



PROPOSED ANKERLIG CONVERSION PROJECT FOCUS GROUP MEETINGS

RECORD OF FOCUS GROUP MEETING

CITY OF CAPE TOWN BLAAWBERG ADMINISTRATION

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Held on
Wednesday, 21 November 2007,
Municipal Office, Milpark on Koeberg Road,
Milnerton

Notes for the Record prepared by:

Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

FOCUS GROUP MEETING:

CITY OF CAPE TOWN BLAAWBERG ADMINISTRATION - MILNERTON

Venue: Municipal Office, Milpark on Koeberg Road - Milnerton

Date: Wednesday, 21 November 2007

Time: 14h00

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, the process facilitator for the proposed Eskom Ankerlig Facility Public Participation Process, introduced the teams from Sustainable Futures and Eskom. Representatives from the City of Cape Town, Blaawberg Administration introduced themselves. Shawn provided an overview of the project and the process that lead up to the current phase of the environmental impact assessment process.

- » Nico Gewers - Chief Environmental Advisor - Generation Environmental Management
- » Morore Mashao - Chief Engineer - Division Client Office. Acts as the client for Generation
- » Dean Wilson – Eskom Transmission
- » Albert van der Walt – Corporate Specialist (Project Development), Eskom Enterprises
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Morné Theron – CCT ERM
- » Pat Titmus – CCT ERM
- » Dean Wilson – Eskom Transmission
- » Nico Gewers – Eskom Generation
- » Morore Mashao – Eskom Generation
- » Albert van der Walt – Eskom Projects Development Department
- » Shawn Johnston – Sustainable Futures ZA
- » René Ngwenya - Sustainable Futures ZA

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Pat Titmus explained that her work jurisdiction is within District B in the City of Cape Town, however, she also oversees District C. Her work operations covers three areas namely; environment, heritage and signage & control.

Proposed Ankerlig Conversion from OCGT to CCGT

Draft minutes: Focus Group Meeting held with the City of Cape Town Blaauwberg Administration – Municipal Office, Milpark on Koeberg Road, Milnerton

Shawn Johnston noted that the Ankerlig conversion of the OCGT (Open Cycle Gas Turbine) project attempts to involve all the stakeholders around the 'eye' shape on the map (refer to map in the centre of the information booklet). A range of meetings, including public meetings; focus groups; and standard meetings, will be held as part of the broader public participation process. The City of Cape Town is viewed as an important role-player and a significant constituency with whom a partnership is necessary. Shawn also intimated that the reports for the project will be finalised during 2008.

Morore Mashoa explained that the project is about the conversion of the OCGT to the CCGT (Combined Cycle Gas Turbine) at Ankerlig. The current open cycle gas turbines offer 1350 MW energy, whereas the anticipated conversion will add 720 MW. The overall purpose is to market the plant to operate more effectively.

DISCUSSION SESSION

Morné Theron	Will the cooling towers involve dry cooling or wet cooling?
Response: Nico Gewers	The towers will operate with dry cooling. Eskom is aware about the water problem in the area, for example, the options will consider the utilisation of municipal water or waste water from the Wesfleur Waste Water Plant.
Morné Theron	While understanding the idea on water conservation, why is a 60m high stacking tower considered?
Response: Morore Mashao	The principle for the high stacking tower is centred on the need for cooling the water. It is also a common principle that air be elevated to cool the water.
Morné Theron	The normal height for the cooling tower is 30m, it is a concern that the anticipated towers will have a 60m height.
Response: Nico van der Walt	The condensers are normally 50 m high, however, the reason for the 60m high tower is to create extra velocities that will allow the gases to exit the plant quickly.
Morné Theron	There is a worry about the double visual impact that the towers will create. Will there be more fuel gases?
Response: Morore Moshao	Not quite, however, the turbines might need to run slightly longer (mid-merit). This might mean that the turbines need to operate for few days in the week.
Morné Theron	There is a concern about the cumulative impact, and that the towers are being increased from 4 to 9 units. Why was this not done earlier?
Response: Dean Wilson	The project is driven by need and demand and at the time it was not envisaged to run the plant at mid-merit.
Pat Titmus	If a fuel pipeline is used to transport fuel to the Ankerlig, would it be underground or above ground?
Response:	This would be investigated as part of looking alternatives for getting fuel

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Albert van der Walt	to site. This is part of a separate EIA process.
Morné Theron	Discomfort exists over the incremental footprint of Eskom's activities within the Blaauwberg Area and the possibility of a second nuclear reactor at Koeberg. Eskom's cumulative footprint which includes powerlines, Ankerlig, Koeberg and the Omega substation is worrying. Eskom needs to provide information on the size of land that it will need for its projects over the next 10 years within the Blaauwberg Area.
Response: Albert van der Walt	This point is noted and the advice is welcomed.

Albert van der Walt provided the following information on the conversion from the OCGT to the CCGT:

Albert van der Walt explained the anticipated structure at Ankerlig is for 9 OCGTs to be erected and 5 units at Gourikwa in Mosselbay. It has become a reality that, while surplus electricity capacity was intact for many years, the country is running out of capacity at the moment. The reserve margin is very low and when a coal unit trips there is no backup in place. The idea is that when a big unit trips a gas turbine can be started.

With ASGI-SA the government is looking at 4-6% growth. The first coal units will be installed by 2012. The Chief Executive Officer of Eskom has warned that the country will live with a strain on its electricity provision until the coal units are established. There are about 42 projects anticipated, however, while some can be built, all of the projects needs to be investigated. There is a program in place that suggests that more coal units should be built as a long term strategy, however, the details are still unclear.

The OCGTs can be constructed quickly and these are relatively inexpensive compared to the coal units. While the OCGTs are inexpensive to build it is, however, expensive to maintain and for this reason versatile machines should be explored as an alternative option. The 'mothball' towers of the 1980s are now re-emerging to be restored. In addition, demand side management is encouraged as a way to buy power back (buying the right of that person to use power). The nuclear facility at Koeberg has a total capacity of 900 MW supply and Koeberg only provides half the power that the Cape needs.

Projects in the Western Cape are not restricted to only servicing the province but also to impact on the electricity demand in the rest of the country. The OCGT/CCGT project will therefore provide national support. These are considered peaking plants, there are more in Port Elizabeth and in other parts of the Western Cape.

ADDITIONAL DISCUSSION SESSION

Pat Titmus	The hope is that the project will take up minimum footprints on the environment. Koeberg is also taking up footprints in terms of its height and width. There is only 5% left of a very important vegetation pyramids.
Morné Theron	Eskom should think about the biodiversity offset. In terms of the impact of the environment, environmentalists have become aware that some developers say 'it is small thing' and then expect the environmental specialists to approve all the time.
Response: Albert van der Walt	Albert acknowledged Morne's point on biodiversity offsets. He indicated that Eskom have established various environmental offsets and ecological corridors along the national grid.
Response: Morore Mashao	Morore indicated that it has become best practice within Eskom to focus on ensuring ecological corridors are integrated were possible. He sited the example of the Platteklouf Nature Reserve that link the Accacia Sub station with the Durbanville Hills and Tygerberg Nature Reserve.
Response: Dean Wilson	Indicated it might be possible to create a series of ecological corridors in the Blaauwberg Area between the existing Koeberg Nature Reserve, the outgoing servitudes towards Omega and the planned servitude between Ankerlig and Omega and link it all into the established Blaauwberg Conservation Area and the West Coast Biosphere Reserve. This would then increase the ecological footprint and address biodiversity management concerns in the area.
Morné Theron	Is there a rationale between the lines and routes as shown on the map? (referring the blue, green and red options as depicted on the map in the information booklet). Is it possible to minimise the visual impact and the impact on the vegetation?
Response: Dean Wilson	The engineers will do an inspection of the routes and they will provide technical advice and make suggestions regarding the best option. A total of 55 m of land is required from the landowners, however, no decision has been made about the power line structure. Visual impacts and biodiversity will be investigated and Eskom would look at biodiversity as it has done with the Platteklouf Nature Reserve servitudes.
Morné Theron	The issue of the biodiversity offsets is an important one.
Response: Albert van der Walt	The Koeberg power station has been beneficial to biodiversity. There are three basic requirements for powerlines: <ol style="list-style-type: none">1. No planting;2. No stacking materials; and3. No building under the powerline.

WAY FORWARD AND CLOSURE

Proposed Ankerlig Conversion from OCGT to CCGT

Draft minutes: Focus Group Meeting held with the City of Cape Town Blaawberg Administration – Municipal Office, Milpark on Koeberg Road, Milnerton

Shawn Johnston thanked everybody for their participation and questions. The staff of the City of Cape Town, Blaawberg Administration was informed of the next steps in the EIA process.

The meeting closed at 15h30.



PROPOSED ANKERLIG CONVERSION PROJECT FOCUS GROUP MEETINGS

RECORD OF FOCUS GROUP MEETING

ATLANTIS RESIDENTS & RATEPAYERS ASSOCIATION

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E-mail: swjohnston@mweb.co.za

Held on
Wednesday 21 November 2007,
Protea Park Primary School, Atlantis

Notes for the Record prepared by:

Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

**FOCUS GROUP MEETING:
ATLANTIS RESIDENTS & RATEPAYERS ASSOCIATION - ATLANTIS**

Venue: Protea Park Primary School, Atlantis

Date: Wednesday, 21 November 2007

Time: 16h00

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, the process facilitator for the proposed Eskom Ankerlig Facility Public Participation Process, introduced the Sustainable Futures team, the Eskom team and the EIA Specialist from Southern Hemisphere. Shawn introduced the project process, explained the scoping phase and invited the participants to voice their concerns and their impressions of the project. He highlighted the deliberate attempts are made to include as many people as possible in the public participation process that include meetings, consultations, and conversations with stakeholders. Letters will be sent soon to all stakeholders and the use of the radio, the local newspapers, information dissemination at local shops and other forms of media will be employed.

- » Nico Gewers - Chief Environmental Advisor - Generation Environmental Management
- » Morore Mashao - Chief Engineer - Division Client Office. Acts as the client for Generation
- » Albert van der Walt – Corporate Specialist (Project Development), Eskom Enterprises
- » Dean Wilson – Eskom Generation
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Noël Williams – ARA
- » Abe Croutz – ARA
- » John Arends – ARA
- » S. McKinna Petersen - ARA
- » Liezl Coetzee, Southern Hemisphere
- » Nico Gewers – Eskom Generation
- » Morore Mashao – Eskom Generation
- » Albert van der Walt – Eskom Projects Development Department
- » Shawn Johnston – Sustainable Futures ZA
- » René Ngwenya - Sustainable Futures ZA

DISCUSSION SESSION

John Arends	It appears that the project still needs to happen. The understanding is that this project has already begun and it left the community with a lot of hurt. We understand that the community cannot survive without Eskom and that a partnership is needed, however, a discussion should happen about the past hurts and current concerns. John Dean was given a list of our concerns, however, no report back has come back to the community.
Response: Albert van der Walt	What are the concerns from the community?
John Arends	<ol style="list-style-type: none">1. The treatment of the local community: The presence of the labour brokers caused conflict between the local workers and the people who were from outside the community and worked on the site.2. No feedback was given to local workers who worked overtime.3. Eskom should provide training and capacity building opportunities to the local community and not rely too much on outside expertise. This situation causes an economic justice concern for the local community.4. Black Economic Empowerment is critical, the Republic of SA Constitution is clear about BEE. For example, a guest house initiative that was started by the local women in the community was not utilised since Eskom decided to support other accommodation facilities.5. Favouritism and preferential treatment by Eskom to workers who are not local e.g. lack of access to transport for the local workforce.6. Hire and Fire: Instantaneous decision-making that contradicts the LRA.
Dean Wilson	Dean thanked John for his frank input and noted that the concerns are valuable information that Eskom will have to consider and respond to.

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Albert van der Walt explained that the country's economic/growth is more than what was anticipated. The growth indicates a demand for electricity. Eskom takes the power where it is needed. When Ankerlig commenced it was part of the plan to build 4 open cycle gas turbines. The OCGTs can be built very quickly e.g. within 2 years. Eskom is in the process of building new power stations and the constraint around electricity will be a reality until 2012. Eskom is therefore considering options and the consideration to have a reserve margin is important (15%). Gas 1 is needed to increase the reserve margins to accommodate peak times. The exhaust fumes can be used in a steam recovery system in

which the excess heat from the OCGT is utilised to generate steam and run a turbine to generate additional electricity. Each turbine generates approximately 150MW power. With the conversion process completed, Eskom could generate another 80MW. This might mean that the unit needs to run for approximately 5-6 hours a day. The current machines need to be improved and more machines need to be build to generate more energy. A transmission line from Ankerlig to Morning Star (Omega substation), that involves an approximate 20km, needs to be installed in order to evacuate the additional power generated at this power station.

DISCUSSION SESSION

Abe Croutz	What happened to the existing power stations? Can the new system not be incorporated into the old systems?
Response: Nico van der Walt	The other power stations, including the Athlone power station, are very old stations. Also, with its operations, coal must be imported. The biggest benefit of electricity is that we have the cheapest (affordable) electricity in the world, e.g. for the making of aluminium 35% electricity is utilised. Currently the media is discussing the tariff increases needed because of the installation of new power stations. There are attempts to bring back the old power stations.
Abe Croutz	We are living in the 20 th century. Has Eskom invented a device yet that will allow for the storing of current?
Response: Albert van der Walt	One way of storing electricity is to use a battery and perhaps pump storage, e.g. Palmietrivier. Another form of generation is wind farming. Renewable energy is very important for Eskom.
Abe Croutz	It is important that Eskom provides information on the technical issues.
Response: Albert van der Walt	The community should be reassured that they have been informed in the past about the project.
Response: Dean Wilson	What will be impact be on the people staying in the area. In other areas, people's TV signals were blurred? It is important that the community voice out how they will be impacted.
Noël Williams	Is what we have currently, the first phase of the project? What will it do to the environment with regard to the social and economic perspective?
Response: Albert van der Walt	The conversion of Ankerlig will be the only additional components to the site.
Noël Williams	How many loads of diesel will be required and what is the impact of the quantity of diesel usage? How will the environment be affected in terms of transport, traffic flow, the environment and roads? Mr. Williams noted that none of these issues were properly addressed previously.
Response: Nico	The issue about emission are carefully monitored and the issues around

Proposed Ankerlig Conversion from OCGT to CCGT

Draft minutes: Focus Group Meeting held with the Atlantis Residents & Ratepayers Association, Protea Park Primary School

Gewers	the roads, tanker transporting of fuel is constantly being monitored and part of a different EIA process looking at the best options for getting fuel to Ankerlig.
Response: Morore Mashao	A study on the impact of the roads is part of a separate study. The amount of carbon is about a third.
Response: Nico Gewers	Nico assured the group that Eskom has audits, environmental evaluations and other checks and balances in place to ensure integrity of the environment.
Noël Williams	Mr Williams proposed that Eskom considers the establishment of an environmental monitoring committee. The committee should comprise representatives from the province, the City, community, and unions. The committee should be open and transparent and include interested and affected parties. Mr Williams made the following observation about the previous Eskom project: <i>“The company had no relationship with the community except for the people that worked for it.”</i>
Abe Croutz	Has Eskom considered wind direction? There are strong south easterly winds, also strong westerly winds.
Response: Nico Gewers	Air quality modelling takes into account wind direction. It is important to get input back from the community, however, Eskom is engaged in ongoing monitoring. Liaison happens with the Atlantis Community Environmental Forum.
John Arends	Mr Arends proposed that the committee in question be disbanded by Eskom since the people were not fairly elected.
Response: Albert van der Walt	Albert cautioned the meeting that it had no mandate to make the decision as proposed by John Arends. The point was noted and it would be looked at.
Response: Nico Gewers	The re-establishing of the forum is important in light of what was raised by John. He assured the meeting that Eskom was there to listen and to consider the input.
Response: Morore Mashao	Morore acknowledged the trust issues with the Atlantis community needed attention.
John Arends	John emphasised that there are no representation in the current Committee established by Eskom. Any committee must have the blessing of the community and the community’s needs and concerns must be accommodated.
Response: Shawn Johnston	Shawn indicated that processes are in place to solicit more information from the community about this issues and the point has been noted and will be taken forward.
Noël Williams	He noted that the past way of operations should be accepted for how it transpired. There is, however, an expectation around new relations. There are two things in Atlantis that cumulatively will impact on the whole

Proposed Ankerlig Conversion from OCGT to CCGT

Draft minutes: Focus Group Meeting held with the Atlantis Residents & Ratepayers Association, Protea Park Primary School

	<p>community.</p> <ul style="list-style-type: none">(1) The new City of Cape Town Regional Dumping Site; and,(2) The extension of the clay mine (Apollo Bricks) <p>An additional concern will be about diesel emissions from Ankerlig and smog from the brickworks. The people of Atlantis must become more environmentally aware. The Atlantis area does not have enough water to support the Ankerlig conversion, 90% of the water in used in Atlantis is from the local aquafier.</p>
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WAY FORWARD AND CLOSURE

Mr Johnston thanked everybody for their candid feedback, their input and questions. He noted that their participation set the scene for good engagement. The attendees were informed that the next steps in the EIA process.

The meeting closed at 17h15.



PROPOSED ANKERLIG CONVERSION PROJECT FOCUS GROUP MEETINGS

RECORD OF FOCUS GROUP MEETING

MELBOSSTRAND & DUINEFONTEIN RATEPAYERS ASSOCIATION

Held on
Wednesday 21 November 2007,
Melkbosstrand Police Station

Savannah Environmental (Pty) Ltd
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FOCUS GROUP MEETING:

MELKBOSSTRAND & DUINEFONTEIN RATEPAYERS ASSOCIATION - MELKBOSSTRAND

Venue: Melbosstrand Police Station
Date: Wednesday, 21 November 2007
Time: 18h30

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, the process facilitator for the proposed Eskom Ankerlig Facility Public Participation Process, introduced the Sustainable Futures team and the Eskom team. Brett Laing explained that the Melbosstrand & Duinefontein Ratepayers Association is an active association. Raymond Williamson noted that he expressed his concerns as a resident. He, however, has no expert position and would listen for how the impact happens. Raymond explained that he would like to have a feeling of comfort as the project unfolds.

Eskom Team

- » Nico Gewers - Chief Environmental Advisor - Generation Environmental Management
- » Morore Mashao - Chief Engineer - Divisional Client Office. Acts as the client for Generation
- » Albert van der Walt – Corporate Specialist (Project Development), Eskom Enterprises
- » Dean Wilson – Eskom Generation
- » Liezl Coetzee – Southern Hemisphere. Environmental Specialist in EIA.
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Brett Laing – Melkbos Ratepayers Association
- » Raymond Williamson – Melbos Ratepayers Association
- » Liezl Coetzee - Southern Hemisphere
- » Nico Gewers – Eskom Generation
- » Morore Mashao – Eskom Generation
- » Albert van der Walt – Eskom Projects Development Department
- » Shawn Johnston – Sustainable Futures ZA
- » René Ngwenya - Sustainable Futures ZA

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Albert van der Walt explained that the country is facing constraints in terms of capacity. This results in load shedding at times. The Chief Executive Officer of Eskom warned that the constraint will be in effect until 2012. The country use to have access capacity, however, we do not have a sufficient reserve margin and most of the power stations are old plants which have deteriorated. A number of initiatives are being investigated, for example:

- (1) Eskom is pursuing demand side management possibilities with customers
- (2) An open enquiry process has been initiated to procure power from cogeneration operations
- (3) Moth-balled power stations are being revamped which is a very expensive process.

Eskom is constantly exploring options for power generation capacity enhancement. These options include screening opportunities; concept study; pre-feasibility; feasibility; and implementation of feasible projects. At Ankerlig, Eskom built open cycle gas turbines. The initial four units were built as a peak power supply option. Project Gas 1 (i.e. an additional 5 units) was initiated to increase the reserve margin.

DISCUSSION SESSION

Raymond Williamson	What is the capacity of energy currently at Ankerlig? How many mega watts?
Response: Albert van der Walt	Approximately 147-150 MW per unit. The combined cycle gas turbine consists of a combination of conventional gas turbines that drives its respective generators. The hot exhaust gasses of the gas turbines are then used to generate steam in a heat recovery steam generator which is used to drive a steam generator. The efficiency improvement is in the order of 50% and to achieve this, the units have to run long enough to produce the steam. The heat recovery and the steam generator will be installed at the back of the existing OCGT turbines.
Response: Albert van der Walt	When Eskom is embarking on this project it is important to consider that this is done to enhance supply on the Eskom national system and not only for supply to the Western Cape Province.
Raymond Williamson	Melkbosstrand residents require clarity around Eskom's processes and projects in the area around Melkbosstrand, Duinefontein, Atlantis, Klein Dassenberg and Morning Star. Improved communications strategy is needed for communicating with surrounding communities.
Response: Albert van der Walt	This is an issue that been noted and needs to be addressed through the correct mechanism.

Proposed Ankerlig Conversion from OCGT to CCGT

Draft minutes: Focus Group Meeting held with the Melkbosstrand & Duinefontein Ratepayers Association, Melkbosstrand Police Station

Raymond Williamson	What will be the actual size of the footprint be for the 9 units at Ankerlig? Will the units produce more noise?
Response: Morore Mashao	The units will not necessary produce more noise. Since the units will run for longer times, it might produce prolonged noise.
Response: Albert van der Walt	One of the options being investigated is the use of an evaporative cooling system. The fans might produce some noise, however these issues are being investigated as part of the noise study.
Raymond Williamson	What are the future fuel sources to be used at Ankerlig, are you planning to use petroleum gas?
Response: Albert van der Walt	This is an option that's been explored and investigated and would depend on the availability of large volumes of gas and the unit cost of the gas.
Raymond Williamson	What will labour opportunities consist of?
Response: Albert van der Walt	All labour contracting at Ankerlig is done through Eskom's procurement processes in accordance with Eskom's governance requirements.
Raymond Williamson	The current road transport has already caused fatigue to the roads. What about rail options?
Response: Albert van der Walt	Pipeline and rail options are currently being explored.
Raymond Williamson	Where does the fuel come from?
Response: Morore Mashao	The fuel could come from the Caltex refinery or the Killarney area, depending on the outcome of the fuel negotiations. Eskom will also make the necessary assessment regarding the transport options.
Brett Laing	If there is not an increase in consumption, is Eskom able to quantify how many tankers will be used?
Response: Albert van der Walt	Conversion cost a lot of money even to get energy for 5 hours. Eskom has already embarked on a study to explore options for transport e.g. rail, pipelines and where the fuel come from. It is premature to make definite decisions at this stage.
Raymond Williamson	In terms of the route to be used to transport the fuel, could the entry be from the top of the road (referring to a road that might not affect the community directly).
Response: Albert van der Walt	Part of the total process is to explore other options than road transport. This issue was the subject of a separate EIA process already underway.
Raymond Williamson	The landfill site will become problematic at a later stage. In all cases infrastructure is the last thing to be considered. The question is whether the City and Eskom is communicating to each other? The community

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Draft minutes: Focus Group Meeting held with the Melkbosstrand & Duinefontein Ratepayers Association, Melkbosstrand Police Station

	certainly does not seem to have a plan.
Response: Albert van der Walt	The process ahead will be communicated.
Raymond Williamson	How will the new proposed City of Cape Town regional landfill site affect the project?
Response: Nico Gewers	We are not sure about the siting of the new landfill site, the EIA component focussing on the power line alignments would highlight any issues relating to the landfill site.
Brett Laing	Brett requested for an explanation about the different power line options (referring to the colour coded powerline routes in the information booklet).
Response: Morore Mashao	Morore Mashao clarified each of the powerline options that will be investigated and indicated that the EIA process will focus on clarifying the best powerline options to be taken forward.
Raymond Williamson	Raymond requested that all the stakeholders be informed about future processes. He mentioned that the Melkbosstrand population stands at 16000 and the Atlantis population comprise about 70000 residents.
Brett Laing	Asked the team to clarify how the electrical fields around the transmission lines and substations like Omega would affect local residents living in the area.
Response: Albert van der Walt	Albert assured the meeting participants that there are globally acceptable standards that Eskom has to observe and adhere to. All powerlines implemented by Eskom comply with accepted standards.
Raymond Williamson	What will future noise levels be like, compare to the current noise levels of the Ankerlig Plant?
Response: Nico Gewers	The EIA process will fully investigate noise levels. The concerns about possible noise levels have been noted and will be fully investigated as part of the EIA process. A specialist have been appointed to conduct the relevant noise/sound study for the conversion process.
Raymond Williamson	What will Eskom put back into the communities? Raymond made the example of the Duinefontein community facility next to Koeberg Nuclear Power Plant. However, without community consent, Eskom sold the facility resulting in a deterioration of the facility and no social responsibility in the local Duinefontein/Melkbosstrand community.
Response: Albert van der Walt	This should be investigated and dealt with through the Eskom Development Foundation who deals with Eskom's social responsibility aspects. The point was noted.
Raymond Williamson	Information dissemination options could include the Tygerberger, Table Talk newspapers. Additional stakeholders to consider are the Nederduitse Gereformeerde Kerk (including the farming communities), and another congregation with Willem Steenkamp. Shawn will get the contact details from Brett and Raymond.

Proposed Ankerlig Conversion from OCGT to CCGT

Draft minutes: Focus Group Meeting held with the Melkbosstrand & Duinefontein Ratepayers Association, Melkbosstrand Police Station

Brett Laing	Brett indicated that they want to be a proactive governing body. He asked how they could assist and support Eskom as an association.
Response: Albert van der Walt	Albert welcomed the the support form the Melkbosstrand Residents and Ratepayers Association and thanked Brett Laing and Raymond Williamson for their input.

WAY FORWARD AND CLOSURE

Mr Johnston thanked everybody for their participation and their questions. The attendees were informed that the next steps in the EIA process.

The meeting closed at 20h00.



PROPOSED ESKOM ANKERLIG CONVERSION FROM OCGT TO CCGT FOCUS GROUP MEETINGS

RECORD OF FOCUS GROUP MEETING

ATLANTIS AREA DEVELOPMENT FORUM

Held on
Thursday 22 November 2007,
Parkview Primary School, Atlantis

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Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

**FOCUS GROUP MEETING:
ATLANTIS AREA DEVELOPMENT FORUM - ATLANTIS**

Venue: Parkview Primary School, Atlantis

Date: Thursday, 22 November 2007

Time: 10am

WELCOME, INTRODUCTION AND APOLOGIES

Georgina Kastoor, from the Atlantis Area Development Forum, thanked everybody for their attendance. Staff of the Forum was introduced. Shawn Johnston, the process facilitator for the proposed Eskom Ankerlig Facility Public Participation Process, introduced the Sustainable Futures team and the Eskom team.

- » Nico Gewers - Chief Environmental Advisor - Generation Environmental Management
- » Morore Mashao - Chief Engineer - Division Client Office. Acts as the client for Generation
- » Albert van der Walt – Corporate Specialist (Project Development), Eskom Enterprises
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Matilda Maarman – Atlantis ADP
- » Andernline Petersen – Atlantis ADP
- » Molety Thoriso – Atlantis ADP
- » Felicia Bruintjies– Atlantis ADP
- » Shamelah Solomons– Atlantis ADP
- » Amelia Blaauw– Atlantis ADP
- » Claudine Cousal– Atlantis ADP
- » Liezel Adriaanse– Atlantis ADP
- » Andrit Muller– Atlantis ADP
- » Sello Chilusana– Atlantis ADP
- » Georgina Kastoor– Atlantis ADP
- » Cherylidene Hector– Atlantis ADP
- » Wlady Kastoor– Atlantis ADP
- » Bradley Kastoor– Atlantis ADP
- » Xavier Diedericks– Atlantis ADP
- » Liezl Coetzee, Southern Hemisphere
- » Nishani Singh – Eskom PDD

- » Nico Gewers – Eskom Generation
- » Morore Mashao – Eskom Generation
- » Albert van der Walt – Eskom Projects Development Department
- » Shawn Johnston – Sustainable Futures ZA
- » René Ngwenya - Sustainable Futures ZA

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Shawn provided an overview of the project and outlined the process preceding the current phase of the environmental impact assessment. Shawn noted that the project had started already. He referred to page 5 in the information booklet and outlined the phases of the EIA process. Page 6 in the booklet provides an overview of the different public participation processes. Shawn explained that purpose of the meeting was to gain information from the Atlantis community regarding their concerns and issues on the project and to feed the information into the scoping phase. A specialist will do a study at different levels towards compiling a draft scoping report that will be distributed to the public followed by a public meeting. The meeting participants were referred to the map in the centre of the booklet, and Shawn explained that the project is located within the “eye” (diagrammatically presented on the map). He also highlighted the various options for the power lines that are indicated through the colour coding on the map. The public participation processes will be intensified until the end of the year and the community input is vital since they are resourced with a wide network of people and contacts for information dissemination.

Albert van der Walt gave the following overview of the history and the technical aspects of the project:

The project is about the Ankerlig power station conversion from OCGT to CCGT (conversion from Open Cycle Gas Turbine to Combine Cycle Gas Turbine). The increase in demand of electricity led to new initiatives and steps to avoid shutdown of electricity. The intention is to ensure that sufficient capacity is in planned for by Eskom. Electricity is a very important economic development factor for the country. There is historic reasoning for the current load shedding scenarios. The reality is that electricity capacity should be in place quickly. The Chief Executive Officer of Eskom warned that the constraints will happen until 2012. Coal fire power stations produce carbon dioxide and are not good for the environment. Old power stations are brought back but they are expensive to upgrade. The target is to get 900MW for cogeneration. The reason for the building of OCGT's is that they are quick to construct, however, the usage of diesel becomes very expensive. It is for this reason that Eskom's preference is not to run them for long periods.

Slide Presentation **(please see detailed slides as an appendix)**

1. National electricity requirements
2. Medium term supply requirements
3. Ankerlig history: mid-merit (30% of the hours of the year; base load (70% of the hours of the year).
4. Open Cycle Gas Turbine Plant
5. Open Cycle Gas Turbine Plant continues
6. Open Cycle Gas Turbine Plant continues (convert open gas turbines to combined gas turbines)
7. Gas Turbine Fuel
8. Fuel to Ankerlig (exploring possibility of building pipeline from tank farm to plant)
9. Transmission Integration

DISCUSSION SESSION

Emelia Blaauw	The community is concerned about the Koeberg nuclear plant especially how it might impact on the community as a whole. There are real fears that the Ankerlig plant is in close proximity to the community in addition to the anticipated dumping site and Koeberg. The community fear that the gasses emitted from the power station and the dumping site will cause harmful effects to the community and especially the babies.
Response: Albert van der Walt	The energy generation from the nuclear turbine can cause problems, however, generators are in place to cool the water. Koeberg is already in existence for 30 years and there is no evidence of any harmful effects on the community. The OCGT is not a problem for the community. It is not situated close to the community. It will cause smoke (when it starts up) and noise but no other concerns. The dangers are the normal dangers that we can get on an everyday basis.
Emelia Blaauw	What is the impact of the gasses emitted by the turbines on the babies?
Response: Albert van der Walt	There is no effects from the Ankerlig emissions on the surrounding community. All emissions at Ankerlig is within local and international standards.
Cheryldene Hector	There are many people in the community that do not know the developments. Information does not filter to the people on the ground. Another creative way needs to be found to disseminate information to people, for example, information on presentation slides are very useful but also very technical.
Cheryldene Hector	There are grave concerns around Ankerlig, resulting in lots of research done by the leaders in the community. The gas/smoke causes concerns. Numerous perceptions exist in the community, for example, the black sand at Ankerlig is obvious and she is not sure whether it is harmful.
Cheryldene	There are concerns regarding the way the project is developing. The

Hector	project growth in terms of how it is moving forward seems a continual growth. Does Eskom consider a strong increase in the number of people and houses along the Westcoast? It also seems that the area of Kalbaskraal and the usage of electricity are not taking into consideration within the spectrum of Eskom's growth. The projections should be more realistic in terms of what is actually happening and it will take a while before the community needs are addressed.
Response: Albert van der Walt	During the 1970s Eskom built too much. From 1994 to now, the country had sufficient electricity. Electricity price increase will happen. Behaviour patterns will be changed because of electricity increase. When Eskom builds too much in advance, it becomes unwise for Eskom regarding planning.
Cheryldene Hector	It is important that the information from Eskom is disseminated at the schools and that energy education happens at schools and during home visits.
Response: Nico Gewers	Eskom does have a department that deals with electricity efficiency.
Waldy Kastoor	It is important to target the lowest levels in the education sector, the message will get across. The principal forum is another body to consider. Information on saving energy is also incorporated in the curriculum life skills.
Cheryldene Hector	When will the project be completed?
Shawn Johnston	The project will be completed by 2008. This includes the finalisation of the scoping report, comments, the EIA and EMP: information dissemination will be done in the community newspapers, on the radio etc.

WAY FORWARD AND CLOSURE

Mr Johnston thanked everybody for their participation and questions. The attendees were informed that the next steps in the EIA process.

The meeting closed at 11h30.



PROPOSED ESKOM ANKERLIG CONVERSION PROJECT FOCUS GROUP MEETINGS

RECORD OF FOCUS GROUP MEETING

ATLANTIS LOCAL ECONOMIC DEVELOPMENT FORUM

Held on
Friday, 23 November 2007,
New Shopping Centre Shop LS19, Wesfleur
Circle, Atlantis

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Notes for the Record prepared by:

Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

**FOCUS GROUP MEETING:
ATLANTIS LOCAL ECONOMIC DEVELOPMENT FORUM - ATLANTIS**

Venue: New Shopping Centre Shop LS19, Wesfleur Circle

Date: Friday, 23 November 2007

Time: 10h00

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, the Public Participation facilitator for the proposed Eskom Ankerlig CCGT, introduced the team from Sustainable Futures, the Social Impact Assessment Specialist and the Eskom representative. Representatives from the Atlantis Local Economic Development Forum introduced themselves. Shawn Johnston provided an overview of the project and the process that lead up to the current phase of the environmental impact assessment process.

- » Albert van der Walt – Corporate Specialist (Project Development), Eskom Enterprises
- » Liesl Coetzee – Senior Consultant, Southern Hemisphere. Acts as Social Impact Assessment Specialist.
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Sebastian Wewers – Atlantis Local Economic Development Forum
- » Benito Hoop – Atlantis Local Economic Development Forum

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Shawn Johnston explained that he is responsible for the facilitation of the public participation process for this project. The project is in its second phase, during the first phase data was collected for the project and the second phase is concerned with the scoping information. Shawn referred to the project information booklet and clarified the processes for broader public participation process. Page 6, in the information booklet highlights the different steps to be accomplished in the scoping phase. He noted that a number of focus group meetings had been held with various organisations that represent the community and that more meetings are anticipated. The scoping phase reports will be finalised in 2008 and the public will have further opportunities to participate in the broader process. Shawn also explained that the Atlantis Local Economic Development Forum is already registered on the database.

Benito, Centre Manager thanked Eskom for the information extended to them. Contact lists have already been sent to Liesl. Benito emphasised that it is important to involve the broader public in meetings. The multi-purpose centre “Thusong” was recommended as an ideal place for public meetings.

Albert provided an overview of the CCGT (Combined Closed Cycle Gas Turbine) project. The following points were made:

Past impact assessments were done to install the Ankerlig project. Currently it is an OCGT (Open Cycle Gas Turbine) facility, and each of the 4 units produces 150MW power. Installation of the OCGT units was intended to compensate for peak hours electricity use. Albert illustrated the notion of peak hours through a diagrammatic sketch. He highlighted that an additional EIA process (over and above the first process for the 4 units) with the community was already concluded for the building of 5 additional OCGT units. In response to the demand for electricity, and as a result of the demand growth in the country, the current units needed to be converted to CCGTs. This means that the exhaust gas from the current gas turbines is used to generate steam, (heat recovery steam generator), that is in turn used for the production of electricity. This will result in increasing the output produced by each OCGT (Approximately 150 MW) converted to a CCGT to 230MW. The EIA is currently done for the purposes of the conversion of the OCGT's. The implication for the community is that the units need to run for a longer time span and more fuel is needed for its operations. It is anticipated that a 400kV power line will have to be installed from Ankerlig power station to the planned new Omega substation to evacuate the additional power generated by the CCGT units. The study at the moment is to test whether all the units or some of the units will be converted as well as how best to transport the fuel.

DISCUSSION SESSION

Sebastian Wewers	Will there be any outlet gases that will affect the community?
Response: Albert van der Walt	The operation of the gas turbines is similar to the turbines that drives an aeroplane.' There will be outlet gases, however, there are norms in place to ensure that it is safe and that the community will not be affected. Carbon gases will be contained and is a low percentage. An air quality assessment will be done to quantify these and its impacts.
Benito Hoop	The community is concerned about the black cloud of smoke that is visible from the Ankerlig units.
Response: Albert van der Walt	The smoke appears when the unit is started. The smoke disappears when the units are running for a while. The concern about possible dangers is noted, however, the units are quite safe.
Sebastian Wewers	The public would like to know what are the risks involved in the conversion of the OCGTs to CCGTs.

Response: Albert van der Walt	The risk for the public is that if the units are not built that electricity interruptions can happen. There are other risks to be considered such as fire risk.
Benito Hoop	It does not appear that the risk is too high, it seems that it is a good idea that the units are been built and the necessary conversion happens.
Response: Albert van der Walt	Load shedding had to happen and it not always a desirable option. In the 1970s too many power stations were built, this has changed in the 1980s. At present the cost of electricity produced by Eskom is amongst the lowest in the world. The facility at Ankerlig is done with lots of consideration for the environment. Gas turbine generators are also being constructed at Mossel Bay, in the Eastern Cape and in KZN.
Sebastian Wewers	How does Eskom cope with the current demand for electricity?
Response: Albert van der Walt	Households are encouraged to shut off lights when they can. Gas 1 was planned to be in place before the winter of 2008 and in relation to the yearly profile on electricity use. This means that a record of decision from the EIA needed to have been in place by February 2007. Appeals were lodged because of concerns of noise levels etc. The ROD therefore was delayed since February. For this process it is therefore requested that the public give their input to reduce the risk of delays. Project Gas 1 is anticipated to be finalised by 2009. The Chief Executive of Eskom warned that the country will have electricity interruptions until 2012 due to the demand for electricity.
Benito Hoop	Benito thanked Eskom for the effort that they made to inform the community. He also indicated his appreciation that Eskom provided frank input in terms of the implication and the possible risk factors for the community
Response: Albert van der Walt	Albert requested that the Forum encourage the broader community to participate in the meetings and to voice their opinions about the project.
Sebastian Wewers	Sebastian encouraged Eskom to use the local media especially the local radio station (Radio Atlantis, 107.9 fm) to inform the community about the project.

WAY FORWARD AND CLOSURE

Shawn Johnston thanked everybody for their participation and questions. He will inform the Local Economic Development Forum of the next steps. The meeting was closed at 11h15.



PROPOSED ANKERLIG CONVERSION PROJECT FOCUS GROUP MEETINGS

RECORD OF FOCUS GROUP MEETING

NACA & INSTITUTE OF NUCLEAR ENGINEERS

Held on
Friday, 23 November 2007,
5 Narina Road, Milnerton

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Notes for the Record prepared by:

Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

**FOCUS GROUP MEETING:
NACA & INSTITUTE OF NUCLEUR ENGINEERS, MILNERTON**

Venue: 5 Narina Road, Milnerton
Date: Thursday, 21 November 2007
Time: 14h00

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, the process facilitator for the proposed Eskom Ankerlig Facility Public Participation Process, introduced the Sustainable Futures team and the Eskom team. Shawn introduced the project process. He highlighted that deliberate attempts are made to include as many people as possible in the public participation process that include meetings, consultations, and conversations with stakeholders. Letters will be sent soon to all stakeholders and the use of the radio, the local newspapers, information dissemination at local shops and other forms of media will be employed.

MEETING ATTENDEES

- » R. Mike Longden-Thurgood
- » Nico Gewers – Eskom Generation
- » Morore Mashao – Eskom Generation
- » Albert van der Walt – Eskom Projects Development Department
- » Shawn Johnston – Sustainable Futures ZA
- » René Ngwenya - Sustainable Futures ZA

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Albert van der Walt explained that the crunch of the matter is the medium term supply constraints anticipated by Eskom. Independent power producers (IPPs) for peaking power are being established in KwaZulu Natal and Port Elizabeth. The IPP process is driven by the Department of Minerals and Energy (DME) and Power Purchase Agreements (PPAs) are being finalised for Eskom will buy the power generated by the IPP facilities, The planning and construction of power stations take a long time. Eskom's current projections are that the its first new coal fired power station units will start to come on line in 2012 . The Eskom CEO stated that the country may experience power constraints until 2012.

The electricity demand growth over the past two years has been higher than anticipated. Eskom's stated objective is to concentrate on the development of coal fired and nuclear power generation for its busload requirements.

Mr Longden-Thurgood stated that he is aware of a solar project is near Upington and the EIA is finished.

In response to Mike, Albert stated that Eskom is exploring solar energies and therefore renewable energies, but this is not an economic option the production of large quantities of energy.

Mike Longden-Thurgood agreed that a high volume of MW is needed and even wind constraints results in limitations.

Albert explained that it takes time to build nuclear facilities. Thre planning and implementation of coal fire power stations can take up to 10 years. Various initiatives are being undertaken by Eskom to manage the medium supply constrains such as demand side management and cogeneration. In addition, the conversion of a component of Eskom's open cycle gas turbines (OCGTs) to combined cycle gas turbines (CCGTs) is an option that can be implemented in a relatively short time and is. Due to the high demand growth the reserve margin is deteriorating and unplanned generation outages is becoming problematic. The building of the OCGTs is done at low capital, however, the running costs is very high. Four units are already installed at Ankerlig and additional 5 units will serve as a contingency and add some additional reserve margin. It is important for Eskom not to 'switch off' customers.

The conversion of the OCGT to CCGT is currently being investigated. One of the unresolved issues to clarify is whether the conversion should be done at Ankerlig or at Gourikwa in Mosselbay. An exploration of the energy requirements are under investigation.

DISCUSSION SESSION

Mike Longden-Thurgood	Mike indicated that he presumed that the layout of the OCGT will allow for conversion.
Response: Albert van der Walt	The Ankerlig site has ample space for implemting the conversion without having to purchase or find additional land. The current space is big enough for all the requirements of the conversion.
Mike Longden-Thurgood	Mike expressed his concern about the volumes of fuel and other hazardous materials being transported on roads. He indicated that he was concerned about the hauling of diesel fuel between the Chevron Refinery and Ankerlig.
Response: Albert van der	Albert said that it is important to identify the issues early in order to deal with it effectively and mentioned that the concerns around the

Walt	transportation of fuel is currently being investigated further through a separate process.
Mike Longden-Thurgood	In the event that issues are identified, who should be liaised with? Mike suggested that he would pass information to the National Association for Clean Air, of which he is a member. Mike asked whether the National Association for Clean Air (NACA) and members of the Institute of Nuclear Engineers could visit the Ankerlig site and provide feedback to Eskom about possible airborne pollution and noise levels.
Response: Shawn Johnston	Shawn indicated to Mike that he would communicate with him directly.
Response: Nico Gewers	Nico agreed to liaise with Mike and to arrange that a visit to the site could be conducted.
Mike Longden-Thurgood	Mike explained that Earthlife Africa was involved in the EIA process around the proposed Pebble Bed Reactor and they were able to stall the process. He also added that the Germans were effective with pebble bed technology.
Response: Albert van der Walt	Eskom's preference is to minimise any potential delays in the EIA process proactively. A number of issues halted the the RoD for Project Gas 1 that resulted in a more than six month delay in the implementation of the project..
Mike Longden-Thurgood	Mike asked whether Eskom needed a RoD for the original project (Gas 1) or for the conversion of the OCGT.
Response: Albert van der Walt	Albert responded that the ROD is needed to convert the OCGT to a CCGT.
Mike Longden-Thurgood	Mike asked whether Eskom is studying the air quality and emissions. He also enquired about the measurement of airborne pollution. He noted that the perception of sound is more acute than the accurate hearing of the noise.
Response: Albert van der Walt	Albert responded that Eskom has to observe and work with world standards. The monitoring and evaluation of noise or any other perceived issues are constantly assessed and dealt with in a pro-active manner.

WAY FORWARD AND CLOSURE

Mr Johnston thanked Mr Longden-Thurgood for his input and questions. He informed Mr Longden-Thurgood of the next steps in the EIA process. The meeting closed at 15h00.



PROPOSED ANKERLIG POWER STATION CONVERSION AND TRANSMISSION INTEGRATION PROJECT, WESTERN CAPE KEY STAKEHOLDER MEETING

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RECORD OF ANKERLIG KEY STAKEHOLDERS MEETING

Held on
Wednesday, 13 February 2008,
Koeberg Centre, Atlantis

Notes for the Record prepared by:

Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

SCOPING STUDY STAKEHOLDERS MEETING: KOEBERG VISITORS' CENTRE, ATLANTIS

Venue: Koeberg Visitors Centre, Cape Town
Date: Wednesday, 13 February 2008
Time: 09h30

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, process facilitator from Sustainable Futures, opened the meeting and welcomed all the stakeholders present. Shawn introduced the team from Sustainable Futures, Jo-Anne Thomas from Savannah Environmental and the team from Eskom.

- » Nico Gewers - Chief Environmental Advisor – Eskom Generation
- » Albert van der Walt - Corporate Specialist (Project Development), Eskom Enterprises
- » J. Dyabaza – Eskom Generation
- » A.K. Njobe – Eskom Transmission
- » D.J. Willemse – Eskom Transmission
- » Mamokete Mafumo – Eskom Transmission
- » Jo-Anne Thomas – Savannah Environmental
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Leon Cillie – City of Cape Town: Health
- » Lynette Matthys – Uitkamp Action Group
- » Mike Yoell – Uitkamp Action Group
- » Mike Longden-Thorgood – NACA (National Association of Clean Air & Institute for Nuclear Engineers
- » Darryl Hunt – Dynamic Energy Consultants
- » Zanda Kingsley
- » N.P. Stoffberg – Vaatjie Farm
- » HansLinde - Department of Environmental Affairs & Developmental Planning - Air Quality
- » R. Williamson – Melkbos Ratepayers Association
- » Peter Harmse – City of Cape Town: Air Pollution
- » H. Brenner – Ward Councillor

APOLOGIES

No apologies were received.

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Shawn Johnston provided an overview of the agenda as follows:

- Welcome, introductions and apologies
- Purpose and process of meeting
- Background to the project
- EIA process and summary of findings of scoping study
- Discussion session
- The way forward and closure

He requested that the meeting be conducted in line with good meeting procedures and that all languages be accommodated. He requested that communication be directed through the facilitator and that speakers should not interrupt speakers and presenters during their presentations or inputs. Shawn explained that presentations would be followed by an opportunity for stakeholders raise any concerns or to ask questions for clarification.

PURPOSE OF THE MEETING

- To provide I&APs with technical information regarding the proposed power station conversion and transmission integration project.
- To provide I&APs with feedback regarding the finding of the Scoping Study.
- To provide I&APs the opportunity to seek clarity regarding the proposed project.
- To record any additional comments, issues and concerns raised.

TECHNICAL BACKGROUND

Nico Gewers and Albert van der Walt presented the Eskom Vision and why the Ankerlig Conversion and Transmission Integration Project is required. The presentation is attached within Appendix A.

OVERVIEW OF THE DRAFT SCOPING REPORT

Jo-Anne Thomas from Savannah Environmental provided an overview of the findings of the draft Scoping Phase. The presentation is attached within Appendix B.

DISCUSSION SESSION

Name	Comment
Nico Stoffberg, landowner	Expressed concern that the proposed power line Options B and C would be running over their farm. A number of heritage sites have been identified on the farm. An environmental assessment has been undertaken for sand mining on the farm. Nico also enquired about the current underground water at Atlantis.
Jo-Anne Thomas	<i>She explained that a heritage study was done for the proposed power line alternatives, and that the sites on Mr Stoffberg's farm have been noted. She explained that the use of ground water from the aquifer has been excluded as an alternative water resource due to the limited availability of this resource.</i>
Leon Cillie, CoCT	Raised a concern over the potential noise impact associated with the power station conversion. He asked whether the impact on ambient noise level would be measured and whether it would be done during the day and at night. He asked whether the wind direction towards the residential areas and small holdings would be taken into account.
Jo-Anne Thomas	<i>The necessary noise measurements will be done as part of the noise impact assessment, as required in terms of the legislation.</i>
Nico Gewers	<i>Explained that as a norm, Eskom measure noise and air quality emissions from the power station.</i>
Raymond Williamson, Melkbosstrand Residents Association	Asked why the transmission line Option A did not follow the Atlantis-Koeberg 1 servitude in its entirety but passes straight on to the Koeberg-Stikland 1 servitude creating an unused triangle at Koeberg. He indicated that he preferred that Option A follow the existing Atlantis-Koeberg 1 and Koeberg-Stikland 1 transmission lines for the entire route.
Albert van der Walt	<i>Explained that the power lines are extremely expensive and that the length of the line and the number of bends affects this overall cost. It was however agreed that the EIA would consider this proposed alignment of the power line, and that Eskom Transmission would look at the feasibility of this option.</i>
Raymond Williamson, Melkbosstrand Residents Association	There might be additional cost now but this might not contribute to prosperity in the future, the power line might be obliterating space for a long time.
Mamokete Mafumo	<i>The route identified is a proposed power line corridor of between 500 m and 1 km. After the negotiations with the farm owners the final route will be aligned within the nominated preferred corridor.</i>
Raymond Williamson,	Asked about the City of Cape Town (CCT) Regional Landfill site and reported that the CCT is also extending their Atlantis dumping site. He

Name	Comment
Melkbosstrand Residents Association	enquired as to whether this is part of the EIA conducted by Eskom since the Eskom project is closely situated to the CCT waste disposal site.
<i>Shawn Johnston</i>	<i>Explained that this specific project was only concerned with the power station conversion and transmission integration. He also stated that the CCT would engage in their own EIA process regarding the landfill site.</i>
<i>Jo-Anne Thomas</i>	<i>Explained that the landfill site was considered as a planned land use in the scoping of the transmission line routes.</i>
Raymond Williamson, Melkbosstrand Residents Association	Expressed concern with the reply since the CCT provided them with exactly the same reply. He also mentioned that he was concerned that the organisations have blinkers on and that the community have very strong feelings about regional landfill site issues.
<i>Shawn Johnston</i>	<i>Noted that the other developments in the area include the landfill site and the expansion of the Appollo bricks factory and these are all separate processes from the current Ankerlig Conversion and Transmission Integration EIA study.</i>
Raymond Williamson, Melkbosstrand Residents Association	Confirmed his understanding that in terms of the transportation of fuel, that a separate EIA process is being done by Bohlweki. underway.
Raymond Williamson, Melkbosstrand Residents Association	Indicated that it was difficult to understand why Eskom provided 70% of energy to South Africa while independent sources provided only 30%. He remarked that this was not a new statement and he wondered how the independent suppliers were to enter the market to supply energy.
<i>Albert van der Walt</i>	<i>Indicated that independent power producers would enter the market over a period of time, and that the DME has created the environment to enter the market to produce the 30% of energy in the future. DME is looking at bringing in new producers. Overall regulation of energy supply is undertaken by the National Energy Regulator. The intention is that the independent power producers sell their power to Eskom who transmit and distribute it to consumers.</i>
<i>Nico Gewers</i>	<i>Clarified that agreements with independent power producers (IPP) are currently being finalised by the DME to establish, own and operate generation plant, and that an Environmental Authorisation has been issued for the IPP plant in Kwazulu-Natal. A power purchase agreement will be established between Eskom and the IPP.</i>
Heather Brenner, Councillor	Raised the issue of transportation of fuel. She indicated that if Eskom understands that diesel is expensive, the logical action would be to choose a cheaper fuel option. Heather requested the contact details of

Name	Comment
	the consultants who were doing the fuel transportation EIA study. She also asked for information on the nearest rail point.
<i>Nico Gewers and Shawn Johnston</i>	<i>Nico and Shawn explained the nearest rail point was just to the east of the Ankerlig Power Station site. Nico indicated that Heather's details will be forwarded to the consultants conducting the fuel transport EIA.</i>
<i>Albert van der Walt</i>	<i>Albert indicated that diesel is expensive when compared to coal, but that the OCGTs could run on diesel for short times which is cost effective when considering a much lower capital outlay requirement for gas turbine plant. Gas turbines provide that added advantage in that it can be implemented in a much shorter time duration when compared to coal generation plant.</i>
Hans Linde, DEA&DP Air Quality Management	He stated that he was confused about Eskom's planning of the project. He raised a concern that people cannot get an overall view of what is being planned by Eskom. He asked whether the new units are an addition to the existing power station and whether there will be enough space to add the new units.
<i>Jo-Anne Thomas</i>	<i>Indicated that there were enough space on the existing power station site to accommodate the CCGT units.</i>
<i>Nico Gewers</i>	<i>Explained that Eskom purchased sufficient land upfront for the potential conversion of the OCGTs to CCGTs. This was done as part of Eskom's land use planning for the Ankerlig site.</i>
Hans Linde, DEA&DP Air Quality Management	He asked whether Eskom would use the Cape Town harbour pipeline or whether there is a need to install a new fuel pipeline from Cape Town harbour.
<i>Albert van der Walt</i>	<i>There is an existing harbour pipeline. However, the existing capacity might not be sufficient which may necessitate the construction of a new pipeline.</i>
Hans Linde, DEA&DP Air Quality Management	Asked what type of water would be used for cooling. Would it be potable or desalinated water?
<i>Jo-Anne Thomas</i>	<i>Potable water from the Witzand Water Treatment Works has been identified as the preferred option in the short-term. However, Eskom will continue investigating other options for use in the medium- to long-term</i>
Heather Brenner, Councillor	Asked for clarity as to why diesel was chosen when it is so expensive.
<i>Albert van der Walt</i>	<i>Explained that to some extent diesel is almost the only option. Although the units can operate on natural gas and Liquefied Natural Gas (LNG),</i>

Name	Comment
	<p><i>the availability of these resources is limited at present. In addition, expensive infrastructure is required to be associated with these options.</i></p> <p><i>Albert also remarked that in terms of planning a few years ago the anticipated load growth was much lower than the actual recently experienced. In view of the higher than anticipated load growth Eskom recognises that adjustments are required to cater for the additional demand, especially in the medium term. Gas turbine power stations can be implemented much faster than coal fired or nuclear power stations to meet the medium term national energy needs.</i></p>
Hans Linde, DEA&DP Air Quality Management	<p>Requested that Eskom maintain excellent standards by only importing the best quality diesel fuel for energy production.</p> <p>He also asked about the desalination of sea water and why Eskom is not embarking on this process instead of placing additional pressure on local resources.</p>
Jo-Anne Thomas	<p>Explained that due to the restrictions around Koeberg as imposed by the National Nuclear Regulator, sea water cannot be sourced from within the Koeberg property. Therefore, an abstraction point to the north of Koeberg was considered. The coastline environment in this area is considered to be highly sensitive, and the topography makes the siting of a feasible abstraction point difficult. Therefore, this option was excluded as a feasible alternative.</p>
Hans Linde, DEA&DP Air Quality Management	<p>He noted that Saldanha is also considering desalination and asked Eskom to consider this as an option.</p>
Hans Linde, DEA&DP Air Quality Management	<p>Asked that the specialist studies go to the DEAT and that Eskom and Savannah should ensure that these reach DEAT in time for a record of decision.</p>
<i>Nico Gewers</i>	<p><i>Nico referred to the authenticity of the process and he also noted that the issue of air quality will receive the highest attention. DEAT National was the competent authority, and as, the air quality specialist study will be reviewed by the national air quality directorate.</i></p>
Mike Yoell	<p>Enquired about the amount of fuel being used and the sulphur content in the fuel. He wanted to know how much fuel the 9 units would use.</p>
<i>Albert van der Walt</i>	<p><i>Albert explained that the production of 3000 GW hours per annum with combined cycle gas turbines will require approximately 580 million litres of diesel.</i></p>
Mike Yoell	<p>Remarked that this fuel usage amounts to \$94 per barrel. He said that it was a bit difficult to calculate the cost of generation to the user. He</p>

Name	Comment
	added that the commodity is unreliable and asked what the cost of operation of the gas power station is compared to coal and nuclear.
<i>Albert van der Walt</i>	<i>If the conversion of the OCGT to CCGT occurs, the power station must run continually for more than 3 hours per day for the benefit of the steam cycle to materialise (i.e. the conversion). He said that the project will only be implemented if needed. While there are other options available, the national electricity situation demands that all options be used to meet the national energy needs. The conversion of the Ankerlig Power Station is currently one option which is being used to assist in meeting the energy needs. Albert explained that up to the point where sufficient power can be supplied from other sources (such as new coal fired power stations), the use of the CCGT power station will be used for meeting the mid-merit electricity requirements.</i>
Mike Yoell	Asked if Eskom would be considering natural gas to fuel the Ankerlig power station.
<i>Albert van der Walt</i>	<i>It is important that the project be expedited. Eskom is still looking at acquiring an LNG or using natural gas. These options would require expensive infrastructure to be constructed such as a pipeline from the gas fields. The cost of this infrastructure must still be investigated and must be able to be recovered over the life of the project.</i>
Mike Yoell	Requested clarity regarding the total power to be generated from the 9 units.
<i>Albert van der Walt</i>	<i>The existing and authorised OCGT units (9 in total) can generate 1350 MW. The converted units can generate an additional 720 MW. There is therefore the potential that the power station can generate a maximum of 2070 MW.</i>
<i>Shawn Johnston</i>	<i>It is important to note that Eskom has applied for the conversion of all nine units at Ankerlig.</i>
Mike Yoell	Mentioned that he was concerned about the rate that older power stations would be decommissioned and that by 2025 there would not be sufficient capacity to meet the demand. He indicated that 2025 was only 17 years away.
<i>Albert van der Walt</i>	<i>Indicated that as power stations are decommissioned new ones are currently being built to meet future needs. He used the Eskom funnel to illustrate which projects are currently being investigated and built to meet future needs (e.g. Return-to-Service of moth-balled power stations; construction of Medupi Power Station).</i>
Mike Yoell	Asked that if it takes 10 years for coal fired power station to be built, how long will it take for the building of nuclear power stations?
<i>Albert van der Walt</i>	<i>Explained that both coal fired and nuclear power stations take longer to construct than gas fired power stations, and can take from 8-10 years. Gas fired units such as Ankerlig and Gourikwa take on average 18</i>

Name	Comment
	<i>months to complete. He indicated that these units could assist in meeting national needs whilst new coal and nuclear units are being built.</i>
Mike Yoell	He remarked that some economists have argued that the power outages have caused the country at least 2% of its GDP per month.
Nico Stoffberg, landowner	Indicated that the farm Olifantskop had been in his family for many generations. He indicated that there is a pine forest on the property which was planted by his family. He asked whether this plantation would be affected by the Omega Substation.
Jo-Anne Thomas	<i>The Omega Substation has already been authorised and is not part of the scope of this study. Therefore, it cannot be said with certainty as to whether these trees will be affected or not.</i>
Mike Longden-Thorgood	Referred to meetings that he attended in 1992 and the indication at these meetings of Eskom's intention to establish the Omega substation. He questioned the delay in developments as this has been in progress for a long time.
Albert van der Walt	<i>Indicated that the Omega substation would be constructed by end 2009. He added that a 765 kV transmission line from the De Aar area is currently under construction and will feed into this substation.</i>
Mike Longden-Thorgood	Referred to the electricity situation over the past 12-15 months in South Africa and asked how many EIA processes are in progress, and what else was being considered to bringing more power to the Western Cape.
Albert van der Walt	<i>Indicated that a number of initiative are underway nationally to ensure the entire country has sufficient power. Albert explained that a new 765 kV transmission line from the De Aar area (Hydra Substation) would be bringing power down to the Cape.</i>
Mike Longden-Thorgood	Indicated that he was concerned about the losses of electricity over the long distance that it had to be transmitted (i.e. from Mpumalanga).
Albert van der Walt	<i>Explained that the best way to eliminate the losses Mike was referring to was to generate power in the Western Cape instead of importing it.</i>

WAY FORWARD AND CLOSURE

Mr Johnston thanked everybody for their participation and questions. He invited the stakeholders to send their comments on the draft scoping report and to visit the Eskom and Savannah Environmental web sites to view the report. Shawn also invited the stakeholders to visit the public libraries or to request the draft scoping report on CD. He reminded the audience that the final date for comments was Thursday, 21 February 2008.

The meeting closed at 12h00.



**PROPOSED ANKERLIG POWER
STATION CONVERSION AND
TRANSMISSION INTEGRATION
PROJECT, WESTERN CAPE
PUBLIC MEETING**

Savannah Environmental (Pty) Ltd

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Sustainable Futures ZA

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RECORD OF PUBLIC MEETING

**Held on
Wednesday, 13 February 2008,
Rebecca Van Amsterdam Hall, Atlantis**

Notes for the Record prepared by:

Sustainable Futures ZA & Savannah Environmental

Please address any comments to Shawn Johnston at the above address.

SCOPING STUDY PUBLIC MEETING: REBECCA VAN AMSTERDAM HALL, ATLANTIS

Venue: Rebecca Van Amsterdam Hall, Atlantis
Date: Wednesday, 13 February 2008
Time: 19h00

WELCOME, INTRODUCTION AND APOLOGIES

Shawn Johnston, process facilitator from Sustainable Futures, opened the meeting and welcomed everybody present. Shawn introduced the team from Sustainable Futures, Jo-Anne Thomas from Savannah Environmental and the team from Eskom.

- » Nico Gewers - Chief Environmental Advisor - Generation Environmental Management
- » Albert van der Walt - Corporate Specialist (Project Development), Eskom Enterprises
- » Mamokete Mafumo – Eskom Tx
- » Jo-Anne Thomas – Savannah Environmental
- » Shawn Johnston - Sustainable Futures ZA, the public participation consultant for the project
- » René Ngwenya – Sustainable Futures ZA

MEETING ATTENDEES

- » Roderick Beckman - Eskom
- » John Dean – Eskom
- » Tyrone Williams – Dassenberg Residents and Ratepayers Association
- » Adolf Markus – Private Individual
- » L. Arendse – Private Individual

APOLOGIES

No apologies were noted.

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Shawn provided an overview of the agenda as follows:

- Welcome, introductions and apologies
- Purpose & process of meeting
- Background to the project

- EIA process and summary of findings of scoping study
- Discussion session
- The way forward and closure

He requested that the meeting be conducted in line with good meeting procedures and that all languages be accommodated. He requested that communication is directed through the facilitator and that speakers should not be interrupted during their presentations.

Shawn explained that presentations would be followed with an opportunity for stakeholders to express their concerns and to ask questions for clarification.

PURPOSE OF THE MEETING

- To provide I&APs with technical information regarding the proposed power station conversion and transmission integration project.
- To provide I&APs with feedback regarding the finding of the Scoping Study.
- To provide I&APs the opportunity to seek clarity regarding the proposed project.
- To record any additional comments, issues and concerns raised.

TECHNICAL BACKGROUND

Nico Gewers and Albert van der Walt presented the Eskom Vision and why the Ankerlig Conversion and Transmission Integration Project is required. The presentation is attached within Appendix A.

OVERVIEW OF THE DRAFT SCOPING REPORT

Jo-Anne Thomas from Savannah Environmental provided an overview of the findings of the draft Scoping Phase. The presentation is attached within Appendix B.

DISCUSSION SESSION

Name	Comment
Adolf Markus	Wanted to know how the community was informed about the public participation process for the Ankerlig Conversion and transmission integration project.
<i>Shawn Johnston</i>	<i>Indicated that a detailed process has been followed with the local Atlantis community. A series of focus group meetings with different community based organisations was held in Atlantis during the scoping process. The community was invited through the local media, posters at public venues like the local libraries and invites to all stakeholder registered on the study database.</i>

Name	Comment
Tyron Williams	Asked about the amount of water that would be used at the facility.
<i>Nico Gewers</i>	<i>Explained that it is estimated that 500 kilolitres per day (0,5 MI) will be used in the power generation process. He indicated that discussions are underway with the City of Cape Town about obtaining potable water from the water treatment works. He explained that the water is used in a closed circuit and will be recirculated through the cooling system.</i>
Adolf Markus	Asked how many local jobs the Ankerlig Conversion project would provide. He further explained that he was not happy with Eskom using labour brokers which cause conflict in the community.
<i>Roderick Beckman</i>	<i>Explained that ~500 community members were involved in the building of the initial OCGT units and that the situation is similar for the Gas 1 units currently under construction. He said that Eskom is aware of the situation with the labour brokers but that it is unlikely that Eskom would employ people directly.</i>
Adolf Markus	Indicated that he cannot understand why Atlantis should still face power outages while it has Ankerlig on its doorstep.
<i>Shawn Johnston</i>	<i>Explained that the whole country is faced with the same challenge of the power outages and loadshedding needs to occur on a national basis.</i>
<i>Albert van der Walt</i>	<i>If the power station alone is used to supply electricity to Atlantis, electricity would be 4 – 10 times more expensive than is currently the case. In addition, the community would only have power for 2 hours a day as this is how long the power station is operational for.</i>
Tyron Williams	Asked if the conversion would change the gas emissions from the power station.
<i>Roderick Beckman</i>	<i>Indicated that the steam turbines to be added onto the existing power station would only absorb the heat emitted from the OCGT units. The gas emission make-up would be essentially the same as the current situation. The temperature of the gas emitted would however be lower.</i>
Tyron Williams	Asked whether the speed of the emissions would be lower and whether there would be an impact on the surrounding community.
<i>Jo-Anne Thomas</i>	<i>Indicated that the specialist studies undertaken would be considering all emissions from the power station and would need to determine whether there would be any impact on the surrounding community. This specialist study would inform the stack height which is required in order to minimise any impacts on the surrounding community.</i>
Tyron Williams	Expressed his concern about emissions and noise levels that come from the plant. He indicated that the issues of noise and emissions need to be focussed on in the specialist studies and that the community and Eskom need to obtain finality about these issues.
<i>Roderick Beckman</i>	<i>Indicated that the air quality and noise specialist studies would have to deal with the concerns raised by local stakeholders during the study and indicated how impacts could be mitigated.</i>

Name	Comment
Tyron Williams	Indicated that the noise levels they experience are real and as local stakeholders they would like to see it being addressed and dealt with.
<i>Roderick Beckman</i>	<i>Explained that this is part of the specialist study. He said that the additional noise sources associated with the conversion (such as the fans necessary for cooling) would need to be considered within the noise study in order to clarify all noise levels from the entire Ankerlig Power Station.</i>
Tyron Williams	Explained that the biggest concern of local stakeholders in their area was the level of noise and the emissions from the power station stacks during start up.
Tyron Williams	He asked about the capacity of the new fuel storage units.
<i>Roderick Beckman</i>	<i>Explained that the storage units could contain 2,7 mega litre each. Additional storage could hold 41million litres.</i>
Adolf Markus	Wanted to know how the oil separation dam at Ankerlig works.
<i>Roderick Beckman</i>	<i>Assured Mr. Markus that the area would not be polluted and that the dam is concrete lined and sealed. He indicated that all dirty water from the power station site is collected and diverted into the dam. The site of the Gas 1 expansion will also have an oil separation dam.</i>
Adolf Markus	Asked why Eskom would only use 'big' security companies to provide security at its facilities. He pointed out that smaller security companies do exist in Atlantis and that they could equally provide a service to Eskom.
<i>John Dean</i>	<i>Explained the tender process that Eskom uses as matter of policy. He also pointed out that Eskom facilities are National Key Points and that all security staff and companies used need to comply with the highest standards and are required to have specialised training to provide the type of security required at its facilities.</i>
Adolf Markus	Noted that Koeberg have instructors to train people. He suggested that the community be considered to be trained.

WAY FORWARD AND CLOSURE

Shawn Johnston thanked everybody present for their participation at the meeting. He reminded all present that they had until Thursday, 21 February 2008 to provide comments on the draft scoping report and that the report could be viewed in the public libraries, at community based organisations in Atlantis and on the Eskom and Savannah Environmental web sites.

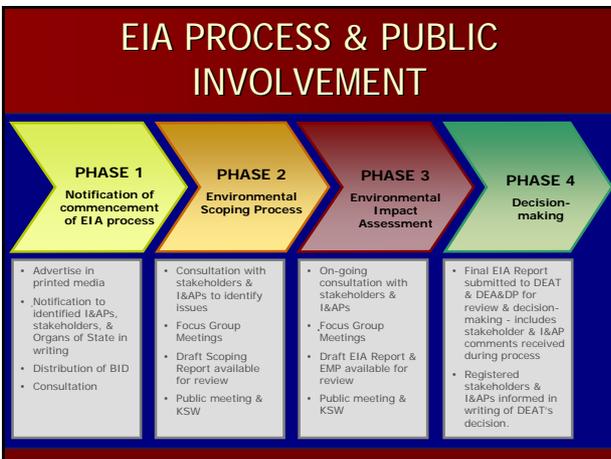
The meeting closed at 21h00.



- ## DRAFT AGENDA
- Welcome, introduction & apologies
 - Purpose & process of the meeting
 - Background to the Project
 - EIA process and summary of the findings of the Scoping Study
 - Discussion session
 - The Way Forward & closure

- ## PURPOSE OF THE MEETING
- To provide I&APs with technical information regarding the proposed power station conversion and transmission integration project
 - To provide I&APs with feedback regarding the findings of the Scoping Study
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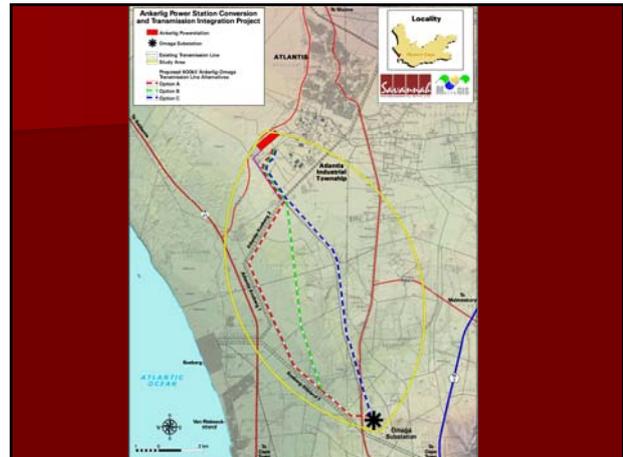
- ## LEGAL CONTEXT
- National Environmental Management Act (No 107 of 1998)
 - Overarching environmental legislation in South Africa
 - Identifies and regulates activities which may have a detrimental impact on the environment
 - Specifies the EIA process
 - Eskom requires authorisation from DEAT (in consultation with DEA&DP)
 - Independent environmental studies must be undertaken in accordance with the EIA Regulations



- ## ALTERNATIVES
- Reasonable & feasible alternatives required to be considered in terms of the EIA Regulations
 - 'Do nothing' alternative
 - Option of not converting the power station or construction the power line
 - Will result in additional power generation capacity not being generated or transmitted into the national electricity grid
 - Not considered to be a feasible alternative
 - Not considered further in the EIA process

POWER STATION CONVERSION ALTERNATIVES

- No site alternatives as all components of the proposed power station conversion project will be on the site of the existing Ankerlig Power Station
- Water resource options:
 - Use of **industrial wastewater** from the Wesfluer WWTW
 - Use of **potable water** from the Witzand water treatment works
 - Use of **groundwater**
 - Use of **desalinated sea water**
- Cooling options:
 - **Wet cooling technology**
 - **Dry-cooling technology** (air-cooled condensers)
- Use of diesel and natural gas as **alternative fuel sources**



COMPONENTS OF THE PROJECT

- Power station conversion:
 - A **heat recovery steam generator** (HRSG) be added to the gas turbine to recover waste heat & drive the steam turbine cycle
 - A **condenser** which converts exhaust steam from the steam turbine back into water through a cooling process
 - A **bypass stack** for the CCGT associated with each HRSG - ~60 m in height
 - **Water treatment plant**
 - **Dry-cooled technology** - air-cooled condenser fans situated in fan banks ~ 25-30 m above ground
 - **Additional fuel storage** facilities required for the longer operating hours of the power station
 - An **elevated water tank**, ~ 20 m high, with water storage for approximately 5 days of operation



COMPONENTS OF THE PROJECT

- Power line:
 - A **400 kV power line** between the Ankerlig Power Station and the already authorised Omega Substation (to be constructed on the Farm Olifantskop)
 - Requires a **55 m wide servitude**
 - Provides for the evacuation of the additional power generated at the power station to the national grid

ISSUES IDENTIFIED THROUGH THE SCOPING STUDY

- New impact sources associated with the power station conversion project would include:
 - **Visual impacts**
 - **Air quality impacts** - construction (dust) & operation (emissions)
 - **Noise impacts** - construction & operation
 - Impacts on **vegetation** (associated with the fuel storage site)
 - Impacts on the **social environment**
 - **Traffic & transportation** impacts associated with the transportation of additional fuel to the power station site

EVALUATION OF IMPACTS ASSOCIATED WITH THE POWER STATION CONVERSION

- Impacts associated with both the **construction** and **operational** phases of the project
- Potential **positive** and **negative** impacts identified as a result of the project
- Potential for **cumulative impacts** on the local environment
- **No environmental fatal flaws** identified with the proposed project

ISSUES IDENTIFIED THROUGH THE SCOPING STUDY

- Potential impacts associated with the proposed power line are expected to occur during the construction & operational phases, and include:
 - Impacts on **flora and fauna**
 - Impacts on **avifauna**
 - Impacts on **heritage sites**
 - **Visual** impacts
 - Impacts on the **social** environment
- Nature and extent of impacts identified is dependent on the alignment which is selected

EVALUATION OF POWER LINE ALTERNATIVES

- **Option B** - nominated as the least preferred in terms of all aspects considered
 - This option would result in the most significant impacts on both the social & biophysical environments
 - This option is excluded as an alternative for further investigation.
- **Option A** would potentially have the lower impact on the overall environment as a result of consolidation of infrastructure of a similar nature & the minimisation of impacts on current and planned land use.
- **Option A** is nominated as a preferred alternative for further investigation in the EIA phase.



RECOMMENDATIONS

- **Detailed specialist studies** to be undertaken to assess the potential impacts associated with the identified issues must be undertaken within the EIA phase of the project.
 - Must assess 'new' impacts associated with the proposed project – e.g.
 - noise impacts associated with CCGT components
 - air quality impacts associated with the CCGT process
 - Impacts on biodiversity as a result of the power station and power line construction
 - Must assess impacts associated with the nominated preferred alternatives

RECOMMENDATIONS

- Alternatives nominated to be assessed in the EIA:
 - The use of **potable water** from the Witzand Water Treatment Works within the power station process.
 - **Dry-cooling technology** (air-cooled condensers)
 - The use of **diesel & natural gas** as alternative fuel sources
- **No location alternatives** to be assessed as the proposed conversion will be on the site of the existing Ankerlig Power Station
- Power line **Option A** to be assessed in detail

RECOMMENDATIONS

■ Detailed specialist studies:

- Must compare the impacts associated with the power station conversion project to the current situation
- Must assess impacts associated with both the construction and operation phases of the power station & power line
- Must assess the potential cumulative impacts associated with the project.
- Must make recommendations regarding practical mitigation measures for inclusion in the EMP

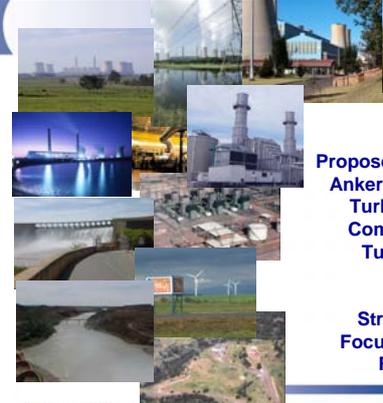
SPECIALIST STUDIES

Specialist study	Project components	Specialist
Air quality	Power station	DDA
Noise impacts	Power station	DDA
Visual impacts	Power station & power line	MetroGIS
Social impacts	Power station & power line	Southern Hemisphere
Biodiversity	Power station & power line	Nick Helme
Heritage sites	Power line	ACO
Fauna	Power line	Stellenbosch University
Traffic & transportation	Fuel transport	Arup
Risk assessment	Fuel storage	Riscom

DISCUSSION

WAY FORWARD

- Draft Scoping Report available for review from 21 January to 21 February 2008
- Final Scoping Report to be submitted to DEAT for review and approval prior to undertaking the EIA
- Draft EIA Report to be made available for public review in July 2008
 - Availability of report to be advertised & registered I&APs to be notified in writing



Proposed Conversion of the Ankerlig Open Cycle Gas Turbines (OCGTs) to Combined Cycle Gas Turbines (CCGTs)

**Strategic Overview
Focus Group Meetings
February 2008**

Eskom

Eskom's Vision

“Together building the powerbase for sustainable growth and development”

Eskom

How Do We Achieve This Vision?

Four key strategic objectives:

- *Sustaining quality and continuity of supply*
- *Capacity expansion*
- *Funding and resourcing*
- *Leveraging business operations for developmental benefits*

Eskom

Contextualising Eskom's Planning...



Eskom

Electricity demand and supply – key challenges

- Demand for electricity continues to increase, resulting in South Africa having reached the end of its surplus generation capacity → →
- **1st challenge: Avoiding mismatch between demand and supply**
 - Excess capacity - stranded resources
 - Capacity shortage - constrained economic growth
- **2nd challenge: Correct choice of capacity to be constructed (from an array of available options that differ dramatically in terms of):**
 - Cost (construction and operating)
 - Lead time to construction
 - Environmental impact
 - Operating characteristics (for example: peaking, baseload) →
- Eskom will target approximately 70% of new capacity, remaining 30% supplied from independent power producers.

Eskom

Technological Options



Coal

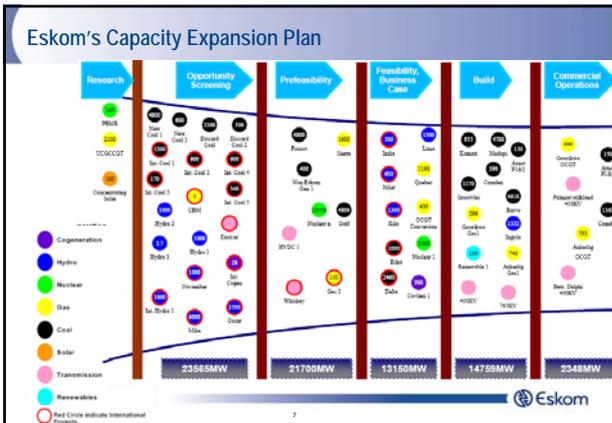
(Gas) Diesel

Efficiency

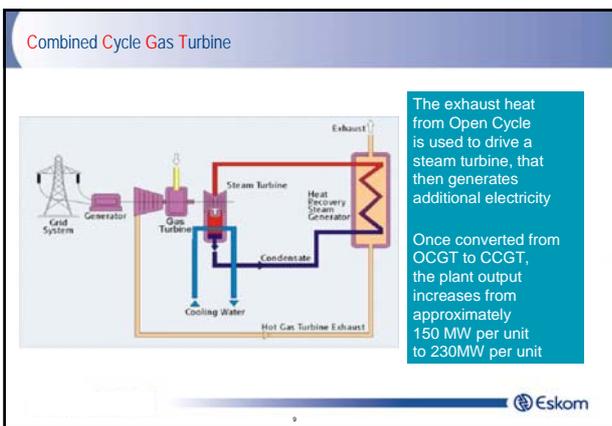
Nuclear

Transmission

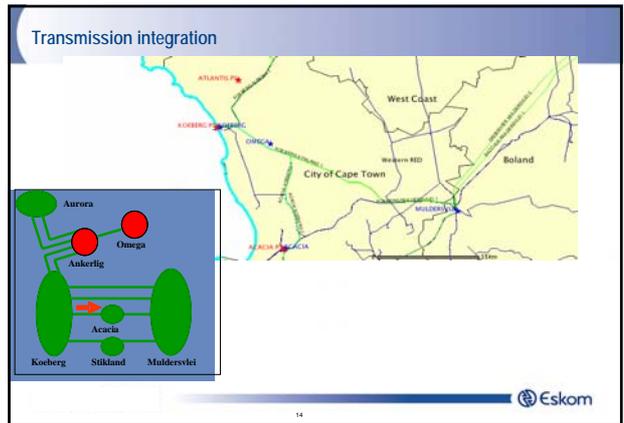
Renewables



- ### Eskom Energy-related projects in the Western Cape...
- Ankerlig Expansion (Gas 1) – under construction, to be completed before winter 2009
 - Gourikwa Expansion (Gas 1) – under construction, to be completed end-2008
 - Omega Substation – already-authorized on the Farm Groot Olifantskop, construction to commence September 2009
 - Palmiet-Stikland 400 kV transmission line – commissioned in August 2007
 - Nuclear 1 – Environmental Impact Assessment process has commenced; Draft Scoping Report has been made available for public comment
 - Nuclear 1 Transmission lines EIA – to commence soon
 - Wind Energy Facility in the Vredendal area - Environmental Impact Assessment process has commenced. Draft EIA Report has been made available for public comment, and comment period closed on 07/02/08. Depending on the various authorisations, construction on this facility will start towards end 2008
 - Pebble Bed Modular Reactor – DEAT has recently given us comments on the final Scoping Report; next phase to commence
 - Gourikwa OCGT-to-CCGT conversion – EIA has commenced; early stages of the Scoping phase
 - Relocation of Acacia gas turbines to Ankerlig due to transmission constraints
- 8



- ### Gas Turbine Fuel
- Siemens Class E Gas Turbines can operate on various fuel types:
 - Diesel
 - Kerosene
 - Natural Gas / LNG
 - Diesel being considered for the base case
 - West Coast natural gas possibilities being investigated for the future:
 - Ibhulesi
 - Kudu (Namibia)
- 12



Regulatory processes

- Environmental Impact Assessment
- Other authorisations

Applications for authorisations and permits required from other Authorities - for example with respect to land use zoning, PFMA, NER generating licence, other local authority requirements, etc., will be made at the appropriate stage during the project

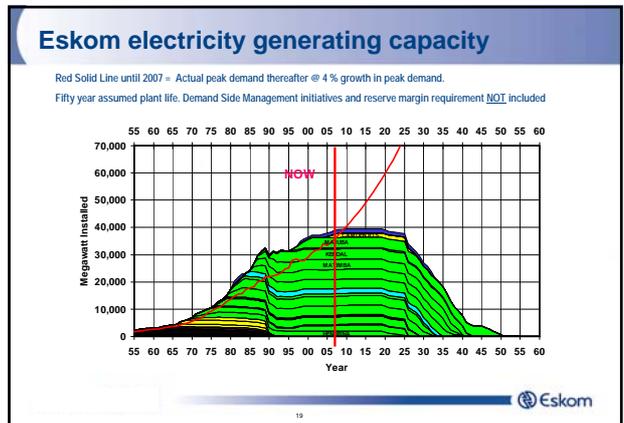
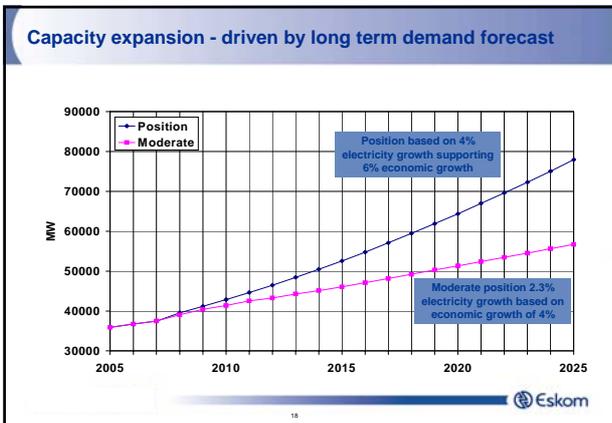
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Eskom

THANK YOU

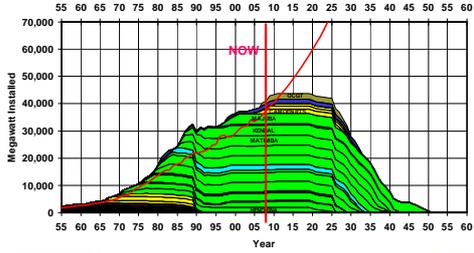
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Eskom



Eskom electricity generating capacity

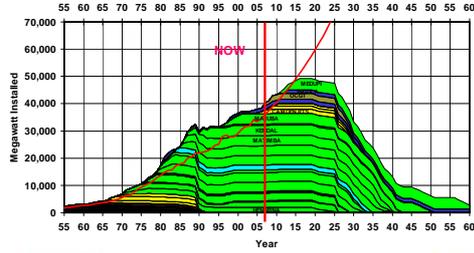
Red Solid Line until 2007 = Actual peak demand thereafter @ 4% growth in peak demand.
 Fifty year assumed plant life. Demand Side Management Initiatives and reserve margin requirement NOT included



20

Eskom electricity generating capacity

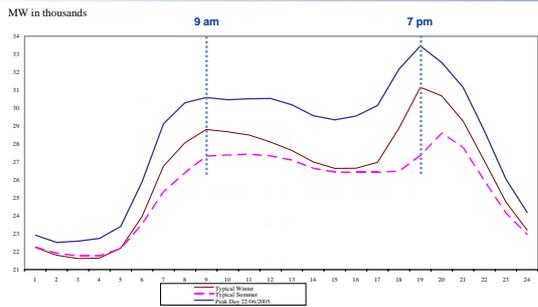
Red Solid Line until 2007 = Actual peak demand thereafter @ 4% growth in peak demand.
 Fifty year assumed plant life. Demand Side Management Initiatives and reserve margin requirement NOT included



21

Daily electricity demand variation

MW in thousands



22

Peaking and base load demand

MW in thousands

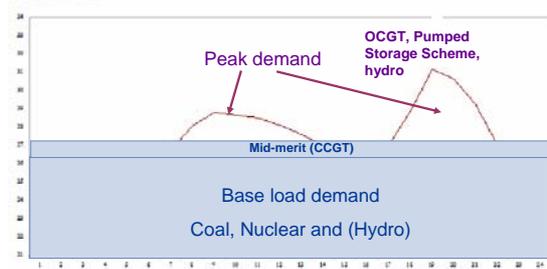


Illustration only



23