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Enquiries
Imibuzo ALVAN GABRIEL

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Date
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*Departement van Omgewingsake en Ontwikkelingsbeplanning
Department of Environmental Affairs and Development Planning
ISebe leMicimbi yeNdalo esiNgqongileyo noCwangciso loPhuhliso*



The Manager
Eskom Holdings Limited
PO Box 1091
JOHANNESBURG
2000

For attention: Ms. D. Herbst

Tel: (011) 800 3501

Fax: (011) 800 5140

Dear Madam

APPLICATION: THE PROPOSED CHANGE OF LAND USE FROM AGRICULTURE FOR THE CONSTRUCTION OF AN OPEN CYCLE GAS TURBINE (OCGT) POWER STATION AND ASSOCIATED 400kV TRANSMISSION LINES AND SUBSTATION ON FARM NO. 1183 AND A PORTION OF THE FARM WITZAND 2, ATLANTIS, WESTERN CAPE PROVINCE.

With reference to your application, find below the Record of Decision in respect of this application.

RECORD OF DECISION

A. DESCRIPTION OF ACTIVITY:

The proposed project involves the change of land use from agriculture for the construction of a new Open Cycle Gas Turbine Power Station (OCGT), a new substation, two (2) 400kV Transmission lines, and associated infrastructure on Farm No. 1183 and a Portion of the Farm Witzand 2, within the Atlantis Industrial area in the Western Cape Province. The OCGT facility will consist of a maximum of five units (each consisting of one gas turbine driving an electrical generator), each with a nominal capacity of between approximately 120 MW to 250 MW and a footprint of approximately 25m x 75m.

The total nominal capacity of the facility will be a maximum of 1000MW. The facility will operate as a peak capacity plant and will only be required to operate during peak capacity periods when electricity demands are at their highest (for approximately two hours per day five days a week, for either one hour in the morning (between 07h00 and 09h00) and one hour in the evening (between 18h00

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and 20h00) or alternatively, two hours in the morning and two hours in the evening), and during emergency situations if required (the facility is capable of operating for a 24-hour period). The Transmission lines will run in parallel between the new substation and the existing Koeberg-Aurora 400kV Transmission lines. Two double-circuit 400kV Transmission lines, approximately 50m in height, will extend from the substation situated at the OCGT plant south-east towards an existing railway track. The transmission lines will then run parallel to the railway track, and south, towards the existing Koeberg-Aurora 400kV Transmission Lines. The proposed substation will be established within the footprint of the OCGT Power Station. The total footprint of the OCGT Power Station itself will be approximately 9ha with a total area of approximately 20ha required for the entire facility.

Fuel will be stored on the site during construction and as an energy source during the operational phase. The OCGT plant will be powered using Liquid Distillate No. 1 (kerosene) or a similar fuel like low sulphur diesel. A maximum of five million litres of fuel will be stored on site during the operational phase. The exhaust stacks (a maximum of five) will be approximately 40m to 60m in height and will exhaust gaseous and particulate emissions and residual heat into the atmosphere.

Access to the facility will be via the existing R307.

These are activities identified in Schedule 1 Government Notice No. R1182 of 5 September 1997 (as amended) being:

- Item 1 (a) The construction, erection or upgrading of facilities for commercial electricity generation with an output of at least 10 megawatts and infrastructure for bulk supply;
- Item 1 (c) The construction, erection or upgrading of with regard to any substance which is dangerous or hazardous and is controlled by national legislation-
 - (i) infrastructure, excluding road and rails, for the transportation of any such substance; and
 - (ii) manufacturing, storage, handling, treatment or processing facilities for any such substance;
- Item 2 (c) The change of land use from agricultural or zoned undetermined use or an equivalent zoning to any other land use,
- Item 9 Scheduled processes listed in the Second Schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965),

hereinafter referred to as "the activity".

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B. LOCATION:

The proposed OCGT facility is located on Farm 1183 and a Portion of the Farm Witzand 2, within the Atlantis Industrial area (Appendix A),

Co-ordinates: Latitude: 33°35'33' South
 Longitude: 18°27'26' East

hereinafter referred to as "the property/site".

C. APPLICANT:

Eskom Generation Division
% Ms. D. Herbst
PO Box 295
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7380

Tel: (011) 800 2821
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D. CONSULTANT:

Bohlweki Environmental (Pty) Ltd.
% Ms. R. Thomas
PO Box 11784
Vorna Valley
MIDRAND
1686

Tel: (011) 466 3841
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E. SITE VISIT(S):

1. DATE: 21 February 2005
 ATTENDED BY: Mrs C. de Villiers, Mr A. Shortt, Mr R. Beckmann, Mr N. Gewers, Mr H. Coetzee, Ms M. Mafumo, Ms D. Herbst and Mr I. Govender of Eskom; Prof C. Chimimba of the University of Cape Town; Mr G. Scott, Mr P. Hobbs and Mr A. Raghunandan of CSIR Environmentek; Mr T. Hart of the University of Cape Town; Mr J. Perold of Afrosearch; Mr J. van Staden, Mrs I. Snyman, Ms J. Thomas and Ms R. Thomas of Bohlweki Environmental; Mr L. du Plessis of MetroGIS; Mr C. van Rooyen of EWT; Mrs I. Bekko and Mr A. Gabriel of the Department of Environmental Affairs and Development Planning.

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2. DATE: 27 September 2005
 ATTENDED BY: Mr R. Beckman, Mr N. Gewers, Mr T. Cairns and Ms D. Herbst of Eskom; Ms J. Bodenstein, Mr R. Hope and Mr P. King of the City of Cape Town; Ms I. Snyman and Mrs J. Thomas of Bohlweki Environmental; Mr D de Waal of Mawatsan; Mrs I. Bekko and Mr A. Gabriel of the Department of Environmental Affairs and Development Planning.

F. DECISION:

In accordance with regulation 4(3A) of Government Notice No. R1183 of 5 September 1997, (as amended), the Director General of the National Department of Environmental Affairs and Tourism has agreed that this application be considered by the undersigned of this Department.

In terms of Sections 22 and by virtue of powers delegated by the Minister in terms of Sections 28 & 33 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), the relevant authority (as defined in GN No. R1183 dated 5 September 1997, as amended), hereby grants authorisation, **with the conditions** contained in this Record of Decision, for the execution of the activity described above.

This Authorisation has been granted in terms of section 22 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) solely for the purposes of undertaking the specified activity referred to above, and does not exempt the holder thereof from compliance with any other relevant legislation.

G. CONDITIONS OF AUTHORISATION:

1. The activity, including site preparation, may not commence before the statutory 30 day appeal period expires. In the case of an appeal being submitted to the competent authority, the effect of this Record of Decision will be suspended until such time as the appeal is decided.
2. One week's notice, in writing, must be given to the Directorate: Integrated Environmental Management (Region B), (hereinafter referred to as "this Directorate") before commencement of construction activities.
 - 2.1 Such notice shall make clear reference to the site location details and reference number given above; and
 - 2.2 The said notice must also include proof of compliance with the following conditions described herein:
 Conditions: 1 & 42.
3. The OCGT plant on the site and all the tower structures for the alignment must be placed in such a way that the minimum amount of threatened or protected plant species are affected.

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4. Search and rescue of important plant species must be done prior to the commencement of construction activities, in areas that are impacted on by the final placement of the OCGT facility and associated infrastructure.
5. The areas that are to be developed on the site, including the access routes and Transmission Line corridor, must be temporarily marked out with "hazard tape". Important plant species found in these areas must be moved to an established nursery or to one set out on the site, for later use in rehabilitation of disturbed areas after construction.
6. An integrated waste management approach must be used that is based on waste minimization and should incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of section 20 of the Environment Conservation Act, 1989 (Act No. 73 of 1989).
7. All undesirable excavation material and construction rubble must be removed, once construction is completed, and appropriately disposed of.
8. During construction:
 - 8.1 Employees and contractors must be warned against disturbing, injuring or killing any wildlife;
 - 8.2 Contractors and their workers must be made aware of the risks of fire especially during the dry summer months and must be made aware of the Fire Management strategy to be implemented during construction;
 - 8.3 The required number of temporary ablution facilities must be made available for employees and contractors working on site. A ratio of one facility for every fifteen personnel is proposed;
 - 8.4 Local workers and contractors must be sourced to the largest extent possible. The use of "construction camps" for the temporary housing of employees must be seen as a last resort and only once all other possibilities have been exhausted;
 - 8.5 Movement of construction personnel on site, outside of the demarcated development areas, must be strictly prohibited;
 - 8.6 Adequate containers for litter disposal must be supplied on site. These containers must be emptied on a regular basis and the contents removed to an appropriate and licensed waste disposal site;
 - 8.7 Traffic control mechanisms must be implemented to limit vehicle-entrained dust from unpaved roads (for example by limiting vehicle speeds and limiting traffic volumes);

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- 8.8 Access in and out of the site must be allowed only at one point to minimise impacts during construction; and
 - 8.9 Construction activities must be limited to the minimum area needed for the construction of the facility.
9. A Construction Phase Environmental Management Plan ("EMP") that complies with the Departmental Guidelines on EMP's must be implemented.
- 9.1 This EMP must be submitted to this Directorate for comment and approval at least three weeks prior to construction activities commencing; and
 - 9.2 The EMP must be included in all contract documentation for the construction phase of the development;
 - 9.3 The EMP must include, but is not limited to:
 - a) Dust management measures to be implemented throughout the construction phase of the development;
 - b) Noise mitigation measures to be implemented during the construction and operational phases of the development;
 - c) Waste management procedures to be followed during the construction and operational phases of the development; and
 - d) A social interaction strategy to be implemented to maintain communication with community representatives during the construction and operational phases of the development.
10. An Operational Management Plan (OMP) must be implemented. This OMP must be submitted to the Department prior to the commencement of operation for approval and, must include, but is not limited to:
- 10.1 Management strategies for the routine monitoring and inspection of fuel tanks, pipelines and other fuel related equipment;
 - 10.2 Fire Management and the implementation of a Fire Management Strategy;
 - 10.3 An alien vegetation control and monitoring programme for the site (including buffer areas). This programme must be developed and implemented prior to the construction activities commencing and must follow through into the operational phase of the facility;
 - 10.4 A NO_x monitoring programme to be implemented on the site and in the vicinity of Klein Dassenberg. NO_x emissions mitigation control equipment must be incorporated into the functioning of the facility

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- and these must be monitored and serviced regularly. The monitoring programme must commence before the OCGT becomes operational to ensure that baseline data is accurately determined;
- 10.5 The routine monitoring procedures to be followed for all other emissions (including CO₂) from the stacks;
 - 10.6 The management strategy to be implemented for the delivery of fuel during the operational phase of the facility;
 - 10.7 A Groundwater Monitoring Programme that must be established on the site. This monitoring programme must commence within one week of construction activities beginning;
 - 10.8 A reporting schedule for frequent reporting to the Department and other interested or affected authorities;
 - 10.9 The auditing and reporting procedures to be followed;
 - 10.10 A monitoring programme to be implemented for pure tones and impulsive sounds during the operational phase of the facility and investigation and mitigation measures must be implemented immediately should it become necessary; and
 - 10.11 An Emergency Procedure Plan in accordance with Section 30 of the National Environmental Management Act (Act 107 of 1998) that deals with the control of emergency incidents, the reporting of the incident to the relevant authorities, cleaning up procedures for the site and the remediation of the area.
11. The view corridors of neighbours and residents in the area must be maintained as far as possible.
 12. All lighting, where practical, must be "down" lighting to minimise the visual impact of the facility at night. Lighting must be directed at the specific areas they are intended to illuminate. All windows incorporated in the facility must be fitted with a means to completely stop any light from exiting the windows (e.g. blinds or shutters). The minimum amount of night lighting must be used.
 13. The Architectural and Cultural heritage of the area must be included in the design guidelines for the development (thereby incorporating the historical heritage of the area into the building design).
 14. Colours and materials that complement the natural surroundings must be used.
 15. Should any heritage remains be exposed during excavations, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999)). Heritage remains

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- uncovered or disturbed during earthworks must not be disturbed further until the necessary approval has been obtained from Heritage Western Cape.
- 15.1 If any archaeological remains are discovered during construction they must be reported to Heritage Western Cape immediately;
 - 15.2 If any human remains are discovered, they must be treated with respect and SAHRA must be notified immediately. An archaeologist must be contracted to remove the remains at the expense of the developer;
 - 15.3 An archaeologist must be contracted to field proof the exact positions of the Transmission Line towers once these positions are determined;
 - 15.4 An archaeologist/ palaeontologist must be appointed to inspect any preliminary geotechnical excavations that are carried out; and
 - 15.5 An archaeologist/ palaeontologist must be appointed to monitor any bulk excavations that take place on site during construction.
16. The requirements of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Major Hazard Installation Regulations (GN. No. R.692 of 30 July 2005) must be complied with.
 17. All activities on the site must comply with the requirements of the Atmospheric Pollution Prevention Act (Act No. 45 of 1965).
 18. Eskom's Health, Safety and Environment (HSE) procedures must be adhered to. The applicant must ensure that effective stock inventory monitoring, recording and regular auditing takes place for the early identification of possible leaks and to keep a leak history for the site.
 19. Temporary fuel storage tanks and permanent fuel storage tanks must be bunded (110% of the proposed tank's capacity) to contain any possible spills and to prevent any infiltration of fuel into the ground.
 20. The temporary fuel tank used for fuel storage during construction must be designed and installed in accordance with relevant Oil Industry standards and SANS codes, where applicable to above ground storage tanks. The tank must be constructed to conform to the Atmospheric Pollution Prevention Act (Act No. 45 of 1965).
 21. Gas and fuel must not be stored in the same storage area, and any generators used on the site must be placed on drip trays.
 22. Permanent above ground fuel tanks and pipes must be designed and maintained in accordance with the relevant oil Industry standards and SANS codes, where applicable to aboveground storage tanks. The tanks must be constructed to conform to the Atmospheric Pollution Prevention Act (Act No. 45 of 1965).

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23. The minimum amount of fuel required for efficient operation of the facility must be stored on site.
24. During fuel tanker delivery, the tanker driver and adequately qualified staff must be present at all times during product offloading.
25. An emergency cut-off switch must be installed to immediately stop fuel delivery should an incident occur.
26. Fuel tanker delivery must be confined to daylight hours.
27. Fuel delivery must be done during times that will have minimal impact on traffic along the routes taken.
28. Fuel tankers must not travel in convoy when delivering fuel during the operational phase of the facility to reduce the risks associated with fuel delivery.
29. Fuel must be dispensed via a system that has mechanical leak detectors linked to the fuel lines. These leak detectors must form an integral part of the pumping system and allow for automatic cut-off of the fuel supply should a leak be detected.
30. Internationally approved non-corrosive pipework systems must be used.
31. Antiflash nozzles must be installed at the end of the vent pipes and provisions must be made for overfill protection devices in the tank filling pipes to prevent tank overfills during filling operations.
32. The fuel delivery area must be bunded and an interceptor system must be installed, with all drainage being directed to an oil water separator. This will allow for the removal of free product from any surface runoff or spillages. The interceptor system must contain a holding tank that is used to contain any free product recovered. Free product must be removed from this separator, stored in a holding tank, and recycled or disposed of in an appropriate manner. The water may be discharged to the municipal sewer in accordance with the municipality's effluent standards.
33. Tank filler points must be located away from the tank farm to prevent congestion of the site during road tanker refuelling.
34. A validation of the modelled results presented in the Air Emissions Specialist Study done by CSIR Environmentek (dated August 2005) must be undertaken within 6 months of the facility becoming operational.
35. The supply of groundwater to neighbouring users in the area must not be negatively affected due to any activity on the site. In the event that any such effects become apparent, Eskom must immediately inform DWAF, this Department and the City of Cape Town municipality and immediately investigate and implement mitigation measures.

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36. No surface or ground water must be polluted due to any activity on the property/site. The relevant requirements of the National Water Act, 1998 (Act No. 36 of 1998) must be complied with at all times.
37. Noise mitigation strategies that are in compliance with SANS code 10103 must be implemented. The use of berms and vegetation for screening purposes (visual and audio) must be further investigated and must be implemented prior to the facility becoming operational.
38. Pure tones and impulsive sounds must be monitored during operation and corrective measures related to this must be taken immediately should it become necessary.
39. All other possible noise mitigation measures required to make the facility compliant with the relevant SANS standards, must be implemented to minimise the noise impacts associated with the development.
40. Optimal use must be made of existing access roads and the construction of new access roads must be minimised.
41. Appropriate signage, clearly denoting emergency procedures and emergency exit routes, must be posted at appropriate localities in the facility.
42. The applicant must, **within five calendar days** of the date of issue of this Record of Decision:
 - Inform the relevant local authority as well as all interested and affected parties (I&AP's) registered during the Scoping and Impact Assessment processes in writing of the outcome of this application and, if requested, provide copies of this Record of Decision within a reasonable time before expiry of the thirty day appeal period;
 - Include in such information the provisions of Regulation 11 of Government Notice No.1183 of 5 September 1997, as amended which reads as follows:
 - (1) An appeal to the Minister or provincial authority under section 35(3) of the Act must be done in writing within 30 days from the date on which the record of decision was issued to the applicant in terms of regulation 10(1);
 - (2) An appeal must set out all the facts as well as the grounds of appeal, and must be accompanied by all relevant documents or copies of them which are certified as true by a commissioner of oaths.
 - Include the date on which the record of decision was issued to the applicant in terms of regulation 10(1) and the date by which appeals must reach the Minister.
 - Inform all I & AP's that a signed and certified Appeal Questionnaire obtainable from the Minister's office at tel. (021) 483 3915, e-mail

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jedevill@pgwc.gov.za, or URL
<http://www.capegateway.gov.za/other/2005/4/appealquestionnaire05.pdf>
must accompany the appeal.

- If the applicant should appeal against this Record of Decision, he must inform all interested and affected persons that such an appeal is being lodged with the Minister and if requested, the applicant/appellant must provide those persons with reasonable access to a full copy of the appeal within a reasonable time before expiry of the thirty day appeal period.
43. The applicant shall be responsible for ensuring compliance with the conditions contained in the Record of Decision by any person acting on his behalf, including but not limited to, an agent, servant, employee or any person rendering a service to the applicant in respect of the activity, including but not limited to contractors and consultants.
44. The owner and/or developer must notify this Directorate and any other relevant authority, in writing, **within 24 hours** thereof if any condition of this authorisation is not adhered to.
45. Departmental officials shall be given access to the property referred to in B above for the purpose of assessing and /or monitoring compliance with the conditions contained in this Record of Decision, at all reasonable times.

H. RECOMMENDATIONS:

- It should be noted that The Directorate: Pollution and Waste Management of the Department of Environmental Affairs and Development Planning are currently amending the Provincial Noise Control Regulations in order to bring them in line with current SANS limits, which are based on international limits. The limits given in the SANS codes, particularly those in SANS 10103 are proposed to form part of the new Noise Control Regulations;
- The recommendations and guidelines given in the Waste Minimisation Guidelines for Construction, developed for the Department of Environmental Affairs and Development Planning, should be taken into consideration.

I. KEY FACTORS AFFECTING THE DECISION:

1. Biophysical

1.1 Alternatives

Atlantis Industria was identified as a feasible site for the establishment of an OCGT Power Station. The potential impacts associated with two (2) sites (both the preferred- and alternative –site) and associated infrastructure was assessed during the Environmental Impact Assessment of the proposed activities. Alternate routings of the proposed Transmission Lines were also investigated as well as the most

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appropriate routings for the delivery of fuel during the operational phase of the facility.

All of the specialist assessments conducted, did not rule out the use of either the preferred site or the alternative site as a suitable location even though most of the studies showed a marginal preference for the alternative site (the heritage assessment showed a preference for the preferred site due to the presence of three Late Stone Age archaeological sites on the alternative site). However, the preferred site (site 1 – Appendix A) is the better option for the OCGT facility once the technical and economic factors are factored into the equation.

1.1.1 Site Alternatives (Appendix A):

The “no go” option

In view of the increasing need for the proposed facility, the fact that such a facility has serious short- to medium-term implications for socio-economic development in South Africa, and that the lack of such a facility will result in peak electricity capacity demands not being met in the short-term, the “no go” option was not regarded as a practical alternative.

Site 1: The preferred site

This site is located on Farm 1183 and a Portion of the Farm Witzand 2, within the Atlantis Industrial area. This site is located adjacent to the R307 within the western section of Atlantis Industria. It is visually dominated by the presence of various types of industrial stacks, buildings and the 400kV Koeberg-Aurora Transmission Lines that run approximately 1.5km to the south-east of the site.

Site 2: The alternative site

This site is located approximately 1.6km south-east of the preferred site. It also falls within the Atlantis Industria area.

1.1.2 Transmission Lines and Substation alternatives (Appendix A):

Alternative 1

Two double-circuit 400kV Transmission Lines, approximately 50m in height, will extend from the substation situated at the OCGT plant south-east towards an existing railway track. The Transmission Lines will run parallel to the track, south, towards the existing 400kV Koeberg-Aurora Transmission Lines. This is the preferred alignment due to fewer biophysical impacts since the transmission lines will largely follow the existing railway track.

Alternative 2

Four single circuit 400kV Transmission Lines, approximately 35m in height, will extend from the substation situated at the OCGT plant south across the industrial area towards the existing 400kV Koeberg-Aurora Transmission Lines. This

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alignment is not preferred due to the fact that it will traverse a larger vegetated area as opposed to alternative 1 that mainly follows an existing railway reserve.

1.2 Specialist assessments

Air Quality and Human Health:

The potential impacts on air quality and human health as a result of exhausted emissions from the facility was investigated by CSIR Environmentek. The study found that, for NO_x emissions, it is possible that sensitive individuals at Klein Dassenberg could experience adverse health effects such as slight changes in lung functions of asthmatics and an increased risk of respiratory infections. However, even when considering a 24h operation of the facility for an entire year, the probability of this occurring is regarded as extremely low (less than 0.0001%). Further, the 24-hour PM₁₀ concentrations will not exceed the current and proposed South African Guideline for PM₁₀ concentrations. Dust generated during the construction phase, and particularly after the early excavation period, may have a nuisance impact beyond the immediate region under windy conditions. Mitigation of these effects will be addressed in the EMP. The anticipated CO₂ emissions from the proposed OCGT Power Station will be approximately 0,00002% of South Africa's total CO₂ emissions. The contribution to the South African greenhouse gas budget is low and the study has rated the impact of the CO₂ emissions as insignificant. Similarly, SO₂ emissions are also rated as low and no acute or chronic health effects are expected in any healthy or sensitive individuals.

The NO_x abatement technology to be used at the OCGT facility will be dry low-NO_x hybrid burner technology. This built-in technology allows the combustion of fuel while achieving low NO_x emissions without the injection of water. The burners used, limit the formation of thermal NO_x through lean and staged combustion of the fuel.

The proposed transmission lines are not expected to impact negatively on air quality and human health.

Traffic and the Transportation of Components during Construction and Fuel during Operation:

A traffic impact study was conducted by the consulting company Goba Moahloli Keeve Steyn, which included an investigation of the transportation of fuel during the operational phase of the facility and components during construction. The study identified that the nature of the construction traffic impact will be slight, the extent will be localised, the duration short term and the significance low, and states that in general terms the traffic impact of the construction and operation of the proposed Atlantis Power Station is small to negligible. The operational traffic (employee traffic) is described as having no effect on the existing traffic status and is regarded as being of no significance.

The traffic impact of the transportation of components during construction was assessed as being of moderate to low significance and of importance specifically during the construction phase (over a period of approximately 18 months). The

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large and bulky Turbine plant will need to be transported to the site either from Cape Town harbour or Saldanha Bay and an abnormal load permit application will be submitted to the Provincial Roads Department and the City of Cape Town Roads Department.

The traffic impact of fuel delivery tankers, which follow their designated route on the road network immediately surrounding the proposed OCGT site and along the proposed route from the source of the fuel to the site, was assessed. The most appropriate and efficient routing was determined. The fuel supply traffic impact associated with this has been determined to be slight and of moderate significance. The abovementioned impacts were regarded to be the same for both the preferred site as well as the alternative site.

Transportation Feasibility Study:

The Transport Feasibility Study was done by Goba (Pty) Ltd. The study investigated the transportation of fuel via road transport, rail transport and transport via pipeline. The study concluded that the most cost-effective and economical means of transporting fuel to the OCGT facility would be via road transport and recommended that road transport be used.

Quantitative Risk Assessment:

A summary of the results of this study was supplied by Bohlweki Environmental. The study concluded that although the risk assessment on the transport of fuel indicated that the frequency of spills due to punctures of a road tanker can possibly occur with a higher frequency than that of rail tankers or a pipeline, the resultant impacts will be lower. A similar situation was found with respect to the location and layout of the facility based on the assessment of storage and processing of fuel. Although the study concluded that the facility would not present a risk to people offsite and should therefore not be the subject of the Major Hazardous Installation (MHI) Regulations, the Department is of the opinion that the facility must be declared a MHI facility and this has been addressed in condition 16 of this Record of Decision.

Noise Impacts:

The potential noise impacts on the surrounding environment were assessed by Jongens Keet Associates Acoustical Engineering Consultants. The intensity of impact of construction noise was found to vary between "negligible" and "low" for farms to the north-west of the preferred site. The noise impacts during the operational phase however, were found to be unacceptable without the implementation of noise mitigation measures. The mitigation measures are particularly important for the Farms Melk Post and Witzand 2 (land owned by the Department of Public Works). Noise mitigation measures compliant with current SANS limits will be implemented.

The proposed transmission lines will not present any significant noise impacts.

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Visual Impacts and the associated impacts on Tourism Potential:

The proposed site falls within the Atlantis Industria area (an area that has been historically altered through the establishment of a host of industrial facilities), which imparts an "industrial" character to the general area. In addition, the existing Koeberg-Aurora 400kV Transmission lines pass to the south of the study area, and although these lines contribute to the general character of the area and sense of place of the proposed facility, they will negatively add to the visual impacts, especially when the cumulative effects of the proposed transmission lines are considered. The potential visual impacts associated with the proposed development and the associated impacts on tourism potential, were assessed by MetroGIS. It was found that the facility was unlikely to be visible from the Atlantis residential area but will however be visually exposed to users of the R307. The study found that the visual impacts of the proposed development are noteworthy and will need to be mitigated. This was found to be important for the proposed site as well as the proposed alternative (although this site presents fewer challenges in terms of visual impacts). Mitigation measures related to these impacts have been addressed in this Record of Decision. These mitigation measures are largely related to lighting, general land use character, strategic placement of the OCGT plant, screening and sense of place.

Atlantis is located between two tourism routes (the R27 to Langebaan and Saldanha, and the N7). It was found that the potential impacts on tourism when related to visitor numbers and land values will be of low significance. Atlantis is not well known as a tourism destination and development of the tourism industry in the immediate area is limited. This is emphasised by the fact that the specialist study found that interviews with tourism product owners indicated that the utilisation of accommodation establishments in Atlantis is low. Further, leisure activities are limited in Atlantis and overnight visitors tend to utilise activities outside the area. It was found that none of the tourism product owners interviewed thought that the Atlantis Industrial area deterred tourists from utilising their establishments.

Groundwater:

The potential impacts on groundwater resources as a result of the proposed activities was assessed by CSIR Environmentek, and was found to be of medium to low significance. All of the potential impacts can be mitigated both during the construction- and operational-phase of the development and have been addressed in the conditions of this Record of Decision. Although the proposed site was found to be more sensitive with respect to groundwater than the alternate site, this was largely due to the geographic location of the site and its proximity to the Klein Springfontein – Witzand aquifer. The proposed transmission lines will not impact on groundwater.

A groundwater monitoring programme will be implemented and this has been addressed in the conditions of this Record of decision.

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Impacts on Flora, Fauna and Ecology:

CapeNature is of the opinion that the impact of the proposed activity on the natural vegetation will be insignificant. Both sites are heavily infested by alien tree species and the quality of the habitat on site is generally poor. A vegetation specialist will survey and verify the occurrence of threatened and/or protected plant species once the final placement of the OCGT plant on the site has been finalised. Further, search and rescue of important plant species will be done, for use in landscaping elsewhere on the site, and an alien eradication, monitoring and control programme will be implemented for the site.

The specialist study for potential impacts on Flora was done by Bohlweki Environmental. The study found that the occurrence of natural vegetation on the site is limited (which is in line with the comments dated 24 October 2005 received from CapeNature).

A mammology specialist study was conducted by Prof. C. T. Chimimba from the University of Pretoria. The assessment showed that both the proposed and alternate sites are already degraded and very low on mammalian diversity and all species occurring in the area are common and widely distributed in the southern African subregion. It was found that the proposed project will not have a significant impact on mammalian diversity in the area. The study further explains that the potential impact on mammals that could arise from chemical/fuel spills is a rectifiable problem.

The proposed route of the transmission lines is regarded as having limited impact on the flora and fauna however, the lines will link up with the existing Aurora-Koeberg Transmission lines as soon as possible and clearing for the erection of transmission lines will be minimised.

Avifauna:

A bird impact assessment study was conducted by the Endangered Wildlife Trust. The study found that the proposed OCGT facility is not likely to have a significant impact on the bird life occurring on and in the vicinity of the proposed site. Further, the study suggests that the proposed Transmission Lines are not likely to impact significantly on the birdlife in the vicinity, although the alternate site was regarded as preferable.

Soils:

The ARC-Institute for Soil, Climate and Water undertook a soil investigation of the both the proposed and the alternate sites. It was found that from the point of view of soils and agricultural potential, there was no difference between the proposed site and the alternative site.

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Heritage:

No surface indications of archaeological material of any kind were found on the proposed site. However, subsurface finds as a result of deep bulk excavations for construction purposes may be apparent and the possibility of this happening has been addressed in the conditions of this Record of Decision.

A heritage specialist study was conducted by the University of Cape Town Department of Archaeology and it was found that three occurrences of ephemeral Late Stone Age archaeological sites were noted on and very close to the alternative site. However, the proposed site and the alternative site were both regarded as suitable for the development of the proposed OCGT with a preference for site 1. The impacts on heritage for both sites were regarded as "extremely low" and "low" respectively.

The proposed transmission line routes are regarded as having very few impacts to a generally heritage depleted environment.

Social Impacts:

The potential social impacts of the proposed development were assessed by Afrosearch (Pty) Ltd. Social impacts are anticipated to manifest during both the construction and operational phase of the project. However, the study found that many of the negative impacts are anticipated to respond favourably to mitigation measures, whereas others can be maximised (like maximisation of employment opportunities for members of local communities). These measures will be further addressed in the Environmental Management Plan and will be subject to mitigation and monitoring processes throughout the construction and operational phases of the development. In addition, the social impacts study has made a number of mitigation recommendations and these have been addressed in the conditions of this Record of Decision.

2. Public Participation

A comprehensive public participation process was undertaken as part of the EIA process, and involved the consultation of individuals and organisations throughout the broader study area representing a broad range of interested and affected parties from the surrounding areas and society at large. The public participation process included telephonic interviews, Focus Group meetings, the distribution of documentation via mail, pamphlets and via the printed media. The development was initially advertised in the *Weskus Nuus* on 28 April 2005 and in the *Cape Times* and *Die Burger* on 29 April 2005. Interested and affected parties were requested to register their interest in the project. A radio advertisement, regarding an open day and public meeting held on 12 May 2005, was announced on the *Atlantis Community radio station*. Notices, advertising the EIA process for the proposed project, were also placed at the following places:

- Wesfleur Library
- Avondale Library
- Proposed preferred site

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Other advertisements placed during the course of EIA process advertised the dates of public meetings and the availability of reports and documents for public review and comment. The final commenting period for Interested and Affected Parties ended on 24 October 2005. Comments were received from a number of interested and affected parties and have been addressed in the Environmental Impact Report.

J. DURATION AND DATE OF EXPIRY:

This authorisation shall lapse if the activity does not commence **within two (2) years** of the date of issue of this authorisation.

K. APPEAL:

In terms of Section 35 of the Environment Conservation Act, 1989 (Act No. 73 of 1989), formal, motivated appeals **must be directed within 30 days** of the date of the issuing of this Record of Decision, to:

Provincial Minister for Environment, Planning and Economic Development
Private Bag X9186
CAPE TOWN
8000

Fax: (021) 483-6081

Appeals must comply with the provisions of regulation 11 of Government Notice No. R. 1183 of 5 September 1997, as amended.

If the appellant is not the applicant, the latter must be informed of the appeal within the appeal period referred to above and must provide the applicant with reasonable access to a full copy of the appeal, if requested.

A signed and certified Appeal Questionnaire, obtainable from the Minister's office at tel. (021) 483 3915, e-mail jedevill@pgwc.gov.za, or URL <http://www.capegateway.gov.za/other/2005/4/appealquestionnaire05.pdf> must accompany the appeal.

If any condition imposed in terms of this authorisation is not being complied with, the authorisation may be withdrawn after 30 days written notice to the applicant in terms of Section 22(4). Failure to comply with any of these conditions is also an offence and may be dealt with in terms of Sections 29, 30 and 31 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) as well as any other appropriate legal mechanisms.

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Provincial Government, Local Authority or committees appointed in terms of the conditions of the application or any other public authority or organisation shall not be held responsible for any damages or losses suffered by the developer or his successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the developer with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Your interest in the future of our environment is greatly appreciated.

Yours faithfully



ANTHONY BARNES
DIRECTOR: INTEGRATED ENVIRONMENTAL MANAGEMENT (REGION B)

DATE OF DECISION: 9/12/2005

COPIES: MS R. THOMAS (BOHLWEKI ENVIRONMENTAL)
MS R. GELDERBLOEM (CITY OF CAPE TOWN)²

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FAX: (021) 425 3605

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APPENDIX A: SITE DEVELOPMENT PLAN

Environmental Impact Assessment for the Proposed OCGT Plant and Associated Transmission Lines and Substation at Atlantis, Western Cape Province

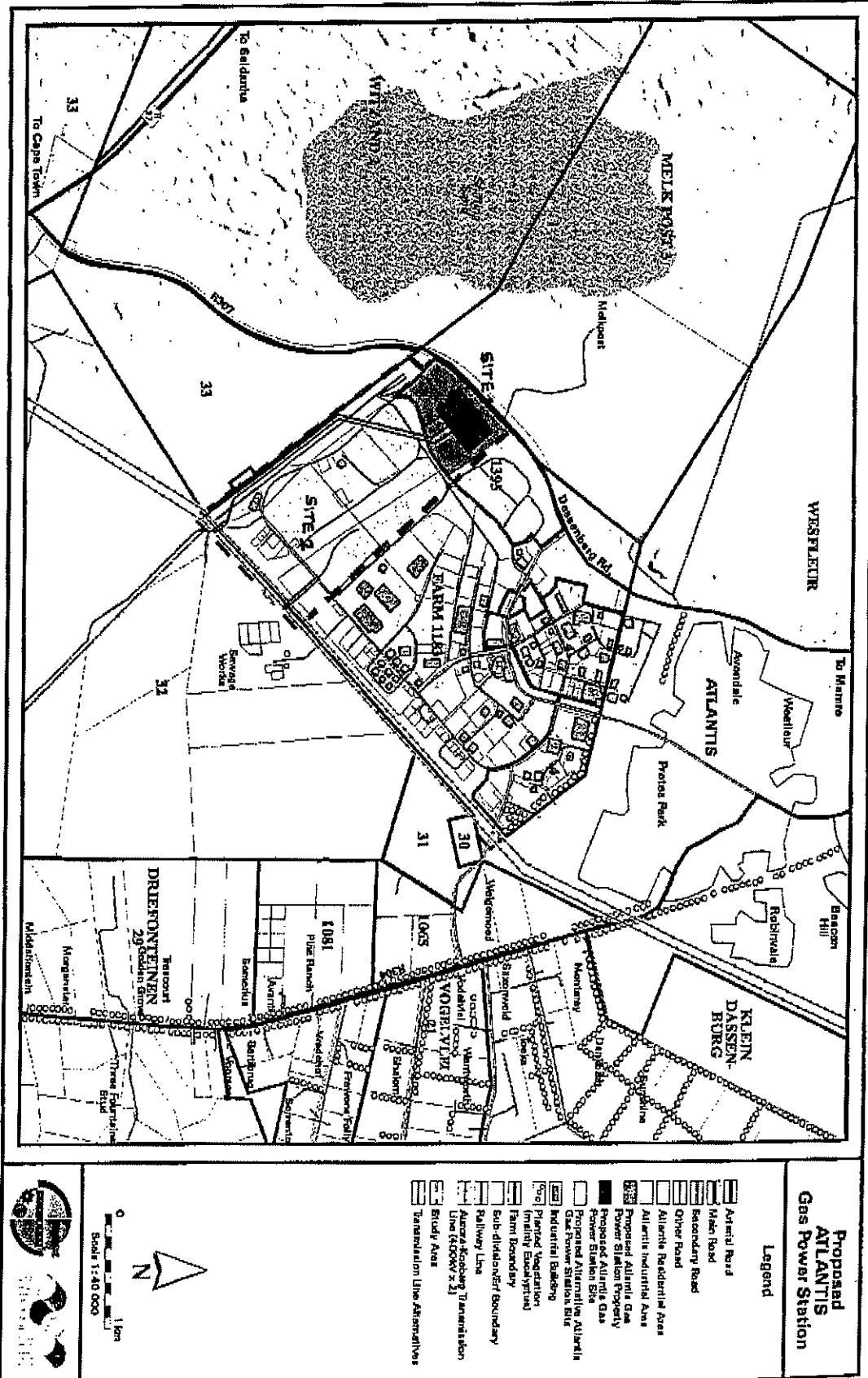


Figure 2.3: Map indicating alternative OCGT sites with respective 400 kV Transmission line alignments investigated within the EIA phase of the project.