

ANNEXURE N:
LETTER TO I&APs NOTIFYING THEM OF AVAILABILITY
OF DRAFT EIR



NINHAM SHAND

CONSULTING SERVICES

7 September 2005

Email: enviro@shands.co.za

Dear Sir/ Madam

**Mossel Bay Open Cycle Gas Turbine Power Plant and Associated
Infrastructure: Environmental Impact Assessment: Summary of Draft
Environmental Impact Report and Invitation to Public Forum**

Please find enclosed the Summary of the Draft Environmental Impact Report (EIR) for the proposed Open Cycle Gas Turbine (OCGT) power plant, fuel supply pipeline, substation and transmission lines adjacent to PetroSA near Mossel Bay. This correspondence is being distributed to the interested and affected parties (I&APs) that have registered as participants in the process.

The EIR Phase follows the Scoping Phase in the Environmental Impact Assessment process and one of its main purposes is to assess, in detail, the range of potential impacts identified in the Scoping Phase. The report also contains information regarding the assessment of feasible project alternatives and the issues raised by interested and affected parties to date.

This letter further serves to invite you to the third public forum to be held on 15 September 2005 at the Mossel Bay Library Hall at 99 Marsh Street. The public forum will comprise an open house from 15:00 to 20:00, during which time a formal presentation will be given at 18:00. The purpose of this meeting is to present the Draft EIR, address queries and concerns, and to capture the comments elicited. The comments and concerns will be carried forward in the documentation as the EIR becomes finalised. The Draft EIR can be reviewed at the Mossel Bay and D'Almeida Public libraries, or at the website www.eskom.co.za/eia, from 7 September 2005 and the comment period for the EIR Phase closes on 28 September 2005.

We look forward to your participation in this process.

Yours sincerely
NINHAM SHAND



KAMAL GOVENDER
Environmental Practitioner



BRETT LAWSON *PrSciNat*
Project Manager

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NINHAM SHAND
RAADGEWENDE DIENSTE

7 September 2005

Epos: enviro@shands.co.za

Geagte Heer/Dame

**Mosselbaai Oopsiklusgasturbiene Kragstasie en Gepaardgaande
Infrastruktuur: Omgewingsinvloedbeoordeling: Samevatting van Voorlopige
Omgewingsinvloedverslag en Uitnodiging na Publieke Vergadering**

Vind asseblief ingesluit die samevatting van die Voorlopige Omgewingsinvloedverslag (OIV) vir die Oopsiklusgasturbiene (OSGT) kragstasie, brandstoftoevoerpylyn, substasie en transmissielyn aangrensend aan PetroSA naby Mosselbaai. Hierdie korrespondensie word versprei aan alle belanghebbende partye wat geregistreer het om deel te neem in die proses.

Die OIV fase volg op die Omvangsbepaling fase in die omgewingsinvloedbeoordeling proses. Dit het as doel die beoordeling in besonder van die verskeie moontlike invloede geïdentifiseer gedurende die Omvangsbepaling fase. Die verslag behels ook inligting oor die beoordeling van moontlike alternatiewe en oor die kommernisse wat deur belanghebbendes tot op hede geopper is.

Hierdie brief dien verder as 'n uitnodiging aan u om die derde publieke vergadering by te woon, op 15 September 2005 by die Mosselbaai Biblioteeksaal te Marshstraat 99 in Mosselbaai. Dit sal bestaan uit 'n opedag vanaf 15:00 tot 20:00, met 'n formele aanbieding gedurende die tyd teen 18:00. Die doel van die vergadering is om die bevindinge van die voorlopige OIV bekend te stel en om enige navrae en voorbehoude daarvoor aantespreek. Die kommentare en kommernisse sal in die dokumentasie weergespieël word soos die OIV gefinaliseer word. Die voorlopige OIV sal besigtig kan word vanaf 7 September 2005 by die Mosselbaai en D'Almeida Biblioteke, sowel as by die webwerf www.eskom.co.za/eia. Die kommentaar tydperk vir die OIV fase sluit teen 28 September 2005.

Ons sien uit na u deelname aan die proses.

Die uwe
NINHAM SHAND

KAMAL GOVENDER
Omgewingskundige

BRETT LAWSON PrSciNat
Projekbestuurder

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ONS SKEP 'N BETER MÔRE VANDAG

ENVIRONMENTAL IMPACT ASSESSMENT: PROPOSED OPEN CYCLE GAS TURBINE POWER PLANT, FUEL SUPPLY PIPELINE, SUBSTATION AND TRANSMISSION LINES AT MOSEL BAY

SUMMARY: DRAFT ENVIRONMENTAL IMPACT REPORT: SEPTEMBER 2005

BACKGROUND AND INTRODUCTION

Eskom has commissioned an Environmental Impact Assessment (EIA) process for a proposed Open Cycle Gas Turbine (OCGT) power plant and associated activities in the Mossel Bay area. The Scoping Report was released in June 2005, and together with the Plan of Study for the Environmental Impact Report (EIR), were accepted by the competent environmental authorities, viz. the Department of Environmental Affairs and Development Planning (DEA&DP), in August 2005. The assessment phase of the EIA process has thus been initiated and a draft EIR has been released. After comment has been received from interested and affected parties (I&APs), the draft EIR will be finalised and submitted for consideration by DEA&DP.

The need to expand the electricity generation capacity in South Africa is essentially based on the following strategic documentation and policies:

- South Africa's White Paper on the Energy Policy - 1998
- Integrated Energy Plan - 2003
- National Integrated Resource Plan - 2003/2004
- Integrated Strategic Electricity Planning - 2003

As a consequence of the above-mentioned forward planning process, Eskom has proposed commissioning two OCGT power plants in the Western Cape, one in Atlantis north of Cape Town and the other adjacent to the PetroSA facility (previously known as Mossgas) near Mossel Bay. This EIA is being undertaken for the activities relating to the proposed OCGT power plant, fuel supply pipeline, substation and transmission lines at Mossel Bay. Ninham Shand Consulting Services is the lead consultant for the EIA, assisted by The Environmental Partnership and various specialist sub-consultants.

PROJECT DESCRIPTION

The proposed OCGT power plant would be located approximately 13km west of the town of Mossel Bay and approximately 1km northwest of the PetroSA facility. The proposed project comprises the following main components:

- The OCGT power plant (made up of three or four gas turbines each with an output of 150 MW) adjacent to the existing PetroSA facility.
- A fuel supply pipeline to transport liquid distillate fuel (kerosene-based or diesel) from the PetroSA facility to the OCGT power plant;
- A substation adjacent to the OCGT power plant, to distribute the generated electricity to the transmission lines;
- Two 400kV transmission lines to run from the OCGT substation to Proteus substation, thus feeding the generated electricity into the national grid;
- Upgrading of the Proteus substation within the boundaries of the substation; and
- An access road from the N2 National Road to the proposed OCGT power plant and substation site.

OMGEWINGSINVLOEDBEOORDELING: VOORGESTELDE OOPSIKLUSGASTURBIENE KRAGSTASIE, BRANDSTOFTOEVOERPYPLYN, SUBSTASIE EN TRANSMISSIELYNE BY MOSSELBAAI

*SAMEVATTING: VOORLOPIGE OMGEWINGSINVLOEDVERSLAG:
SEPTEMBER 2005*

AGTERGROND EN INLEIDING

'n Omgewingsinvloedbeoordeling (OIB) proses is van stapel gestuur deur Eskom vir 'n voorgestelde oopsiklusgasturbiene (OSGT) kragstasie en gepaardgaande infrastruktuur in die Mosselbaai omgewing. Die Omvangsbepalingsverslag vir die projek was in Junie 2005 vrygestel en was, tesame met die Studieplan vir die Omgewingsinvloedverslag (OIV), aanvaar in Augustus 2005 deur die omgewingsowerhede, die Departement Omgewingsake en Ontwikkelingsbeplanning. Die beoordelingsfase van die OIB proses is dus van stapel gestuur en 'n voorloopige OIV is beskikbaar gestel. Nadat kommentaar van belanghebbendes ontvang is, sal die voorloopige OIV gefinaliseer word en by die omgewingsowerhede ingedien word.

Daar bestaan 'n noodsaaklikheid in Suid Afrika vir verhoogde elektriese kragopwekkingsvermoë soos vervat in die volgende strategiese- en beleidsdokumente:

- Witskrif oor Suid Afrika se Energiebeleid - 1998
- Geïntegreerde Energieplan - 2003
- Nasionale Geïntegreerde Hulpbronplan - 2003/2004
- Geïntegreerde Strategiese Elektrisiteitsbeplanning - 2003

As 'n resultaat van die bogenoemde beplanningsprosesse, stel Eskom voor dat twee OSGT kragstasies in die Weskaap op gerig word, een by Atlantis noord van Kaapstad en die ander langs die PetroSA fasiliteit (voorheen Mossgas) naby Mosselbaai. Hierdie OIB proses word onderneem vir die aktiwiteite wat gepaardgaan met die voorgestelde OSGT kragstasie, brandstoftoevoerpyplyn, substasie en transmissielyste by Mosselbaai. Ninham Shand Raadgewende Dienste is die hoofkonsultante vir die OIB en word bygestaan deur *The Environmental Partnership* en verskeie ander spesialis subkonsultante.

BESKRYWING VAN DIE PROJEK

Die voorgestelde OSGT kragstasie sal ongeveer 13km wes van Mosselbaai en ongeveer 1km noord-wes van die PetroSA fasiliteit geleë wees. Die voorgestelde projek bestaan uit die volgende komponente:

- Die OSGT kragstasie (bestaande uit twee of drie eenhede, elk met 'n opwekkingsvermoë van 150 MW) aangrensend aan die bestaande PetroSA fasiliteit;
- 'n Brandstoftoevoerpyplyn vir die verskaffing van gedistilleerde brandstof (parafien of diesel) van die PetroSA fasiliteit na die OSGT kragstasie;
- 'n Substasie aangrensend aan die OSGT kragstasie, vir die verspreiding van opgewekte elektrisiteit na die transmissielyste;
- Twee transmissielyste, met 'n 400kV kapasiteit elk, van die OSGT substasie na Proteus substasie vir verspreiding na die nasionale netwerk;
- Die opgradering van Proteus substasie, binne die grense van die bestaande substasie; en
- 'n Toegangspad van die N2 Nasionalepad na die voorgestelde kragstasie en substasie perseel.

ALTERNATIVES AND THEIR ASSESSMENT

Besides providing the environmental authorities (i.e. DEA&DP) with sufficient and appropriate information on which to base an informed decision, the EIA process also requires that practicable and feasible alternatives are investigated. To this end, an array of alternative project actions were identified during the Scoping phase of the EIA and have now been assessed during the EIR phase, as follows(see attached figure showing proposed alternative alignments and impact significance summary table):

- The exact location of the OCGT power plant and associated substation.
- Two alternative routes for the fuel supply pipeline.
- Three alternative routes for the dual 400 kV transmission lines connecting the power plant to Proteus substation.
- Three alternative routes for an access road to the OCGT facility.

The assessment of the alternatives has been informed by a variety of specialist studies that addressed the biophysical and socio-economic impacts related to each alternative. These comprised the following:

- Botanical impacts;
- Avifaunal impacts;
- Heritage impacts;
- Visual impacts;
- Air pollution impacts
- Risks related to the fuel pipeline;
- Traffic impacts;
- Noise impacts; and
- Socio-economic impacts.

Besides the specialist studies mentioned above, other areas of possible impact have also been investigated, as follows:

- Water consumption;
- Effluent management issues;
- Geology and drainage;
- Existing infrastructure;
- Impact of adjacent activities; and
- Construction phase impacts.

Construction and operational environmental controls have been addressed by means of the formulation of a framework Environmental Management Plan (fEMP). The fEMP is provided as an annexure to the draft EIR.

FINDINGS OF THE ASSESSMENT

Based on the assessment of the biophysical and socio-economic factors relevant to the proposed development, i.e. excluding engineering costs and technical constraints, the following are regarded as the environmentally most acceptable alternatives:

Location of the OCGT power plant and associated substation

As far as visual and botanical impacts are concerned, it is recommended that the site should be located as close to the PetroSA facility as possible, while remaining outside of the identified botanically sensitive areas. Although the impact of noise is somewhat mitigated by the noise emanating from the PetroSA facility, situating the plant as distant as possible from the adjacent rural boundaries to the north and west will reduce the impact

ALTERNATIEWE EN DIE BEOORDELING DAARVAN

Behalwe om die omgewingsowerhede se besluitneming te staaf met genoegsame en toepaslike inligting, is dit ook 'n vereiste van die OIB proses dat praktiese en uitvoerbare alternatiewe ondersoek word. Dus was daar 'n verskeidenheid projekalternatiewe gedurende die Omvangsbepalings fase geïdentifiseer en hierdie is nou in die OIB fase ge-evalueer, soos volg (sien die aangehegde kaart en tabel):

- Die presiese ligging van die OSGT kragstasie en gepaardgaande infrastruktuur.
- Twee alternatiewe roetes vir die brandstoftoevoerpylyn.
- Drie alternatiewe roetes vir die twee 400 kV transmissielyne wat die kragstasie aan Proteus substasie koppel.
- Drie alternatiewe roetes vir 'n toegangspad na die OSGT kragstasie.

Die beoordeling van die alternatiewe is ingelig deur 'n verskeidenheid studies wat deur spesialiste uitgevoer is. Hierdie behels die volgende dissipline:

- Plantkundige;
- Voëlkenner;
- Kultuur/historiese deskundiger;
- Visuele-impak deskundiger;
- Atmosferiese besoedeling deskundiger;
- Risiko analiseerder;
- Verkeers deskundiger;
- Geraasbeheer deskundiger; en
- Sosio-ekonomiese deskundiger.

Bo en behalwe die bogenoemde studies is ander moontlike omgewingsinvloede ook geondersoek, soos volg:

- Waterverbruik;
- Bestuur van uitvloeiing;
- Geologie en dreinerings;
- Bestaande infrastruktuur;
- Impak op naburige aktiwiteite; en
- Impakte gedurende konstruksie.

Beheermaatreëls wat nodig is gedurende die konstruksie en operasie van die kragstasie en gepaardgaande infrastruktuur is deur middel van 'n Omgewingsbestuursplan raamwerk aangespreek. Die raamwerk Omgewingsbestuursplan is as 'n bylae tot die voorlopige OIV beskikbaar gemaak.

BEVINDINGE VAN DIE OMGEWINGSBEOORDELING

In die beoordeling van die biofisiese en sosio-ekonomiese faktore wat betrekking het op die voorgestelde ontwikkeling, d.w.s. met die uitsluiting van tegniese beperkinge en die koste verbonde aan ingenieurswese, is die volgende beskou as die mees aanvaarbare alternatiewe:

Ligging van die OSGT kragstasie en gepaardgaande infrastruktuur

Aangaande die visuele en plantkundige impakte, is dit voorgestel dat die perseel so na as moontlik aan die PetroSA fasiliteit geleë word, maar nogsteeds buite die gebiede van plantkundige sensitieweiteit bly. Alhoewel die geraasimpakte van die OSGT kragstasie ietwat versag sal wees deur die huidige vlak van geraas wat vanaf die PetroSA fasiliteit afkomstig is, sal die ligging van die kragstasie so ver as moontlik vanaf die aangrensende landelike gebiede aan die weste en noorde die impak verder verminder. Die geringe

further. The marginal changes that would result in the lengths of the transmission lines, access road and fuel supply pipeline are not regarded as significant.

Alternative routes for the fuel supply pipeline

As far as risks to human health are concerned, neither of the two alternative routes offer significant constraints. However, the botanical study recommends that a 50 m buffer is maintained between the route and any sensitive botanical areas and this would suggest a marginal preference for Alternative 2 as it avoids the sensitive area northeast of the proposed site.

Alternative routes for the transmission lines

In terms of floral, avifaunal and visual impacts, the central route option (Alternative 2) is preferred. Cross-rope suspension tower designs are also recommended in the avifaunal and visual specialist reports, although the additional land take and related implications for agricultural activity are acknowledged.

Alternative routes for the access road

In order to avoid an additional intersection on the N2 National Road, and the implications that this would have for approval by the South African National Roads Authority Limited, the traffic study suggests that either Alternatives 1 or 2 are preferable to Alternative 3. The visual impact study also refers to either Alternative 1 or 2 being preferred. From a botanical perspective there is a marginal preference for Alternative 2 as it avoids the sensitive area northeast of the proposed site.

Other possible impacts that were assessed but that proved to not be significant factors in the proposed development were:

Water consumption

The concern that large volumes of water might have been required to reduce the level of air pollution proved to be unfounded, since the OCGT technology available is such that air emissions would be within prescribed standards, even without the use of wet nitrous oxide methods.

Effluent, geology and drainage, infrastructure, adjacent activities and construction phase impacts

In the assessment of these possible impacts it was shown that each could be adequately managed in the normal course of development and that none presented significant impacts that required extraordinary mitigation.

PUBLIC PARTICIPATION

A comprehensive public consultation process has underpinned the entire EIA process. To date, this has comprised the following:

Scoping phase

- Consultation with authorities, landowners and other stakeholders;
- Publishing media notices;
- Distributing a Background Information Document (BID);
- Placing the BID on Eskom's website;
- Holding two public forums (an initial meeting and a meeting to present the findings of the draft Scoping Report);
- Releasing the draft Scoping Report for comment by I&APs via website and libraries;

verandering wat veroorsaak sal word in die afstande van die transmissielyste, toegangspad en brandstoftoevoerpyplyn word nie van belang beskou nie.

Alternatiewe roetes vir die brandstoftoevoerpyplyn

Die twee alternatiewe roetes bied ewemin beperkinge aan sover dit die risiko aan menslike gesondheid betref. Nietemin beveel die plantkundige studie aan dat 'n 50 m buffersone gehandhaaf moet word tussen die roete en enige sensitiewe areas en dit dui 'n voorkeur vir Alternatief 2 aan, omdat dit die sensitiewe areas aan die noordooste van die voorgestelde perseel sal vermy.

Alternatiewe roetes vir die transmissielyste

In terme van die invloed op plantegroei, voëllewe en visuele impakte word die sentrale roete (Alternatief 2) verkies. Die "cross-rope" toring ontwerp word ook aanbeveel in die visuele-impak en voëllewe verslae, alhoewel die addisionele grond wat benodig sou wees, en die implikasies vir boerderyaktiwiteite, erken word.

Alternatiewe roetes vir die toegangspad

Die aanbeveling van die verkeer studie is dat Alternatiewe 1 of 2 voorkeur moet geniet, omdat 'n addisionele kruising op die N2 Nasionalepad dus vermy kan word en die goedkeuring van die Suid Afrikaanse Nasionale Padagentskap Beperk vergemaklik sal word. Die visuele-impak studie verwys ook na Alternatiewe 1 of 2 as meer aanvaarbaar as Alternatief 3. Uit 'n plantkundige oogpunt is daar 'n geringe voorkeur vir Alternatief 2, omdat dit die sensitiewe gebied aan die noordooste kant van die perseel vermy.

Ander moontlike omgewingsinvloede wat geondersoek is maar wat bewys is as nie van belang in die voorgestelde ontwikkeling nie, is soos volg:

Water gebruik

Daar was kommer dat 'n groot volume water nodig sou wees om die vlak van lugbesoedeling afkomstig van die OSGT kragstasie te verminder. Dit blyk egter dat die vlak van lugbesoedeling binne voorgeskrewe standarde sal wees sonder die gebruik van water vir die doel.

Uitloop, geologie en dreinering, infrastruktuur, naburige aktiwiteite en konstruksie impakte

In die beoordeling van heirdie moontlike invloede is dit getoon dat elkeen op 'n geskikte manier beheer kan word in die normale uitoefening van ontwikkeling en dat geeneen noemenswaardige beheermaatreëls nodig sou hê nie.

PUBLIEKEDEELNAME

'n Omvattende publiekedeelnameproses is van stapel gestuur en sal deurgaans die OIB proses toelig. Tot dusver het die proses bestaan uit die volgende:

Omvangsbepalings fase

- Konsultasie met sleutelrolspelers (grondeienaars en owerhede);
- Kennisgewings in die media;
- Verspreiding van 'n Agtergrondinligtingsblad;
- Twee publiekeforums ('n voorlopige vergadering en 'n vergadering om die bevindinge van die OBV bekend te maak);
- Plasing van die Agtergrondinligtingsblad op die Eskom webwerf;
- Plasing van die voorlopige Omvangsbepalingsverslag op die Eskom webwerf en in plaaslike biblioteke, vir kommentaar deur belanghebbendes;
- Vergadering met die landbou sektor;
- Verspreiding van 'n samevatting van die voorlopige Omvangsbepalingsverslag aan geregistreerde belanghebbendes;

- Meeting with agricultural sector NGO;
- Distributing a summary of the draft Scoping Report to registered I&APs;
- Incorporating comments received into final Scoping Report; and
- Making final Scoping Report available via website and libraries and advising registered I&APs of its release.

EIR phase

- Releasing the draft EIR for comment by I&APs via website and libraries;
- Publishing media notices regarding the availability of the draft EIR and invitation to a public forum; and
- Distributing this summary of the draft Scoping Report to registered I&APs and including an invitation to a public forum.

The public participation actions to follow are:

- Holding the third public forum, which will comprise a formal presentation and an Open House at the Mossel Bay Public Library in Mossel Bay on 15 September 2005. The findings of the draft EIR will be presented and an opportunity provided for I&APs to raise concerns and comments.
- Capturing the comments received regarding the draft EIR and consolidating these into an Issues Trail. This will summarise the issues raised and provide responses thereto. The draft EIR will be revised in light of the feedback from I&APs where appropriate.

CONCLUSION AND WAY FORWARD

The draft EIR describes the present phase in the EIA process being undertaken for the OCGT power plant and associated infrastructure at Mossel Bay, i.e. that the Scoping Report and Plan of Study for the EIR has been accepted by DEA&DP and that the EIR phase is underway. More importantly, the draft EIR presents the findings of the specialist studies and, based on a recognised tabular assessment methodology, describes the options that would result in the least environmental impact out of the array of alternatives identified during the Scoping phase. A framework EMP is also presented, that should inform decision-making on the part of the environmental authorities.

The EIR is being released in draft form, to enable I&APs to comment on the findings of the assessment and to ensure that their concerns have been captured and responded to. Registered I&APs will be kept informed of the outcome of the EIA process and the opportunity for further engagement.

Please submit any comments that you may have on the draft EIR before 28 September 2005 to:

**Kamal Govender or Brett Lawson
Ninham Shand Consulting Services
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- Inkorporasie van kommentaar wat ontvang was in die finale Omvangsbepalingsverslag; en
- Beskikbaar stelling van die finale Omvangsbepalingsverslag op die Eskom webwerf en in plaaslike biblioteke, sowel as kennis aan geregistreerde belanghebbendes gee daarvan.

OIV fase

- Plasing van die voorlopige OIV op die Eskom webwerf en in plaaslike biblioteke, vir kommentaar deur belanghebbendes;
- Kennisgewings in die media oor die beskikbaarheid van die voorlopige OIV en 'n uitnodiging na 'n publiekeforum; en
- Verspreiding van hierdie samevatting van die voorlopige OIV aan geregistreerde belanghebbendes en 'n uitnodiging na die publiekeforum.

Die publiekedeelname verrigtinge wat nog onderneem sal word is as volg:

- Derde publiekeforum wat uit 'n formele aanbieding sowel as 'n Opedag sal bestaan, by die Mosselbaai Biblioteeksaal op 15 September 2005. Die bevindinge van die voorlopige OIV sal bekend gestel word en daar sal geleentheid wees vir belanghebbendes om kommentaar te lewer.
- Aantekening van die kommentaar wat gelewer is aangaande die voorlopige OIV en die konsolidasie hiervan in 'n tabel. Die tabel sal die kommentaar opsom en aandui hoe dit aangespreek sal word. Die voorlopige OIV sal hersien word in die lig van die kommentaar wat van belanghebbendes ontvang is.

GEVOLGTREKKING EN PAD VORENTOE

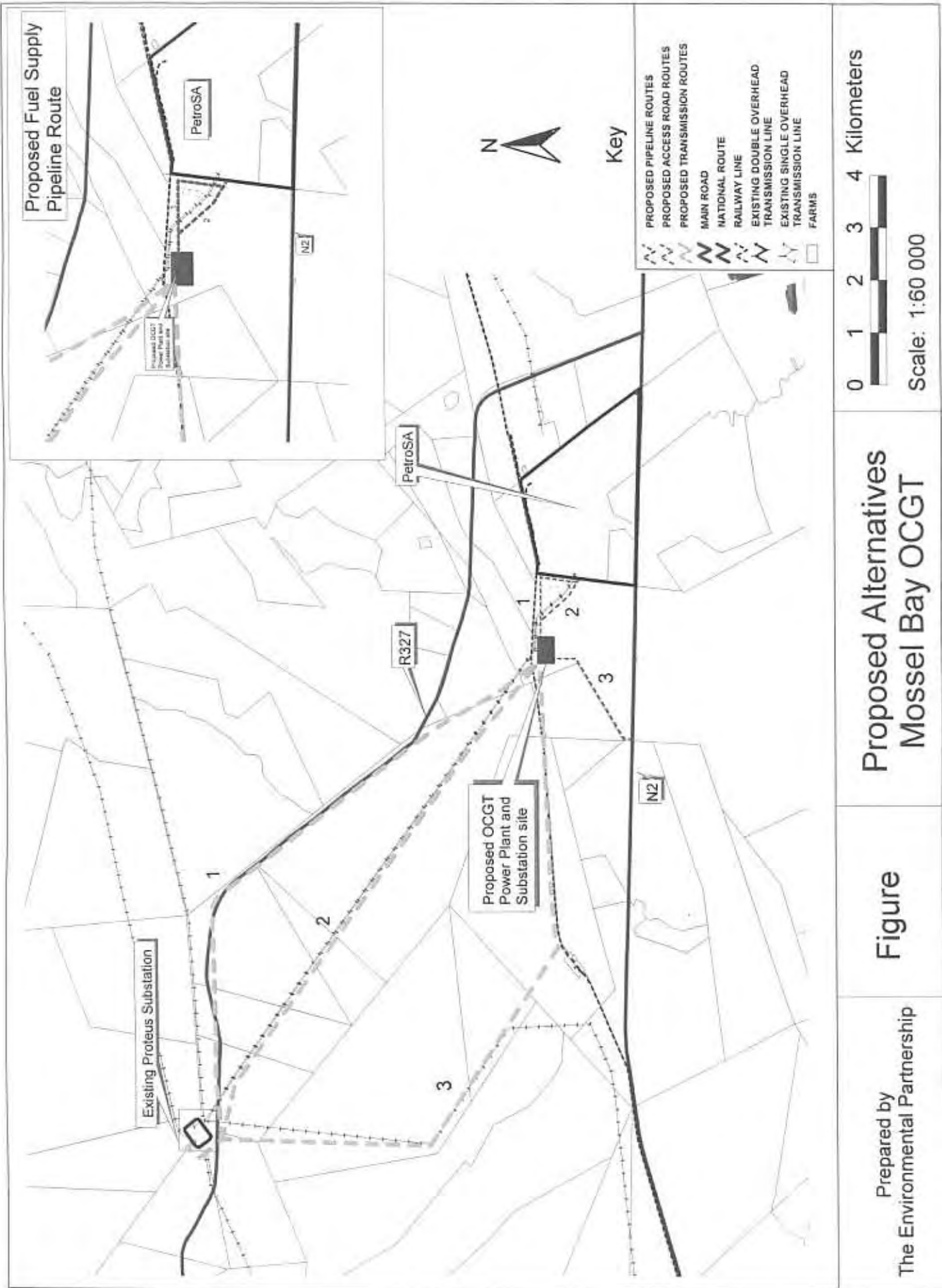
Die voorlopige OIV beskryf die huidige fase in die OIB proses wat onderneem word vir die voorgestelde OSGT kragstasie en gepaardgaande infrastruktuur by Mosselbaai, d.w.s dat die Omvangsbepalingsverslag vir die projek en die Studieplan vir die OIV deur die omgewingsowerhede aanvaar is en dat die OIV fase onderweg is. Van belang in die voorlopige OIV is die bevindinge van die spesialis studies en die beskrywing van die verskeie alternatiewe wat die minste impak op die omgewing sou hê. Die beoordeling is gebaseer op 'n erkende tabulêre metode en is toegepas op die alternatiewe wat in die Omvangsbepaling fase geïdentifiseer is. 'n Raamwerk Omgewingsbestuursplan is ook verskaf, wat die besluitneming deur die omgewingsowerhede ook sal inlig.

Die OIV word as 'n voorlopige dokument vrygestel, om belanghebbendes die geleentheid te bied om kommentaar te lewer en om seker te maak dat enige kommernisse aangespreek word. Geregistreerde belanghebbendes sal ingelig word oor die uitslag van die OIB proses en geleentheid vir verdere deelname.

Rig asseblief enige kommentaar wat u wil lewer oor die voorlopige OIV voor 28 September 2005 aan:

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ANNEXURE O: MEDIA NOTIFICATION OF THIRD PUBLIC FORUM



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ENVIRONMENTAL ASSESSMENT PROCESS

MOSSSEL BAY OPEN CYCLE GAS TURBINE POWER PLANT, FUEL SUPPLY PIPELINE, SUBSTATION AND TRANSMISSION LINES

The environmental impact assessment process for Eskom's proposed open cycle gas turbine (OCGT) power plant, fuel supply pipeline, substation and transmission line adjacent to the PetroSA plant near Mossel Bay is now in the Environmental Impact Report (EIR) Phase. This phase assesses in detail the potential impacts of the proposed OCGT power plant.

The third public forum for this project will be held on 15 September 2005, to present the Draft EIR and to elicit any issues or concerns that the public may have. The report will be available for review in the Mossel Bay Public Library, the D'Almeida Public Library and at the website www.eskom.co.za/eia, from

7 September 2005. The public forum will be held on 15 September 2005 in the Mossel Bay Public Library Hall at 99 Marsh Street. It will comprise an open house from 15:00 to 20:00, during which time a formal presentation will be given at 18:00.

Should you have any comments or concerns, please submit your name, contact information and comments / interests in the matter to the contact person below by 26 September 2005.

Kamal Govender

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Ninham Shand



Ninham243



NINHAM SHAND
RAADGEWENDE DIENSTE

OMGEWINGSBEOORDELING PROSES

OPSIKLUSGASTURBIENE KRAGSTASIE, BRANDSTOFTOEVOERPYPLYN, SUBSTASIE EN TRANSMISSIELYNE BY MOSSELBAAI

Die omgewingsinvloedbeoordeling proses vir Eskom se voorgestelde oopsiklusgasturbieën kragstasie (OSGT), brandstoftoevoerpyplyn, substasie en transmissiellyn naby die PetroSA fasiliteit te Mosselbaai het nou die omgewingsinvloedverslag (OIV) fase bereik. Gedurende die fase word die moontlike omgewingsinvloede van die voorgestelde OSGT beoordeel.

Die derde publieke vergadering sal op 15 September 2005 plaasvind, met die doel om die bevindinge van die voorlopige OIV bekend te stel en om enige navrae en voorbehoude daaroor aantespreek. Die verslag sal beskikbaar wees by die Mosselbaai Biblioteek en D'Almeida Biblioteek, sowel as op die webwerf www.eskom.co.za/eia, vanaf 7 September 2005. Die publieke vergadering sal plaasvind op

15 September 2005 in die Mosselbaai Biblioteeksaal by Marshstraat 99. Dit sal bestaan uit 'n opedag vanaf 15:00 tot 20:00, met 'n formele aanbidding gedurende die tyd teen 18:00.

As u enige navrae of kommentaar het, voorsien asseblief u naam, besonderhede en belangstelling in die saak aan die aangeduide kontakpersoon voor 26 September 2005.

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ANNEXURE P:
LETTER FROM DWAF RE AVAILABILITY OF WATER
FROM WOLWEDANS DAM



water & forestry

Department:
Water Affairs and Forestry
REPUBLIC OF SOUTH AFRICA

Private Bag X16, Santlambhof, 7532

Strand Street 17, Bellville, 7530

Tel: 021 950 7100 **Fax:** 021 946 3666 **e-pos:** vstadej@dwaf.gov.za
Enquiries: J.van Staden **Date:** 29 July 2005 **Ref.:** 16/2/7/K100/A/8

Ninham Shand Consulting Services.
P.O. Box 1347
CAPE TOWN
8000

Attention: Brett Lawson

Sir/Madam

MOSEL BAY OCGT EIA.

No.:		File:		
Date: 400856/				
To		Seen	Act	Ct
BU/ Off.	Initials			
ISS2	BL			
	nyk			

With reference to the scoping report (2005-07-08) regarding the above, the following:

The available yield from the Wolwedans Dam is allocated to PetroSA and Mosselbay Municipality. No additional water is currently available to increase the allocation to PetroSA.

If the wet oxides of nitrogen abatement measures are preferred an alternative source of water has to be investigated.

Yours faithfully

REGIONAL DIRECTOR: WESTERN CAPE

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TO	Mike Luger
INITIALS	
ISS DATE	2005-08-10
FILE NO.	
ACTION FOR	Brett Lawson

ANNEXURE Q: FRAMEWORK EMP

FRAMEWORK EMP (fEMP) FOR OPEN CYCLE GAS TURBINE POWER STATION AND ASSOCIATED INFRASTRUCTURE NEAR MOSSEL BAY

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
1. COMPLIANCE WITH ENVIRONMENTAL LEGISLATION								
All Activities (OCGT and substation, access road, fuel pipeline, water supply and conveyance, transmission infrastructure and Proteus substation)	Compliance with Regulation 1182 and 1183 of Environment Conservation Act	Delay in onset of activity Suspension of construction phase Prosecution	Objective: To ensure that requisite authorisation has been received Mechanism: 1) Complete the statutory EIA ⁱ process	RoD ⁱⁱ (and appeal adjudication if relevant) received from DEAT ⁱⁱⁱ	EIA Consultant	EIA process and documentation	Prior to site establishment	ESKOM
	Compliance with Sections 38(1) and 38(8) of National Heritage Resources Act.	Delay in issuing of ECA ^v RoD Delay in onset of activity Suspension of construction phase Prosecution	Objective: To ensure that the requisite heritage inputs have been integrated into the EIA process Mechanism: 1) Solicit comment from HWC ^v / SAHRA ^{vi} as part of the EIA consultation process 2) Complete permit application process if required	Comment from HWC/ SAHRA Permit(s) to destroy identified resources (if required) received from HWC/ SAHRA	EIA Consultant	EIA process and documentation	Prior to submission of EIA (for comment) Prior to site establishment (for any permits)	ESKOM
OCGT and substation	Compliance with NEM ^{vii} Air Quality Act and Air Pollution Prevention Act	Suspension of operational phase Prosecution	Objective: To ensure that requisite authorisation has been received Mechanism: 1) Complete permit application process.	Permit received from DEAT: Air Quality Control	Air Quality Specialist	EIA process and documentation APPA ^{viii} / NEMAQA ^{ix} permit Applications	Prior to site establishment	ESKOM
Water source and conveyance	Compliance with Sections 40 & 41 of National Water Act	Delay in issuing of the ECA RoD Delay in onset of activity Suspension of construction phase Prosecution	Objective: To ensure that the requisite authorisation has been received Mechanism: 1) Solicit comment from DWAF ^x as part of the EIA consultation process 2) Complete water use licence application if required	Comment from DWAF Requisite water use licence received from DWAF (if existing PetroSA supply not acceptable)	EIA Consultant	EIA process and documentation Water use licence application	Prior to submission of EIA (for comment) Prior to site establishment (for any permits)	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
2. ENVIRONMENTAL INPUT INTO TENDER DRAFTING AND ADJUDICATION								
All Activities (OCGT and substation, access road, fuel pipeline, water supply and conveyance, transmission infrastructure and Proteus substation)	Engineering Design of identified infrastructure	Design incompatible with environment.	<p>Objective: To ensure the design takes into account the environment</p> <p>Mechanism:</p> <p>1) Assimilate environmental requirements into the design</p>	Design meets objectives and does not degrade the environment	<p>Engineering Design Consultant/ in-house staff</p> <p>Environmental Consultant/ in-house staff</p>	<p>EIA documentation</p> <p>Specialist studies</p> <p>Framework EMP</p>	Tender Design & Design Review Stage	ESKOM
	Compile tender documentation and Specifications	Negative impacts on environment during construction	<p>Objective: To ensure acceptable management of environmental issues during construction</p> <p>Mechanism:</p> <p>1) Incorporate relevant environmental management specifications (both general and project specific) into the Tender and Contract documentation</p> <p>2) Incorporate relevant payment items into the Bill of Quantities</p>	Tender documentation and Contract Documentation include environmental management requirements	<p>Engineering Design Consultant/ in-house technical staff</p> <p>Environmental Consultant/ in-house environmental staff</p>	<p>EIA documentation</p> <p>Specialist studies</p> <p>Framework EMP</p> <p>In-house EMPs (i.e. for Line Construction and Substation Construction/ Refurbishment Work)</p>	Tender Design & Design Review Stage	Review by ESKOM
	Tender Adjudication	Negative impacts on environment during construction	<p>Objective: To ensure acceptable management of environmental issues during construction</p> <p>Mechanism:</p> <p>1) Assess ability of Tenderers to adequately manage the environmental issues</p>	<p>Tender evaluation report contain reference to environmental ability of tenderers</p> <p>Successful Contractor show clear commitment to and capacity for meeting the environmental management obligations</p>	<p>Engineering Design Consultant/ in-house technical staff</p> <p>Environmental Consultant/ in-house environmental staff</p>	<p>In-house Environmental Agreement and Tenderer Questionnaire (i.e. for Line Construction and Substation Construction/ Refurbishment Work)</p>	Tender Design & Design Review Stage	Review by ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
3. ENVIRONMENTAL INPUT INTO DESIGN								
All Activities (OCGT and substation, access road, fuel pipeline, water supply and conveyance, transmission infrastructure and Proteus substation)	Detailed design of infrastructure	Design fails to respond optimally to the environmental considerations	<p>Objective: To ensure that the design responds to the identified environmental constraints and opportunities</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Carefully consider the design level mitigation measures recommended by the various specialists, especially with respect to visual aesthetics, noise, air quality and flora. 2) Balance technical and financial considerations against environmental constraints and opportunities in finalising the design of key elements 3) Incorporate in-house procedures, especially with respect to bird collisions and perching, into the design 	Design meets objectives and does not degrade the environment	Engineering Design Consultant/ in-house technical staff Environmental Consultant/ in-house environmental staff	EIA documentation Specialist studies Framework EMP In-house procedures (e.g. for bird collisions and bird perching)	Tender Design & Design Review Stage	ESKOM
	Negotiation with landowners	Landowners unfairly prejudiced by proposed siting, routing or tower configuration	<p>Objective: To ensure adequate regard has been taken of landowner concerns and that these are appropriately addressed</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Initiate negotiations with landowners timeously 2) Address reasonable expectations/ requests were possible 3) In event of impasse follow legal expropriation route, but ensure that extent of expropriation is minimised, restrictions on land use are minimised and reasonable costs are paid 	Location of infrastructure does not prejudice any landowners. Ideally, landowners should be satisfied with outcome of negotiations process. In event of impasse requiring expropriation, landowners should be afforded reasonable and appropriate rights/ access	ESKOM (in-house staff)	EIA process In-house procedures for landowner negotiations and expropriation	Ideally initiated prior to submission of final EIA (which indicates preferred options) Finalised prior to site establishment	ESKOM
Fuel pipeline	Selection of preferred route	Route that degrades environment unnecessarily and poses heightened health and safety risk	<p>Objective: To ensure selection of BPEO^{xii} for fuel pipeline route</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Select route that curtails environmental impacts and enhances environmental benefits, whilst being technically feasible and affordable 2) In adjudicating the preferred routing, careful consideration must be given to in particular the risks associated with the pipeline. 	Routing meets objective. Selected route minimises any negative environmental impacts, maximises any benefits and minimise health and safety risks	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
Water source and conveyance	Finalisation of conveyance type and route ^{xiii}	Route that degrades environment unnecessarily and does not guarantee surety of supply for OCGT	<p>Objective: To ensure selection of BPEO for water conveyance type and routing</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Select route that curtails environmental impacts and enhances environmental benefits, whilst being technical feasible and affordable 	<p>Alignment meets objective.</p> <p>Selected alignment minimises any negative environmental impacts, maximises any benefits and ensures a reliable supply of water to the OCGT on the long-term</p>	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM
Access road	Selection of preferred route	Route that degrades environment unnecessarily, particularly with respect to visual aesthetics and loss of indigenous flora	<p>Objective: To ensure selection of BPEO for alignment for the access road</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Select alignment that curtails environmental impacts and enhances environmental benefits, whilst being technical feasible and affordable 	<p>Alignment meets objective. Selected alignment minimises any negative environmental impacts and maximises any benefits</p>	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM
Transmission lines	Selection of preferred route	Route that degrades visual aesthetics of area and has unacceptable impact on landowners with respect to land-use	<p>Objective: To ensure selection of BPEO for transmission line route</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Select route that curtails environmental impacts and enhances environmental benefits, whilst being technical feasible and affordable 2) In adjudicating the preferred routing careful consideration must be given to in particular the impacts on visual aesthetics and landowners (especially with respect to continued land-use) 	<p>Routing meets objective. Selected route minimises any negative environmental impacts and maximises any benefits.</p>	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM
	Selection of preferred tower configuration	Tower configuration that degrades visual aesthetics of the area	<p>Objective: To ensure selection of BPEO for transmission tower configuration</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Select tower configuration that curtails environmental impacts and enhances environmental benefits, whilst being technical feasible and affordable. 2) In adjudicating the preferred tower configuration, careful consideration must be given to in particular the impacts on visual aesthetics 	<p>Tower configuration meets objective. Selected tower design(s) minimises any negative environmental impacts and maximises any benefits.</p>	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
4. ENVIRONMENTAL MANAGEMENT OF THE CONSTRUCTION PHASE^{xiv}								
OCGT ^{xv} and associated infrastructure (including substation, fuel pipeline, water source and conveyance and access road)	Monitoring and enforcement of specified environmental management requirements	Negative impacts on environment during construction of OCGT and associated infrastructure	<p>Objective: To ensure that the construction of the OCGT and associated infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Appoint an Environmental Control Officer is (either independent or in-house) 2) Develop and implement an environmental auditing system for the construction phase 3) Audit the Contractor compliance with the requirements of the environmental specification contained within the relevant Contract Document 	<p>Environmental impacts effectively monitored and managed during the construction phase with no residual impacts on the environment</p> <p>Comprehensive record of compliance and remedial actions available to ESKOM and the authorities</p>	<p>Site Engineer</p> <p>Environmental consultant/ in-house environmental staff</p> <p>ESKOM</p>	Contract Document	During Construction Phase (from site establishment to Contract Completion)	<p>ESKOM</p> <p>DEAT/DEA&DP^{xvi}</p>
	Communication with Contractor and his staff	Inability to communicate effectively with the Contractor regarding their environmental obligations	<p>Objective: To ensure that there is effective communication with the Contractor on environmental issues</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Include environmental considerations as an item on the agenda of the monthly site meetings for each Contractor 2) Include environmental considerations in the Contractors programme (where relevant) 3) Appoint a senior manager on the Contractors staff as the designated Environmental Officer, empowered to managed compliance with the environmental requirements on behalf of the Contractor 4) Compile and implement the necessary Method Statements 5) Undertake environmental awareness training of all site staff 	<p>Environmental management requirements are proactively communicated with the Contractor and reflected in a more responsible approach to construction</p>	<p>Contractor</p> <p>Site Engineer</p> <p>Environmental consultant/ in-house environmental staff</p>	<p>Contract Document</p> <p>Programme</p> <p>Meetings</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Communication with public	Inability to deal with public queries and complaints	<p>Objective: To ensure that the public has a mechanism to contact a responsible individual in order to obtain information or report complaints</p> <p>Mechanism</p> <ol style="list-style-type: none"> 1) Provide a contact number of someone responsible for the site on the site signage 2) Maintain a complaints register on site to allow public complaints to be recorded. Complaints should be noted and signed off at site meetings 	Public are able to communicate effectively with the relevant members of the project team either to obtain information or lodge complaints	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM
	Site establishment ~ Access	Hazards to landowners and public, and security of materials	<p>Objective: To secure the Site against unauthorised entry and to protect members of the public/ landowners</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Secure Site in an appropriate manner 2) Where necessary to control access, fence and secure Contractor's camp 3) Provide alternative access/ detours for public/ landowners 	Site is secure and there is no unauthorised entry No members of the public/ landowners injured	Contractor	Contract Document [Note: costs covered within contract price]	During site establishment	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM
	Site establishment ~ Site structures	Site infrastructure that degrades the visual aesthetics of the area, unnecessarily exacerbates environmental consequences of construction and leads to public complaint	<p>Objective: To minimise the environmental consequences associated with the establishment of the site infrastructure</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Locate key site infrastructure in environmentally acceptable area and limit its extent 2) Position site infrastructure so as to limit visual intrusion on neighbours or greater environment 3) Select materials for site infrastructure that limit reflection and blend in with the environment 4) Accommodate temporary services underground and within the same trench were possible 	Site infrastructure has limited impact on the visual aesthetics of the area and does not result in unnecessary environmental degradation	Contractor	Contract Document [Note: costs covered within contract price]	During site establishment	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Site establishment ~ <i>Protection or topsoil and sensitive areas/ artefacts</i>	Destruction or loss of topsoil, and sensitive areas/ artefacts (which could include indigenous vegetation, fauna or heritage resources)	<p>Objective: To retain topsoil for later use in closure and to ensure that disturbance to sensitive areas or artefacts is minimised</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Locate key site infrastructure in environmentally acceptable area and limit its extent 2) Remove topsoil approximately 150 mm deep from establishment, working area and stockpile areas, and stockpile for later use 3) Protect topsoil stockpiles against erosion and contamination 4) Provide containment and settlement facilities for effluents from concrete mixing facilities 5) Provide spill containment facilities for hazardous materials like fuel and oil 6) Minimise the extent of areas cleared 7) Identify sensitive areas or artefacts and demarcate these as no-go areas 8) Develop contingency plans to address heritage resource discoveries during construction 	<p>Limited extent of vegetation destroyed during construction activities</p> <p>Sufficient topsoil for closure available</p> <p>No topsoil contaminated with cement materials, fuel, oil or other undesirable compounds</p> <p>No sensitive sites or artefacts damaged or destroyed</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>
	Site establishment ~ <i>Surface and groundwater</i>	Pollution of water resources by effluents	<p>Objective: To avoid pollution of water resources</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Establish contaminated water management system 2) Provide suitable and sufficient ablution facilities that are serviced regularly 3) Provide containment and settlement facilities for effluents from concrete mixing facilities 4) Provide spill containment facilities for hazardous materials like fuel and oil 	<p>Effluents managed effectively</p> <p>No pollution of water resources</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During site establishment	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>
	Site establishment ~ <i>Solid waste</i>	Pollution of environment with solid waste materials	<p>Objective: To avoid pollution of environment with solid waste materials</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Provide adequate waste bins 2) Set up system for regular waste removal to approved facility 3) Minimise waste by sorting wastes into recyclable and non recyclable wastes 4) Prohibit burying or burning of waste on Site 	<p>Appropriate management of solid wastes</p> <p>No complaints from public</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Site establishment ~ <i>Fire</i>	Increased fire risk to surrounding areas	<p>Objective: To decrease fire risk</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Provide adequate cooking and heating facilities for staff 2) Prohibit open fires 3) Develop emergency protocols for dealing with fires 	No occurrence of fires on site or on surrounding areas	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM
	Site management ~ <i>Materials</i>	Risk of environmental contamination or safety incident to public/ site staff resulting from inappropriate treatment of materials	<p>Objective: To ensure that materials are handled, used and stored in a manner that limits the risk of environmental contamination or a safety hazard</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Inform delivery drivers re requirements of the specifications 2) Secure materials during transport 3) Identify appropriate storage areas for stockpiling of materials, storage of hydrocarbons and storage of hazardous substances and ensure that these areas are appropriately prepared for their purpose 4) Dispose of hazardous substances in terms of the relevant legal requirements 5) Limit spillage of hazardous substances or substances with the potential to cause contamination of the environment 6) Develop emergency protocols for dealing with spillages particularly where these pose a pollution risk or involve hazardous substances 7) Compile and implement the necessary Method Statements 8) Undertake environmental awareness training of all site staff 	<p>Correct handling, use and storage of materials, including hazardous materials</p> <p>No incidents of environmental contamination</p> <p>No accidents or incidents related to the handling of materials</p> <p>No public complaints</p>	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Site management ~ <i>Equipment maintenance and storage</i>	Present of plant on site which exacerbates environmental impact including pollution and nuisance	<p>Objective: Ensure that all plant on site is well maintained and serviced in the appropriate manner</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Ensure that all plant is in good working order 2) Undertake maintenance within specified area (workshop) 3) Use drip trays for all stationary or parked plant and when servicing equipment away from designated areas 	<p>All plant in good working order</p> <p>Maintenance of plant does not result in environmental degradation</p> <p>No public complaints</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>
	Site management ~ <i>Surface water and/or existing stormwater systems</i>	Contamination of stormwater runoff with suspended solids	<p>Objective: Contain soils and materials within defined areas and prevent contamination of stormwater runoff</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Identify predetermined stockpile areas for topsoil, construction materials and excavated material 2) Dispose of waste excavated material at appropriate waste disposal sites 3) Rehabilitate site to prevent soil erosion, including temporary revegetation of areas that will remain exposed for extended periods 4) Undertake concrete mixing away from sensitive areas and on impermeable surfaces 5) Store fuels in storage area that is appropriately bunded and drains to a sump 6) Ensure that substances that pose a risk of water contamination are appropriately stored and disposed of 7) Develop and implement water monitoring programme where work abuts aquatic systems 	<p>Correct stockpiling of excavated material on site</p> <p>No waste material left on site</p> <p>No erosion on site</p> <p>No pollution of water courses</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>
	Site management ~ <i>Dust</i>	Dust nuisance from the excavated and stockpiled materials	<p>Objective: To avoid dust nuisance from excavated materials or construction materials</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Implement dust suppression measures e.g. regular watering 2) Concrete mixing to be carried out away from sensitive areas 3) Develop and implement dust monitoring programme 	<p>Appropriate management of dust</p> <p>No complaints from public</p> <p>No complaints from site staff</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Site management ~ <i>Noise</i>	Noise nuisance from construction equipment	<p>Objective: To avoid noise nuisance from construction equipment</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Limit working hours of noisy equipment to daylight hours 2) Fit silencers to equipments 3) Develop and implement noise monitoring programme 	<p>Appropriate management of noisy activities</p> <p>No complaints from public</p> <p>No complaints from site staff</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>
	Site management ~ <i>Public health and safety</i>	Hazardous conditions to landowners and members of the public	<p>Objective: Provide adequate warning to landowners/ public regarding potential hazards and ensure safe access where required</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Ensure adequate signboards to landowners/ public about the work, particularly where work abuts major public thoroughfares like the N2 2) Implement requisite traffic safety measures where abutting roads 3) Ensure adequate accessibility to landowners/ public where required for safe access 	<p>Safe conditions for public</p> <p>No members of the public/ landowners injured</p> <p>Signboards put up before construction commences</p> <p>Provision of safe access routes for landowners/ public, which are clearly demarcated and visible</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental Consultant/ in-house environmental staff</p> <p>ESKOM</p>
	Closure ~ <i>Environmental integrity</i>	Environmental integrity of site undermined resulting in reduced visual aesthetics, erosion, compromised land capability and on-going management intervention	<p>Objective: To ensure that the site is appropriate rehabilitated following the execution of the works, such that residual environmental impacts are remediated or curtailed</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Remove all temporary facilities and waste materials 2) Replace stockpiled topsoil 3) Install necessary drainage works and anti-erosion measures 4) Landscape and revegetate disturbed areas with appropriate vegetation 5) Ensure that the Contractor is required to maintain revegetated areas until an acceptable cover has been achieved 	<p>All portions of site, including construction camp and working areas, cleared of equipment and temporary facilities</p> <p>Topsoil replaced on all areas, and stabilised</p> <p>Disturbed areas rehabilitated</p> <p>Acceptable cover achieved on closed site</p> <p>Closed site free of erosion</p>	Contractor	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	Following execution of the works	<p>Site Engineer</p> <p>Environmental consultant/ in house environmental staff</p> <p>ESKOM</p> <p>DEAT/ DEA&DP</p>

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
Transmission line and substation ^{xvi}	Implementation of <u>general</u> environmental management requirements, and monitoring/enforcement of said implementation	Negative impacts on environment during construction of transmission line and substation	<p>Objective: To ensure that the construction of the transmission line and substation do not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Appoint an Environmental Control Officer (either independent or in-house) 2) Develop and implement an environmental auditing system for the construction phase 3) Audit the Contractor compliance with the requirements of the in-house EMPs for Line Construction and Substation Construction/ Refurbishment Work 	<p>Environmental impacts effectively monitored and managed during the construction phase with no residual impacts on the environment</p> <p>Comprehensive record of compliance available to authorities and proponent</p>	<p>Contractor (implementation)</p> <p>Site Engineer & Environmental consultant/ in-house environmental staff (monitoring and enforcement)</p>	<p>Contract document</p> <p>In-house EMPs (<i>i.e.</i> for Line Construction and Substation Construction/ Refurbishment Work)</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental consultant/ in house environmental staff</p> <p>ESKOM</p> <p>DEAT/ DEA&DP</p>
	Implementation of <u>project specific</u> environmental management requirements, and monitoring/enforcement of said implementation	Negative impacts on environment during construction of transmission line and substation	<p>Objective: To ensure that the construction transmission line and substation do not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Appoint an Environmental Control Officer (either independent or in-house) 2) Develop and implement an environmental auditing system for the construction phase 3) Audit the Contractor compliance with the project specifications produced to augment the in-house EMPs 	<p>Environmental impacts effectively monitored and managed during the construction phase with no residual impacts on the environment</p> <p>Comprehensive record of compliance available to authorities and proponent</p>	<p>Contractor (implementation)</p> <p>Site Engineer & Environmental consultant/ in-house environmental staff (monitoring and enforcement)</p>	<p>Contract Document</p> <p>[Note: costs covered within contract price]</p>	During Construction Phase (from site establishment to Contract Completion)	<p>Site Engineer</p> <p>Environmental consultant/ in house environmental staff</p> <p>ESKOM</p> <p>DEAT/ DEA&DP</p>

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Communication with Contractor and his staff	Inability to communicate effectively with the Contractor regarding their environmental obligations	<p>Objective: To ensure that there is effective communication with the Contractor on environmental issues</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Include environmental considerations as an item on the agenda of the monthly site meetings for each Contractor 2) Include environmental considerations in the Contractors programme (where relevant) 3) Appoint a senior manager on the Contractors staff as the designated Environmental Officer, empowered to managed compliance with the environmental requirements on behalf of the Contractor 4) Compile and implement the necessary Method Statements 5) Undertake environmental awareness training of all site staff 	Environmental management requirements are proactively communicated with the Contractor and reflected in a more responsible approach to construction	Contractor Site Engineer Environmental consultant/ in-house environmental staff	Contract Document Programme Meetings	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM
	Communication with public	Inability to deal with public queries and complaints	<p>Objective: To ensure that the public has a mechanism to contact a responsible individual in order to obtain information or report complaints</p> <p>Mechanism</p> <ol style="list-style-type: none"> 1) Provide a contact number of someone responsible for the site on the site signage 2) Maintain a complaints register on site to allow public complaints to be recorded. Complaints should be noted and signed off at site meetings. 	Public are able to communicate effectively with the relevant members of the project team either to obtain information or lodge complaints	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant/ in-house environmental staff ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
5. ENVIRONMENTAL MANAGEMENT OF THE OPERATIONAL AND DECOMMISSIONING^{xviii} PHASES								
OCGT ^{xx} and associated infrastructure (including substation, fuel pipeline, water source and conveyance and access road)	Environmental management documentation and procedures	No framework within which to locate the management of the operational and decom. phases No procedures against which to assess environmental performance during the operational and decom. phases and thus no measure of compliance	Objective: To develop environmental management documentation and procedures which are consistent with the existing Environmental Management Procedures and will ensure the effective and proactive management of the operational and decom. phases Mechanism: 1) Use the Peaking Business Unit Environmental Management Procedure as the basis to develop site specific environmental documentation and procedures for the Mossel Bay OCGT and its associated infrastructure 2) Ensure that Environmental Management Procedures provide site specific environmental policies and management plans that comply with ESKOM's EMS 3) Ensure that the procedures are practical and implementable on the site	Environmental Management Procedure for the MB OCGT and associated infrastructure which is consistent with the Business Units existing documents, complies with ESKOM's EMS requirements and will ensure effective management of the operational and decom. phases	Environmental Consultant/ in-house environmental staff	EIA documentation Specialist studies Framework EMP In-house procedures (<i>i.e.</i> Peaking Business Unit Environmental Management Procedure) ESKOM EMS	Prior to the onset of operation	ESKOM
	Environmental management of the operational phase	Negative impacts on environment during operation	Objective: To ensure that the operation of the OCGT and associated infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed Mechanism: 1) Implement the operational phase management procedures outlined in the Environmental Management Procedure	Environmental impacts effectively monitored and managed during the operational phase with no residual impacts on the environment Comprehensive record of compliance and remedial actions available to ESKOM and the authorities	ESKOM (in-house environmental staff)	Environmental Management Procedure ESKOM EMS	During operation	ESKOM
	Environmental management of the decom. phase	Negative impacts on environment during decom.	Objective: To ensure that the decom. of the OCGT and associated infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed Mechanism: 1) Implement the decom. phase management procedures outlined in the Environmental Management Procedure	Environmental impacts effectively monitored and managed during the decom. phase with no residual impacts on the environment Comprehensive record of compliance and remedial actions available to ESKOM and the authorities	ESKOM (in-house environmental staff)	Environmental Management Procedure ESKOM EMS	During decom.	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
Transmission line and substation	Environmental management documentation	No policies or procedures to guide environmental management of activities associated with the maintenance, and decom. of the transmission lines and substation	<p>Objective: To ensure that the requisite policies and procedures are implemented to ensure the effective and proactive management of the maintenance, operation and decom. of the transmission lines and associated substation</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Revise the existing transmission policies and procedures (were necessary) to ensure that they adequately cater for the specific environmental issues associated with the current infrastructure 2) Ensure that Environmental Management Procedures provide site specific environmental policies and management plans that comply with ESKOM's EMS 3) Ensure that the procedures are practical and implementable on the site 	Environmental management policies and procedure for the transmission line that complies with ESKOM's EMS requirements and will ensure effective management of the operational and decom. phases	Environmental Consultant/ in-house environmental staff	EIA documentation Specialist studies Framework EMP In-house procedures (<i>i.e.</i> those developed by transmission, including access to farms, bird collision, nesting and perching, erosion management, fire protection, gate management, vegetation management <i>etc.</i>) ESKOM EMS	Prior to the onset of operation	ESKOM
	Environmental management of the operational phase	Negative impacts on environment during maintenance and operation	<p>Objective: To ensure that the maintenance and operation of the transmission infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed</p> <p>Mechanism:</p> <ol style="list-style-type: none"> 1) Implement the maintenance and operation environmental management procedures 	Environmental impacts effectively monitored and managed during maintenance and operation with no residual impacts on the environment Comprehensive record of compliance and remedial actions available to ESKOM and the authorities	ESKOM (in-house environmental staff)	Transmission environmental policies and procedure ESKOM EMS	During maintenance and operation	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Environmental management of the decom. phase	Negative impacts on environment during decom.	<p>Objective: To ensure that the decom. of the transmission infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed.</p> <p>Mechanism:</p> <p>1) Implement the decom. environmental management procedures</p>	<p>Environmental impacts effectively monitored and managed during decom. with no residual impacts on the environment</p> <p>Comprehensive record of compliance and remedial actions available to ESKOM and the authorities</p>	ESKOM (in-house environmental staff)	<p>Transmission environmental policies and procedure</p> <p>ESKOM EMS</p>	During decom.	ESKOM

ⁱ EIA = Environmental Impact Assessment

ⁱⁱ RoD = Record of Decision

ⁱⁱⁱ DEAT = Department of Environmental Affairs and Tourism

^{iv} ECA = Environmental Conservation Act

^v HWC = Heritage Western Cape

^{vi} SAHRA = South African Heritage Resources Agency

^{vii} NEM = National Environmental Management Act, the umbrella Act under which the Air Quality Act is promulgated)

^{viii} APPA = Air Pollution Prevention Act

^{ix} NEMAQA = National Environmental Management Air Quality Act

^x DWAF = Department of Water Affairs and Forestry

^{xi} The in-house EMPs may need to be augmented with project specific “project specifications” to ensure that the environmental issues are comprehensively addressed in the Tender Document.

^{xii} Within this context BPEO, or Best Practicable Environmental Option, is defined as “for a given set of objectives, the option that provides the most benefits or least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term” (Royal Commission on Environmental Pollution, 1988). Here environment includes both the social and biophysical components.

^{xiii} It is assumed that the source of water would have been resolved as part of the EIA process as highlighted under Section 1 of the fEMP

^{xiv} It is understood that effect will be given to the requirements listed here by ensure that they are integrated as specifications (where appropriate) in the Tender Document, as highlighted under Section 2.

^{xv} More detail is provided on the OCGT and related infrastructure since ESKOM has no standard in-house environmental management procedures in this regard.

^{xvi} DEA&DP = Department of Environmental Affairs and Development Planning

^{xvii} This section is intentionally less detail than the preceding section as ESKOM has in-house EMPs to address the transmission line construction aspects of this project and these should be implemented during the construction phase.

^{xviii} Abbreviated to decom.

^{xix} More detail is provided on the OCGT and related infrastructure since ESKOM has no standard in-house environmental management procedures in this regard.

ANNEXURE R:
REVIEW OF DRAFT EIR AND CONSULTANT TEAM'S
RESPONSE

**INTERNAL REVIEW OF THE NINHAM SHAND
DRAFT ENVIRONMENTAL IMPACT REPORT
FOR ESKOM'S
PROPOSED OPEN CYCLE GAS TURBINE PLANT
AT MOSSEL BAY**

8 October 2005



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1.0 INTRODUCTION

This report consists of an internal review of the EIA investigation prepared by Ninham Shand for the Eskom Open Cycle Gas Turbine (OCGT) Power Plant Project at Mossel Bay. The review is based on the Draft Environmental Impact Report, dated September 2005.

The review considers and provides answers to the questions referred to in Section 2 below.

2.0 KEY REVIEW QUESTIONS

Is the environmental consultant financially independent of the developer and, if not, is this a criterion for the environmental consultant's disqualification from the project?

Ninham Shand (NS) is an international engineering and environmental consulting firm. The OCGT Power Plant is an Eskom project. As far as I know, there are no links between NS and the proponent and NS does not stand to benefit in any way from the project going ahead. The leaders of the environmental team should therefore have faced no conflict of interest in the preparation of objective and independent reports.

2.1 Have the principles underpinning IEM and NEMA been applied?

Much of this question will be answered in the specific responses to other questions. Overall, the report shows the clear intent to address the issue of economic, social and ecological sustainability, notwithstanding the practical difficulties involved in the evaluation of projects in terms of this concept.

2.2 Has the consultant met the legal obligations of the regulations under the Environmental Conservation Act (Act 73 of 1989) with respect to document submissions and approvals?

All requirements have been met. Specifically, the following submissions have been made by NS:

Section of the ECA Regulations	Description	Compliance by NS	
		Submission	Approval
4(2)	Application	Yes	-
5(1)	Plan of Study for Scoping	Yes	Yes
6	Draft Scoping Report	Yes	Yes
6	Final Scoping Report	Yes	Yes
7	Plan of Study for EIR	Yes	Yes
8	Draft EIR	Yes	

2.3 Has the need for the project been clearly defined in the report?

The motivation for the project is described in Section 1 of the Draft EIA Report. Eskom's intent in respect of future planning, and the strategy that is being followed to manage the problems of peaking power, are clearly described. The motivation for the project appears to be soundly thought out and a review of the Issues and Response Report shows no evidence that stakeholders materially disagree with the need for the project.

While the motivation for the project is not critically examined in the EIA, and while this may be necessary in cases where the need is not clearly defined, or where there is major dispute about the project, NS references the fact that the strategic level context for the study was reviewed in the Scoping Study and was ratified by the environmental authorities as a point of departure of the EIA.

2.4 Has a broad definition of the term 'environment' been adopted in the planning and assessment?

This question is relevant because environmental assessments are often limited to issues that are of an 'environmental nature'. Most EIAs fail to integrate issues relating to need and desirability. In environmental terms, they lack an assessment which demonstrates the sustainability of the proposals-defined in NEMA as an appropriate balance between economic growth, social equity and ecological integrity.

While the NS study does not venture into the debate about strategic alternatives to the OCGT, and the 'no go' alternative, which would highlight questions and issues at a strategic level, is not investigated (the client's view that this is an unacceptable option is accepted by the consultants as a point of departure); the study does, at a project level, consider the broad questions relating to biophysical, social and economic impacts.

To the extent that Eskom's position that excludes a 'no go' alternative is a valid point of departure for the EIA - and this appears to be reasonable and has not been challenged by stakeholders – the focus of the study on the project level effects on the biophysical, social and economic environment in the Mossel Bay area is reasonable.

2.5 Was the procedure that was followed in the planning and assessment process adequate for the proposal concerned?

In my opinion, the depth and quality of work done for the EIA investigation prepared by NS reflects the importance of the proposal concerned. Pre-evaluation has been sufficiently detailed, systematic and inclusive of all issues. Consultation with stakeholders has covered all interest groups who could reasonably be expected to want to express an opinion about the project.

2.6 Has the public and authority consultation provided a fair and reasonable opportunity for all I&APs to participate in the scoping?

The consultation process during the scoping phase of the project succeeded in obtaining the views of the relevant stakeholders who had a legitimate interest in contributing to the EIA. Chapter 4 of the Draft EIA briefly describes the process that was followed to solicit public comment, both during the scoping and in the Draft EIA review. The methods used and the timeframes provided for comment have been appropriate throughout the EIA process.

There has, however, been little stakeholder interest in the Draft EIA. Only eight stakeholders attended the open house and public meeting on 15 September 2005 and no written comment has been received by NS. Attendants at the meeting included representatives of the Siyaqala Business Forum, the Dana Bay Residents Association and two private individuals. There is no indication in the meeting minutes or in the draft Issues Trail as to who the private individuals were.

It is understood that all registered stakeholders on the database were notified of the availability of the Draft EIA and the opportunity to attend the public meeting and open day on 15 September 2005. I therefore conclude that despite the apparent lack of interest from stakeholders, the process that was followed by NS meets the legal requirements of the Environment Conservation Act and NEMA for public participation in EIAs.

2.7 Do the members of the specialist study team have an appropriate track record in support of the work being done?

All of the specialists involved in the EIA are recognized experts in their field.

2.8 Is it clear where accountability lies for future work?

The report includes a 'Framework EMP' as an Appendix which describes all of the proposed mitigation and the responsibility for implementing each action.

2.9 Is there a rigorous definition of issues and the investigations necessary to address them, based on scoping?

Issues are defined in the Draft EIR and the approach that was followed in order to determine them during the scoping phase of the project is documented. An account is provided of those issues that were excluded from the EIA as a result of the scoping. The issue definition is satisfactory, taking into consideration that there is detail provided in the accompanying specialist studies, although I would have preferred to see a more detailed account of the scoped issues in the main EIR itself, over and above a simple listing of key areas of assessment. For example, the statement that '*Impact on flora*' (page 32) is a potential issue that was defined as requiring further investigation is hardly illuminating. Such a definition could have been achieved without any of the extensive effort expended by many people in the scoping.

2.10 Have the consultants identified the implications of all relevant legislation, policies, norms and standards applicable to the environmental aspects of the project?

The EIR lacks attention to legislation, policies, norms and standards (LPN&S) applicable to the environment. There is no reference in the body of the main EIA to legal or policy requirements which would govern the assessment of impact. Only two of the specialist studies specifically refer to assessment criteria: the air quality study and the noise impact study.

LPN&S help to assess the significance of impacts. Compliance with legislation affecting aspects of the environment is a legal obligation and the EIR needs to demonstrate whether there is compliance or not. Policies, standards and guidelines assist specialists to make reasoned and defensible judgments about impacts. In the absence of this, application of the impact ranking criteria referred to in Section 5.2 of the EIR (Assessment Methodology) is difficult and often arbitrary.

The botanical study provides an example of the problems in this regard. The same comments would apply to the fauna study. The botanical study refers to a number of conservation plans and other reports which presumably assist to make a judgment about the significance of the vegetation being affected by the project. The study does not say:

- Whether these reports, or any other reports provide guidelines as to how impact on threatened vegetation types or species should be judged;
- Whether impacting on a threatened species or plant communities is legal or illegal;
- How the terminology concerning 'threatened species' is derived and what this implies in terms of conservation requirements.

Such information would help the specialist to motivate the significance of forecast impacts and would help the reader of the EIR to understand the context within which judgments about significance are made. Hence, where the specialist says that all areas of natural vegetation within *Swellendam Silcrete Fynbos* have high conservation value (page 10&11), we would know:

- Whether there is legislation protecting fynbos;
- Whether there are generally agreed policies/plans/guidelines according to which judgments about fynbos impacts can be made;
- What makes fynbos so important that Eskom should spend money avoiding it?

In the present case, it does not appear that the absence of attention to specific LPN&S requirements has had a major impact on the validity of the findings of the study, since the lowest impact alternatives have been motivated and (presumably accepted) by Eskom. Clear definition of how impacts are judged becomes more important when there is dispute about alternatives because of cost implications. Nevertheless, NS should consider including a section in the report about LPN&S requirements, or specifically deal with these requirements in the relevant specialist sections.

2.11 Is adequate attention given to substansive and incremental alternatives identified during the scoping stage?

Substansive alternatives are excluded from the terms of reference of the EIA, with explanation. Incremental alternatives (specifically the OCGT power plant siting within a pre-selected area and route alternatives for the fuel pipeline and transmission lines) are thoroughly investigated and recommendations are made concerning the preferred option. It is understood that Eskom has accepted these recommendations.

During the course of the EIA one of the stakeholders queried why the OCGT could not be located at the substation site. This raises the broader issues concerning the motivation for the location of the OCGT plant site and the acceptability of one site as the only realistic alternative within which the assessment was framed. The EIR needs to make specific reference to this issue and justify the basis for the OCGT location. In my view, this is not a strategic issue and would not be considered to be outside of the study terms of reference.

2.12 Does the report consider the possibility of cumulative impacts?

The key specialist studies in which cumulative assessment is required are the air quality assessment, the noise assessment and the visual assessment. In each of these studies, the method employed specifically takes cognizance of cumulative impacts and, in particular, the combined effect of the power station and the PetroSA plant.

2.13 Are the criteria for evaluating the relative importance of different impacts explicit and logical?

Impact ranking scales are described and used in the assessment of all impacts in the EIR. A combined colour coded ranking is prepared in the final chapter of the report (Table 6-1), which is a useful shorthand way of presenting the relative impacts of all of the alternatives. While NS are clearly aware of the difficulties of ranking significance, and refer to the issues surrounding subjectivity in Chapter 5.3, they did not attempt to weight the relative significance of the rankings given by the individual specialists. Nor do they provide any indication of their view in respect of the relative significance of the various impacts, which, at face value, means that they consider the table to be an accurate reflection of their relative importance, with flora, avifauna and visual impact being the most significant across most alternatives.

In the absence of clear criteria for assessment of all of the impacts, and critical analysis on the basis of these criteria, the relative importance of different impacts is lost. As I attempt to illustrate in 2.15 below, this results in conclusions that are not necessarily warranted.

2.14 Is the information synthesized and integrated indicating the main issues to be evaluated?

The information is well structured, providing a clear account of the main issues to be evaluated.

2.15 Are the judgments around the issue of significance valid? Is it clear how they were made?

Where specific criteria (standards/guidelines/legislation) exist on which to base a judgment, the specialist is partially relieved of the duty of developing a credible argument around significance (refer to my earlier comments under 2.10 and 2.13). This, in itself, carries risks since legislation, standards and guidelines are not always a good measure of impact. In the case of noise, for example, the 16 hour reference period in the SANS standard tends to hide the fact that a facility that is compliant with the standard, while operating for a much shorter period, may be very noisy indeed. Such is the case with the OCGT and the consultants correctly reference this.

It is among the impacts where significance criteria are not developed that the most difficulty arises and where disputes about relative significance rankings are most likely. In my opinion, the judgments in the EIR around significance for this group of impacts are not always clear, which may have unintended or unwarranted consequences for the project. The issue surrounding agricultural land versus fynbos is a case in point. According to NS, two of the transmission line routes which impact on fynbos (Options 1&3) have a *high* negative significance, while one (Option 2) has *high to medium* negative significance. Options 1&3 can be mitigated, according to the report, to medium significance while Option 2 can be mitigated to low significance. No evidence is presented in the report as to how these rankings are arrived at, other than to say that because Option 2 is shorter and straighter it therefore has lower impact significance and is preferred (page 1, Specialist Botanical Report). No information is provided about how much fynbos is expected to be lost, taking into consideration the small footprint of a cross rope suspension tower, or the possibility, over short distances, of minimizing the construction damage caused. I would hazard a guess (while not being an ecologist), that the impact on biodiversity or threatened species (two possible criteria according to which impact could be judged) would be

negligible in any of the three cases, subject to a reasonable level of construction management.

In my opinion, the rank given to the botanical impacts is fairly arbitrary, and reflects nothing more than the obvious fact that one option has less impact than another, without any meaningful indication of how significant that impact is, compared with say farming impacts. It also seems unlikely that the impacts cannot be mitigated, regardless of the option selected. Since negotiations with farmers can be difficult and protracted and expropriation procedures are very lengthy, a more reasonable finding that any of the routes would be acceptable, subject to mitigation, would provide Eskom with some flexibility without significantly compromising environmental standards.

I suggest that NS review the report in respect of the relative significance of rankings, and consider revised conclusions in those cases where a clear case cannot be made for the ranking in question.

2.16 Are the Terms of Reference (TORs) for the specialist studies in the EIA adequate?

The TORs for the specialist studies were properly and clearly defined.

2.17 Is the information in the report clear, accurate, unbiased and credible?

Notwithstanding the comments made earlier about the judgments around significance, the report is of a high standard, being concise, clear and objective and providing a suitable basis for decision making

2.18 Other Issues

NS should reconsider some of the Assumptions and Limitations listed in Section 1.5:

- Bullet 3: It is not valid that the EIA lead consultant assumes that the specialist studies are accurate and unbiased. It is the responsibility of the EIA lead to guide and critically examine these studies
- Bullet 5: It is not clear why it is necessary to list this as an assumption or limitation
- Bullet 6: Again, it is not clear what is being assumed here, or what is limiting
- Bullet 7: As above

3.0 CONCLUSIONS

In my view, the main issues that need attention in the Draft EIR are to do with the significance rankings of the impacts, in those cases where the impact is not determined by legislation or defined standards. These rankings should be critically reviewed. In those cases where there are not clear criteria set for the ranking of significance, an attempt should be made to do so. It would be helpful to have a more comprehensive discussion, possibly in the conclusions, about the relative importance of the impacts that the project will cause. This is where the reader expects to find evidence of the experience of the lead consultant and meaningful interpretation of ranking scales.

ENVIRONMENTAL CONSULTING TEAM'S RESPONSE TO THE INTERNAL REVIEW OF THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR ESKOM'S PROPOSED OPEN CYCLE GAS TURBINE POWER PLANT AND ASSOCIATED INFRASTRUCTURE IN MOSSEL BAY

This document reflects the response to the report titled "Internal Review of the Ninham Shand Draft Environmental Impact Report for Eskom's Proposed Open Cycle Gas Turbine Plant at Mossel Bay" of 8 October 2005 prepared by Mark Wood Consultants.

2.6 ~ Second paragraph

The reviewer had sight of the draft Issues Trail prior to its finalisation. There were in fact 13 attendees at the public forum held on 15 September 2005 and the finalised Issues Trail has captured the verbal input from the specified individuals, as well as the proponent and consulting team's responses. The final Issues Trail thus serves as the minutes of the public forum. Copies of all the written comments received have been provided as an annexure to the final EIR.

2.9 ~ First paragraph

A detailed account of the scoped issues is contained in the Scoping Report of June 2005. The need to read the final EIR in the context of the information contained in the Scoping Report is recognised in Section 3.3 of the final EIR.

2.10 ~ First paragraph

The legislation, policies, norms and standards relevant to this project are described in detail in the Scoping Report of June 2005. The need to read the final EIR in the context of the information contained in the Scoping Report is recognised in Section 1.2 of the final EIR. The legal framework, policies, norms and standards have informed the approach to the EIR and the determination of the significance of potential impacts.

2.10 ~ Second paragraph

While this observation is acknowledged, the methodology applied in rating the significance of the impacts identified as possibly relevant to this project is regarded as sufficiently rigorous to meet the criterion of best practice.

2.10 ~ Third paragraph

Specialist terms of reference were not so prescriptive that absolute statements were expected from the specialists. Rather, the lead consultants expected to apply their minds to the information provided by the specialists and to interrogate, analyse and interpret this in terms of how it would assist in ensuring accountable decision-making on the part of the environmental authorities.

2.10 ~ Fifth paragraph

An amendment has been made to the final EIR (see Section 1.2) that reflects the importance of recognising legal requirements, policies, norms and standards relevant to this project. However, comprehensive and qualitative information is lacking in respect of many of the impacts, as well as in the disciplines for which specialist input was sought. Consequently, the assessment of significance has had to rely on the considered opinion of the lead consultants and specialists. While the risk of subjectivity is acknowledged (see Section 5.3), we believe that the methodology is transparent, explicit and robust and provides a reliable and defensible level of certainty for decision-making by the authorities.

2.11 ~ Second paragraph

The issue of the location of the site for the OCGT power plant has been considered since the inception of this EIA process. See Section 2.3 of the Scoping Report and Item 4 of Annexure S of the final EIR in this regard. However, on balance it would appear that the significance of the biophysical and socio-economic impacts that would result from the OCGT power plant being located at the Proteus substation would result in this option being rejected by the environmental authorities and certain sectors of the array of identified I&APs alike. In particular, the spatial extent of the cut and fill that would be necessary to create a platform for the power plant would impact severely on indigenous vegetation that has very high conservation value. An area of a minimum of 14 ha would be required for this purpose and a previous study by the botanical specialist has identified a “highly sensitive” area adjacent to the substation. Such extensive earthworks would also be highly visible within a rural setting and the construction of a fuel supply pipeline from PetroSA to the Proteus site would require considerably more direct habitat destruction than an overhead transmission line. There is also a suite of technical considerations that would pose constraints related to the OCGT power plant being located at Proteus, such as additional land acquisition, excessive engineering costs etc.

2.13 ~ First and second paragraphs

Regarding the issue of ranking of impacts in terms of their significance, it is acknowledged that such weighting was not undertaken. Each impact was evaluated in isolation according to the methodology described in Section 5.2. This takes cognisance of impacts that are quantifiable being dealt with empirically insofar prescribed standards are concerned - i.e. air quality and noise impacts - while those that can only be assessed on a nominal or ordinal scale of measurement were dealt with accordingly. The resulting significance ratings should then be able to inform decisions between alternatives as well as be able to form a basis for making trade-offs between impacts, ie weighting. This approach is not out of the ordinary, since the application of weighting in impact assessment methodology in South Africa is not commonly undertaken.

2.15 ~ Second paragraph

The concern regarding the means by which the significance ratings are arrived at relate to the previous section, viz. 2.13 above. We reiterate that impacts were evaluated in a relative manner which resulted in those impacts that are quantifiable being dealt with empirically insofar prescribed standards are concerned and those that can only be assessed on a nominal or ordinal scale of measurement were dealt with accordingly. We do not believe that a revision of the relevant sections of the EIR is warranted and that the manner in which attention has been drawn to the significance of possible impacts is sufficiently insightful for informed decision-making on the part of the environmental authorities.

Having applied the approach and methodology described in Sections 1.4 and 5.2 of the EIR, the outcome of the evaluation, as summarised in Table 6.1, highlights the impacts on flora, avifauna, visual effects, noise and landuse in particular. While it may be argued that these would pose negligible impacts when the prescribed mitigatory measures are implemented and when the proposed project is viewed at a regional or national scale, the application of the precautionary principle as required by the pending National Environmental Management Act makes this an appropriate assessment.

2.18 ~ Bulleted items

The suggested amendments have been made to this section of the EIR.