

**ENVIRONMENTAL IMPACT ASSESSMENT (EIA)  
DEAT REFERENCE NO.: 12/12/20/944**

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

**FOCUS GROUP MEETING  
KOUGA MUNICIPALITY  
30 AUGUST 2007**

## PREFACE

The independent Environmental Impact Assessment (EIA) Project Team ("the EIA Team wishes to thank (a) Cllr Vernon Stuurman for coordinating this meeting and (b) all representatives of the Kouga Local Municipality, who attended the Focus Group Meeting as part of the notification round of meetings for the EIA for the proposed conventional Nuclear Power Station (NPS) and associated infrastructure.

Should participants who attended the meeting require any changes to these proceedings, please notify the Public Participation Office in writing within two weeks of receipt.

In some instances the name 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 (Africa) Environmental Management Consultants (ACER) with your details.

There are three sets of minutes:

- Set A - Public Meetings
- Set B - Key Stakeholder Workshops
- Set C - 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](http://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.

### FORMAT OF PRESENTATION

The presentation was tailor-made to respond to specific information requirements as requested by the Kouga Local Municipality. The presentation provided similar information to that provided in all other Public Meetings and Key Stakeholder Workshops as part of the notification round of meetings of the EIA. There was, however, specific emphasis on the following key aspects:

- Comparative information on nuclear energy and renewables - advantages and disadvantages.
- Information on economic spin-offs arising from a NPS - using Koeberg as an example.
- Understanding of the area where Koeberg NPS is operating.
- Information on what is currently happening in surrounding towns, e.g. Melkbosstrand, Bloubergstrand.
- Job opportunities (comparative information on nuclear and renewables).

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 Division

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## 1. ATTENDANCE

### 1.1 Attendance – Kouga Local Municipality

Name	Position
Mr Malcolm Booysen	Chief Financial Officer
Dr Nico Botha	Councillor
Mr Robert Dennis	Executive Mayor
Ms Katrien Felix	Councillor
Mr Sidney Fodi	Manager - Legal Services
Mr Clive Njela	Councillor
Mr Gordon Olivier	Manager - Housing
Dr EM Rankwana	Municipal Manager
Mrs Linda Simanga	Director Corporate Services
ClIr Frederick D Smith	Councillor
Ms Carina Rosa Strydom	Manager - Local Economic Development
ClIr Vernon Stuurman	Councillor -Social and Economic Development

### 1.2 Attendance – Environmental Consulting Team

Name	Organisation	Role in the project
Ms Jaana-Maria Ball	ARCUS GIBB	EIA Project Manager
Ms Bongsi Shinga	ACER (Africa)	Public Participation Consultant

### 1.3 Attendance - Eskom Holdings Limited

Name	Organisation	Role in the project
Mr Tony Stott	Enterprises Division Nuclear Programmes	Senior Manager: Nuclear Stakeholder Management
Mr Jongi Dyabaza	Generation Division Nuclear Portfolio	Stakeholder Management Practitioner

### 1.4 Apologies

Name	Organisation
Mr J Foreman	Kouga Local Municipality
Mr S Baartman	Kouga Local Municipality

## **2. WELCOME AND INTRODUCTIONS**

Mr Robert Dennis, the Executive Mayor of the Kouga Local Municipality welcomed all present and thanked them for attending the meeting to discuss the proposed Eskom Nuclear Power Station (NPS).

He introduced all Kouga Local Municipality representatives and outlined their specific roles within the municipality.

He requested Mr Tony Stott to introduce the study team and continue with the meeting's proceedings.

## **3. OBJECTIVES OF MEETING**

### **3.1 Kouga Local Municipality**

The primary objectives of the meeting were as follows:

- To introduce and provide the Kouga Local Municipality with an overview of the proposed development by Eskom and to introduce the EIA Team and the relevant Eskom personnel.
- To provide an opportunity for Interested and Affected Parties (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 (DSR).
- To undertake constructive debate and discussion.

The Honourable Mayor welcomed the opportunity to be briefed by Eskom and the study team. By way of introduction, he highlighted the following:

- The Municipality is aware of the proposed Eskom NPS, with Thyspunt site as one of the five alternative sites being investigated.
- Thyspunt site falls within the Kouga Local Municipality's area of jurisdiction.
- It is imperative that the Kouga Local Municipality engages in the EIA process with a view to (a) better understand Eskom's proposal and (b) analyse the information and express their views on the proposed project.
- They have been inundated with calls from media, different interest groups and people wanting to know the Kouga Local Municipality's view on the proposed Eskom NPS.
- It is within this context that the Kouga Municipality needed a presentation from the study team in order to analyse the information, go back to the Council and then indicate their position on the matter.
- It is only after this meeting that the Kouga Local Municipality will come up with an official position on the proposed NPS.

### **3.2 EIA Team**

The EIA Team attended this meeting as part of public consultation and in response to requests from the Kouga Local Municipality.

## **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 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 NPS

### **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

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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 derived from 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 emanating 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 (CO<sub>2</sub>), 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 Mphumalanga 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 (DEAT) 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 Climate change / global warming

- South Africa is one of the largest emitters of CO<sub>2</sub> in the world
- Coal accounts for a big percentage (~ 86 %) of Eskom's generation fleet
- Eskom has made climate change a key priority

- Key responses
  - Energy efficiency
  - Viable renewables
  - Non- or low-CO<sub>2</sub> emitting base load generation – for example nuclear power
- Aligned with and in support of the government climate change response strategy and related DME policy

#### **4.4 Challenges of renewable energy**

- Wind turbines present the following challenges:
  - Small unit sizes (1 – 2 MW) necessitates the installation of many units
  - Wind turbines rely extensively on the strength and consistency of wind. This affects the generating capability of the machines
  - Only generate electricity for about 20 – 30 % of the time
  - Not base load
  - National electricity supply system requires a back-up source of energy
  - Relatively high capital cost
  - ~ 6 permanent personnel for 100 MW
- Concentrated Solar Power (CSP) presents the following challenges:
  - Unit sizes in the region of 50 – 100 MW with a very large footprint (~ 4 square kilometres)
  - Relatively high capital cost
  - Storage devices to improve the load factor of CSP plants are still under development – they cannot at this stage be considered for base load applications
  - A back-up source of energy is required for the periods when the sun does not shine
  - Require access to water to clean the mirrors

#### **4.5 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 NPS 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 NPS 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 NPS would be a more advanced form compared to the technology used in the existing Koeberg NPS.

#### 4.5 Overview of the proposed nuclear power station infrastructure

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

- The footprint of the proposed NPS 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 DEAT is the lead environmental authority for the EIA for the proposed NPS. 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 NPS.
- An application for a nuclear installation licence will be submitted to the 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. WAY FORWARD AND CLOSING REMARKS**

The Honourable Mayor thanked Eskom and the EIA Team for responding positively to the request of a meeting. As highlighted in Section 3.1, he confirmed that after this meeting the Kouga Local Municipality would come up with an official position on the proposed NPS.

He then declared the meeting closed.

## 6. ISSUES AND COMMENTS RAISED AND DISCUSSED

The table (**pages 13 - 18**) presented below details all issues and concerns, which were raised and discussed at the meeting.

Please note:

- ACER has tried to capture and reflect as accurately as possible all issues raised at the meeting.
- 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 meeting, 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	COMMENT/CONCERN/ISSUE	RESPONSE OR ACTION
1	Cllr F Smit Kouga Local Municipality	<p>Where would construction employees be housed for the duration of construction? Will they live in the area?</p> <p>What would happen to construction employees once the NPS is in operation?</p> <p>What is the current planning near Koeberg?</p>	<p>These issues will be addressed in the social and socio-economic study as part 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>It is anticipated that the construction workers will be employed in other construction projects once this construction has been completed.</p> <p>Two emergency planning zones are in place for the Koeberg NPS. The first zone is up to approximately five km from the power station, within which no further development may take place. The second zone is from five km up to approximately 16 km from the power station, within which limited development may take place.</p>
2	Kouga Local Municipality	There are various stories going around regarding access to the Thyspunt Site. Has Eskom thought of how they will access the Thyspunt site?	Currently access to the Thyspunt site is via Oyster Bay. Access to the site will be assessed as part of the EIA studies.

No	NAME & ORGANISATION	COMMENT/CONCERN/ISSUE	RESPONSE OR ACTION
		Other key issues relate to existing infrastructure and the potential impacts during construction and operation of the NPS.	The EIA will investigate potential impacts, e.g. construction related impacts, social impacts, water supply issues and electricity supply issues, etc.
3	Cllr F Smit Kouga Local Municipality	For the Thyspunt site, will Eskom use the same type of technology as for the Koeberg NPS?	The Pressurised Water Reactor (PWR) type technology that Eskom is considering for the proposed NPS under consideration for this EIA is a modernized version (i.e. more advanced) of the technology used at Koeberg.
4	Cllr Katrien Felix Kouga Local Municipality	If the proposed NPS becomes a reality, will it assist the municipality in terms of the electricity demand? How is the municipality going to provide for electricity if the demand keeps on increasing?	The construction and operation of the NPS will assist Eskom in meeting the growing national demand. The construction of a power station in the region will strengthen the network and improve the reliability of electricity supply.
5	Mr Robert Dennis Kouga Local Municipality	There was a Kouga Anti-Nuclear Group (KANG) who were strongly against a NPS, one of the issues was the relocation of people, as they cannot live within the 16 km zone, is that still the case?	<p>The NNR will determine the number and size of emergency planning zones for the proposed power station.</p> <p>In the case of the Koeberg NPS, two emergency planning zones are in place. The first zone is up to approximately five km from the power station, within which no further development may take place. The second zone is from five km up to approximately 16 km from the power station, within which limited development may take place.</p>

No	NAME & ORGANISATION	COMMENT/CONCERN/ISSUE	RESPONSE OR ACTION
			<p>For the proposed NPS Eskom is considering the latest design of 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 NPS and the proposed site and environment.</p>
6	Mr Robert Dennis Kouga Local Municipality	Eskom were also looking at the Pebble Bed Modular Reactor (PBMR), is it still part of Eskom's planning?	<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>
7	Mr Robert Dennis Kouga Local Municipality	What would be the impact of the increase in water temperature on sea life?	<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, which uses steam to drive turbines.</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</p>

No	NAME & ORGANISATION	COMMENT/CONCERN/ISSUE	RESPONSE OR ACTION
			<p>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>
8	Kouga Local Municipality	Crayfish grow relatively larger compared to ones found in other sections of the sea.	<p>Comment noted.</p> <p>Using Koeberg as an example: 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</p>

No	NAME & ORGANISATION	COMMENT/CONCERN/ISSUE	RESPONSE OR ACTION
			<p>dispersion and cooling of the outfall water depends on the receiving coastal conditions.</p> <p>This is 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>
9	Ms Carina Rosa Strydom Kouga Local Municipality	<p>The Kouga Local Municipality is planning to build a school in the area. The proposed Eskom NPS does not give them much scope to build the school, as there may be a restriction.</p> <p>She referred to the Kouga Structure Plan, and asked how this would be affected.</p>	All current planning will be taken into consideration during the investigations. In addition, the social and socio-economic specialist will consider various planning frameworks.
10	Kouga Local Municipality	How many people are being employed at the Koeberg NPS currently?	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.

No	NAME & ORGANISATION	COMMENT/CONCERN/ISSUE	RESPONSE OR ACTION
11	Kouga Local Municipality	What is going to happen from now onwards?	The 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 (IRR). All I&APs will have an opportunity to review the report and to discuss its contents in public meetings, 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, as well as exact details concerning future public meetings for this EIA.
12	Kouga Local Municipality	There are fish traps at Thyspunt, a remarkable heritage resource.	Comment noted for forwarding to the Cultural Heritage Specialist.
13	Cllr Katrien Felix Kouga Local Municipality	Although there is a NPS in Cape Town, the Melkbosstrand is an important beach with a Blue Flag Beach status in Cape Town.	Comment noted.

## **APPENDIX 2: ESKOM'S STRATEGIC PLANNING OVERVIEW (PRESENTATION)**

**Note:** The size of this presentation is 1.11 MB.

The presentation can either be downloaded on the website ([www.eskom.co.za/eia](http://www.eskom.co.za/eia)) or requested from ACER (Africa) at [nuclear1@acerafrica.co.za](mailto:nuclear1@acerafrica.co.za) or 086 010 4958

### **APPENDIX 3: ATTENDANCE REGISTERS**

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