There is no infrastructure in the area. ▪ There are squatter camps in the area, how will they be controlled? 	<p>Labour issues and the associated potential social impacts will be investigated as part of the socio - economic specialist study.</p> <p>The visual impacts will be investigated by the Visual Specialist and will be fed into the Tourism and Economic Specialist studies.</p>	
147	A Stakeholder Jeffery's Bay Public Meeting	<p>Can Eskom guarantee that they will be able to deal with the social and political dynamics in the Eastern Cape?</p> <p>If the proposed Nuclear Power Station receives environmental authorisation, obtain a nuclear license, etc it still needs to be managed properly. Therefore, Eskom needs to have commitment and support from parties in the area.</p>	<p>The potential social impacts will be investigated as part of the socio - economic specialist study. If appropriate, recommendations will be made regarding mitigation measures that Eskom should implement.</p> <p>Comment noted, with thanks.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
148	A Stakeholder Jeffery's Bay Public Meeting	There are concerns around the conservation of the areas where the sites are located.	<p>Comment noted.</p> <p>Eskom requested, and undertook the necessary activities, to have Thyspunt, Bantamsklip and Koeberg declared conservation areas and natural heritage sites. Measures to continue to protect conservation status of the sites will be studied by various specialists (e.g. botanical, fauna, flora, etc.) during the EIA.</p>	
149	A Stakeholder Jeffery's Bay Public Meeting	<p>We hear about the management of Koeberg Nuclear Power Station, which is good, but that was done quite a while ago.</p> <ul style="list-style-type: none"> ▪ Does the current Eskom have the same commitment that the old Eskom had for Koeberg? ▪ Will the current Eskom be able to deal with Thyspunt as required? ▪ Does Eskom have all the resources to construct and manage a nuclear power station? ▪ It is well and good that money is being set aside for the management of a Nuclear Power Station, but the commitment to deliver is the key concern. 	<p>Comment noted.</p> <p>Eskom is committed to managing, operating and maintaining all its power stations and other infrastructure safely, efficiently and cost effectively.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
150	Mr Danie Rautenbach Kouga Development Agency	<p>Is there an indication from Eskom as to which site amongst the 5 alternative sites is preferred?</p> <p>The study that is being undertaken is applicable to all 5 alternative sites? Will a similar process be followed for all 5 sites?</p>	<p>No.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology on one of the 5 sites (i.e. the Nuclear-1 project).</p> <p>The maximum capacity for each of the 5 alternative sites will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site.</p> <p>However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future. Environmental authorisations would be required if Eskom applies to proceed with Nuclear-2, Nuclear-3 etc.</p>	
151	Mr Paul Benecke St Andrews College	Why the Nuclear site is not situated around Coega?	<p>The whole South African coastline was investigated during the 1980/90s as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a nuclear power station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. The area around Coega is one section of the coastline that was found to be unsuitable for a nuclear power station during the original Nuclear Site Investigation Programme (NSIP) due to prevailing geological conditions.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
152	Mr Ryan Donnelly For A Clean Tomorrow	Where is radioactive waste stored currently?	<p>Radioactive waste is internationally categorised into three levels:</p> <p>Using Koeberg as an example:</p> <p>Low-level radioactive waste consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. It is compacted into metal drums (200 litre drums). These drums are transported by road to Vaalputs, the National Radioactive Waste Disposal site in the Northern Cape for near surface disposal. Vaalputs is managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. The level of radioactive in the metal drums decreases with time; after approximately 30 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Intermediate-level waste is solidified by combining it into a sand/cement mix, which is poured into concrete containers, which are transported to Vaalputs for near surface disposal. The level of radioactive in the concrete containers decreases with time; after approximately 300-400 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
			<p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p> <p>For the proposed nuclear power station, Eskom intends to follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p>	
153	A Stakeholder Jeffery's Bay Public Meeting	Will this Nuclear Power Station create an opportunity for other countries to get nuclear waste from South Africa?	In terms of the South African Law, there is no provision for exportation of nuclear waste.	

No	Name & Organisation	Issue/Comment/Concern	Response	
154	Mr Ryan Donnelly For A Clean Tomorrow	What has been done for people in South Africa to encourage private power production? Any government subsidies?	<p>In October 2004, Cabinet approved private-sector participation in the electricity industry and decided that future power generation capacity will be divided between Eskom (70 percent) and independent power producers (30%). The DME was mandated with the responsibility of ensuring private-sector participation in power generation through a competitive bidding process and that diversified primary energy sources be developed within the electricity sector. The DME process of ensuring independent power production is already in progress.</p> <p>DME is currently investigating incentives to promote renewable energy – this includes evaluating the concept of “feed-in” tariffs.</p> <p>The regulatory framework to facilitate these incentives is being developed by the National Energy Regulator of South Africa.</p>	Jeffrey's Bay
155	A Stakeholder Jeffrey's Bay Public Meeting	Does this mean that renewables cannot replace either coal or nuclear?	<p>Renewable energy is an important complement to other forms of electricity generation, and specifically to coal and nuclear power stations which provide base load electricity generation (base load means generating electricity continuously every second of the day, night and weekend).</p> <p>It is Eskom's stance that ALL of the primary energy resources, including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear, need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p>	Jeffrey's Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
156	Mr Peter Neilson Nelson Mandela Bay Municipality	There are a number of aspects that need to be considered in terms of renewables, as per the new Electricity Act. Although, there is a perception that renewables would be significantly cheaper, however if you look at what is required, the cost for nuclear will be equal to renewables. Looking at all the requirements, there are a number of challenges with regards to renewables and South Africa is miles away from reaching that target for renewables.	Comment noted, with thanks.	Jeffrey's Bay
157	Mr Andrew Jensen Kromme River Share Block	Where are the plans for the power lines? When will they be made public? It is quite surprising that the plans for power lines have not been made public, as they are an integral part of the planning for a Nuclear Power Station.	The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making. It is expected that during the next round of public consultation the preliminary findings on the routing of the transmission lines will be available.	Jeffrey's Bay
158	Mr Dannie Rautenbach Kouga Development Agency	The project falls within the three provinces. He is assuming that the project will be adjudicated by the Western, Northern and Eastern Cape provinces. Who will be the main adjudicator?	The National Department of Environmental Affairs and Tourism (DEAT) is the environmental decision-making authority. All relevant provincial authorities are commenting authorities to the DEAT.	Jeffrey's Bay
159	Mr Tyrone Ferndale Nelson Mandela Bay Municipality	Will the Project Team look at the impact of not building a Nuclear Power Station in the Eastern Cape? What will happen to the area?	When undertaking an EIA, one has to look at a host of alternatives, including the no-go alternative.	Jeffrey's Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Jeffrey's Bay
160	Mr Ryan Donnelly For a Clean Tomorrow	What kind of Electro-magnetic field comes from the Nuclear Power Station and from the transmission lines?	<p>Electromagnetic fields are present everywhere in our environment, both natural and man-made. Man-made sources of electromagnetic fields form a major part of industrialized life - electricity power supply and all appliances using electricity, computer screens, anti-theft devices and security systems, radio, television, radar and cellular telephone antennas, and microwave ovens.</p> <p>(Reference. World Health Organisation www.who.int/peh-emf/about/WhatisEMF/en/)</p> <p>In the nuclear power station electromagnetic fields would be produced in all the equipment using electricity in the power station, and particularly the generators, transformers and the transmission lines. The levels of electromagnetic fields in the nuclear power station arising from the electrical equipment would be similar to that found in other large power stations.</p> <p>No electromagnetic fields are produced in the nuclear reactors by the nuclear reaction.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
162	Mr Monier Local Resident	<p>In terms of human evacuation, will there be a guarantee that no accident will happen?</p> <p>We all know and aware of failure problems and implications. All this knowledge will be enough for a person to oppose the proposed Nuclear Power Station.</p> <p>People will immediately move from the area within the identified nuclear sites.</p>	<p>The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>Comment noted.</p> <p>Comment noted. The experience around Koeberg does not support this comment. There has been remarkable growth in terms of property development since the Nuclear Power Station was commissioned in 1984 (i.e. 23 years ago). The conservation area around Koeberg is very popular with the public for recreational activities (for example, walking and cycling, bird watching, appreciating the fynbos).</p> <p>The socio-economic study that is part of the EIA will look at the impact of the Nuclear Power Station on the social environment.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
163	Dr J Cawood St Francis Bay Disaster Management	<p>Why change the information in the Spatial Development Plan (SDP) or Structure Plan that Eskom had funded for the Kouga Local Municipality?</p> <p>Eskom referred to a 16km, 5km, now can be even much less, as may be 3km or 2km, exclusion zone.</p> <p>Please note that I&APs can say yes to a Nuclear Power Station, but do not mean within their backyard.</p>	<p>The Greater St Francis Spatial Development Plan (SDP) prepared for Kouga Municipality was based on information that was available at the time (2002/3).</p> <p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>Comment noted.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
164	Mr Ian Fynn Marydale Properties	<p>It is very difficult to provide comments on the EIA process when we do not know what the National Nuclear Regulator (NNR) is looking at.</p> <p>Most of the questions are around the emergency, safety, etc. Currently, it is difficult to start asking questions when we do not know what the NNR will say in terms of the emergency evacuation zone. There are a lot of unknowns at this stage.</p>	<p>Comment noted.</p> <p>The EIA is focusing on environmental issues (social, economic and bio-physical) relating to the proposed nuclear power station.</p> <p>The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator (NNR). The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>The NNR will determine the extent of the required emergency planning zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>The NNR Act makes provision for public hearings related to an application for a nuclear installation licence.</p>	
165	Mr Peter Barrett St Francis Kromme Trust	What has happened to the Pebble Bed Modular Reactor (PBMR)?	<p>The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. In particular, a demonstration power plant is under development. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for the PBMR demonstration power plant to be constructed on the Koeberg site. The EIA and nuclear licensing processes are in progress. If successful then Eskom will purchase from the PBMR (Pty) Ltd Company power stations that use the pebble bed modular reactor technology, subject to normal commercial and regulatory requirements (authorisations, licences, permits etc) being met .</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
166	Mr Andy Oosthuizen St Francis Bay Residents Association	What does the legislation say in terms of 16 km zone?	<p>The 16 km refers to the emergency planning zone. The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	
167	Mr Robin Neil Simpson Kromme Trust	In terms of radiation, surely the National Nuclear Regulator (NNR) should take into account factors such as prevailing winds in the area, the catchment area, industries that feed Port Elizabeth, industries supplying South Africa, etc, before making a decision.	<p>These and other factors will be taken into account in the independent assessment undertaken by the National Nuclear Regulator (NNR).</p> <p>The NNR Act makes provision for public hearings related to an application for a nuclear installation licence.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
168	Mr Monier Local Resident	<p>Why was Thyspunt selected?</p> <p>Why is Oyster Bay one of the sites, it is still not clear why such a pristine environment is being investigated.</p> <p>Even if you look at the economics, how do you justify having a Nuclear Power Station in Oyster Bay where there is no infrastructure, etc?</p> <p>Eskom should be looking at areas near Coega in Port Elizabeth, etc.</p>	<p>The whole South African coastline was investigated as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. Thyspunt site was selected as being a site that is suitable for the construction of a nuclear power station.</p> <p>The area near Coega was looked at and it is one of the sections of the coastline that was found to be unsuitable for a Nuclear Power Station due to the underlying geological conditions.</p>	Humansdorp
169	A Stakeholder Humansdorp Public Meeting	Some Interested and Affected Parties (I&APs) do not have access to the website, how do they get information on who is undertaking which specialist study, etc?	<p>ACER (Africa), the consulting firm undertaking the Public Participation for this EIA can be contacted for all information requirements.</p> <p>As the project progresses, information will be made available at key strategic places for communities to access. The EIA team would welcome suggestions from the public on venues that are easily accessible to the public. A list of venues, their addresses and opening times is available on the project website (www.eskom.co.za/EIA/Nuclear 1).</p>	Humansdorp

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
170	Mr Rudi Dahlhauser Local Resident	How can the study team expect comments from the public when they have no information regarding nuclear power? The priority needs to be the provision of information to the public about nuclear energy. How do you expect people to be submitting comments when they do not know what Nuclear is?	<p>These meetings were intended to announce the Environmental Impact Assessment for the proposed Eskom nuclear power station, and thus constitute only the first of a number of engagements as part of the EIA process. The EIA process is scheduled to continue through the remainder of 2007 and 2008.</p> <p>Eskom has undertaken to hold public nuclear awareness workshops in selected areas as a separate process to improve the understanding of nuclear power among the participants.</p> <p>An EIA is not about the numbers of people that participate in the process. Rather its focus is the identification of relevant issues and assessment of potential impacts.</p>	
171	A Stakeholder Humansdorp Public Meeting	<p>Would the “nuclear awareness process” not start providing information to people in a manner that favours Eskom?</p> <p>How is Eskom going to ensure that people are aware of the proposed Nuclear Power Station, understand both the advantages and disadvantages?</p>	<p>Eskom is not the only source of information. Thus, the information provided in the nuclear awareness workshop can be compared with other sources of information. The Department of Minerals and Energy and the National Nuclear Regulator have also published information on radiation and on nuclear power (reference, DME website: www.dme.gov.za/energy/documents.stm look under nuclear energy; NNR website www.nnr.co.za , look under media desk and publications)</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
172	Ms Nurene Jassiem Die Burger	<p>What is the current lifespan of the Koeberg Power Station?</p> <p>How much power in South Africa comes from nuclear energy?</p> <p>Does South Africa use power from other countries?</p> <p>How much power is exported to other countries?</p>	<p>Koeberg has been operating for the past 23 years since it first came into operation in 1984. It has a design lifetime of 40 years of operation. This may be extended subject to economic viability and normal commercial and regulatory requirements (authorisations, licences, permits etc) being met.</p> <p>Currently, approximately 5% of South Africa's electricity is supplied by nuclear power.</p> <p>In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.</p>	
173	Mr Daniel Reinecke Makhetha Development Consultants	<p>The applicant should provide funding for the communities. Money or resources should be made available to the public to attend meetings.</p> <p>How do you expect people to participate if they do not have funds to get involved?</p> <p>It should be in the interest of the study team to get information from the public so they must create opportunities for people to participate.</p>	<p>The EIA team has scheduled meetings in many different towns and villages to ensure that as many Interested and Affected Parties (I&APs) as possible can participate in the process.</p> <p>Based on previous experience of other EIA's there has not been a situation where communities could not participate because of lack of funds.</p> <p>One of the key tasks for the EIA team is to review the process and confirm that reasonable efforts have been made for the public to participate and have access to information in an equitable manner.</p> <p>At all stages during the process, Interested and Affected Parties (I&APs) can contact the EIA team should they identify gaps in the public participation process.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
174	Mr Harry Weistra St Francis Bay Residents Association	<p>Does Eskom need a nuclear power station in the Eastern Cape?</p> <p>Does it mean that each site will have a power station? By implication, this EIA is establishing an order of priority, Nuclear 1, 2, 3, 4, etc. There are 5 sites and there are no alternatives for the Eastern Cape. So, the only possible site in the Eastern Cape is Thyspunt.</p>	<p>The Eastern Cape is one of the provinces in the country experiencing significant growth. Currently, the Eastern Cape is dependent on power that is generated from the coalfields in Mpumalanga.</p> <p>This EIA is for the first nuclear power station, and is looking at 5 alternative sites.</p> <p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>The whole South African coastline was investigated as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. Thyspunt site was selected as being a site that is suitable for the construction of a nuclear power station.</p> <p>The EIA will also validate the findings of the previous site selection studies (NSIP), within the current social, biophysical and economic context, including the reasons why other potential sites in the area were deemed to be less or unsuitable.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
175	Mr Daniel Reinecke Makhetha Development Consultants	<p>There should have been a variation in the selection of sites. Not all sites that were selected are the current 5 sites. There was also a political and socio-political context over and above the biophysical environment. The basis for this selection may no longer be relevant for the current 5 sites.</p> <p>He requested that the Nuclear Site Investigation Programme Reports (NSIP) be made available to the public.</p>	<p>Comment noted.</p> <p>The whole South African coastline was investigated as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. Thyspunt site was selected as being a site that is suitable for the construction of a nuclear power station.</p> <p>The EIA will also validate the findings of the previous site selection studies (NSIP), within the current social, biophysical and economic context, including the reasons why other potential sites in the area were deemed to be less or unsuitable.</p> <p>Subsequent to this meeting, the EIA team has made these reports available. They can be downloaded from the Eskom website, www.eskom.co.za/eia under "Nuclear 1" link.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
176	Mr Peter Barrett St Francis Kromme Trust	In terms of the National Nuclear Regulator (NNR) process, will the public have an opportunity to submit information to the NNR?	<p>The National Nuclear Regulator Act makes provision for any person to make representations to the NNR Board, relating to health, safety and environmental issues connected with an application for a nuclear installation licence. The Act also makes provision for public hearings on any application for a nuclear installation licence.</p> <p>Note that any application for a nuclear installation licence must, <i>inter alia</i>, be copied to the relevant municipality and must be advertised in newspapers in the municipal area.</p> <p>Eskom is only likely to submit an application to the NNR later in 2008.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Humansdorp
177	Dr J Cawood St Francis Bay Disaster Management	According to the spatial development plan and some studies undertaken by CSIR it was explicitly stated that the Eastern Cape coast is the windiest part of the South African coastline. By implication, this presents an opportunity for wind generation. Why is Eskom not investigating these options? Where is Eskom in the windiest part of South Africa?	<p>Although some areas are considered as windy in South Africa, according to the wind resource map, not all areas are suitable for wind generation plants. A national wind atlas for South Africa was compiled with the assistance of CSIR and Department of Minerals and Energy (DME). Areas with potential for future commercial wind farm development have been identified in South Africa.</p> <p>Eskom is continuously investigating new resources and technologies for the cost-effective generation of electricity - a mix of different energy resources are required. Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100 MW. The turbines are to be erected in an area that is approximately 25km².</p> <p>However, wind turbines cannot operate during gale force winds nor do they operate if the wind speeds are too low. Wind energy is therefore not suitable for base load electricity, for which the current proposed project is intended. Base load means generating electricity continuously every second of the day, night and weekend. Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation. Wind energy is thus an important complement to other forms of electricity generation, rather than an alternative for those other forms.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>It is Eskom's stance that ALL of the primary energy resources, including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear, need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p>	Humansdorp
178	<p>Ms Debbie Nicholson Chas Everitt International</p>	<p>The Final Environmental Impact Report (FEIR), is it totally non-negotiable? Would Eskom negotiate the findings of the Impact Assessment?</p> <p>Does public opinion have any weight?</p>	<p>The Department of Environmental Affairs and Tourism (DEAT) will make a decision based on the findings presented in the Environmental Impact Report (EIR).</p> <p>The findings of the EIR are not negotiable as they are compiled by independent specialists. Prior to the submission of the Final Environmental Impact Report (EIR), the public has an opportunity to review the report, including the various specialist studies and provide comment. After completion of the review period, the Final EIR is submitted to the National Department of Environmental Affairs and Tourism (DEAT) for their review and decision making</p> <p>Everyone has a right to voice his or her opinion on the proposed project. The reasoning behind the opinion should be clear and valid. Ultimately DEAT will consider all information, including public comments and opinions in making their final decision.</p>	Humansdorp
179	<p>A Stakeholder Humansdorp Public Meeting</p>	<p>Which findings could lead to the cancellation of Thyspunt? Will you consider the economic impact as well as understand the social environment, etc.</p>	<p>A fatal flaw on a proposed site could lead to a site being deemed unsuitable during the EIA process.</p> <p>The EIA will consider all relevant aspects of the social, economic and biophysical environment.</p>	Humansdorp
180	<p>Mr P Monier Local resident</p>	<p>Do you anticipate any impacts of a Nuclear Power Station on the surrounding environment?</p>	<p>The EIA team cannot pre-empt the findings of the EIA. Therefore we would allow the process to take its course.</p>	Humansdorp

No	Name & Organisation	Issue/Comment/Concern	Response	
181	A Stakeholder Humansdorp Public Meeting	The property values will drop in the area surrounding the proposed sites. Is Eskom going to compensate landowners of negative affects on properties?	<p>The experience around Koeberg does not support this comment. There has been remarkable growth in terms of property development since the Nuclear Power Station was commissioned in 1984 (i.e. 23 years ago). The conservation area around Koeberg is very popular with the public for recreational activities (for example, walking and cycling, bird watching, appreciating the fynbos).</p> <p>The economic specialist study will be undertaken to help understand the extent of the potential impact (positive and negative) on property values in the area surrounding the proposed sites.</p>	Humansdorp
182	A Stakeholder Oyster Bay Public Meeting	Is Thyspunt one of the five sites that will be implemented?	Thyspunt is one of the 5 alternative sites that are being investigated by the current EIA.	Oyster Bay
183	A Stakeholder Oyster Bay Public Meeting	Is South Africa exporting any power?	In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.	Oyster Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
184	A Stakeholder Oyster Bay Public Meeting	How come only some parts in Cape Town are switched off when there are power shortages?	<p>Eskom implements load shedding in an equitable manner. Depending on the circumstances, load shedding may be required on a national basis, or may be required on a regional basis (such as was the case in the Western, Southern and Northern Cape in early 2006). When there is not enough electricity generating capacity available to meet the demand from Eskom's customers, either on a national or on a regional basis, it could be necessary to interrupt supply to certain areas. This is called load shedding. Eskom introduces load shedding as a last resort measure. Only when all other options at its disposal have been exhausted, such as running its power stations at maximum capacity and interrupting supply to industrial customers with special contracts will Eskom cut supply to other customers. Load shedding involves rotating the available electricity between all customers in a controlled manner. Load shedding schedules are drawn up to ensure that a few areas do not bear the brunt of the shortages. By spreading the impact, affected areas are not interrupted for more than a few hours at a time.</p> <p>Eskom is not the only distributor of electricity. The large metropolitan areas such as Cape Town, do their own distribution. When loading shedding becomes necessary, Eskom informs the metro by how much the load must be decreased. The metro then itself decides how it will implement load shedding in the areas under its control.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
185	A Stakeholder Oyster Bay Public Meeting	<p>Do you use seawater for the energy generation process?</p> <p>Will there be an impact if the temperature of the water changes?</p>	<p>Sea water is used to cool the steam that drives the turbines This is the case for any power station located on the coast, whether it is a nuclear, coal, or gas power station.</p> <p>Using Koeberg as an example: Approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. Independent studies conducted by the University of Cape Town before the station started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University). The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea.</p> <p>This information is applicable to Koeberg site and must not be extrapolated to another site, as the dispersion and cooling of the outfall water depends on the receiving coastal conditions. This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
186	Mr George Hardie Local Resident	In terms of electricity demand projections, how much is earmarked for exporting to other countries? Do projections make a provision for exports? Does Eskom have a limit in terms of the amounts of energy they can export?	<p>In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.</p> <p>Eskom is involved in projects in neighbouring countries, for example the Inga hydro power scheme in the Democratic Republic of Congo, or is in discussions with other utilities in the region regarding possible agreements to purchase power from power stations that they are considering building, for example in Namibia and Botswana. Eskom intends to continue to import power from neighbouring countries up to a maximum value, such that South Africa would not become overly dependent on neighbouring countries for power.</p>	
187	A Stakeholder Oyster Bay Public Meeting	Is this EIA for a Koeberg type of plant?	<p>Koeberg consists of two units, each of 900 MW net electrical capacity. The nuclear reactors are Pressurized Water Reactor (PWR) technology of 1970 design, modified with safety improvements over the past 23 years.</p> <p>Eskom is considering the latest designs of Pressurized Water Reactor technologies for the proposed power station. The proposed power station would have a capacity of about 3500 MW. To ensure conservatism, the EIA will assume a power station of 4000 MW, but in addition will consider the maximum carrying capacity of each of the alternatives sites from an environmental perspective.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
188	Ms Andrea von Holdt Coega Development Corporation	<p>Will any additional sites be required, in addition to the 5 identified sites?</p> <p>Will any expansion programmes be looked at in order to take care of the 20 000 MW?</p>	<p>Should the known sites not be sufficient for 20 000 MW, Eskom will have to look for additional sites.</p>	
189	Mr Morgan Griffiths WESSA	<p>Has Eskom looked at strategic planning, i.e. how the government is planning to take care of power requirements in South Africa?</p>	<p>The Department of Minerals and Energy (DME) has developed an Integrated Energy Plan (IEP) for South Africa, which looks at resources and considers what will best take care of energy requirements in South Africa. (refer DME website www.dme.gov.za). The IEP is currently being updated</p> <p>The National Energy Regulator of South Africa (NERSA) has developed a National Integrated Resource Plan (NIRP), specifically addressing the demand and supply of electricity in South Africa. (refer NERSA website www.ner.co.za). The NIRP is currently being updated.</p> <p>Eskom also performs integrated strategic electricity planning, projecting demand far into the future and evaluating the options for supplying that demand. Eskom's plans are regularly reviewed and updated.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
190	Ms Elza van Lingen Cape St Francis Civic Association	<p>Eskom sponsored the Kouga Coast Sub-Regional Structure Plan - this should be made available. She has previously requested a copy and has not received it.</p> <p>She is concerned about the 16k m exclusion zone for the Thyspunt site. The proposed Nuclear Power Station seems to contradict the provisions in the Kouga Coast Sub-Regional Plan.</p>	<p>A member of the municipality was present at the meeting and undertook to pass a copy on to Ms Elza van Lingen</p> <p>The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>The socio-economic study of the EIA will assess the potential impact that the proposed Nuclear Power Station will have on all Spatial Development Plans.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
191	Mr Guy Rogers The Herald	How safe is this technology? If safe, why the exclusion zone?	<p>The technology is safe. The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zones based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
192	A Stakeholder Oyster Bay Public Meeting	We understand that there are capacity issues and understand that they have been addressed by the transmission lines running from Mpumalanga to Cape Town, now why are you looking at Oyster Bay?	<p>The strengthening of the transmission network is necessary to ensure that the electricity that is generated in the power stations can be efficiently and reliably transmitted to customers in different parts of the country. This work is in progress and will continue into the future.</p> <p>However, additional power stations are also required. The annual growth in peak demand for electricity has been higher than an average of 4% per annum over the past few years. The Government's Accelerated and Shared Growth Initiative for South Africa (ASGISA) is aiming for the economy to grow by approximately 6% per annum into the future – which implies an annual growth of approximately 4% in the demand for electricity. The peak demand has continued to increase compared to previous years, and at 4% annual electricity growth rate, is projected to increase to just below 80 000 MW by 2025. Eskom will thus need to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in 2025.</p>	
193	Ms Elza van Lingen Cape St Francis Civic Association	The impacts on the Tjokka industry and on water temperature are well-known impacts and need to be fully investigated in order to better understand the extent of the impact prior to making decisions.	These comments have been noted for investigation during the Impact Assessment Phase of the EIA.	

No	Name & Organisation	Issue/Comment/Concern	Response	
194	A Stakeholder Oyster Bay Public Meeting	<p>Most of the population in and around Oyster Bay could not make the meeting. It is suggested that the Project Team holds another meeting during the period 16th – 25th December 2007 when most absent landowners are home for holidays.</p> <p>The St Francis Bay community has been excluded during this initial consultation phase. There are landowners who are not in the area, their concerns and comments are important.</p>	Comment noted.	Oyster Bay
195	A Stakeholder Oyster Bay Public Meeting	In terms of the identification of the sites, the Thyspunt site is a Natural Heritage Site. The Minister, Mr Marthinus van Schalkwyk is promoting world heritage sites. The project team should be aware that they are already looking at an extremely sensitive site (Thyspunt) for a Nuclear Power Plant.	Comment noted. This is will be incorporated in the EIA. It was Eskom who requested, and undertook the necessary activities, to have Thyspunt declared a natural heritage site.	Oyster Bay
196	Mr Morgan Griffiths WESSA	Although the South African Authorities (the Department of Environmental Affairs and Tourism and the National Nuclear Regulator) will make a decision, will an international agency review this decision? Will international standards be applied to this proposed development?	A number of authorisations, licences and permits are required, amongst which are the decisions of DEAT and the National Nuclear Regulator (NNR). The standards that the NNR apply are based on the international recommendations, for example the International Atomic Energy Agency, and in some cases are stricter than the international recommendations.	Oyster Bay
197	Ms Ann Knight Chas Everitt International	Coega is one example of the industries in the area. We are living in a pristine environment, have done all these studies however the government still allows aluminium smelters. Undertaking Environmental Impact Assessments (EIA) does not seem to make up anything in real good terms. There are lots of studies being undertaken, the government will still continue with what they want, despite the impacts of proposed developments.	<p>An Environmental Impact Assessment (EIA) is not meant to only consider the biophysical aspect of the environment.</p> <p>This EIA is particularly undertaken within a framework that recognises the three dimensions of sustainable development, i.e. the social, economic, biophysical dimensions of the environment.</p>	Oyster Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
198	A Stakeholder Oyster Bay Public Meeting	Are we investigating another blue print process?	No. The EIA process is driven by all, the stakeholders, the specialists, technical teams, etc. All Interested and Affected Parties (I&APs) are encouraged to make use of the opportunities for constructive engagement.	
199	Mr Roy Seeney Pennisands	<p>He lives close to the proposed Thyspunt site and is also a member of the Tsitsikama Farmers Association. He has met Mr Gert Greeff and Ms Carin de Villiers, both from Eskom Generation, Koeberg Nuclear Power Station.</p> <p>For the past 20 years, certain developments have been retarded in the area due to the condition of roads. The Eastern Cape is basically an intensive farming (cattle, sheep and goats) province.</p> <p>The community surrounding the Thyspunt site needs to understand the following:</p> <ol style="list-style-type: none"> a) The economic implications of the proposed project within the context of what is currently going on in the area. b) Potential impacts of the proposed power station during and post construction. c) The impacts of the proposed nuclear power station in terms of the infrastructure requirements. d) The potential transportation and traffic related impacts of the proposed project. 	Comments noted for investigation during the Impact Assessment Phase of the EIA.	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
		<p>We seem to be focussing on what is going to happen when the Nuclear Power Station is in operation in the future. This proposed project requires that planning and agreements be made now in preparation for the future. As an example, there is a need for potable water, roads, waste management facilities, sewerage facilities etc. This kind of infrastructure should be taken care of as part of planning for future requirements.</p>	<p>Although, Eskom does not have a mandate to build roads, Eskom does engage with the South African National Roads Agency Limited (SANRAL) and the Department of Transport (DOT) in order to deal with planning requirements that will enable Eskom to execute its mandate of power supply for South Africa. In some cases, Eskom has had discussions with DOT regarding roads or infrastructure that is preventing Eskom from executing its duties. The same approach would be adopted for authorities that are dealing with waste management or any other infrastructural requirements.</p>	
200	Mr Roedolf Gerber Farmer	<p>The impact of the proposed nuclear power station on farming activities should be looked at.</p>	<p>Using Koeberg as an example: Koeberg has operated for the past 23 years within very close proximity of wheat, cattle and dairy farms. The nearest farms are within the 10 km radius of Koeberg. It has not affected the farming activities in any way. This can be attested to by the farmers in the Philadelphia area (farming union nearest Koeberg). It is suggested that farmers make contact with farmers living near Koeberg so as to get a feel of how they have experienced living and farming around Koeberg Nuclear Power Station. This will give them an independent opinion as to any impact on their farming activities.</p> <p>Samples of fish, meat, vegetables, milk water, etc are regularly collected from the area around Koeberg and analysed to determine any possible effects on the food chain. Samples are also sent overseas for independent analysis and proof that Eskom is operating within the required limits.</p> <p>The expectation is thus that the operation of the proposed nuclear power station (remembering that 5 sites are being investigated for the proposed nuclear power station, one in the</p>	

No	Name & Organisation	Issue/Comment/Concern	Response
		<p>If the exclusion zone is to be reduced to 3 km, the study team should note that Oyster Bay falls within the 3 km zone. How is this going to be dealt with?</p> <p>If Thyspunt does come up as a preferred site, how is Eskom going to deal with the sensitivity of the area and residents within the 5 or 3 km radius?</p> <p>Thyspunt is also a conservation area.</p>	<p>Eastern Cape, two in the Western Cape and two in the Northern Cape) will not hamper agricultural activities in the vicinity.</p> <p>This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken.</p> <p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>Eskom requested, and undertook the necessary activities, to have Thyspunt declared a conservation area and a natural heritage site. Measures to continue to protect conservation status of the Thyspunt site will be studied by various specialists (e.g. botanical, fauna, flora, etc.) during the EIA.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
201	A Stakeholder Oyster Bay Public Meeting	How are labourers going to be dealt with during construction? There is little infrastructure for housing, etc. in and around Oyster Bay.	The construction phase of the proposed project, including the current and required infrastructure and the potential impacts thereof will be assessed as part of the EIA.	Oyster Bay
202	Ms Sandra Hardie St Francis Bay Conservancy	<p>There is a large population in and around St Francis Bay, which need to be included in this process. The project team should communicate with them so they are aware of the implications of the proposed Nuclear Power Station.</p> <p>There are Red Data Species, particularly Fynbos species, that need to be taken care of. Eskom needs to indicate what will happen to Fynbos during construction and after construction.</p>	<p>Comment noted.</p> <p>The EIA specialist's studies on fauna and flora will identify sensitive species and areas on the Thyspunt site as well as identify appropriate mitigation techniques. The same will occur for the other sites that are being investigated.</p>	Oyster Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
203	A Stakeholder Oyster Bay Public Meeting	What will happen to waste? What plans are in place to deal with waste?	<p>Radioactive waste is internationally categorised into three levels:</p> <p>Using Koeberg as an example:</p> <p>Low-level radioactive waste consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. It is compacted into metal drums (200 litre drums). These drums are transported by road to Vaalputs, the National Radioactive Waste Disposal site in the Northern Cape for near surface disposal. Vaalputs is managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. The level of radioactive in the metal drums decreases with time; after approximately 30 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Intermediate-level waste is solidified by combining it into a sand/cement mix, which is poured into concrete containers, which are transported to Vaalputs for near surface disposal. The level of radioactive in the concrete containers decreases with time; after approximately 300-400 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response
			<p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p> <p>For proposed nuclear power station, Eskom will follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
204	A Stakeholder Oyster Bay Public Meeting	Eskom has a vested interest in power supply in South Africa. How can they assure us that they will also respect/uphold the interests of South African citizens.	Eskom has a legislated mandate and obligation to supply electricity to South Africa. Eskom's performance over many years has demonstrated its commitment to looking after the interests of South Africa. In fulfilling its mandate; Eskom is still required to abide by all laws of South Africa. The National Energy Regulator of South Africa has the legislated mandate to ensure that the interests of both the suppliers of energy as well as the consumers of energy are respected and upheld. Specifically for nuclear matters, the National Nuclear Regulator has the legislated mandate to ensure that the interests of people and the environment are respected and upheld.	
205	Ms Ann Knight Chas Everitt International	She is not sure if Eskom or South Africa has the expertise to take care of a nuclear power station. Does Eskom have a genuine team to run the proposed Nuclear Power Station? In Europe they have very good skills and expertise to take care of the Nuclear Power Stations. The question is not about the construction but more on the management of the Nuclear Power Station, once in operation.	Eskom and South Africa have demonstrated for more than 23 years their ability to manage nuclear power. International peer reviews of Koeberg and Eskom have confirmed this good performance. Eskom operates and manages the Koeberg nuclear power station in accordance with the standards and requirements prescribed by the National Nuclear Regulator (NNR). The National Nuclear Regulator (NNR) will not issue a license to Eskom if all requirements for constructing, operating, maintaining and managing the proposed nuclear power station safely are not, and will not be fully met.	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
206	Mr Kobus Brits Local Resident	<p>What is the distance between Thyspunt Site and the Oyster Bay community?</p> <p>The exclusion zone will limit people who come to the area, tourist and local residents. He is not against a nuclear power station as he understands the need. He, however, finds it unfortunate that all pristine areas are earmarked for nuclear power stations.</p>	<p>5 km.</p> <p>A comprehensive tourism impact study will be undertaken as part of the EIA.</p> <p>If one looks at the Koeberg situation, it is a sensitive area and Eskom established a nature conservation area around the nuclear power station. Measures to continue to protect the conservation status of the Thyspunt site will be studied by various specialists (e.g. botanical, fauna, flora, etc.) during the EIA.</p>	
207	A Stakeholder Oyster Bay Public Meeting	<p>He wanted to confirm that all specialists are working on all proposed 5 sites. Is the study team hoping to get all studies completed by 2008? He is concerned about the timeframes and about the whole project.</p> <p>The planning process concerns him a lot as the EIA process can be fast tracked so that everything happens before 2010.</p> <p>What happened to Eskom within the past 15 years with regards to proper planning?</p>	<p>Yes, all specialists are currently looking at all 5 sites.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p> <p>The EIA has not been fast tracked. All timeframes are in line with previous EIA processes undertaken.</p> <p>When the Government changed in 1994, there was a moratorium from Government on Eskom not to construct any more power stations in South Africa with the view that this function would be taken up by Independent Power Producers (IPPs). However, IPPs did not materialise and in September 2004 Government lifted the moratorium and requested Eskom to provide 70% of the projected new electricity capacity requirements.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
			<p>From the 1980s through to early 2000s, the growth in demand for electricity followed a trend averaging between 2 and 3 % per annum. However, over the past few years the annual growth in peak demand for electricity has been higher than an average of 4% per annum.</p> <p>Consequently Eskom is having to accelerate the planning to construct new power stations.</p>	
208	Ms Liesbeth Verstrate Oyster Bay Lodge	How will the number of objections affect the selection of site? Do objections influence the selection of site?	<p>The Environmental Impact Assessment (EIA) process does not work on the number of objections, but rather the substantive nature of any objection or comment.</p> <p>The number of objections will thus not influence the decision but rather the substantive nature of all issues raised and the potential environmental impacts will ultimately influence the decision. It is the environmental authorities' (Department of Environmental Affairs and Tourism [DEAT]) decision whether or not the proposed project is authorised based on the findings of the EIA.</p>	
209	Ms Andrea von Holdt Coega Development Corporation	The EIA allows for participation of Interested and Affected Parties (I&APs) - what would happen to an I&APs' role if the project is authorised? Would Eskom consider participation of I&APs after the authorisation of the project? If yes, she would like to suggest that the public is represented in a forum or the public acts as a watchdog even after environmental authorisation has been issued.	For some projects, partnerships for conservation have been established after the issuing of environmental authorisation. Where possible, Eskom is always open to partner and enhance the development of an area, for example for social development, conservation, etc reasons.	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
210	Mr Louis Geldenhuys Local Resident	Can he assume that Eskom owns all 5 of the alternative sites?	Ownership of the land comprising the 5 alternative sites is as follows: <ul style="list-style-type: none"> ▪ Eastern Cape, Thyspunt - Eskom owns 95% of the land. ▪ Western Cape, Bantamsklip - Eskom owns 50% of the land. The State owns the remaining 50% of the land. ▪ Northern Cape, Brazil Site - The State owns the land. ▪ Northern Cape, Schulpfontein Site – De Beers Consolidated Mines owns this property. ▪ Western Cape, Duynefontein Site – Eskom owns 100% of the land. 	
211	Mr Adri Barkhuizen Endangered Wildlife Trust	We seem to discuss these kinds of strategic questions at all Eskom meetings. He has been to meetings for transmission lines in Uitenhage. Most of these strategic questions are not being discussed. Isn't there a forum where all these energy strategic questions can be discussed? He feels that public meetings should focus more on tourism.	Comments noted	
212	Mr Solly Koen Local Resident	The Oyster Bay area does not have basic infrastructure. Services are non-existent and cannot cope with the requirements of the current residents. This needs to be looked at properly during the detailed investigations of the EIA. Therefore, Oyster Bay cannot carry a Nuclear Power Station if the basic infrastructural requirements have not been taken care of. There is no storm water drainage, no drinking water, no roads, no sewerage treatment, etc.	Comments noted for investigation during the Impact Assessment Phase of the EIA.	

No	Name & Organisation	Issue/Comment/Concern	Response	
213	Ms Heike Engel Local Resident	<p>What is the capacity of Koeberg?</p> <p>What is the proposed capacity of the new Nuclear Power Station?</p>	<p>The net “sent out” capacity of Koeberg is 1 800 MW.</p> <p>The proposed power station would have a capacity of about 3500 MW. The EIA will consider the maximum possible MW for each of the 5 sites.</p>	Oyster Bay
214	Ms Cheryl Gibson-Dicks WESSA Eastern Cape	<p>How long will the uranium supplies last? Considering the number of nuclear power stations being looked at and uranium quantities that would be required?</p>	<p>Every 1000 MW of nuclear power capacity needs approximately 200 tonnes of natural uranium per annum. Thus, 20 000 MW of nuclear power operating for a 60 year period would require about 240 000 tonnes of natural uranium.</p> <p>South Africa’s Reasonable Assured Resources (RAR) of uranium is estimated to be 521 000 tonnes, with a further 211 000 tonnes as inferred resources. [Reference: IAEA/NEA “Uranium 2005: Resources Production and Demand” – the “Red Book”]. Thus, South Africa has enough uranium resources to support bigger than 20 000 MW nuclear programme for the envisaged 60 year lifetime of the modern nuclear power plants.</p>	Oyster Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
215	Ms Cheryl Gibson-Dicks WESSA Eastern Cape	Renewable energies – are they being looked at?	<p>Yes. It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, as well as gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Hydro power: South Africa is a water scarce country and does not have large rivers for hydro power. Eskom has two hydro power stations on the Orange River, the 360 MW (4 units each 90 MW) Gariep power station and the 240 MW (2 units each 120 MW) Vanderkloof power station. The use of these two stations is restricted to peak and emergency electricity demand situations, subject to the availability of water in the Gariep and Vanderkloof dams. Investigations are in progress for an upgrade at Gariep power station.</p> <p>Wind energy: An EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation.</p> <p>Solar energy: An EIA has been undertaken and an environmental impact report has been submitted to the Department of Environmental Affairs and Tourism for a research and demonstration project for a concentrated solar thermal plant of 100 MW near Upington. Mirrors reflect the sunlight onto a central point.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
			<p>Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100MW. The turbines are to be erected in an area that is approximately 25km².</p>	
216	Ms Cheryl Gibson-Dicks WESSA Eastern Cape	Exclusion zone – how wide is the exclusion zone? Can houses be built in the exclusion zone?	<p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station. Development may continue within the emergency planning zone up to a limit specified by the National Nuclear Regulator.</p> <p>Taking Koeberg as an example Two emergency planning zones are in place for the Koeberg nuclear power station. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>The proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
217	A stakeholder Oyster Bay Public Meeting	In terms of disaster management, what rules would apply at the Thyspunt site?	<p>The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The NNR will determine the required emergency planning based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	
218	Ms Ann Knight Chas Everitt International	She understands that it is now possible to use “clean” coal, i.e. remove carbon dioxide, capture and store it. Why is Eskom not looking at clean coal as an alternative to a nuclear power station?	<p>Eskom monitors and participates in international forums investigating the possibility of capturing and storing carbon dioxide emissions. Currently no capture and storage of carbon dioxide from fossil fuelled power stations is in commercial operation. Research is on-going in many countries on carbon capture and storage but it is anticipated that it will be many years before the technology becomes commercially available.</p> <p>Eskom is continuing to construct coal fired power stations, of the latest commercially viable designs. For example, Eskom’s newest coal-fired power station, Medupi, currently under construction, is based on supercritical plant design, which operates at higher temperatures and pressures and hence is more efficient and hence cleaner than the existing plant.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>Eskom continues to monitor and investigate the progress internationally with the commercialisation of more efficient coal-fired power stations. Eskom is also researching underground coal gasification as a means to generate electricity from coal – a pilot facility is being established in Mpumalanga Province near the Majuba coal-fired power station.</p>	Oyster Bay
219	<p>Mr Jacobus du Toit Oyster Bay Ratepayers Association</p>	<p>Will all 5 sites be used?</p>	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one nuclear power station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	Oyster Bay

No	Name & Organisation	Issue/Comment/Concern	Response	Oyster Bay
220	Mr Rufus Dreyer Local Resident	<p>He is concerned about the impact on property values, as Oyster Bay is within the emergency-planning zone.</p> <p>Will there be any restrictions for the Oyster Bay community?</p>	<p>The experience around Koeberg is that there has been remarkable growth in terms of property development since the Nuclear Power Station was commissioned in 1984 (i.e. 23 years ago). The conservation area around Koeberg is very popular with the public for recreational activities (for example, walking and cycling, bird watching, appreciating the fynbos).</p> <p>The economic specialist study will be undertaken to help understand the extent of the potential impact (positive and negative) on property values in the area surrounding the proposed sites.</p> <p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>Taking Koeberg as an example: Two emergency planning zones are in place for the Koeberg nuclear power station. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>The proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
221	Mr Ben Rheeder Kouga Local Municipality	<p>Approximately 80% of the economy of the area is derived mainly from agriculture.</p> <p>During the construction and operation phases of the proposed Nuclear Power Station, preference should be given to locals with regards to employment (where possible).</p> <p>If you import labour during construction, how do you get rid of them post construction? This is a real issue and can lead to additional social related issues.</p>	<p>Comment noted for investigation during the Impact Assessment Phase of the EIA.</p> <p>Although Eskom will require that the contractors make every effort to employ local labour where practical, this will be insufficient and hence outside labour will be brought into the area.</p> <p>This issue will be addressed in the social and socio-economic study as part of the EIA. It is anticipated that the construction workers will be employed in other construction projects once this construction has been completed.</p>	Oyster Bay
222	Ms Sandra Jane Hardie St Francis Conservancy	<p>The St Francis Bay Conservancy has a special interest in the Thyspunt site and would like to be involved in all processes and decisions that are made for the site.</p> <p>The Sea Vista community should be consulted and information presented to them should be simplified or less technical.</p>	<p>Comments noted with appreciation.</p> <p>Comments noted. A similar public meeting will be held with the Sea Vista community</p>	Oyster Bay
223	A stakeholder Milnerton Public Meeting	Suggested that we use a friendly and an easily accessible venue for a public meeting.	Suggestion noted, with appreciation.	Milnerton

No	Name & Organisation	Issue/Comment/Concern	Response	Miherton
224	Dr Phillip Lloyd Industrial & Petrochemical Consultants	<p>Is Eskom not underestimating the power supply again? Eskom should play a role in terms of advising the Government with regards to the demand and supply.</p> <p>He understands that this proposal involves enriched uranium. South Africa does not have enriched uranium. What are Eskom's plans in this regard?</p>	<p>When the Government changed in 1994, there was a moratorium from Government on Eskom not to construct any more power stations in South Africa with the view that this function would be taken up by Independent Power Producers (IPPs). However, IPPs did not materialise and in September 2004 Government lifted the moratorium and requested Eskom to provide 70% of the projected new electricity capacity requirements. From the 1980s through to early 2000s, the growth in demand for electricity followed a trend averaging between 2 and 3 % per annum. However, over the past few years the annual growth in peak demand for electricity has been higher than an average of 4% per annum.</p> <p>Consequently Eskom is having to accelerate the planning to construct new power stations.</p> <p>Eskom does engage with government and provides information regarding electricity supply and demand.</p> <p>South Africa has significant reserves of natural uranium. Natural uranium consists mainly of two isotopes, uranium-238 (about 99%) and uranium-235 (less than 1%). All uranium, regardless from which country in the world it comes, must be enriched in the uranium-235 isotope (to about 3 – 5 %) to enable it to be used in the type of nuclear power stations (Pressurised Water Reactor) under consideration.</p> <p>South Africa previously had facilities to enrich uranium and manufacture nuclear fuel elements. These facilities were shutdown many years ago since they were not economically viable. Hence enrichment of uranium and the manufacture of nuclear fuel elements for Koeberg are currently performed overseas.</p> <p>The Government is considering the viability of re-establishing enrichment and fuel manufacture facilities in South Africa.</p>	
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No	Name & Organisation	Issue/Comment/Concern	Response	Milnerton
225	Mr Kevin Thorpe Milnerton Residents Association	Is there potential to double up the capacity at Koeberg? The disposal of waste needs to be addressed in the EIA?	One of the sites under consideration (Duynefontein) is located adjacent to the existing Koeberg Nuclear Waste disposal issues will be assessed as part of the EIA. In addition, in terms of the nuclear Energy Act and the National Nuclear Regulator Act, both the Department of Minerals and Energy and the National Nuclear Regulator respectively have responsibilities in terms of radioactive waste.	
226	Mr Simon Arenhold Landowner	What staff complement do you require during the construction and operation of the proposed Nuclear Power Station?	During construction it is expected to peak in the order of approximately 5,000 - 6,000 workers. Using Koeberg as an example, there are currently 1000 - 1200 permanent employees at Koeberg, i.e. under normal operating conditions. During shut down and maintenance periods, an additional 500 people are contracted and come onto site. The proposed power station would be about double the size of Koeberg; however the number of permanent employees is anticipated to be less than double the Koeberg requirements. This issue will be addressed in the social and socio-economic study as part of the EIA. .	

No	Name & Organisation	Issue/Comment/Concern	Response	Milnerton
227	Ms Maya Aberman Earthlife Africa	Why is the Emergency Planning Zone (EPZ) for the proposed Nuclear Power Station smaller compared to the one for Koeberg?	<p>The National Nuclear Regulator will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place. The Koeberg design was developed in the 1970s.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs</p>	
228	Dr Phillip Lloyd Industrial & Petrochemical Consultants	There is high-level radioactive waste at Koeberg at the moment, what is being done with it?	<p>Radioactive waste is internationally categorised into three levels:</p> <p>Using Koeberg as an example: Low-level radioactive waste is consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. It is compacted into metal drums (200 litre drums). These drums are transported by road to Vaalputs, the National Radioactive Waste Disposal site in the Northern Cape for near surface disposal. Vaalputs is managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. The level of radioactive in the metal drums decreases with time; after approximately 30 years, the level of radioactivity is equivalent to natural background levels.</p>	Milnerton

No	Name & Organisation	Issue/Comment/Concern	Response
			<p>Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Intermediate-level waste is solidified by combining it into a sand/cement mix, which is poured into a mixed into a concrete slurry and solidified in concrete containers, which are transported to Vaalputs for near surface disposal. The level of radioactive in the concrete containers decreases with time; after approximately 300-400 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p> <p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>For the proposed nuclear power station, Eskom intends to follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p>	
229	A Stakeholder Milnerton Public Meeting	<p>How much storage capacity for spent fuel is left for the Koeberg Nuclear Power Station?</p> <p>If Duynefontein site is the preferred site, will it need a separate storage facility for spent fuel?</p> <p>In terms of the Radioactive Waste Management Policy, he would like to alert Eskom that the process could be very long. The United States has spent billions of dollars dealing with radioactive waste and has not come any closer to dealing with the problem. The policy being referred to may take even longer. He is concerned about the process.</p>	<p>The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p> <p>Yes. Regardless of which site is eventually selected if the project receives all the required authorisations, a storage facility for spent fuel on the site will be required. For the proposed nuclear power station, Eskom intends to follow the same practices for the management of radioactive waste as used at Koeberg, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p> <p>Comment noted with thanks.</p>	Milnerton

No	Name & Organisation	Issue/Comment/Concern	Response	Milnerton
230	Mr Kevin Thorpe Milnerton Resident's Association	Is it fair to assume that South Africa will be able to do what Canada and Sweden are doing in terms of waste management? Can South Africa afford it?	<p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p> <p>For proposed nuclear power station, Eskom will follow the same practices for the management of radioactive waste as used at Koeberg, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations</p>	
231	Dr Chris Hartnady Umvoto (Pty) Ltd	Between Eskom and National Energy Corporation of South Africa (NECSA), where does the responsibility lie in terms of the final waste depository site?	In terms of the Nuclear Energy Act, the Department of Minerals and Energy (DME) is the responsible authority in South Africa for radioactive waste management. NECSA is a statutory body reporting to the Minister of Minerals and Energy.	Milnerton

No	Name & Organisation	Issue/Comment/Concern	Response	
232	Ms Maya Aberman Earthlife Africa	With regards to uranium beneficiation and enrichment process, previous studies have shown that it was not worth it or cost effective because of the energy investment in South Africa. Can you elaborate on the issue?	<p>South Africa previously had facilities to enrich uranium and manufacture nuclear fuel elements. These facilities were shutdown many years ago since they were not economically viable. Hence enrichment of uranium and the manufacture of nuclear fuel elements for Koeberg are currently performed overseas.</p> <p>The Government is considering the viability of re-establishing enrichment and fuel manufacture facilities in South Africa.</p>	Milnerton
233	A Stakeholder Milnerton Public Meeting	Is it true that the Koeberg Nuclear Power Station is designed to withstand seismic risks? The original design was meant to be 8 km away from the shoreline?	<p>All nuclear power stations are designed to withstand seismic events. In the case of Koeberg specifically, the nuclear part of the power station is built on a concrete raft resting on aseismic bearings.</p> <p>Koeberg was designed for construction at its current location on the Duynefontein site next to the shoreline.</p>	Milnerton
234	Mr Simon Arenhold Landowner	In terms of the parameter for this Environmental Impact Assessment (EIA) – is the study team looking at the local impacts or the extended impact?	Local and national impacts, as appropriate, within the different specialist disciplines will be assessed.	Milnerton
235	Mr Kevin Thorpe Milnerton Residents Association	It is important for Eskom to inform the public as to where they are going to store waste after the next 40 years. This is important and cannot be ignored.	<p>For the proposed nuclear power station, Eskom intends to follow the same practices for the management of radioactive waste as used for Koeberg, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p> <p>In the case of Koeberg:</p>	Milnerton

No	Name & Organisation	Issue/Comment/Concern	Response
			<p>Low-level radioactive waste consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. It is compacted into metal drums (200 litre drums). These drums are transported by road to Vaalputs, the National Radioactive Waste Disposal site in the Northern Cape for near surface disposal. Vaalputs is managed by Necea on behalf of the State, in terms of a licence issued by the National Nuclear Regular. The level of radioactive in the metal drums decreases with time; after approximately 30 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Intermediate-level waste is solidified by combining it into a sand/cement mix, which is poured into is mixed into a concrete slurry and solidified in concrete containers, which are transported to Vaalputs for near surface disposal. The level of radioactive in the concrete containers decreases with time; after approximately 300-400 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p> <p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
			<p>are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p>	
236	Mr Kevin Thorpe Milnerton Residents Association	The total overall capacity required by 2025 is 20 000 MW. Can we assume that each site will have a nuclear power station, i.e. 4 000 MW per site?	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites in principle may be considered for use in the future.</p> <p>It is important to note that the current EIA is only for one nuclear power station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	Milnerton
237	A Stakeholder Milnerton Public Meeting	Is there any available information on the carrying capacity per site?	The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site.	Milnerton

No	Name & Organisation	Issue/Comment/Concern	Response	Milnerton
238	Mr Simon Arenhold Landowner	Does Eskom own any of the land where the sites are located?	Ownership of the land comprising the 5 alternative sites is as follows: <ul style="list-style-type: none"> ▪ Eastern Cape, Thyspunt - Eskom owns 95% of the land. ▪ Western Cape, Bantamsklip - Eskom owns 50% of the land. The State owns the remaining 50% of the land. ▪ Northern Cape, Brazil Site - The State owns the land. ▪ Northern Cape, Schulpfontein Site – De Beers Consolidated Mines owns this property. ▪ Western Cape, Duynfontein Site – Eskom owns 100% of the land. 	
239	Mr Kevin Thorpe Milnerton Residents Association	What is the status of the Pebble Bed Modular Reactor (PBMR) project?	The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. In particular, a demonstration power plant is under development. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for the PBMR demonstration power plant to be constructed on the Koeberg site. The EIA and nuclear licensing processes are in progress. If successful then Eskom will purchase from the PBMR (Pty) Ltd Company power stations that use the pebble bed modular reactor technology, subject to normal commercial and regulatory requirements (authorisations, licences, permits etc) being met.	
240	Ms Maya Aberman Earthlife Africa	Has Eskom signed any agreements with the potential suppliers for PWR?	No. Eskom has not yet entered into agreements with any of the potential suppliers. To date, Eskom has only identified potential suppliers with whom Eskom intends to negotiate for the proposed nuclear power station.	

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
241	Mr Keenan van Wyk Earthlife Africa	The people who are represented at the meeting are not representing the entire community. He feels that there is a need for more representation before proceeding to next phases of the EIA.	Comment noted.	
242	A stakeholder Atlantic Beach Public Meeting	<p>In terms of constructing the proposed Nuclear Power Plants in South Africa, does Eskom have an idea as to how many jobs will be created?</p> <p>Eskom is hoping that there will be job creation, but does not know how many jobs will be created?</p>	<p>During construction the number of direct jobs is expected to peak in the order of approximately 5000 - 6000 workers.</p> <p>Using Koeberg as an example, there are currently 1000 - 1200 permanent employees at Koeberg, i.e. under normal operating conditions. During shut down and maintenance periods, an additional 500 people are contracted and come onto site. The proposed power station would be about double the size of Koeberg; however the number of permanent employees is anticipated to be less than double the Koeberg requirements.</p> <p>The job creation will be bigger than the number of direct jobs created during the construction and later the operation and maintenance phase of the proposed power station. This issue will be addressed in the social and socio-economic study as part of the EIA. .</p>	Atlantic Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
243	Mr Keenan van Wyk Earthlife Africa	A nuclear power plant only requires specialised skills. Jobs are only created during the construction period.	<p>A nuclear power plant requires staff with a range of skills. Using Koeberg as an example, there are currently 1000 - 1200 permanent employees at Koeberg, i.e. under normal operating conditions. During shut down and maintenance periods, an additional 500 people are contracted and come onto site. Some of these staff are specifically- skilled nuclear operators, others have skills that are required in any industrial facility, and still others have skills that are required in any business.</p> <p>The proposed power station would be about double the size of Koeberg; however the number of permanent employees is anticipated to be less than double the Koeberg requirements.</p> <p>The skills breakdown of the jobs will be identified and discussed in the EIA as part of the social and economic studies</p>	
244	Ms Samarie Smith Die Burger	In terms of natural gases, what is available?	<p>South Africa's indigenous resources of natural gas are currently not available in sufficient quantities to fuel power stations – hence the South African Open Cycle Gas Turbines use liquid fuel (e.g. diesel). Eskom is continuing to investigate being able to access natural gas from the Kudu gas fields in Namibia, the Ibhubesi gas fields off the west coast of South Africa, the gas fields in Mozambique and liquid natural gas from international markets, to generate electricity in combined cycle gas turbine power plants.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
245	Mr Arthur J Perold Melkbosstrand Ratepayers	<p>Has been in the area for the past 17 years. It concerns him that whenever there is a shut down at the Koeberg Power Station, Eskom imports French personnel to SA to fix the Nuclear Power Station. This brings him to the following question "does South Africa have sufficient skills to deal with disasters, evacuation, safety, etc?"</p> <p>Most people are not able to attend meetings during the day. The study team should consider the timing. Meetings need to be in the evenings when most people can attend.</p>	<p>Koeberg was designed by French companies who own the intellectual rights and knowledge of the detailed design. During normal maintenance shutdowns, or unexpected shutdowns to make repairs, French staff from the original equipment manufacturers are contracted to perform some of the specialised activities, which require specialised staff and equipment. There has been insufficient demand for such specialised activities for it to be viable for South African companies to invest in the necessary skills and equipment. Where South African companies exist with the required skills, such companies are contracted to perform maintenance activities. The vast majority of the activities are performed by South African companies and their staff.</p> <p>Eskom and South Africa has sufficient skills and resources to operate and manage the power station. It is anticipated that if the proposed power station is authorised, it will become commercially viable for more South African companies to invest in the skills and equipment required to perform some of the specialised activities.</p> <p>Comment noted with thanks.</p>	
246	Mr John Walmsley Institute for Nuclear Engineers	<p>Eskom has decided to investigate 20 000 MW - is it a firm decision?</p> <p>How do we know if we are on the project database?</p>	<p>As indicated in the Background Information Document for the EIA, The Eskom Board has approved the investigation of up to 20 000 MW of nuclear capacity by 2025.</p> <p>ACER (Africa) captures all registrations from the various meetings into the project database. You are always welcome to contact ACER Africa to confirm your details</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
247	A Stakeholder Atlantic Beach Public Meeting	<p>Where do the timeframes for construction and implementation fit within Eskom's planning?</p> <p>The following issues must be addressed during this EIA:</p> <ul style="list-style-type: none"> ▪ How is the Nuclear Power Station going to affect the housing developments around the proposed sites? ▪ Where will construction staff be housed, including their families? ▪ Infrastructure is not sufficient to carry additional 6 000 people during construction. How is Eskom going to deal with local infrastructure, housing, water requirements, etc? 	<p>Construction will take approximately 7 years. Based on current planning, Eskom is aiming to start construction late 2009 or early 2010 so as to enable the first unit to be in operation by 2016.</p> <p>Comments noted for investigation during the Impact Assessment Phase of the EIA.</p>	Atlantic Beach
248	A Stakeholder Atlantic Beach Public Meeting	What will be the implications of the increased traffic during construction?	These issues will be investigated as part of the traffic and transportation specialist study during the Impact Assessment Phase of the EIA.	Atlantic Beach
249	Mr David Brook Milnerton Residents Association	Would like to confirm that Eskom is looking at a Nuclear Power Station that can generate up to 4 000 MW.	The current EIA is for one nuclear power station and the associated infrastructure, of the Pressurised Water Reactor (PWR) type technology, on one of the 5 sites. The capacity of the power station will be approximately 3500 MW; The maximum capacity for each site will be assessed and identified as part of the EIA	Atlantic Beach

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
250	Mr Francis Carruthers Interested Party	<p>Does Eskom own all 5 alternative sites currently under investigation? If so, how did they attain these sites?</p> <p>If you have 5 alternative sites, are you not going to end up building at all 5 sites?</p> <p>Is Eskom not supposed to be getting themselves in the queue for nuclear reactors as part of planning? If not, Eskom may be faced with challenges in the future, as a number of countries also require nuclear reactors.</p>	<p>Ownership of the land comprising the 5 alternative sites is as follows:</p> <ul style="list-style-type: none"> • Eastern Cape, Thyspunt - Eskom owns 95% of the land. • Western Cape, Bantamsklip - Eskom owns 50% of the land. The State owns the remaining 50% of the land. • Northern Cape, Brazil Site - The State owns the land. • Northern Cape, Schulpfontein Site – De Beers Consolidated Mines owns this property. • Western Cape, Duynefontein Site – Eskom owns 100% of the land. • For those sites or portions of the sites that Eskom owns, Eskom purchased the land from the owners. <p>The current EIA is for one nuclear power station and the associated infrastructure, of the Pressurised Water Reactor (PWR) type technology, on one of the 5 sites. There is a potential that all five sites will be used in future. This is however based on the outcomes of the investigations. Should all sites be technically and environmentally feasible, Eskom could use them in the future, subject to obtaining the necessary authorisations.</p> <p>Eskom will initiate formal negotiations with the potential suppliers towards the end of 2007.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
251	Mr Vincent Bergh City of Cape Town - Sub Council Blaauwberg	<p>We did not receive any notification of the meetings. If people did not pick this up in newspapers, there is no way they would have known about the meetings.</p> <p>Can sludge not be an option for power generation?</p>	<p>Existing databases were used to identify Interested and Affected Parties (I&APs). Invitations were also sent to the City of Cape Town. Although a considerable effort has been made in identifying stakeholders, it is also possible that not all members of the various organisations will be identified initially. Identification of stakeholders is an ongoing activity during the EIA, i.e. for the duration of the study. Media/newspapers are additional methods of information dissemination.</p> <p>Sludge can be used but only for smaller applications.</p>	
252	Mr Keenen van Wyk Earthlife Africa	<p>Who will conduct the study on people who have cancer? People will be living near the nuclear power station?</p>	<p>The nuclear safety of, and the risk of a nuclear accident at the proposed power station will be independently assessed by the National Nuclear Regulator. The NNR will only issue a nuclear installation licence for the proposed power station if it is satisfied that the risk of an accident is acceptable low.</p> <p>Experience gained internationally and from Koeberg is that people do not become ill or die from living in close proximity to a nuclear power station. Medical examinations are done every single year on all employees working at the Nuclear Power Station. The medical specialists have not identified shown that any cancers that a very small number of employees may have developed are the result of their employment at the power station.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
		<p>If the process is transparent, can Earthlife Africa be involved in the health specialist study?</p> <p>If there was a disaster, who from Eskom will take responsibility for the disaster?</p>	<p>All Interested and Affected Parties (I&Aps), irrespective of organisations they belong to, will have an opportunity to review the specialist studies. In addition, individuals or organisations can appoint their independent reviewers. However, an independent specialist study should not be influenced by a particular organisation.</p> <p>Eskom Holdings Limited, as the legal entity, owner and operator has strict liability and responsibility; this is in line with international trends.</p>	
253	Mr Andrew Luger MLH	What are the health implications of coal fired power stations in comparison to those of nuclear power stations?	All industrial facilities could have health impacts if they are not managed, operated and maintained correctly. Eskom complies with the requirements of the Occupational Health and Safety Act, the requirements of water-related and air-quality related legislation, and other relevant legislation and regulations (for example related to asbestos) as well as the requirements of the National Nuclear Regulator and follows international best practice to keep the risk of health impacts at and from its power stations to an acceptable level.	
254	Mr Andrew Kenny Interested and Affected Party	He is happy to share this information with the public: Based on studies and research done in the world, a person who works at a Nuclear Power Station is exposed to the least amount of radiation compared to a person exposed to background radiation. There is also no increase in cancer from people living near Nuclear Power Stations.	Comment noted.	

No	Name & Organisation	Issue/Comment/Concern	Response	Atlantic Beach
255	Cllr Heather Brenner City of Cape Town	<p>Is the Pebble Bed Modular Reactor (PBMR) project still on Eskom's plans?</p> <p>The existence of Koeberg in the area is already a constraint in terms of housing development. If Duynefontein were to be the preferred site, how much more restrictions would be required?</p>	<p>The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. In particular, a demonstration power plant is under development. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for the PBMR demonstration power plant to be constructed on the Koeberg site. The EIA and nuclear licensing processes are in progress. If successful then Eskom will purchase from the PBMR (Pty) Ltd Company power stations that use the pebble bed modular reactor technology, subject to normal commercial and regulatory requirements (authorisations, licences, permits etc) being met.</p> <p>In the case of the Koeberg nuclear power station, two emergency planning zones are in place. The first zone is up to approximately 5 km from the power station, within which no further development may take place. The second zone is from 5 km up to approximately 16 km from the power station, within which limited development may take place.</p> <p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>The location of the proposed power stations has not yet been determined. 5 alternative sites are under investigation.</p>	
ENVIRONMENTAL IMPACT ASSESSMENT (EIA: 12/12/20/944) SCOPING – RECORD OF PUBLIC MEETINGS HELD DURING 06 JUNE – 14 AUGUST 2007		If you are going to have public meetings, can we please have a Public Address System?	142	

No	Name & Organisation	Issue/Comment/Concern	Response
		<p>Will any excess nuclear waste be added to the waste storage facility at Koeberg?</p>	<p>For proposed nuclear power station, Eskom proposes to follow the same practices for the management of radioactive waste as followed at Koeberg, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p> <p>Request noted for future meetings.</p>
256	Cllr Heather Brenner City of Cape Town	<p>Whilst Koeberg is in operation, the emergency evacuation plan is the responsibility of the City of Cape Town. She is concerned and also feels that Eskom does not contribute to the development of the area, etc.</p> <p>It is also going to cost the City of Cape Town a fortune to take care of the evacuation problems, etc. Disaster management problems have significant cost implications.</p> <p>In terms of the life of a nuclear plant, how long will they last? Some of the proposed sites are remote. One cannot run a Nuclear Power Station in isolation, it has to be associated within a new town, etc. Practical examples are the two sites, Brazil and Schulpfontein.</p>	<p>Comments noted. Eskom, and specifically Koeberg, contributes to the emergency plan, over and above the rates and taxes paid to the City of Cape Town.</p> <p>Koeberg's current design life is 40 years. New PWR nuclear power stations have a design life of 60 years. The impact and integration of the nuclear power station within the existing urban infrastructure will be assessed as part of the EIA</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
		<p>What would be the implications on the social life of people working and living in the areas where the Nuclear Power Stations are planned?</p> <p>In terms of reliability, what are the economic implications of extending the life span of a power station?</p>	<p>A social impact study will be undertaken as part of the Impact Assessment Phase of the EIA.</p> <p>The extension of the life of any power station, including a nuclear power station, is based on feasibility studies showing that it is financially the best option (compared to other demand and supply options) and is subject to all the necessary safety studies and authorisations (including approval by the NNR in the case of nuclear power stations).</p>	
257	A Stakeholder Atlantic Beach Public Meeting	Does Scoping consider the no-go alternative?	Yes. It is one of the legal requirements of an Environmental Impact Assessment (EIA) is to examine the implications of a no-development option.	Atlantic Beach
258	Ms Beertjie Boonzaier De Beers Consolidated Mines: SAP Admin	How many people are currently employed at Koeberg Power Station?	There are currently 1000 - 1200 permanent employees at Koeberg, i.e. under normal operating conditions. During shut down and maintenance periods, an additional 500 people are contracted and come onto site.	Kleinsee
259	Mr Joseph Engelbrecht De Beers Consolidated Mines	Why Nuclear power and not wind power generation?	<p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, as well as gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100MW The turbines are to be erected in an area that is approximately 25km².</p>	Kleinsee

No	Name & Organisation	Issue/Comment/Concern	Response	Kleinsee
260	Mr Owen D Smith De Beers Consolidated Mines: Namaqualand Mines	Why the Pressurised Water Reactor (PWR) type technology? Is PWR a more modern technology compared to Pebble Bed Modular Reactor (PBMR)?	<p>The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for a PBMR demonstration power plant to be constructed on the Koeberg site. The EIA for the PBMR Demonstration Power Plant is in progress. Pending the successful operation of the Demonstration Plant, Eskom will purchase PBMR power stations, subject to normal commercial conditions and regulatory requirements (authorisations, licences, permits etc) being met.</p> <p>However, South Africa's electricity demands are growing at a fast pace. Eskom will need to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in 2025. The Eskom Board approved the investigation of up to 20,000 MW (of the total of 40 000 MW) of nuclear capacity by 2025. The 20 000 MW would comprise of the existing Koeberg power station, new conventional Pressurised Water Reactor (PWR) nuclear technology and PBMR technology that has been commercialised.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Kleinsee
261	A Stakeholder Kleinsee Public Meeting	What is currently happening with waste and what will be the arrangement for the proposed Nuclear Power Station?	<p>Radioactive waste is internationally categorised into three levels: Using Koeberg (1800 MW net output) as an example:</p> <p>Low-level radioactive waste is consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. It is compacted into metal drums (200 litre drums). These drums are transported by road to Vaalputs, the National Radioactive Waste Disposal site in the Northern Cape for near surface disposal. Vaalputs is managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. The level of radioactive in the metal drums decreases with time; after approximately 30 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Intermediate-level waste is solidified by combining it into a sand/cement mix, which is poured into is mixed into a concrete slurry and solidified in concrete containers, which are transported to Vaalputs for near surface disposal. The level of radioactive in the concrete containers decreases with time; after approximately 300-400 years, the level of radioactivity is equivalent to natural background levels.</p> <p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Kleinsee
			<p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>The radioactivity of some of the materials in high level radioactive waste decreases back to natural levels within relatively short periods of time. Other materials however remain radioactive for several thousands of years. Hence the need to dispose of high level radioactive waste in deep geological disposal facilities where it is isolated from the environment.</p> <p>For proposed nuclear power station, Eskom will follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p>	
262	Mr Joseph Engelbrecht De Beers Consolidated Mines	<p>He is concerned that waste is dangerous. Anything could happen during transportation. This is an issue, which needs to be addressed as part of the EIA investigations.</p> <p>Eskom and the study team need to spell out the risks associated with nuclear waste.</p>	Comment noted with thanks. The EIA will take this into consideration.	

No	Name & Organisation	Issue/Comment/Concern	Response	
263	A Stakeholder Kleinsee Public Meeting	He is concerned about highly radioactive waste and the radiation effects. It concerns him that although waste can be buried, it would still remain active for many years.	Comment noted. Few wastes are as strictly regulated and managed as radioactive wastes. Radioactive waste is subject to strict regulation based on international standards. Note that this is not necessarily true of other wastes from other industries which remain permanently toxic.	Kleinsee
264	Mr Gert Klopper De Beers Consolidated Mines	He is concerned that the site selection studies undertaken 20 years ago may have used considerations that were only applicable at the time. If one were to revisit the considerations, it is possible that the 5 alternative sites may no longer be valid. The conditions that were applicable at the time may not necessarily be suitable. How possible that the site selection criteria will hold relevant after all these years?	Eskom has requested the technical team to revisit the considerations and conditions that the Nuclear Site Investigation Programme (NSIP) was based on. This will be done to ensure the current validity of the studies	Kleinsee
265	A Stakeholder Kleinsee Public Meeting	Undisturbed pristine pieces of land should be protected. The study team needs to ascertain that if an undisturbed site is selected, there have been good grounds for doing so. It would be a pity to use an undisturbed site whilst disturbed sites are available for a Nuclear Power Station.	Comment noted with thanks.	Kleinsee
266	A Stakeholder Kleinsee Public Meeting	What makes a site preferable and not preferable?	There are technical and environmental considerations, which determine the suitability of a site. The environmental considerations will be investigated during the EIA and include biophysical aspects (underlying geology, seismicity etc.), biotic aspects (fauna, flora etc.), economic, cultural and social aspects.	Kleinsee

No	Name & Organisation	Issue/Comment/Concern	Response	Kleinsee
267	A Stakeholder Kleinsee Public Meeting	Through this EIA process, is there going to be collaboration with all the relevant stakeholders, e.g. mining, relevant government departments, conservation interest groups, etc?	<p>Yes.</p> <p>The study team is aware that there are mining rights in some of the areas, specific conservation interests, planning in progress for infrastructural requirements, spatial development frameworks for local government, etc. All this needs to be coordinated properly so as to enable all stakeholders to input on what is best for each proposed site.</p>	
268	A Stakeholder Kleinsee Public Meeting	Why Brazil and Schulpfontein sites? These sites are in an isolated area.	<p>During the 1980s, Eskom undertook studies (conducted by the Environmental Evaluation Unit [EEU] of the University of Cape Town [UCT]), which looked at the various sites along the coast. The key criteria for the suitability of the sites included the following:</p> <ul style="list-style-type: none"> ▪ Biophysical environment (underlying geology, seismic risk, hydrology, soils, climate, physical oceanography, sedimentology). ▪ Biotic environment. ▪ Infrastructure, land use, marine use and demography. ▪ Social, economic and cultural environments. <p>Based on the above selection criteria, among other sites, Brazil and Schulpfontein were selected.</p>	
269	A Stakeholder Kleinsee Public Meeting	Although the West Coast has cold waters, it is far away from everything else. One of the key determining factors should be the idea of concentrating infrastructure together, e.g. keeping it at Koeberg where enabling environment has been established. Should this not rule out the West Coast sites altogether?	<p>It is agreed that each site has specific advantages and disadvantages, these will all be identified and addressed during the course of the EIA</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
270	A Stakeholder Kleinsee Public Meeting	So there could be a need to have a Nuclear Power Station at Brazil and another one in Schulpfontein?	<p>Yes, that is a possibility. The technical and environmental carrying capacity per site varies. There may be a need to split units between sites depending on what can be built in each area as well as Eskom's requirements in terms of generation and transmission.</p> <p>If all sites are viable (technically and environmentally), they could all, in principle, be used in the future for nuclear power stations.</p>	Kleinsee
271	Mr Vincent Modena De Beers Namaqualand Mines	Is Eskom only looking at Nuclear generation as an option? What about other alternative sources of energy?	<p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, as well as gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Apart from coal and nuclear, Eskom also has projects underway related to gas, hydro, wind, solar, demand side management and energy efficiency. Research programmes re also underway regarding wave and ocean power, biomass, etc.</p>	Koinaas
272	A Stakeholder Koinaas Public Meeting	What is the size of the new sites?	The actual footprint of the proposed Nuclear Power Station will be approximately 31 hectares depending on the final design, plant type and capacity	Koinaas

No	Name & Organisation	Issue/Comment/Concern	Response	
273	Mr Dave Cloete De Beers Consolidated Mines	Has the Schulpfontein site been bought by Eskom?	Neither of the sites in the Northern Cape belong to Eskom, ownership is as follows <ul style="list-style-type: none"> ▪ Northern Cape, Brazil Site - The State owns the land. ▪ Northern Cape, Schulpfontein Site – De Beers Consolidated Mines owns this property. 	Koinaas
274	Mr Vincent Modena De Beers Namaqualand Mines	How many people will be working at the Koeberg Power Station?	There are currently 1000 - 1200 permanent employees at Koeberg, i.e. under normal operating conditions. During shut down and maintenance periods, an additional 500 people are contracted and come onto site.	Koinaas
275	Mr Dave Cloete De Beers Consolidated Mines	Does Eskom know from where labourers would be sourced?	Although Eskom will require that the contractors make every effort to employ local labour where practical, this will be insufficient and hence outside labour will be brought into the area. The potential impact of all immigrant labour will be assessed as part of the EIA	Koinaas
276	A Stakeholder Koinaas Public Meeting	How do you compare the Pebble Bed Modular Reactor (PBMR) with the Pressurised Water Reactor (PWR) in terms of generation capacity or output?	The pebble bed modular reactor (PBMR) technology that is being developed by the PBMR (PTY) Ltd company is modular in nature. Each module will have an electrical output of approximately 165 MW. The Pressurised Water Reactor (PWR) type technology that Eskom is considering for the proposed nuclear power station is a modernized version (i.e. more advanced) of the technology used at Koeberg. Each unit will have an output of between about 1000 MW and about 1600 MW, depending on the design.	Koinaas

No	Name & Organisation	Issue/Comment/Concern	Response	
277	A Stakeholder Koingnaas Public Meeting	Should the Northern Cape sites be the preferred sites, Eskom should note that there are a number of social issues that will need to be taken care of compared to the Eastern and Western Cape Provinces, e.g. housing, hospitals, schools, roads, etc	Comments noted for consideration during the Impact Assessment Phase of the EIA investigations.	Koingnaas
278	Mr Gideon du Preez De Beers Consolidated Mines	Will transmission lines be included in the Nuclear 1 Environmental Impact Assessment?	<p>A separate EIA for the integration of transmission lines will be undertaken.</p> <p>The EIA process for the transmission lines will find the most environmentally and technically feasible alternative routes for the required transmission lines. The transmission line EIA is being aligned as closely as possible with the EIA for the proposed nuclear power plant to ensure effective decision-making. It is expected that during the next round of public consultation the preliminary findings on the routing of the transmission lines will be available.</p>	Koingnaas
279	Mr Dave Cloete De Beers Consolidated Mines	What process and criteria were followed to reduce the 10 sites to 5 sites?	There were a number of factors or criteria that were used to reduce these numbers, this included demographics, various biophysical characteristics amongst others.	Koingnaas

No	Name & Organisation	Issue/Comment/Concern	Response	Koingnaas
280	A Stakeholder Koingnaas Public Meeting	What is Eskom's preference in terms of the 5 alternative sites?	<p>At this stage there is no preference. The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites may be used in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology on one of the 5 sites.</p>	
281	Mr Dave Cloete De Beers Consolidated Mines	<p>Has the Botanist specialist been identified?</p> <p>The area is exceptionally unique in reptiles. There is a lot of information that has not been written. So, specialists should not only limit themselves to published work but also make use of ground-truthing as part of their investigations.</p> <p>He also wanted to know if Eskom would consider sponsoring a PhD student who is undertaking research work on reptiles occurring in the West Coast?</p>	<p>There will be two specialist botanists, one specialising on west coast flora and another one on south coast flora, appointed as part of the EIA team.</p> <p>Comment noted for all specialist investigation.</p> <p>Eskom would consider any research proposal based on its applicability to the Eskom business.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
282	Mr Dave Cloete De Beers Consolidated Mines	<p>If Schulpfontein is selected as one of the preferred sites, will it require a 16 km emergency evacuation zone like Koeberg?</p> <p>Mr and Mrs Cloete operate a chalet within the 16km zone. He would like to know if this would affect their operation and how?</p>	<p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>This would be dependent on the NNR decision regarding the extent of the required emergency planning zone.</p>	Koingaas
283	Mr Derick Cloete UASA	Infrastructure is a potential problem in some areas. This includes roads and transportation requirements.	These issues will be investigated by traffic and transportation specialist study, during the Impact Assessment Phase of the EIA.	Koingaas
284	A Stakeholder Koingaas Public Meeting	There is insufficient infrastructure in some areas. Is Eskom going to develop the areas to accommodate the requirements for construction and operation of a Nuclear Power Station? Will Eskom mobilise the relevant government departments to take care of their responsibilities?	<p>Although Eskom is not the delegated authority for housing, roads, etc, Eskom will initiate discussions with the relevant government departments with a view to mobilise them to assist Eskom in fulfilling its mandate, i.e. of electricity provision.</p> <p>Each department, however, needs to take responsibility for delivering on its mandate.</p>	Koingaas

No	Name & Organisation	Issue/Comment/Concern	Response	
285	Mrs Wilna Oppel Northern Cape Department of Tourism, Environment and Conservation	<p>Is it not possible to look at non-developed areas for the Nuclear Power Station sites? How far should the Nuclear Power Station be from the coast? She is concerned about the National Coastal Management Bill, which has specifications in terms of what can be done within a specified area near or along the coast. The specifications may differ with provinces</p> <p>She suggested that the Marine Coastal Management Committee would like to be part of the discussions for the proposed Nuclear Power Station.</p>	<p>Comments noted with thanks. This will be taken into account in the EIA studies.</p> <p>Comment noted. This will be facilitated by the Public Participation Consultants.</p>	Koingnaas
286	A Stakeholder Koingnaas Public Meeting	He is aware of a gas exploration project at the moment, is there a link between gas generation and the proposed Nuclear Power Station?	There are no linkages with the proposed Nuclear Power Station.	Koingnaas
287	A Stakeholder Koingnaas Public Meeting	What happens if something significantly wrong happens to the Nuclear Power Station? Who will be responsible for the emergency, evacuation, etc.	<p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p> <p>In terms of the legislated regulations, the local Authority is responsible for the implementation of the emergency plan. The owner / operator of the nuclear power station is responsible to contribute and cooperate with the local Authority.</p>	Koingnaas
288	A Stakeholder Koingnaas Public Meeting	As part of energy saving strategy, Eskom supplied light bulbs to the majority of communities in the West Coast, with the exception of the Koingnaas community. Is there a specific reason that Koingnaas was excluded?	The Eskom representatives were not aware of which communities had or had not been part of the programme. During the first part of 2006 it was not possible to involve every single community and every single person in the programme. Eskom is however continuing to roll-out its demand side management and energy efficient programme.	Koingnaas

No	Name & Organisation	Issue/Comment/Concern	Response	Hermanus
289	A Stakeholder Hermanus Public Meeting	<p>It is important that Eskom strongly looks at the social acceptance of nuclear amongst the people.</p> <p>People do not understand how you generate electricity from nuclear, hence the reluctance to accept nuclear.</p> <p>Communities need to better understand nuclear generation. The essential element, which is missing on this project is awareness creation. If this is not taken care of, Eskom is going to receive major resistance from the public.</p>	<p>Eskom is working on a programme and planning a series of nuclear awareness workshops for the public. It is expected that workshops will be held within the next few months.</p> <p>Some of the key aspects that would be explained and discussed at these workshops are nuclear power generation understanding of radiation, safety issues, waste management, etc.</p>	
290	Mr Peter Wells Local Resident	Is Eskom prepared to fund Earthlife Africa to undertake certain studies?	Should Earthlife wish to undertake any study by means of an independent consultant/researcher, they are encouraged to provide Eskom with a detailed research proposal for Eskom's consideration.	

No	Name & Organisation	Issue/Comment/Concern	Response
291	Mr Peter Wells Local Resident	Are you looking at alternative power sources? Why has Eskom not shown an active interest in the alternative power sources, including renewables?	<p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, as well as gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Apart from coal and nuclear, Eskom also has projects underway related to gas, hydro, wind, solar, demand side management and energy efficiency. The following are only 2 examples:</p> <p>An EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation. An EIA has been undertaken and an environmental impact report has been submitted to the Department of Environmental Affairs and Tourism for a research and demonstration project for a concentrated solar thermal plant of 100 MW near Upington. Mirrors reflect the sunlight onto a central point.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	Hermanus
292	Mr Chamuwari Ketano Cape Peninsula University	Will Eskom eventually use all 5 alternative sites?	<p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites may be used in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology on one of the 5 sites.</p>	
293	Mr Johann Heunes Kleinmond Ratepayers Association.	In terms of marine biology, how would warm water affect the fish in the sea?	<p>Using Koeberg as an example: Approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. Independent studies conducted by the University of Cape Town before the station started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University). The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea.</p> <p>This information is applicable to Koeberg site and must not be extrapolated to another site, as the dispersion and cooling of the outfall water depends on the receiving coastal conditions. This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
294	Mr John Wollheim Local Resident	Will the proposed Nuclear Power Station be similar to the facility at Koeberg?	Yes, The technology is a modernised version of the Koeberg Nuclear Power Station. Both stations are of the PWR Type	Hermanus
295	A Stakeholder Hermanus Public Meeting	The project team should be cautious around the significance of the impacts. This is a sensitive project and transparency is important.	Comment noted with thanks.	Hermanus
296	Mr Johann Heunes Kleinmond Ratepayers Association.	He thanked the study team for having a meeting in Hermanus. He advised all present at the meeting that the Kleinmond Ratepayers Association is in full support of the process and of the Nuclear Power Station.	Comment noted with thanks.	Hermanus
297	A Stakeholder Hermanus Public Meeting	There was a programme on BBC, which highlighted that Germany is reviewing their decision on Nuclear Power Stations, is there a specific reason for doing that?	A decision was made after the Chernobyl incident not to build additional nuclear power stations, and to phase out their existing nuclear power stations. Energy security and climate change issues are prompting some people in Germany to call for a review of that decision.	Hermanus
298	A stakeholder Hermanus Public Meeting	Has Eskom done studies on solar water heaters? There is abundant sunshine in South Africa – would solar heating not contribute in reducing the energy demand from the domestic sector? There is essentially not enough publicity being given around the concept of solar water heaters.	Eskom has initiated a programme to subsidise solar water heaters (refer Eskom website http://www.eskomdsm.co.za) Comment noted.	Hermanus

No	Name & Organisation	Issue/Comment/Concern	Response	
299	Mr Giorgio Lombardi Vogelgat Nature Reserve	What is the percentage usage between industry and normal residents?	In South Africa domestic households account for less than 20% of the electricity that is consumed (reference Energy Outlook for South Africa: 2002, available off the DME website www.dme.gov.za). The projected demand for electricity is driven proportionately by industry, commercial activities and domestic use.	Hermanus
300	A Stakeholder Hermanus Public Meeting	Is Eskom looking at the Three Mile Island incident and taking lessons for South Africa?	Yes. The accident at Three Mile Island (TMI) occurred in March 1979. Eskom and the National Nuclear Regulator reviewed the lessons learned from TMI and implemented appropriate changes at Koeberg.	Hermanus
301	A Stakeholder Hermanus Public Meeting	What is driving Earthlife to fight Nuclear Power Stations?	<p>There can be many reasons. For example, some people are fundamentally opposed to nuclear power for personal reasons, others are opposed to development of any kind (not in my backyard syndrome), others are concerned about safety aspects, the long term management of radioactive waste, the exposure to radiation, etc.</p> <p>I&APs are welcome to contact Earthlife Africa directly to better understand their viewpoint on nuclear power.</p>	Hermanus

No	Name & Organisation	Issue/Comment/Concern	Response	Hermanus
302	A Stakeholder Hermanus Public Meeting	What is Eskom doing with the high level radioactive waste?	<p>Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p> <p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>For proposed nuclear power station, Eskom will follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Hermanus
303	A Stakeholder Hermanus Public Meeting	Are there any solutions for the final repository site?	<p>The technical solution for the long term management of radioactive waste is well understood. Various countries are now performing the necessary studies to implement the solution. The favoured solution is monitored deep geological disposal. Finland is one of the countries most advanced in its studies and has commenced the construction of a deep geological disposal facility for spent fuel (reference www.posiva.fi).</p> <p>One purpose-built deep geological repository for long-lived nuclear waste, the Waste Isolation Pilot Plant, for disposal of defence-generated transuranic radioactive waste [clothing, tools, rags, residues, debris, soil etc contaminated with radioactive elements, mainly plutonium, but also others that have atomic numbers greater than uranium] is in operation in New Mexico in the USA (reference www.wipp.energy.gov).</p>	
304	Mr Steven Muller Overstrand Municipality	<p>Various people have raised concerns as to why local authorities do not call on people to use solar panels?</p> <p>He highlighted that currently solar panels are not a sustainable option. A local authority has to be committed both economically and environmentally to the solar panels as an alternative source. The cost for solar panels is prohibitive and local authorities cannot afford them, even more so to individual households.</p> <p>Although, they may be an option, people need to understand the financial commitment that is attached to solar panels.</p>	<p>Comment noted.</p> <p>Eskom also clarified that the subsidy that is available is not aimed at the lower levels of society, it is aimed at the levels of the society that are willing to pay.</p> <p>DME's electrification programme is aimed at providing electricity for all levels of society and not to a specific group.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Hermanus
305	Mr Peter Wells Local Resident	<p>He does not understand the manner in which Government and Eskom work. He has trust issues and would like to raise the following concerns:</p> <ul style="list-style-type: none"> ▪ After Koeberg went off line due to the bolt issue, Eskom never accepted responsibility. The issue was swept away, why did the public never receive the full story? ▪ After experiencing power outages, how much did electricity increase to consumers and why? ▪ Why were businesses not compensated for the losses? ▪ The Chief Executive Officer (CEO) received R14 million bonus, which was calculated on cost savings. These savings were realised because Eskom did not undertake the necessary infrastructure upgrades. ▪ What was the cost of refurbishing the CEOs office in Cape Town, how big was the floor space and how many times did the CEO use that office space? ▪ Eskom is rushing to build these nuclear reactors so they can export electricity to the rest of Southern Africa. 	<p>Eskom did accept responsibility. There were various media releases in this regard. The Minister of Public Enterprises also made statements in Parliament on the findings of the investigations.</p> <p>The price of electricity to consumers did not increase. The price of electricity is determined by the National Energy Regulator of South Africa.</p> <p>Those organisations and individuals who so wished could submit claims for compensation. Eskom evaluated each claim on merit.</p> <p>Comment noted. The statement is incorrect.</p> <p>The Eskom CEO does not have offices in Cape Town.</p> <p>South Africa's electricity demands are growing at a fast pace. Eskom will need to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in South Africa in 2025. The Eskom Board approved the investigation of up to 20 000 MW (of the total of 40 000 MW) of nuclear capacity by 2025.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response
		<ul style="list-style-type: none"> ▪ What about fraud in all government deals? ▪ Does Koeberg have an emergency evacuation plan? How is Eskom planning to evacuate Cape Town, where would people go? <p>As a member of the public, how can he trust that Eskom can run the proposed nuclear reactors when their track record suggests there is a problem? There are a number of unknowns and these make the public suspicious about Eskom's plans.</p>	<p>Eskom implements stringent commercial processes, which are audited by independent reputable international firms.</p> <p>In terms of the National Nuclear Regulator (NNR) Act and its associated regulations, an emergency plan is in place for Koeberg. The emergency plan is tested on a regular basis and verified by the NNR and invited (by the NNR) international and national observers.</p> <p>Eskom and South Africa has demonstrated for more than 23 years its ability to manage nuclear power. International peer reviews of Koeberg and Eskom have confirmed this good performance. Eskom operates and manages the Koeberg nuclear power station in accordance with the standards and requirements prescribed by the National Nuclear Regulator (NNR).</p> <p>The National Nuclear Regulator (NNR) will not issue a license to Eskom if all requirements for constructing, operating, maintaining and managing the proposed nuclear power station safely are not, and will not be fully met.</p> <p>Using Koeberg as an example, the NNR has inspectors permanently based at the power station who monitor the operations and maintenance. The NNR can take away a licence that has already been granted if the NNR feels that nuclear safety is being compromised.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
306	Pastor Andrew Vena Seed of Abraham Church	During the 23 years of operating Koeberg Nuclear Power Station, has there been any leakage to the environment?	Annual Authorised Discharge Quantities of radioactive gases and liquids are set by the National Nuclear Regulator for each nuclear facility. Koeberg has always complied with these limits – reference the NNR Annual Reports, tabled in Parliament and available off the NNR website www.nnr.co.za	Sea Vista
307	Mr Alwijn Malgas Independent Democrats	What are the standards of the National Nuclear Regulator (NNR)?	The NNR standards with which a nuclear installation must comply are published in the government gazette (refer Government Notice R. 388 National Nuclear Regulator Act (47/1999): Regulations: Safety standards and regulatory practices, of 28 April 2006).	Sea Vista
308	Mr David Visagie Local Resident	When you are undertaking the detailed investigations, are you going to take into account the impact on farmers, people living in the area, habitat, etc?	The expectation is that the operation of the proposed nuclear power station will not hamper agricultural activities in the vicinity. This will be investigated as part of the EIA process - the impact on agricultural activities, both during construction and operation of the proposed power station is one of the specialist studies that will be undertaken	Sea Vista
309	Ms Martia Visagie Local Resident	She requested that all project information be explained in Xhosa and Afrikaans at the meetings.	Suggestion noted for future meetings.	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	Sea Vista
310	Ms Dideka Elizar Adams Local Resident	<p>They are aware of the dangers associated with a Nuclear Power Station. Why is Eskom not talking about coal as an option? Is there a reason Eskom is not building a coal power station in the Eastern Cape?</p> <p>Which is going to be more expensive, to take uranium for processing overseas to make fuel rods, or the transportation of coal from Mpumalanga to the Eastern Cape?</p>	<p>Coal fired power stations are limited by cost, logistical and other factors to being sited in as close proximity as possible to the coal mine. The majority of South Africa's coal is located in the Mpumalanga Highveld and Waterberg regions. In order to transport the coal down to the coast would be exceedingly expensive. A large coal-fired power station of 3600 MW requires approximately 40 000 tons of coal per day when operating at full power. Assuming transportation by rail, assuming that each train wagon can take a load of 80 tonnes, and assuming that each train has 50 wagons, then 10 train loads of coal would need to travel from the coal fields and be off-loaded at the power station every day.</p> <p>The transportation of fuel for a Nuclear Power station is far easier and more cost effective to transport. Moreover a Nuclear power station only requires refuelling approximately once every 18 months.</p>	
311	Mr Richard Kiva Local Resident	He believes that the Nuclear Power Station in Port Elizabeth has killed a lot of people. A lot of people have been hospitalised due to diseases and side effects caused by the cement factory.	Clarity was given to the fact that there is no Nuclear Power Station in Port Elizabeth. He was referring to the cement factory in Port Elizabeth.	

No	Name & Organisation	Issue/Comment/Concern	Response
312	Mr Ryan Donnelly For A Clean Tomorrow	<p>Are there any radioactive emissions that are released from a Nuclear Power Station?</p> <p>What are those gases?</p>	<p>Annual Authorised Discharge Quantities of radioactive gases and liquids are set by the National Nuclear Regulator for each nuclear facility. Koeberg has always complied with these limits – reference the NNR Annual Reports, tabled in Parliament and available off the NNR website www.nnr.co.za</p> <p>The NNR Annual report also details the radioactive isotopes that are released. For example in the 2005/6 reporting year, isotopes of Cobalt (liquid and gas), Silver (liquid), Iodine (gas), Antimony (liquid) and Niobium (gas) are listed in the NNR Annual Report.</p> <p>The impact of such releases, in terms of the radiation exposure to members of the public is determined. The quantity of radiation exposure and what is absorbed by the body is measured in microSieverts (μSv) per annum. The National Nuclear Regulator (NNR) sets the limit of exposure arising from operations at nuclear installations.</p> <p>Hence the limit for Koeberg is set at 250 μSv per annum, far below the exposure from natural background radiation (which is about 2500 – 3000 μSv per annum), and less than the international standard of 1000 μSv per annum. The Koeberg Nuclear Power Station has been in operation for over 23 years - the public exposure to radiation as a result of Koeberg's operations has been less than 20 μSv per annum in general and less than 6 μSv per annum in 2005/6 – reference NNR Annual Report 2005/6 tabled in Parliament – available off the NNR website www.nnr.co.za, far below the limit set by the NNR.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	Sea Vista
313	A Stakeholder Local Resident	<p>In figures how much does it cost to get the uranium resources from South Africa to overseas countries? According to him the Nuclear Power Station will be more expensive?</p> <p>Why are we still investigating the Nuclear Power Station? Why are we not looking at wind generation?</p>	<p>The costs of transporting uranium would be determined by the kinds of contract entered into between the South African companies and their overseas purchases. Eskom is not in the business of transporting uranium, and hence does not have this information. The cost of nuclear fuel (after it has been processed and manufactured into fuel elements overseas) in terms of the amount of energy that can be extracted from the fuel in the form of electricity, is still very competitive with the cost of coal for the equivalent amount of electricity.</p> <p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, as well as gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Apart from coal and nuclear, Eskom also has projects underway related to gas, hydro, wind, solar, demand side management and energy efficiency. Specifically for wind, an EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. Since the wind does not blow continuously, and, apart from pumped storage schemes (which use more electricity than what they produce), large scale storage of electricity is not yet possible, wind energy cannot be relied upon for neither base load nor peaking or emergency electricity generation.</p>	
314	A Stakeholder Local Resident	<p>In the 23 years of operating a nuclear power station, is there a member of the team who is alive and has been part of Koeberg Nuclear Power Station since 1984?</p>	<p>Yes. Messrs Mervin Theron and Dave Wynne, who were also present at the Sea Vista Public meeting, have been working at or involved with Koeberg since 1984.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Sea Vista
315	Mr Ryan Donnelly For A Clean Tomorrow	What gases come out of the chimney? Are they radioactive? Are there any of the gases that Eskom is not able to filter?	<p>Annual Authorised Discharge Quantities of radioactive gases are set by the National Nuclear Regulator for each nuclear facility. Koeberg has always complied with these limits – reference the NNR Annual Reports, tabled in Parliament and available off the NNR website www.nnr.co.za</p> <p>The NNR Annual report also details the radioactive isotopes that are released. For example in the 2005/6 reporting year, gaseous isotopes of Cobalt, Iodine and Niobium are listed in the NNR Annual Report.</p> <p>The impact of such releases, in terms of the radiation exposure to members of the public is determined. The quantity of radiation exposure and what is absorbed by the body is measured in microSieverts (μSv) per annum. The National Nuclear Regulator (NNR) sets the limit of exposure arising from operations at nuclear installations.</p> <p>Hence the limit for Koeberg is set at 250 μSv per annum, far below the exposure from natural background radiation (which is about 2500 – 3000 μSv per annum), and less than the international standard of 1000 μSv per annum. The Koeberg Nuclear Power Station has been in operation for over 23 years - the public exposure to radiation as a result of Koeberg's operations has been less than 20 μSv per annum in general and less than 6 μSv per annum in 2005/6 – reference NNR Annual Report 2005/6 tabled in Parliament – available off the NNR website www.nnr.co.za), far below the limit set by the NNR.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	Sea Vista
316	Ms Martia Visagie Local Resident	<p>Koeberg has been in operation for 23 years? What is the lifespan of the Nuclear Power Station?</p> <p>Which other Power Station in South Africa is nuclear?</p>	<p>The design lifetime is 40 years. Consideration will be given to extending the life for at least another 10 years if financially viable, and subject to the necessary authorisations and approvals being obtained.</p> <p>Koeberg is the only nuclear power station in South Africa. The South African Nuclear Energy Corporation (Necsa) operates a nuclear research reactor, utilised mainly for the manufacturing a radioactive isotopes for medical purposes..</p>	
317	Mr Kaizer Vena Seed of Abraham Church	<p>He understands that the Nuclear Power Station needs to be cooled? What happens if the cooling system does not work? What if something goes wrong? Will there be enough time to evacuate people?</p> <p>How much time is available to undertake the evacuation?</p>	<p>The nuclear fuel needs to be cooled to prevent it from melting. Backup systems exist in case of a failure in the normal cooling system.</p> <p>In the event of an accident, all radioactive material would be retained in the containment building. This is the situation that occurred at Three Mile Island in March 1979, when the reactor fuel melted, but the radioactive material was retained inside the containment building.</p> <p>This depends on the type of accident and the likelihood that radioactive material could escape from the containment building. Using Koeberg as an example, the NNR requires: Within the 0 – 5 km zone around the power station: evacuation of the public in all sectors i.e. 360° within 4 hours taken from the time that the evacuation order is given to commence evacuation. Within the 5 – 16 km zone around the power station: evacuation of the projected population, within any 67.5° sector, within 16 hours taken from the time that the evacuation order is given to commence evacuation.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response	
			The emergency plan, including the capability to evacuate people is tested on a regular basis and verified by the NNR and international and national observers (invited by the NNR).	Sea Vista
318	Mr Alwijn Malgas Independent Democrats	Although Koeberg has survived 23 years, what assurance do they have that should anything go wrong Eskom would be able to deal with the situation?	<p>Eskom and South Africa has demonstrated for more than 23 years its ability to manage nuclear power. International peer reviews of Koeberg and Eskom have confirmed this good performance. Eskom operates and manages the Koeberg nuclear power station in accordance with the standards and requirements prescribed by the National Nuclear Regulator (NNR).</p> <p>The NNR has inspectors permanently based at the power station who monitor the operations and maintenance. The NNR can take away a licence that has already been granted if the NNR feels that nuclear safety is being compromised. Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken.</p> <p>The emergency plan is tested on a regular basis and verified by the NNR and international and national observers (invited by the NNR).</p>	Sea Vista
319	Mr Ryan Donnelly For A Clean Tomorrow	He raised objections to information presented, responses provided by the team at the Sea Vista public meeting.	This was noted as part of the public record.	Sea Vista
320	Pastor Andrew Vena Seed of Abraham Church	As all of you can hear, people fear the Nuclear Power Station. What will happen at the end if people still fear this proposed Nuclear Power Station?	The EIA team encouraged the participants at the public meeting to state their fears and encouraged the public to raise their issues regarding the proposed project.	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	
321	A Stakeholder Sea Vista Public Meeting	It seems as if the public are going to lose, no matter what their fears and concerns are. They have been told that the Thyspunt site will eventually have a Nuclear Power Station.	All alternative sites will be evaluated through the various phases of the EIA. DEAT will evaluate the process and issue a decision on the preferred site as contained in the Environmental Impact Report.	Sea Vista
322	A Stakeholder Sea Vista Public Meeting	People need houses, schools and hospitals. Can Eskom take up this issue and look at how best to deal with it?	Comment noted. Eskom does not have a mandate to build houses, hospitals, schools etc, however should additional infrastructure be required at any of the sites Eskom will engage with all the necessary departments in order to ensure that the necessary infrastructure can support the proposed development.	Sea Vista
323	A Stakeholder Sea Vista Public Meeting	She is very afraid to die, that is why she does not want the Nuclear Power Station at Thyspunt.	Comment noted. Experience gained internationally and from Koeberg is that people do not become ill or die from living in close proximity to a nuclear power station.	Sea Vista
324	A Stakeholder Sea Vista Public Meeting	Most breadwinners at Sea Vista work for the fishing industry. If the Nuclear Power Station is built at Thyspunt, it will kill fish and the fishing industry will no longer be viable. This will lead to hunger, deaths and no support base for all people currently depending on what the fishing industry provides.	Comment noted. An assessment of impacts on the marine life will be undertaken as part of the EIA	Sea Vista
325	A Stakeholder Sea Vista Public Meeting	They have real issues at the Sea Vista community; they have been working in the fishing industry for a number of years with no benefits. Eskom should look at providing economic opportunities for the communities and not build a Nuclear Power Station, which will make their situation even worse.	Socio-economic issues will be dealt with in the EIA.	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	
326	A Stakeholder Sea Vista Public Meeting	Do you have inspectors that come regularly to the areas surrounding the Nuclear Power Station sites?	Using Koeberg as an example, the NNR has inspectors permanently based at the power station who monitor the management, operations and maintenance of the station. An environmental survey for radioactive contamination is performed on a regular basis in the environs around the power station, in accordance with the requirements of the NNR. Employees at the power station undergo annual medical examinations.	Sea Vista
327	Ms Virginia Brown Seed of Abraham Church	Is it true that Eskom has bought the Thyspunt site? How can Eskom indicate that they cannot start construction, when the public is aware of Eskom's storage facilities within the Thyspunt site?	Yes, it is true that Eskom has purchased 95% of the land. The land was purchased in the early 1990's. Eskom also owns portions of the other alternative sites. Note that even though Eskom owns most or parts of the land, Eskom cannot start the construction unless all processes have been complied with and all necessary approvals have been obtained. . Clarity was provided regarding the buildings, which are within the Thyspunt site. The buildings are related to conservation activities.	Sea Vista
328	A Stakeholder Sea Vista Public Meeting	Have we made a decision to build on a specific site?	No. The EIA and nuclear licensing processes will determine the viability of each site, and will be key parameters in deciding on the preferred site. However, should all sites be found to be technically and environmentally feasible, all 5 sites may be used in the future.	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response
329	A stakeholder Sea Vista Public Meeting	<p>Nuclear waste that is buried at Vaalputs, is it dead or alive?</p> <p>Can nuclear waste be moved once buried?</p> <p>Is there a specific reason why the proposed nuclear site (Thyspunt) is so close to the Sea Vista community?</p>	<p>Nuclear waste, just like any other form of waste, including the domestic waste that we produce in our houses, is not alive.</p> <p>Radioactive waste is internationally categorised into three levels: Low-level radioactive waste is consists of day-to-day refuse such as paper, gloves, plastic containers, disposable overalls, overshoes etc, which have low traces of radioactive contamination. Intermediate level waste consists of radioactive resins and sludges, spent filter cartridges and scrap pieces from maintenance work. Spent fuel or high-level radioactive waste: The spent fuel is retained in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator.</p> <p>The low level waste is in steel drums, while the intermediate level waste is in concrete containers. The waste can, in principle be moved if required. The spent fuel can always be moved.</p> <p>The whole South African coastline was investigated during the 1980/90s as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. Thyspunt was one of the sites that were found to be suitable.</p>

Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	
330	Ms Reginah St Francis Bay	<p>Her concern is that the proposed Nuclear Power Station is next to the sea. Most landowners, particularly “white communities” live in Johannesburg. Electricity is sufficient for the St Francis Bay area (sufficient electricity in season and out of season).</p> <p>A Nuclear Power Station will not help the St Francis Bay community. People need job opportunities.</p> <p>The proposed Nuclear Power Station will only affect blacks and coloured communities as they do not have transport to get out of the St Francis area should there be an emergency. Members of the various white communities have transport and can easily move to other areas, if required.</p>	<p>Eskom does not build a Nuclear Power Station or any other power station for that matter for a specific region or area. Power stations feed electricity onto the national grid.</p> <p>It should be noted that at the peak of construction it is expected that approximately 5000-6000 persons will be required of varying skill levels.</p> <p>The emergency plan required by the National Nuclear Regulator includes requirements for the evacuation of people in the event of an emergency. The emergency plan would be tested on a regular basis and verified by the NNR and international and national observers (invited by the NNR).</p>	Sea Vista
331	A Stakeholder Sea Vista Public Meeting	St Francis Bay community is relatively small. Eskom should at least consider areas that are in excess of 25 kms and that have high electricity consumption for this Nuclear Power Station.	Electricity that is used by the communities living in and around St Francis Bay comes from Mpumalanga. Eskom does not build a Nuclear Power Station or any other power station for a specific region or area. Power stations feed electricity onto the national grid.	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	
332	Mr Richard Kiva Seed of Abraham Church	<p>The purchase of the land was undertaken without consulting communities. Now that there are energy problems in South Africa, communities around the Thyspunt site do not have a choice but to accept the Nuclear Power Station.</p> <p>Irrespective of what people are saying at these meetings, the project will still go ahead.</p> <p>Mr Kiva who is a deeply religious man has grave concerns about the proposed Nuclear Power Station.</p>	<p>The Nuclear Site Investigation Programme (NSIP) undertaken from the 1980s/90s included consultation. After the studies were completed Eskom purchased, where possible, the land of the sites that were deemed to be suitable.</p> <p>All alternative sites will be evaluated through the various phases of the EIA. DEAT will evaluate the process and issue a decision on the preferred site as contained in the Environmental Impact Report.</p> <p>Comment noted, with respect.</p>	Sea Vista
333	A stakeholder Sea Vista Public Meeting	What level of education is required to work at the Nuclear Power Station? Are you only looking for scientists?	There are different levels of skills and expertise required for the operation and management of a Nuclear Power Station. These range from skilled, unskilled and semi-skilled labour. In addition, the Koeberg Nuclear Power Station employs at least 300 permanent contractors (general workers).	Sea Vista
334	A stakeholder Sea Vista Public Meeting	Does Thyspunt site belong to Eskom or Government?	Eskom owns approximately 95% of Thyspunt site.	Sea Vista
335	A Stakeholder St Francis Bay Public Meeting	St Francis Bay is a rapidly growing area. The area has huge tourism potential. Potential negative impact on the property values, resulting in selling of houses and loss of jobs - these should be looked at as part of the EIA. A number of locals rely on work provided by the tourists, etc.	<p>Comments noted with thanks.</p> <p>These issues will be investigated as part of the tourism, social and economic specialist studies.</p>	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	
336	Mr Anthony Davids Local Resident	Are the consultants a separate team from Eskom?	Yes. An Environmental Impact Assessment (EIA) is undertaken within the provisions of the National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA), it requires an applicant, in this case Eskom to appoint an independent Environmental Assessment Practitioner to fulfil the requirements for an environmental authorisation process.	Sea Vista
337	Pastor Edwards Seed of Abraham Church	What is Nuclear?	<p>It is natural or enriched uranium that sustains the fission chain reaction in a nuclear reactor.</p> <p>In a Nuclear Power Station, uranium atoms are split during a process called nuclear fission, which takes place in a reactor. The fission process generates heat energy which is used to heat and convert water into a steam. The steam drives the turbines, which turns the generators to generate electricity. The electricity generated is stepped up by transformers for transmission via the national grid.</p>	Sea Vista
338	Graham Local Resident	Nuclear power is a weapon. Everyone in the community will die.	<p>Comment noted. This is not the experience with all the Nuclear Power Station currently operating in the world. For example nobody has become ill or died as a result of the operation of the Koeberg nuclear power station near Cape Town.</p> <p>Eskom is currently undertaking a safety analysis study for the proposed technology type (i.e. Pressurised Water Reactor [PWR]) and will finalise this safety case once the exact plant type has been selected. This safety case will prove that the proposed Nuclear Power Station will be safe.</p>	Sea Vista
339	A Stakeholder Sea Vista Public Meeting	Eskom has mentioned standards for operating a Nuclear Power Station. Who sets these standards and who monitors them?	The NNR standards with which a nuclear installation must comply are published in the government gazette (refer Government Notice R. 388 National Nuclear Regulator Act (47/1999): Regulations: Safety standards and regulatory practices, of 28 April 2006). The NNR monitors compliance with their standards.	Sea Vista

No	Name & Organisation	Issue/Comment/Concern	Response	
340	Ms Lisa Dames Local Resident	Is Eskom going to present detailed information on alternative generation options? She has read from books that nuclear is dangerous.	Alternative generation methods that were considered by Eskom in making the decision to propose a Nuclear Power Station for one of the alternative sites, will be presented and discussed in the Scoping Report. When managed responsibly Nuclear Energy is very safe. Koeberg has been operating for 23 years without any incident.	Sea Vista
341	A Stakeholder Sea Vista Public Meeting	Is there a specific reason that Eskom is not building a coal-fired power station in the Eastern Cape?	Yes. Eskom can build a coal-fired power station in the Eastern Cape. However, if a coal-fired power station is located on the coast, Eskom would need to transport coal from the coal-fields in Mpumalanga or Limpopo Provinces to the areas where the power station is located. This is not economically viable. A large coal-fired power station of 3600 MW requires approximately 40 000 tons of coal per day when operating at full power. Assuming transportation by rail, that each train wagon can take a load of 80 tonnes, and that each train has 50 wagons, then 10 train loads of coal would need to travel from the coal fields and be off-loaded at the power station every day.	Sea Vista
342	A Stakeholder St Francis Bay Public Meeting	How much electricity is being exported to other countries, e.g. to Zimbabwe, etc.	In the 2006/7 financial year Eskom exported 13 589 GWh to neighbouring countries and imported 11483 GWh, a net difference of 2106 GWh exported, which was less than 1% of the total electricity on the Eskom system.	St Francis Bay
343	Mr Ryan Donnelly For A Clean Tomorrow	What part of the presentation could make an Interested and Affected Party (I&AP) make an informed decision?	Understanding of the need and justification of the project within the context of economic development in South Africa. The study team encouraged constructive engagement, asking of questions and raising of comments to facilitate a better understanding of the process and the complexities between issues.	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
344	Ms Elza van Lingen Cape St Francis Civic Association.	Is there a tourism expert involved in the process? If not, why not?	Yes. Proposals have been submitted to the Project Team from tourism specialists. Imani Development is the appointed tourism specialist for this EIA.	St Francis Bay
345	Ms Trudi Malan Ajubatus Marane & Wildlife	<p>She is concerned about the Transmission Lines EIA. This should be running in parallel with the Nuclear Site EIA. The alignment of the two EIA's is critical.</p> <p>Are these not deliberate attempts to withheld information from the public?</p>	<p>Firstly, it is not the intention of the EIA Team and Eskom to hide information from the public. If the study team is not able to respond to some of the questions, it is mainly because information is not available.</p> <p>The Transmission Lines EIA is slightly behind the Nuclear 1 EIA. Based on current planning, the study team is expecting to have transmission information at the time when the Draft Scoping Report (DSR) is presented to the public. The transmission line EIA will be aligned as closely as possible with the Nuclear 1 EIA.</p>	St Francis Bay
346	Mr Hilton Thorpe Kouga Anti-Nuclear Group	<p>He has the following concerns regarding the EIA for this proposed Nuclear Power Station:</p> <ul style="list-style-type: none"> ▪ How do you undertake an Environmental Impact Assessment (EIA) process when you do not know the type of technology/plant to be used? ▪ The fragmentation of the whole EIA process. The EIA seems to have limited mandate. A number of issues that have a direct impact on the EIA seem to fall outside the scope of the EIA. The key issues in this regard are (a) the viability of the Thyspunt site and (b) waste disposal arrangement. ▪ The National Nuclear Regulator (NNR), which is responsible for the viability of the sites, is not involved. 	<p>Eskom has sufficient information on the two plant types, i.e. AP 1000 or EPR to undertake scoping.</p> <p>The Department of Environmental Affairs and Tourism (DEAT) and the National Nuclear Regulator (NNR) have a co-operative agreement.</p> <p>There is a fine line in terms of what gets covered in the Environmental Impact Assessment (EIA) Process. Nevertheless, the EIA will deal with the issues to the level of detail required for the environmental process although they will still be dealt with in more detail in the relevant processes.</p>	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response
		<ul style="list-style-type: none"> ▪ The Nuclear Energy Corporation of South Africa, responsible for waste disposal matters is not involved in this EIA. In his opinion, the fact that waste disposal issues are excluded in the current EIA is a fatal flaw. ▪ How do you separate the Transmission Lines EIA, which is a crucial part of the nuclear site investigation? In fact, it is one aspect that will also determine the viability of the site. ▪ The Mpfu Dam, supplying the greater part of the Eastern Cape including Port Elizabeth is approximately 10km from the Thyspunt site. In the event of contamination in the area human activity in the Eastern Cape would be significantly affected if not permanently destroyed. ▪ The Tjokka industry, which exports most of the catch, could be negatively affected. This would negatively affect the economy of the Eastern Cape. 	<p>NECSA is involved as a key stakeholder. This EIA is for the construction of a nuclear power station. Eskom is the applicant.</p> <p>The Transmission Lines EIA is slightly behind the Nuclear 1 EIA. Based on current planning, the study team is expecting to have transmission information at the time when the Draft Scoping Report (DSR) is presented to the public. The transmission line EIA will be aligned as closely as possible with the Nuclear 1 EIA.</p> <p>This aspect would be considered by the NNR in terms of the safety of the proposed plant and the potential impact of accidents.</p> <p>All comments raised by Mr Thorpe have been noted for investigation during the Impact Assessment Phase of the EIA.</p>

No	Name & Organisation	Issue/Comment/Concern	Response	
347	A Stakeholder St Francis Bay Public Meeting	Other than the fact that Eskom owns 95% of land at Thyspunt and that it is located next to the sea, what makes Thyspunt an attractive site. He would like to get an understanding from Eskom's side and not from the environmental team.	Obviously, the availability of water for cooling is important. From a planning point of view, Thyspunt is near areas where there is major growth or demand for electricity. The whole South African coastline was investigated during the 1980/90s as part of the original Nuclear Site Investigation Programme (NSIP). Criteria, such as demography (existing population densities), ecological sensitivity, geology (rolling dunes and unconsolidated sands are, even with high engineering solutions, not suitable for a Nuclear Power Station due to their geological instability), the characteristics of the coastal area and the tides and wave action and seismicity, amongst others, were taken into account in determining the potential suitability of sites. Thyspunt was one of the sites that were found to be suitable.	St Francis Bay
348	Mr Harley Knott Resident Farmer	Why not import electricity from the Cohara Bassa Hydroelectric Scheme? This could be used five times more and produce the base load that Eskom needs to satisfy electricity requirements.	Eskom already imports the majority of electricity that is produced by Cahora Bassa. Eskom currently imports about 1500 MW of capacity. The remainder (less than 500 MW) is used in the Southern African region.	St Francis Bay
349	Mr Harry Weistra St Francis Bay Residents Association	He clarified that this EIA process is not about a decision to go nuclear or not, this EIA is the first step to the selection of the most suitable site for Nuclear 1. He provided this clarification with the aim to resolve a lot of issues amongst Interested and Affected Parties. He further informed I&APs that there are channels which could be used to oppose nuclear energy as an alternative energy source in South Africa.	Comment noted.	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	St Francis Bay
350	Mr Ryan Donnelly For A Clean Tomorrow	<p>Is Eskom going to give information on the implications of the Nuclear Power Station?</p> <p>Why should there be a safety zone if Nuclear Power Station is safe?</p>	<p>There is a separate Nuclear Awareness Programme, which will be undertaken within the next few months. In addition the licensing process of the National Nuclear regulator makes provision for public hearings.</p> <p>Although the risk of an accident is very low, the National Nuclear Regulator (NNR) nevertheless requires emergency planning to be undertaken. The area for which emergency plans must be prepared is the emergency planning zone.</p>	
351	A Stakeholder St Francis Bay Public Meeting	He enquired if all 5 sites are to be developed as Nuclear Power Stations. Is there any preferred site?	<p>At this stage, there is no preferred site.</p> <p>The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites may be used in the future.</p> <p>It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology.</p>	
352	Mr Paddy Oosthuizen St Francis Bay Residents Association	Is there a proposed dumping site for radioactive waste? If yes, where will it be?	<p>Vaalputs in the Northern Cape near Springbok is the National Radioactive Waste Disposal site for near surface disposal of low and intermediate level radioactive waste.. Vaalputs is managed by Necsa on behalf of the State, in terms of a licence issued by the National Nuclear Regular. a deep underground geological disposal facility. Both options are being pursued internationally.</p>	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
353	Mr Harry Weistra St Francis Bay Residents Association	<p>He is concerned about the level of information currently available. If I&APs do not get sufficient information from Eskom, how can the public raise questions? He understand that perhaps this is not the right time, he however hopes that at the additional workshops, detailed information would be available</p> <p>If it happens that some issues which were not dealt with, or issues that Eskom has not dealt with, etc, will they be dealt with irrespective of when they are raised?</p>	<p>Comment noted. This is the notification round of public meetings. Further public meetings will be held to discuss the draft scoping report and later the draft environmental impact report.</p> <p>A separate nuclear awareness programme will be undertaken prior to the next round of EIA public meetings</p> <p>Yes.</p>	St Francis Bay
354	Mr Roelof Daniel McDonald	He is a farmer and does not know about this Scoping?	The study team confirmed that the glossary of terms would be compiled and made available for the public.	St Francis
355	Mr Robin Neil Simpson St Francis / Kromme Trust	<p>In terms of the original site selection, it is important to note that a number of aspects have changed significantly over the past twenty years, e.g. tourism, population densities, etc. Therefore, he is uncomfortable with the current five sites as they are based on studies, which may no longer be valid due to changes in the biophysical, social and economic environments. The Mpofu Dam was not in existence when these sites were selected.</p> <p>There have been enormous changes over the years in terms of the sites, he is glad that they will look at alternative sites.</p> <p>There are major sensitivities in the Thyspunt area. The study team should also look at other sites.</p>	<p>These studies will be revisited during the EIA, i.e. confirm if the criteria that were used are still valid given the subsequent changes. The underlying geology has not changed. However the sites were not only selected based on geology; there were key social and biophysical factors that influenced the selection criteria.</p> <p>Comment noted.</p>	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
356	Dr Jeffrey Cawood St Francis Bay Disaster Management	<p>He saw a notice board at Thyspunt site for the proposed Nuclear Power Station. He is not sure if there is still a need to raise his questions.</p> <p>The EIA Team should consider the Spatial Development Plan (SDP) for the Kouga Municipality. In addition, the Kouga Coast Sub-Regional Structure Plan, which was sponsored by Eskom specifies that there should be no schools, frail care, etc within the 16 km zone.</p> <p>Disaster Management Committees should participate in this study.</p>	<p>An Environmental Impact Assessment (EIA) is undertaken within the provisions of the National Environmental Management Act (NEMA). One of the requirements for a site specific EIA is to erect an On-Site Notice where the development is proposed. This is to notify persons of the EIA so that they are aware of, and can participate in the process.</p> <p>Comment noted for consideration by the social and economic specialists, during the Impact Assessment Phase of the EIA.</p> <p>Suggestion noted for updating the project stakeholder database.</p>	St Francis Bay
357	Dr Richard Barry Bousfied Local Resident	Suggest that the Thyspunt site be ruled out on the basis that Oyster Bay falls within the emergency evacuation zone.	For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.	St Francis Bay
358	Dr Richard Barry Bousfield Local Resident	Eskom makes reference to National Regulatory Authorities. There is no reference to the international bodies, international practices and standards. He will be more comfortable if Eskom is also looking at the international standards and practices from regulatory bodies that have used similar type of technology.	<p>The standards used by the National Nuclear Regulator are based on, and in some cases may be stricter than, international recommended standards.</p> <p>Koeberg's safety and technical performance is also benchmarked against international performance and recommendations.</p> <p>International peer reviews of Koeberg are undertaken on a periodic basis and compared to international best practice.</p>	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
359	A Stakeholder St Francis Bay Public Meeting	It should be noted that marine surveys could not be done with sufficient accuracy. Another general comment: It concerns him a lot that there seems to be an increasing trend for developers not to empower their consultants and the public with knowledge or information.	Comment noted. Comment noted. Eskom will ensure that the Consultants have full information to enable them to perform their function. The Scoping report, Specialist Study Reports and the Environmental Impact Report will contain the required information to enable effective decision making.	St Francis Bay
360	A Stakeholder St Francis Bay Public Meeting	As a matter of principle, it should be noted that the general public is frightened of the proposed Nuclear Power Station. The potential environmental impacts around the waste disposal issues is raising many issues.	Comment noted for the EIA study. Eskom has initiated a nuclear awareness programme to provide more information regarding nuclear power to communities.	St Francis Bay
361	Ms Patricia Honey For A Clean Tomorrow Thuyspunt Anti-Nuclear Group	Her main issue pertains to the Environmental Impact Assessment (EIA) process. Ms Honey stated that she is not the only person in St Francis Bay who has issues around trust. She does not believe that ACER (Africa) is independent. She would like a copy of the record of the telephone conversation she had with Ms Shinga.	Comment noted. This has been forwarded to Ms Honey for verification.	St Francis Bay
362	Ms Patricia Honey For A Clean Tomorrow Thuyspunt Anti-Nuclear Group	How are we going to deal with the issue that a lot of people are currently not in the area and cannot attend public meetings?	It is ACER's opinion that the Nuclear 1 project has been widely advertised and there has been extensive public notifications using various communication methods. Importantly, public meetings are not the only platform for raising issues.	St Francis Bay
363	Mr Ryan Donnelly For A Clean Tomorrow Thyspunt Anti-Nuclear Group	He is not happy with ACER.	Comment noted.	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
364	A stakeholder St Francis Bay Public Meeting	Is Koeberg one of the sites that will be commissioned?	The site adjacent to Koeberg, Duynefontein is one of the 5 alternative sites that will be investigated in this EIA.	St Francis Bay
365	A Stakeholder St Francis Bay Public Meeting	At this stage, Eskom should know their preferred site from a technical point of view.	Eskom's technical assessments are currently being conducted in parallel with the EIA studies.	St Francis Bay
366	Mr Rudi Dahlhauser For A Clean Tomorrow Thuyspunt Anti Nuclear Group	<p>He does not believe that ACER (Africa) is independent. ACER seems to be defending Eskom, so there are definitely issues around trust.</p> <p>Mr Dahlhauser wanted to know if it is possible to get an independent consultant who will still be paid by Eskom, i.e. not associated with Eskom. He is also aware that ACER is involved in the Pebble Bed Modular Reactor (PBMR) process. How can they have an independent consultant still paid by Eskom?</p> <p>He sent emails to ACER (Africa), Ms Shinga requesting 3 000 Comment Sheets. He is not happy with the response that was provided by Ms Shinga. He has also not received the requested Comment Sheets.</p> <p>According to his opinion, ACER is not independent.</p>	<p>Comment noted.</p> <p>ACER (Africa) are paid by ARCUS GIBB (Pty) Ltd, who are in turn paid by Eskom Holdings Limited (Eskom). In South Africa the Applicant (i.e. Eskom in the case of this EIA) pays the independent environmental consultants for their services. ARCUS GIBB, ACER and the other subconsultants appointed to this EIA are professional environmental consultants, who are experienced at what they do and have excellent reputations. It is unlikely that any of these consultants would be willing to tarnish their reputations on a single project, for a single client.</p>	St Francis Bay
367	Mr Harry Weistra St Francis Bay Residents Association	Mr Weistra wanted to confirm that he understands that the manner in which the process is being handled is that opportunities for submitting comments will always be available to Interested and Affected Parties (I&APs). He was concerned about the lack of some information, which at a later stage may necessitate the need for I&APs to submit additional comments.	The EIA Team and Eskom confirmed that I&APs can continue to send their comments on the proposed project and the EIA to ACER. Deadline dates for comment are provided in order for comments to be inserted timeously in the various reports as part of the EIA.	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
368	A Stakeholder St Francis Bay Public Meeting	What is the budget for the EIA?	The total budget for the EIA is approximately R5 million.	St Francis Bay
369	Mr Derek Cook Local Resident	<p>Normal EIA processes take approximately 18 months. It concerns him that the time allocated for this EIA suggests a fast-tracked process.</p> <ul style="list-style-type: none"> ▪ Is this not about fast tracking the EIA process with the hope of completing the studies within Eskom's desired timeframe? ▪ Is sufficient information provided to the public? ▪ Are the right investigations being undertaken for all 5 alternative sites? ▪ The levels of intensity and robustness for the specialist investigations – will they be similar for all 5 alternative sites? 	<p>The timeframes for the EIA are tight but achievable. Sufficient information will be provided to the public. Should Interested and Affected Parties (I&APs) have any specific information requirements they should contact ACER. The EIA Team will endeavour to provide I&APs will all information they require to meaningfully participate in the EIA process. Much information has already been posted onto the project website – www.eskom.co.za/EIA/Nuclear 1. A number of specialist studies have been appointed for the EIA. Their scope of work will be exactly the same for each of the alternative sites and will be determined by the outcome of the Scoping Study (i.e. issues raised by I&APs and the specialist themselves during this phase of the EIA).</p>	St Francis Bay
370	Mr Roelof Daniel McDonald Local Resident	<p>What is the generating capacity of the Koeberg Nuclear Power Station?</p> <p>Are you looking at 4 x Koeberg at the Thyspunt site?</p> <p>He suggested that the size of the proposed Nuclear Power Station should be explained within the context of Koeberg so that the public has an idea of the extent of the development.</p> <p>A hydraulics specialist should be involved in this EIA to provide input on the water flow (hydraulics). Input should also be sourced from a fish specialist.</p>	<p>1 800 MW net "sent out" generating capacity.</p> <p>Depending on the design that is chosen, the proposed power station could have either 2 or 3 units, with a generating capacity of approximately 3500 MW (i.e. about double the size of Koeberg). The maximum capacity for each site will be assessed and identified as part of the EIA.</p> <p>Comment noted with thanks.</p>	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	St Francis Bay
371	Mr Roelof Daniel McDonald Local Resident	<p>Is the guy from the street included in the load forecasts? Has Eskom included the de-mothballed units in the load forecasts?</p> <p>Why did it take Eskom so long to de-mothball Camden, Grootvlei and Komati?</p>	<p>The demand forecasts include domestic and industry sectors. The supply forecasts include the return to service of the previously de-mothballed power stations.</p> <p>When the Government changed in 1994, there was a moratorium by Government on Eskom not to produce any more power stations with the view that this function would be taken up by Independent Power Producers (IPPs). However, IPPs did not materialise and, in September 2004, Government lifted the moratorium and requested Eskom to provide 70% of the projected new power load.</p>	
372	Mr Ryan Donnelly For A Clean Tomorrow Thyspunt Anti –Nuclear Group	<p>What will the chimneys on the model of the Koeberg Nuclear Power Station be used for?</p> <p>What emissions are released in the air? What are those gases?</p> <p>What if there is radiation fallout? Would that not result in birth defects, etc?</p>	<p>The chimneys provide the path for the release of the annual authorised discharge quantities of radioactive gases.</p> <p>Annual Authorised Discharge Quantities of radioactive gases and liquids are set by the National Nuclear Regulator for each nuclear facility. Koeberg has always complied with these limits – reference the NNR Annual Reports, tabled in Parliament and available off the NNR website www.nnr.co.za</p> <p>The NNR Annual report also details the radioactive isotopes that are released. For example in the 2005/6 reporting year, gaseous isotopes of Cobalt, Iodine and Niobium are listed in the NNR Annual Report.</p> <p>The impact of such releases, in terms of the radiation exposure to members of the public is determined. The quantity of radiation exposure and what is absorbed by the body is measured in microSieverts (µSv) per annum. The National Nuclear Regulator (NNR) sets the limit of exposure arising from operations at nuclear installations.</p>	

No	Name & Organisation	Issue/Comment/Concern	Response
		<p>Is Eskom going to be financially responsible for the loss of lives, etc?</p> <p>Has Eskom budgeted for all the associated costs? Any guarantees?</p>	<p>Hence the limit for Koeberg is set at 250 μSv per annum, far below the exposure from natural background radiation (which is about 2500 – 3000 μSv per annum), and less than the international standard of 1000 μSv per annum. The Koeberg Nuclear Power Station has been in operation for over 23 years - the public exposure to radiation as a result of Koeberg's operations has been less than 20 μSv per annum in general and less than 6 μSv per annum in 2005/6 – reference NNR Annual Report 2005/6 tabled in Parliament – available off the NNR website www.nnr.co.za), far below the limit set by the NNR.</p> <p>Experience gained internationally and from Koeberg is that people do not become ill or die from living in close proximity to a nuclear power station.</p> <p>In terms of the National Nuclear Regulator Act, the operator of a nuclear facility is financially liable in the event of substantiated claims.</p> <p>Yes.</p>
373	Ms Sandra Jane Hardy St Francis Conservancy	<p>Is Eskom aware that the proposed plant has been rejected by other countries?</p> <p>Any emissions from the Thyspunt Nuclear Power Station will be going South, i.e. to St Francis Bay. Issues around safety need to be addressed in this EIA.</p>	<p>The proposed plant has not been rejected by other countries. A power station of the EPR design is currently being constructed in Finland, with another one soon to be constructed in France. China has signed agreements for the AP1000 design to be constructed in China.</p> <p>Comment noted for investigation during the Impact Assessment Phase of the EIA by the air quality specialist, as well as the climatology specialist.</p>

St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
374	Ms Sandra Jane Hardy St Francis Conservancy	Why is the Key Stakeholder Meeting (KSM) being held in Port Elizabeth?	It was a request from a number of Key Stakeholders (Government and Municipal officials, as well as NGOs) that the KSM for the Eastern Cape be held in Port Elizabeth, as it is a central venue and the administrative centre. The Study Team is willing to consider Key Focus Group Meetings (KFGMs) in other towns, should there be a request from key stakeholder groups for this. (Note: The meeting was well attended by Key Stakeholders from a wide variety of organisations and Government Departments attending – refer to the Minutes of the KSWs).	St Francis Bay
375	Mr Kevin Stark Woodlands Dairy	<p>What process does Eskom follow when appointing consultants? Do you use an open tender system or by invitation?</p> <p>What percentage of ARCUS GIBB's revenue is coming from Eskom? Is it more than 25%</p>	<p>A number of consultants, with the necessary capacity, experience and expertise are invited to tender. The tenders received are evaluated by an appointed panel and approved by the appropriate Eskom Tender Committee.</p> <p>Mr Kevin Stark was kindly requested to visit ARCUS GIBB's website to see the range of projects (small-scale and large-scale) undertaken by the Company and the Environmental Services Discipline. This would also provide information on the list of clients. ARCUS GIBB's current revenue received from Eskom is well below 25% of its annual revenue.</p>	St Francis Bay
376	A Stakeholder St Francis Bay Public Meeting	There are issues around insurance. How is Koeberg insured?	Koeberg is insured for nuclear and non-nuclear activities, in accordance with the requirements of regulations published in terms of the National Nuclear Regulator Act.	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response	
377	A Stakeholder St Francis Bay Public Meeting	<p>How many new Nuclear Power Stations are being built in the world?</p> <p>Are there any similar Pressurised Water Reactors (PWR) being built around the world?</p>	<p>Approximately 30 nuclear power stations are reported by the International Atomic Energy Agency to be under construction.</p> <p>A power station of the EPR design is currently being constructed in Finland, with another one soon to be constructed in France. China has signed agreements for the AP1000 design to be constructed in China.</p>	St Francis Bay
378	Mr Hilton Thorpe St Francis Bay Residents Association	<p>The Thyspunt site is not a viable site for the Pressurised Water Reactor (PWR). Traditional Environmental Planning Zones (EPZs) require a maximum population of 10 000 people within any 30⁰ sector and within 16 km of the site.</p> <p>The numbers of people in St Francis Bay over peak holiday season is significantly high. It would be impossible to ensure safe evacuation, with only one road to escape in a short period of time available.</p> <p>The latest census was incompletely conducted. Therefore, the population figures that are available for the St Francis Bay area are unreliable and cannot be used for this EIA or to inform the emergency evacuation plan for the Thyspunt site.</p> <p>In terms of Disaster Management, Eskom needs to seriously engage the Municipalities or relevant local authorities.</p> <p>It would seem crazy to have the Nuclear Power Station within the agricultural sector such as the dairy industry, etc.</p>	<p>For the proposed nuclear power station Eskom is considering the latest design of Pressurized Water Reactor (PWR) technology. Internationally, these designs have formal emergency planning zones less than 16 km. The NNR will however determine the extent of the required zone based on a safety assessment of the design of the proposed nuclear power station and the proposed site and environs.</p> <p>Comment noted.</p>	St Francis Bay

No	Name & Organisation	Issue/Comment/Concern	Response
379	Mr Joe Oosthuizen Chem-Dry SA	Is Eskom exploring other generation options? <ul style="list-style-type: none"> ▪ What percentage of the world power is generated by nuclear? ▪ How long is the source of nuclear going to last? 	Eskom is continually researching and developing cleaner technologies, examples of which include: Gas: South Africa's indigenous resources of natural gas are currently not available in sufficient quantities to fuel power stations – hence the South African Open Cycle Gas Turbines use liquid fuel (e.g. diesel). The Open Cycle Gas Turbines are used to help meet the demand for electricity during peak and emergency demand situations since they are very expensive to operate (the diesel price is linked to the dollar price of oil and also subject to foreign exchange rates). In 2006/7 Eskom constructed two new Open Cycle Gas Turbines in the Western Cape Province, viz. Ankerlig power station at Atlantis, and Gourikwa power station at Mossel Bay, with a combined capacity of just over 1000 MW. Solar energy: An EIA has been undertaken and an environmental impact report has been submitted to the Department of Environmental Affairs and Tourism for a research and demonstration project for a concentrated solar thermal plant of 100 MW near Upington. Mirrors reflect the sunlight onto a central point. Wind energy: An EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. Efficiency programme: Eskom is continuing to investigate ways to improve the use of electricity. Eskom has a demand-side management and energy efficiency programme target of 8,000 MW by 2025. This would be equivalent to avoiding the construction of two large coal-fired power stationse. The Solar tower will have a generating capacity of 100Mw
ENVIRONMENTAL IMPACT ASSESSMENT (EIA): SCOPING – RECORD OF PUBLIC MEETINGS HELD DURING 06 JULY – 11 AUGUST 2007		The consequences of the Nuclear Power Station? How many claims have been made by the public arising from the Koeberg Nuclear Power Station <ul style="list-style-type: none"> ▪ How effective is the protected clothing? 	192

No	Name & Organisation	Issue/Comment/Concern	Response	
380	Mr Darren Peens For A Clean Tomorrow	The perception is often stronger than the fact. <ul style="list-style-type: none"> ▪ Is there an effect on property values? ▪ Would the Nuclear Power Station negatively affect property values? ▪ Would like to understand the effect, also draw some experience from international case studies. 	The economic specialist will investigate these concerns, during the Impact Assessment Phase of the EIA.	St Francis Bay
381	Mr Hendrik van Rensburg L'Agulhas Plaaslike Bestuurs Komitee	All 5 sites – do they all have equal potential, i.e. 4 000 MW per site? Does Eskom have any preferred alternative sites?	The maximum capacity for each site will be assessed and identified as part of the EIA. The EIA and nuclear licensing processes will determine the viability of each site. However, should all sites be found to be technically and environmentally feasible, all 5 sites may be used in the future. It is important to note that the current EIA is only for one Nuclear Power Station, with associated infrastructure, of the Pressurised Water Reactor (PWR) type technology. At this stage there is no preferred site.	Struisbaai
382	Mr Hendrik van Rensburg L'Agulhas Plaaslike Bestuurs Kom	Please provide update or information on the Pebble Bed Modular Reactor (PBMR). What has happened to date?	The pebble bed modular reactor (PBMR) technology is being developed by the PBMR (PTY) Ltd company. Eskom has submitted applications for an environmental authorisation and for a nuclear installation licence for a PBMR demonstration power plant to be constructed on the Koeberg site. The EIA for the PBMR Demonstration Power Plant is in progress. If successful then Eskom will purchase PBMR power stations, subject to normal commercial and regulatory conditions being met.	Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response	
383	Mr Philip Fourie L'Agulhas PBK	Why has Eskom waited so long? He is concerned about the longer periods to address the potential power shortages that they should have addressed. Why are we only starting to build in 2016? In 2016, South Africa would be even more vulnerable to power supply problems.	When the Government changed in 1994, there was a moratorium by Government on Eskom not to produce any more power with the view that this function would be taken up by Independent Power Producers (IPPs). However, IPPs did not materialise and, in September 2004, Government lifted the moratorium and requested Eskom to provide 70% of the projected new power load.	Struisbaai
384	A Stakeholder Struisbaai Public Meeting	Do we have the capacity to build new power stations?	Yes.	Struisbaai
385	A Stakeholder Struisbaai Public Meeting	For the nuclear plants, does the technology exist to use desalinization so as to reduce the dependency on fresh water?	The technology does exist to use some of the heat that is produced for desalination.	Struisbaai
386	A Stakeholder Struisbaai Public Meeting	There is a proposed 18% increase in electricity price. People would not need to pay these costs if Eskom had taken care of their infrastructure and energy requirements. The predicted costs may have been much less than 18%.	The National Electricity Regulator of South Africa (NERSA) determines the price increase. NERSA is responsible for making sure that electricity generators receive a fair return on their investments, while ensuring that electricity is still affordable to end-users.	Struisbaai
387	Mrs Beverley Eliot Local Resident	Who is going to maintain the nuclear power plant? She also heard that our nuclear physicists are being poached by other countries, therefore our skills pool is relatively limited.	The availability of skilled people is a major challenge in the country. This is not only a problem to South Africa but is experienced world-wide. Eskom currently has a number of programs that aim to identify and train future nuclear engineers, and other technical staff that are required to manage, operate and maintain nuclear power stations in the future. The negotiations with the potential vendors, anticipated to begin by the end of 2007, will include provision for the training and development of South Africans.	Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response
388	Mrs Beverley Eliot Local Resident	Spent fuel – where will it be stored and for how long?	<p>Using Koeberg as an example: Spent fuel or high-level radioactive waste: The spent fuel is retained at Koeberg in spent fuel storage facilities (pools and casks) licensed by the National Nuclear Regulator. The pools and casks have sufficient capacity for the 40-year design life of Koeberg.</p> <p>The SA Cabinet approved a National Radioactive Management Policy and Strategy in 2005. The Department of Minerals and Energy (DME) is currently drafting legislation to implement the Policy. Two options for the long term management of spent fuel are possible: (a) direct final disposal of the spent fuel in a deep underground geological disposal facility, or (b) reprocessing of the spent fuel to extract unused uranium and plutonium for re-use and concentration and disposal of the residual (about 3-4% of the spent fuel) high level waste in a deep underground geological disposal facility. Both options are being pursued internationally.</p> <p>For the proposed nuclear power station, Eskom intends to follow the same practices for the management of radioactive waste as discussed above, under the regulatory control of the National Nuclear Regulator and subject to the requirements of the National Radioactive Waste Management Policy and Strategy and any associated legislation or regulations.</p>
389	Mr Philip Fourie L'Agulhas PBK	<p>Electricity users are ultimately paying for the negligence of the previous Government.</p> <p>What is going to happen to the transmission lines in terms of connecting them to the grid within the next 9 years, i.e. 2007 - 2016?</p>	<p>Comment noted</p> <p>Eskom has a number of projects in progress to strengthen the national transmission network.</p>

Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response
		Where is power going to come from?	Eskom is building open cycle gas turbines power stations, is returning to service the three moth-balled coal-fired power stations (Camden, Grootvlei and Komati), is investigating building wind energy and concentrated solar thermal power stations, is investigating co-generation options, and is implementing efficiency and demand side management programmes aimed at saving 3000 MW by 2012 and 8000 MW by 2025.
390	Mnr Andrew Vlok SMD Punt Bewarings Verenising	Koeberg has been going for some time now. What is the reaction of the temperature of seawater? In terms of change in temperature, how significant is the variation?	<p>At Koeberg, approximately eighty tons of sea water per second is taken through to the condensers in the turbine section of the plant. This water is discharged into the sea again at an increase in temperature of approximately ten degrees. The outfall of Koeberg has been designed in such a way that the warmer water mixes with and cools down to the ambient sea water temperature within 500 – 1000 metres from the point of discharge into the sea. Independent studies conducted by the University of Cape Town before the station started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University).</p> <p>This information is applicable to Koeberg site and must not be extrapolated to another site, as the dispersion and cooling of the outfall water depends on the receiving coastal conditions. This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p>

Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response	
391	Mr Hendrik van Rensburg L'Agulhas Plaaslike Bestuurs Kommittee	The difference in temperature - would it be different if you were using a thermal power station?	It does not matter whether it is a nuclear power station or any other thermal (coal, gas, oil-fired) power station, where sea water is used to cool the steam that drives the turbines. The increase in temperature would be dependent on the design of the steam turbine and the cooling system.	Struisbaai
392	Mr Philip Fourie L'Agulhas PBK	The crayfish have flourished in the area.	<p>Comment noted.</p> <p>Independent studies conducted by the University of Cape Town before the station started operating and which have been ongoing since the operating of the station have shown no adverse effects on the marine life in the area (records are available from the University).</p> <p>This is also one of the studies that will be undertaken in the EIA. Marine specialists are part of the team contracted by the EIA Consultant to perform specialist studies.</p>	Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response	
393	Mrs Liesa Schwarzenbek Shield	Why is Eskom not putting the same effort on renewables? South Africa has much potential for the generation of wind energy.	<p>It is Eskom's stance that ALL of the primary energy resources including solar, wind, wave, ocean current, tidal energy, biomass, hydro, gas, coal and nuclear need to be harnessed using the appropriate technology to provide the electricity that South Africa requires to support its economic growth and development.</p> <p>Eskom supplies electricity to South Africa. Eskom's strategy for electricity supply is aligned to Government's energy policies and strategies.</p> <p>Eskom is currently busy with an EIA that is investigating the development of a commercial wind farm on the West Coast near Vredendal. The plant will have an initial capacity of 100 MW Eskom has just completed an EIA for a proposed solar thermal power plant (100 MW) in Upington in the Northern Cape, which will, when built, be the largest generation facility of its kind in the world.</p>	Struisbaai
394	A Stakeholder Struisbaai Public Meeting	In terms of solar panels, they are having a problem because there is no support in the use of the solar panels in their homes. The lifespan of a solar panel is between 4 - 6 years. Municipalities cannot afford to replace solar panels every six years. The consumer has to take care of the replacement costs. If a consumer cannot afford replacement, they will go back to the original system of power from the grid. So there are a number of challenges that are facing municipalities in dealing with the renewables as an option for individual households.	Comment noted.	Struisbaai
395	Mrs Janice Albertyn Bredasdorp/Napier Botanical Society	Have you investigated or researched the harvesting of wave power for electricity generation?	Wave power generation is one of the energy alternatives that Eskom is researching. The technology is still been assessed from a technical and financial viability perspective.	Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response	
396	Mr Hendrik van Rensburg L'Agulhas Plaaslike Bestuurs Kommittee	How about small wind turbines in private farms to curb the demand?	The Government (Department of Minerals and Energy) is currently investigating incentives to promote renewable energy – this includes evaluating the concept of “feed-in” tariffs. The regulatory framework to facilitate these incentives will be developed by the National Energy Regulator of South Africa.	Struisbaai
397	Mr Hendrik van Rensburg L'Agulhas Plaaslike Bestuurs Kommittee	Will this current planning provide power to other countries, big industries etc?	The current planning is aimed at South Africa's future requirements.. Eskom needs to have added more than 40 000 MW of new power stations to its existing electricity generating capacity in order to be able to meet the projected demand for electricity in South Africa by 2025. The electricity demand in South Africa is being driven proportionally by all sectors, including industry, commercial and residential sectors.	Struisbaai
398	A Stakeholder Struisbaai Public Meeting	Research on wind power has been done over a number of years, is wind cheaper? Isn't there a way to store wind energy so it can be released when the wind is not blowing.	An EIA is currently in progress for a wind energy facility of 100 MW on the West Coast of South Africa (near Vredendal). Wind energy is an important complement to other forms of electricity generation. However, at this stage apart from pumped storage schemes which use more electricity than what they produce, large scale storage of electricity is not yet possible.	Struisbaai
399	Mr Michael Corrigan Local Resident	In terms of solar, one needs to save the capital upfront. If you bring appropriate technology, households need to be prepared to pay the capital cost of up to R25 000.	Noted.	Struisbaai
400	A Stakeholder Struisbaai Public Meeting	When Koeberg was built, there were baseline geological studies that were undertaken. This provided a useful base for all other studies that were undertaken afterwards. It would be good if lessons learnt from the Koeberg Nuclear Power Station could set baseline studies for future management of the new power station. He is hoping that as soon as the site has been selected, all work undertaken will be recorded for reference.	Suggestion noted with thanks.	Struisbaai

No	Name & Organisation	Issue/Comment/Concern	Response	Struisbaai
401	Mr Barry Fisher Struisbaai Residents Association	<p>In terms of the wind facility, how much is expected to come out of the wind facility?</p> <p>Has Eskom looked at what Britain is doing in terms of the 25-mile barrage tidal system?</p>	<p>The wind energy facility on the West Coast near Vredendal for each an EIA is currently being undertaken will have an initial capacity of 100MW. However, the experience from Eskom's research wind energy facility at Klipheuwel near Durbanville in the Western Cape, as well as internationally, is that the load factor for wind energy facilities is between 15 and 30%; i.e. the facility will only provide electricity on average for between 15 and 30% of the year.</p> <p>Eskom's research programme is investigating wave, tidal and ocean current options. No systems using these energy sources are commercially available anywhere in the world.</p>	
402	Mrs Janice Albertyn Bredasdorp/Napier Botanical Society	<p>The following issues should be investigated as part of the EIA:</p> <ul style="list-style-type: none"> ▪ Impact on dairy farmers. ▪ Labour and their social side during construction ▪ Poaching of labour. 	<p>These issues have been noted for inclusion in the social, agricultural, tourism and economic specialist studies during the Impact Assessment Phase of the EIA.</p>	Struisbaai

APPENDIX 2: PRESENTATIONS

Eskom's Strategic Planning Overview

Note: The size of this presentation is 4.21 MB.

Environmental Impact Assessment (Technical and Public Participation) Process

Note: The size of this presentation is 2.40 MB.

Both presentations can either be downloaded on the website (www.eskom.co.za/eia) or requested from ACER (Africa) at nuclear1@acerafrica.co.za or 086 010 4958

APPENDIX 3: ATTENDANCE REGISTERS

Please note: Attendance Registers can only be made available upon request