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# OPEN CYCLE GAS TURBINE POWER PLANT IN MOSSEL BAY: ADDITIONAL UNITS

Plan of Study for EIA

November 2006

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# OPEN CYCLE GAS TURBINE POWER PLANT IN MOSSEL BAY: ADDITIONAL UNITS Plan of Study for EIA

# 1 BACKGROUND TO THE STUDY<sup>1</sup>

In 2005, Eskom commissioned an Environmental Impact Assessment (EIA) process for an Open Cycle Gas Turbine (OCGT) power plant adjacent to the PetroSA facility in Mossel Bay. The EIA was completed late in 2005 and a positive Record of Decision was issued by the Department of Environmental Affairs and Development Planning (DEA&DP) in December 2005.

Since then, there has been continued high growth in the demand for electricity. Using the planning processes in place, Eskom has established that there is a need for additional peaking capacity in order to meet the projected growth in demand for electricity. The most feasible option to meet these needs by the winter of 2008 is to install an additional 1050 MW of open cycle gas turbines. It is proposed that this capacity be added to the Atlantis and Mossel Bay sites which are both currently under construction. In order to meet the higher growth rate, Eskom has decided to upgrade the OCGT power plant (which is currently under construction) by adding three additional OCGT generating units immediately adjacent to it. Accordingly, in terms of the National Environmental Management Act (NEMA) (No. 107 of 1998), Eskom has appointed Ninham Shand Consulting Services to undertake this EIA for the proposed three additional OCGT units and any additional supporting infrastructure.

# 2 PURPOSE OF THIS PLAN OF STUDY FOR EIA

This Plan of Study for Environmental Impact Assessment (PoSEIA) has been compiled in terms of Regulation 29 of the regulations published in Government Notice No. R. 385, under Chapter 5 of NEMA. Its purpose is to ensure that the next phase of this EIA process satisfies the requirements of the national Department of Environmental Affairs and Tourism (DEAT) and the provincial DEA&DP.

It should be noted that the proponent, Eskom, is regarded as a State Owned Organisation and as such, DEAT is the competent authority for environmental decision-making. However, the possibility of DEAT delegating the authority to DEA&DP in this case, since the latter was the decision-making authority for the already approved OCGT plant, has yet to be decided. The approval of the plant presently under construction was given under the requirements of the Environment

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<sup>&</sup>lt;sup>1</sup> Detailed background information is provided in the Scoping Report and accordingly only the essential elements are reiterated here.

Conservation Act (ECA) (No. 73 of 1989), while the additional units will be considered under the requirements of NEMA<sup>2</sup>.

At this point, it may be pertinent to clarify the terminology used in the current EIA process:

- The overall process is referred to as the Environmental Impact Assessment or EIA process;
- This process is composed of three phases:
  - The Initial Application Phase;
  - The Scoping Report Phase; and
  - The Environmental Impact Assessment or EIA Phase, reflected in an EIA Report.

This PoSEIA outlines the anticipated process and products for the EIA Phase of the EIA process.

# 3 THE PLAN OF STUDY FOR EIR

# 3.1 DESCRIPTION OF THE ACTIVITY

The proposed additional units would be located immediately to the west of the present OCGT power plant and will be incorporated into the general OCGT power plant precinct, i.e. the entire area would be fenced off with a single access road.

Associated with the three generating units would be:

- A fuel storage facility with a total storage capacity of 5.4 million litres;
- Two conservancy tanks, each with a capacity of 6 000 litres;
- A control room;
- A fuel supply pipeline;
- A water supply pipeline; and
- A High Voltage (HV) yard.

At this stage of the feasibility and planning process, it is likely that the fuel storage and conservancy tanks would be located between the existing OCGT units and the proposed additional units. Fuel and water supply would be by means of continuations of the existing pipelines within the OCGT precinct. The HV yard would be located immediately north of the proposed two units and would enable the transfer of the electricity generated via bus bars to the HV yard associated with the OCGT power plant currently under construction. From there, electricity would be

 $<sup>^{\</sup>rm 2}$  ECA regulations pertaining to the undertaking of EIAs were replaced by NEMA regulations in July 2006

transported to the Proteus substation via the authorised, and presently being constructed, 400 kV transmission lines.

#### 3.2 DESCRIPTION OF TASKS TO BE PERFORMED

#### 3.2.1 Potential Environmental Impacts Identified during Scoping

The following potential environmental impacts were identified and studied in depth by appropriate specialists during the EIA for the approved OCGT plant:

- Impacts on flora;
- Impacts on avifauna;
- Impacts on air quality;
- Impacts of water consumption;
- Effluent impacts;
- Impact on traffic and access;
- Noise impacts;
- Socio-economic impacts;
- The impacts of existing infrastructure
- Visual impacts; and
- Impacts on heritage resources.

These potential impacts will be addressed in the EIA Phase of the present EIA process. However, given the nature and extent of the proposed development of three additional units, the most likely impacts of these impacts to require revision of the specialist studies already undertaken are:

- Impacts on air quality;
- Noise impacts;
- Visual impacts;
- Ecological impacts;
- Traffic impacts; and
- Social impacts.

Each of these possible impacts will be the subject of a specific study that will be reflected in a revision of the existing report dealing with that particular specialisation.

# 3.2.2 Method for Assessing the Significance of Potential Environmental Impacts

This section outlines the proposed method for assessing the significance of the potential environmental impacts outlined above. As indicated, these include both operational and construction phase impacts.

For each impact, the EXTENT (spatial scale), MAGNITUDE and DURATION (time scale) would be described. These criteria would be used to ascertain the SIGNIFICANCE of the impact, firstly in the case of no mitigation and then with the most effective mitigation measure(s) in place. The mitigation described in the EIA Report would represent the full range of plausible and pragmatic measures but does not necessarily imply that they would be implemented.<sup>3</sup>

The tables on the following pages show the scales used to assess these variables, and defines each of the rating categories.

| CRITERIA                                 | CATEGORY            | DESCRIPTION   |
|--|---------------------|---|
|  | Regional            | Beyond a 7 km radius of the OCGT power plant and<br>associated infrastructure     |
| Extent or spatial<br>influence of impact | Local               | Within a 7 km radius of the OCGT power plant and associated infrastructure        |
|  | Site specific       | On site or within 100 m of the OCGT power plant and associated infrastructure     |
|  | High                | Natural and/ or social functions and/ or processes are <i>severely</i> altered    |
| Magnitudo of impact                      | Medium              | Natural and/ or social functions and/ or processes are <i>notably</i> altered     |
| (at the indicated                        | Low                 | Natural and/ or social functions and/ or processes are<br><i>slightly</i> altered |
| spatial scale)                           | Very Low            | Natural and/ or social functions and/ or processes are<br>negligibly altered      |
|  | Zero                | Natural and/ or social functions and/ or processes remain <i>unaltered</i>        |
|  | Construction period | Up to 18 months   |
| Duration of impact                       | Medium Term         | 0-10 years (after construction)   |
|  | Long Term           | More than 10 years (after construction)   |

**Table 1:** Assessment criteria for the evaluation of impacts

The SIGNIFICANCE of an impact is derived by taking into account the temporal and spatial scales and magnitude. The means of arriving at the different significance ratings is explained in Table 2.

| SIGNIFICANCE<br>RATINGS |   | LEVEL OF CRITERIA REQUIRED   |
|-------------------------|---|--|
| High                    | • | High magnitude with a regional extent and long term duration   |
|                         | • | High magnitude with either a regional extent and medium term duration or a local extent and long term duration |
|                         | • | Medium magnitude with a regional extent and long term duration   |

<sup>&</sup>lt;sup>3</sup> The proponent will be requested to indicate at the Draft EIA Report stage which mitigation measures they are prepared to implement.

| Medium   | <ul> <li>High magnitude with a local extent and medium term duration</li> </ul>              |
|----------|--|
|          | High magnitude with a regional extent and construction period or a site                      |
|          | specific extent and long term duration   |
|          | High magnitude with either a local extent and construction period duration                   |
|          | or a site specific extent and medium term duration   |
|          | <ul> <li>Medium magnitude with any combination of extent and duration except site</li> </ul> |
|          | specific and construction period or regional and long term                                   |
|          | <ul> <li>Low magnitude with a regional extent and long term duration</li> </ul>              |
| Low      | High magnitude with a site specific extent and construction period duration                  |
|          | Medium magnitude with a site specific extent and construction period                         |
|          | duration   |
|          | • Low magnitude with any combination of extent and duration except site                      |
|          | specific and construction period or regional and long term                                   |
|          | <ul> <li>Very low magnitude with a regional extent and long term duration</li> </ul>         |
| Very low | Low magnitude with a site specific extent and construction period duration                   |
|          | • Very low magnitude with any combination of extent and duration except                      |
|          | regional and long term   |
| Neutral  | Zero magnitude with any combination of extent and duration                                   |
|          |  |

Once the significance of an impact has been determined, the PROBABILITY of this impact occurring as well as the CONFIDENCE in the assessment of the impact would be determined, using the rating systems outlined in Tables 3 and 4 respectively. It is important to note that the significance of an impact should always be considered in concert with the probability of that impact occurring.

#### Table 3: Definition of probability ratings

| PROBABILITY<br>RATINGS | CRITERIA  |
|------------------------|---|
| Definite               | Estimated greater than 95 % chance of the impact occurring. |
| Highly probable        | Estimated 80 to 95 % chance of the impact occurring.        |
| Probable               | Estimated 20 to 80 % chance of the impact occurring.        |
| Possible               | Estimated 5 to 20 % chance of the impact occurring.         |
| Unlikely               | Estimated less than 5 % chance of the impact occurring.     |

#### **Table 4:** Definition of confidence ratings

| CONFIDENCE<br>RATINGS | CRITERIA  |
|-----------------------|---|
| Cortain               | Wealth of information on and sound understanding of the environmental factors |
| Certain               | potentially influencing the impact.   |
| Suro                  | Reasonable amount of useful information on and relatively sound understanding |
| Sule                  | of the environmental factors potentially influencing the impact.              |
| Uneuro                | Limited useful information on and understanding of the environmental factors  |
| Unsure                | potentially influencing this impact.  |

# 3.2.3 Need for Revision of Specialist Studies

With reference to Section 3.2.1 above, and in discussion with the proponent, authorities and interested and affected parties (I&APs), several impacts have been

identified as being of particular concern. Accordingly, specialists have been appointed to undertake revisions of the following studies undertaken during the EIA for the approved OCGT plant:

- Air quality assessment;
- Noise impact assessment;
- Visual impact assessment;
- Ecological assessment;
- Traffic assessment; and
- Social assessment.

The Terms of Reference (TOR) for these specialist investigations are detailed below. As a consequence, I&APs have the opportunity to comment on the various TORs.

# 3.2.3.1 Specialist Air Quality Study

The proposed additional generating units will result in the release of gaseous emissions, viz. sulphur dioxide,  $NO_x$  and particulates. The proposed air quality study would investigate these potential additional impacts and provide recommendations or mitigation measures.

The ToR for the air quality study would be to revise and supplement the existing air quality study for the OCGT power plant presently being constructed, by taking into account an additional three OCGT generating units. The ToR for the original OCGT air quality study are as follows:

# • <u>The Establishment of the Baseline</u>:

- Description of the atmospheric dispersion potential of the area based on available meteorological data.
- Characterisation of the existing status of air quality based on any available air quality monitoring data.
- Provide an overview of legislative and regulatory requirements pertaining to atmospheric emissions and ambient air quality, including local and international air quality guidelines and standards.
- <u>Predicted Impacts Arising from the Proposed Plant</u>:
  - The compilation of a comprehensive emissions inventory including process and fugitive emissions. The impact assessment would consider, as a minimum, airborne particulates (inhalable and total suspended particles), oxides of nitrogen, carbon monoxide, sulphur dioxide, unburnt organic compounds, carbon dioxide (greenhouse gas) and any odorous compounds. Where possible,

engineering estimates would be used (based on similar installations). Alternatively, international emission factors would be employed which are based on gas (distillate) firing rates. Fugitive emissions include both gaseous (diffuse sources) and particulate compounds. Although only expected to be significant during the construction phase, fugitive dust emission sources include vehicle-entrained dust, earthworks, stockpiles, material transfer and general exposed areas.

- Preparation of meteorological parameters suitable for the theoretical construction of a wind field and atmospheric dispersion.
   Hourly average wind speed, wind direction and ambient air temperatures for five years would be prepared for this purpose.
- Atmospheric dispersion modelling of estimated emissions to determine resultant highest hourly, highest daily and annual average air pollutant concentrations in the vicinity of the proposed plant. The impact would be based on ground level predictions, including both air concentrations and deposition. Gas deposition would include both wet (fog) and dry. The following scenarios would be included:
  - Construction emissions;
  - o Routine and upset emissions during normal operation;
  - Emissions during shutdowns; and
  - Effects of mitigation measures e.g. optimum stack height and other engineering options.
- Impact assessment (incremental and cumulative) of the predicted air concentrations including:
  - Compliance checks with local ambient air requirements, including local authorities, DEAT and South African Standards.
  - Health risk assessment using internationally peerreviewed risk criteria (typically, the World Health Organisation, US Environmental Protection Agency [IRIS], Agency for Toxic Substances and Disease Registry [ATSDR] and Health Canada).
- Emission compliance check with local and international requirements (e.g. World Bank).
  - Impact Assessment Rating in terms of Magnitude, Significance, Frequency of Occurrence, Duration and Probability.
  - Preparation of emission and ambient air monitoring programme.

 Compilation of a comprehensive report in which the methodological approach and assumptions and uncertainties used are documented and the findings of the study presented.

Key deliverables from this specialist study would include recommendations regarding mitigation measures to reduce/ control emissions, as input into the technical design process, and guidance with respect to the development of an air monitoring protocol for inclusion in the EMP. The following general procedure would used to develop the EMP:

- Focus on Sources and Pollutants identified as significant in the EIA.
- Using emission limits and air quality guidelines, criteria and targets contained in the EIA, develop Key Performance Indicators for both air quality and emissions.
- All mitigation measures and good housekeeping measures to be associated with each source and pollutant.
- Develop a pro-forma monitoring programme, including procedures, responsibilities and reporting formats (both internal and external).
- Incorporate preliminary cost estimates

The air quality impact assessment will be undertaken by Renee Thomas and Yvonne Scorgie of AirShed Planning Professionals.

# 3.2.3.2 Noise impact assessment

The proposed additional generating units will result in an increase in noise emissions and the proposed noise study would investigate these potential additional impacts and provide recommendations or mitigation measures.

The ToR for the noise study would be to revise and supplement the existing noise study for the OCGT power plant presently being constructed, by taking into account an additional three OCGT generating units. The ToR for the original OCGT air quality study are as follows:

To conduct a noise impact study in accordance with Section 7 of the South African National Standard (SANS) 10328 "Methods for environmental noise impact assessments". The noise impacts will be assessed in terms of:

- South African Noise Control Regulations of the Environment Conservation Act, No. 73 of 1989.
- World Health Organisation Guidelines for Community Noise.
- World Bank Environmental Guidelines.

• Environmental Protection Agency, United States of America.

The specialist noise investigation would entail the following tasks:

- Determination of the land use zoning and identification of all potential noise sensitive sites that could be impacted upon by activities relating to operation of the proposed OCGT power plants at Atlantis and Mossel Bay;
- Identification of all noise sources relating to the activities of the OCGT power plants during construction and operation, and that could potentially result in a noise impact at the identified noise sensitive sites;
- Determination of the sound emission, operating cycle and nature of the sound emission from each of the identified noise sources. Representative sound measurements are required to be recorded in the vicinity of the proposed sites during different times of day and night. It is estimated that at least two and possibly three days will be needed – assuming acceptable weather conditions. Weather conditions play a deciding factor in the measurement of sound at outdoor sites since sound measurements can only be conducted when wind speeds do not exceed 5m/sec;
- Calculation of the combined sound power level due to the sound emissions of the individual noise sources;
- Calculation of the expected rating level of sound at the identified noise sensitive sites from the combined sound power level emanating from identified noise sources;
- Determination of the existing ambient levels of noise at identified noise sensitive sites by conducting representative sound measurements;
- Determination of the acceptable rating level for noise at the identified noise sensitive sites;
- Calculation of the noise impact at identified noise sensitive sites;
- Assessment of the noise impact at identified noise sensitive sites in terms of SANS 10328; the South African Noise Control Regulations; the World Health Organisation; the World Bank and the Environmental Protection Agency, United States of America;
- Investigation of alternative noise mitigation procedures, if required, in collaboration with the design engineers of the OCGT plants and estimation of the impact of noise upon implementation of such procedures;
- Preparation and submission of a noise assessment report containing the procedures and findings of the investigation; and
- Preparation and submission of recommended noise mitigation procedures as part of a separate environmental noise management and monitoring plan.

Adriaan Jongens of Jongens Keet Associates has been appointed to undertake the noise impact assessment.

#### *3.2.3.3* Visual impact assessment

The proposed additional generating units will result in an increase in visual intrusion and the proposed noise study would investigate these potential additional impacts and provide recommendations or mitigation measures.

The ToR for the visual impact assessment would be to revise and supplement the existing visual impact study for the OCGT power plant presently being constructed, by taking into account an additional three OCGT generating units. The ToR for the original OCGT visual impact study are as follows:

- Describe the existing visual characteristics of the site and its surroundings including any geology/landform features that influence them.
- Describe the visual significance of the area in terms of its history and present utilisation.
- Fully describe the proposed development.
- Determine the potential visual risks and opportunities presented by the proposed development.
- Determine the entire area from which the various elements of the proposed development will be visible (i.e. the viewshed.)
- Determine the important viewpoints from which the development will be visible and determine the nature of the visual impacts at these points.
- Prepare graphics that will aid the process of the assessment, (e.g. simulations of the development superimposed, to scale, on photographs taken from important viewpoints.)
- Assess the significance of the visual impact of the proposed development in terms of its scale, type, and character, including services and any ancillary structures pertaining to the development etc.
- Propose possible mitigation measures to minimise visual impact including changes to the design, alternative finishes and visual screening.
- Propose monitoring and review measures that will ensure long-term maintenance of visual standards.

The original visual impact assessment was undertaken by Tanya de Villiers of Chittenden Nicks de Villiers. However, the revised study will be undertaken by Steve Stead of Visual Resource Management Africa.

#### 3.2.3.4 Ecological assessment

The proposed additional generating units may result in ecological impacts and the proposed ecological study would investigate these potential additional impacts and provide recommendations or mitigation measures.

The ToR for the ecological assessment would be to revise and supplement the existing ecological study for the OCGT power plant presently being constructed, by taking into account an additional three OCGT generating units. The ToR for the original OCGT ecological impact study are as follows<sup>4</sup>::

- Broad description of the ecological characteristics of the site and surrounds;
- Identification and description of biodiversity pattern at community and ecosystem level (main vegetation type, plant communities in vicinity and threatened/vulnerable ecosystems), species level (Red Data Book species) and in terms of significant landscape features (e.g. wetlands) and presence of alien species;
- General comment on whether biodiversity processes would be affected;
- Significance of potential impacts and recommendations to prevent or mitigate these;
- Ranking in terms of flora impact severity of the transmission line route alternatives in particular; and
- Indicating the salient elements of the report on a map.

Nick Helme of Nick Helme Botanical Surveys undertook the original botanical impact assessment. However, it is intended that the revised study be undertaken by Ken Coetzee of Conservation Management Services.

#### 3.2.3.5 Traffic assessment

An issue that emerged during the public participation process undertaken to date was that the intersection with the N2 National Road and the proximity to the Dana Bay intersection are presently experiencing congestion. It will therefore be necessary to review the traffic study undertaken for the approved OCGT power plant, reassess the situation and suggest possible mitigation or control measures.

Ninham Shand's transportation engineering department will undertake this study.

<sup>&</sup>lt;sup>4</sup> Derived from the Botanical Society of SA Conservation Unit's *Recommended Terms of Reference for the Consideration of Biodiversity in Environmental Assessment and Decisionmaking.* March2005.

#### *3.2.3.6* Social assessment

Another issue that emerged during the public participation process undertaken to date was that the means of managing work seekers, skills transfer and commercial expectations established for the approved OCGT power plant is no longer functional. A social scientist will therefore be appointed to investigate this matter and provide a possible plan of action.

Liezl Coetzee, a professional social scientist, will undertake this task.

# 3.2.4 Project Alternatives Identified during Scoping

The proposed additional units are essentially an upgrading of the OCGT power plant and accordingly alternative geographical locations will not be considered in this EIA. In terms of specific sites, the area to the west of the OCGT power plant is the only feasible option. This is due to the OCGT HV yard to the north, PetroSA's expansion plans to the east and the potential expansion of the landfill site to the south.

Alternative technologies for this capacity increase will not be considered in this Scoping and EIA process. The power station currently under construction comprises OCGT technology. OCGT technology is essentially off-the-shelf, and using this technology, from a construction and commissioning period point-of-view, will assist in meeting the deadline of winter 2008 for the additional units to be operational. OCGT plant is also the most economical supply side option at low load factors. Hence process alternatives will not be considered further in this Scoping and EIA process.

Process alternatives (e.g. measures to abate oxides of nitrogen) have been examined in the previous EIA process and the alternatives selected during that process will be implemented for the proposed OCGT units as well. Hence process alternatives will not be further investigated as part of this Scoping and EIA process.

Specific mitigation measures will be identified and assessed during the EIA Phase.

# 3.2.5 Public Participation Process

The purpose of the Public Participation Process is to provide the I&APs (key stakeholders and the public) with adequate opportunity to have input into the environmental process. A comprehensive public consultation process will underpinned the entire EIA process.

# 3.2.5.1 Public Comment on the Draft Scoping Report

The approach to the public participation has been informed by the NEMA EIA regulations (Regulation No.385). The key components of the public participation during the Scoping Phase are summarised below:

- A meeting with the landowners of the proposed site on 30 August 2006. The purpose of the meeting was to describe the proposed activities and to provide a consent form for the landowners to complete (the completed consent form was submitted to the environmental authorities as an annexure to the Application Form).
- Placing a media notice in the local newspaper, the Mossel Bay Advertiser on 6 October 2006. The media notice informed the public about the proposed project, invited the public to register and comment, notified the public of the lodging of this Draft Scoping Report in local libraries and informed them of the intention to present the Draft Scoping Report to the Environmental Liaison Committee that was established for the existing OCGT power plant. A copy of the media notice, which was published in English and Afrikaans, can be found in Annexure A.
- Lodging the Draft Scoping Report for public review and comment at the Mossel Bay and D'Almeida Public Libraries on 9 October 2006. In addition, the report was placed on the Eskom and Ninham Shand websites at <a href="http://www.eskom.co.za/eia">www.eskom.co.za/eia</a> and <a href="http://
- Posting a letter to all I&APs who were registered during the previous EIA process (for the authorised OCGT power plant) to inform them of the proposed activities and of the availability of the report. A copy of the letter can be found in Annexure F. A copy of the Executive Summary of this Draft Scoping Report was included with the letter.
- Erecting an on-site notice in an appropriate place, giving notification of the EIA process being undertaken.
- Meeting with the existing Environmental Liaison Committee (ELC) for the OCGT power plant, to present the findings of this Draft Scoping Report and to elicit questions and comments on the proposed activities. This occurred on 12 October 2006, when a slot was provided on the agenda of a scheduled ELC meeting.
- Recording comments, queries and issues raised as well as responses thereto. Annexure G provides a copy of the notes taken on 12 October 2006, together with the complete minutes of the ELC meeting. No other responses were received during the comment period provided.

The Draft Scoping Report has been finalised in light of all comments received during the Public Participation Process and submitted to DEA&DP. DEA&DP's acceptance of the Final Scoping Report and Plan of Study for EIA will then allow the EIA Phase to proceed.

#### 3.2.5.2 Public Comment on the Draft EIR

Following the completion of the Draft EIA Report (refer to Section 3.2.6 below), it will be lodged at the Mossel Bay and D'Almeida libraries and on the Eskom website (www.eskom.co.za/eia). Registered I&APs will be notified of the lodging by means of letters, and given a 30 day period in which to comment on the report. During the comment period, a public meeting would be held to enable I&APs to provide feedback on the draft report. The public meeting would be advertised in the local media and in the same letters used to inform the I&APs of the release of the Draft Report.

The public comments would be consolidated into an Annexure of the EIA Report. This would take the form of an issues trail, which would summarise the issues raised and provide responses thereto. The draft report would also be revised in light of feedback from the public.

#### 3.2.5.3 Opportunity for Appeal

All registered I&APs would be notified in writing of the release of the Record of Decision by the environmental authority. They would be reminded of their right to appeal against the authority's decision, in terms of NEMA.

#### 3.2.6 The Environmental Impact Assessment Report

The purpose of the EIA Report would be to undertake a comparative assessment of the significance of the potential environmental impacts of the project alternatives. The EIR would thus include the following:

- A brief overview of the potential environmental impacts and reasonable alternatives identified during the Scoping investigation.
- A summary of the key findings of the various specialist studies as they pertain to the affect environment.
- An overview of the public participation process conducted during the compilation of the EIA Report.
- A detailed assessment of the significance of the potential environmental impacts for the various project alternatives. This assessment, which would use the methodology outlined in Section 3.2.2, would be informed by the findings of the specialist studies, professional judgement and comment from the various I&APs.
- An overview of the full range of mitigation measures including an indication of how these would influence the significance of any potential environmental impacts. These mitigation measures would be informed by the specialist studies, professional experience and comment received from the I&APs.
- A revision of the construction phase Environmental Management Plan (EMP) to minimise the impacts of the construction phase.

• A revision of the generic operational phase EMP, which would set environmental guidelines for the operation phase of the proposed OCGT power plant and associated infrastructure.

#### 3.3 **PROPOSED PROGRAMME**

The Scoping Report was submitted to the environmental authority on 15 November 2006, after the public comment period ended on 6 November 2006. The Scoping Report will include this PoSEIA.

The Draft EIR will be released in the last week of January 2007. Given a 30 day public comment period, the finalised EIA Report should be available by the end of February 2007.