

**ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND AIR EMISSION LICENSE FOR
THE PROPOSED 4500 MW GAS TO POWER PLANT, COEGA IDZ, NELSON MANDELA BAY
METROPOLITAN AREA, EASTERN CAPE**

BACKGROUND INFORMATION DOCUMENT



MARW/SPET

BID No: 494090

JANUARY 2016

PURPOSE OF THIS DOCUMENT

This Background Information Document (BID) serves as notice (in terms of regulation 41(2) published in Government Gazette No. R982 under Section 24(5) of the National Environmental Management Act 107 of 1998), of the intent to develop a Gas to Power plant and associated infrastructure in the Coega Industrial Development Zone (IDZ), Nelson Mandela Bay.

This document provides a brief description of the proposed project and the Environmental Impact Assessment (EIA) Process that will be followed, as well as give you the opportunity to:

- **Register as an Interested and Affected Party (IAP) -**

Notifications regarding the process and the availability of reports will only be sent to registered IAPs; and

- **Provide initial comments on any environmental, social and economic issue relating to the proposed development -**

During the EIA Process that will be followed, issues of concern and potential environmental and social impacts will be evaluated. Your comments will ensure that relevant issues are evaluated and will form part of the EIA.

You are hereby invited to register your interest in the proposed activity and provide your input by completing the Registration & Comment Form at the end of this document and sending it (either via email, post or fax) to:

Wanda Marais
SRK Consulting

Postal address: P O Box 21842, Port Elizabeth, 6000
Fax: (041) 509 4850; E-mail: wmarais@srk.co.za

Your comments must reach SRK Consulting by **12:00 on 22 February 2016**, to ensure that they will be included and addressed in the first draft scoping report. You may however, request to be registered as an IAP at any time during the EIA Process and there will be further opportunities to submit comments (see Figure 1).

DESCRIPTION OF THE DEVELOPMENT

SRK Consulting (SRK) has been appointed by the Coega Development Corporation (CDC) to conduct an Environmental Impact Assessment (EIA) process for a Gas to Power project in the Coega IDZ, close to Port Elizabeth in the Eastern Cape.

The project will consist of three power plants and their associated infrastructure. One 1000 MW plant and one 2500 MW plant will be developed in Zone 10 and one 1000 MW plant will be developed in Zone 13, resulting in a total capacity of up to 4500 MW once all three plants have been developed. It is envisaged that the EIA application would be for a separate authorisation for each of these power plants.

The Power generation process makes use of Liquefied Natural Gas (LNG) that will be shipped into the Port of Ngqura where it will be stored and re-gasified. Two options exist for the storage and regasification of LNG - land based storage and regasification, or alternatively a Floating Storage Regasification Unit (FSRU). The re-gasified LNG will be conveyed via pipeline to the power generation units. The gases will be routed through a water-cooled heat exchanger to produce steam to drive the turbines. The source of the cooling water required to generate steam will most likely include seawater. The cooling water will need to be periodically flushed from the system to prevent the build-up of dissolved solids in the cooling system.

Electricity will be generated through alternators driven by each gas and steam turbine. The power plant is to be connected to the Dedisa sub-station in Zone 13 via the defined services corridor that in turn is connected to the national electricity grid via a 400 kV overhead powerline. In terms of the National Environmental Management: Air Quality Act, an Air Emission License will also be required.

LEGAL REQUIREMENTS

The environmental authorisation process prescribed for listed activities under Listing Notices 1, 2 and 3 published in Government Gazette Numbers R983, R984 and R985 respectively are defined in the Environmental Impact Assessment (EIA) Regulations made under section 24(5)

of the National Environmental Management Act, 2008 (Act No. 107 of 1998) (NEMA).

Activity 2, listed in GN.984 (Listing Notice 2) of the NEMA 2014 EIA regulations is the main activity associated with the proposed project:

GN R.984 Activity 2: The development and related operation of facilities or infrastructure for the generation of electricity from a non-renewable resource where the electricity output is 20 megawatts or more.

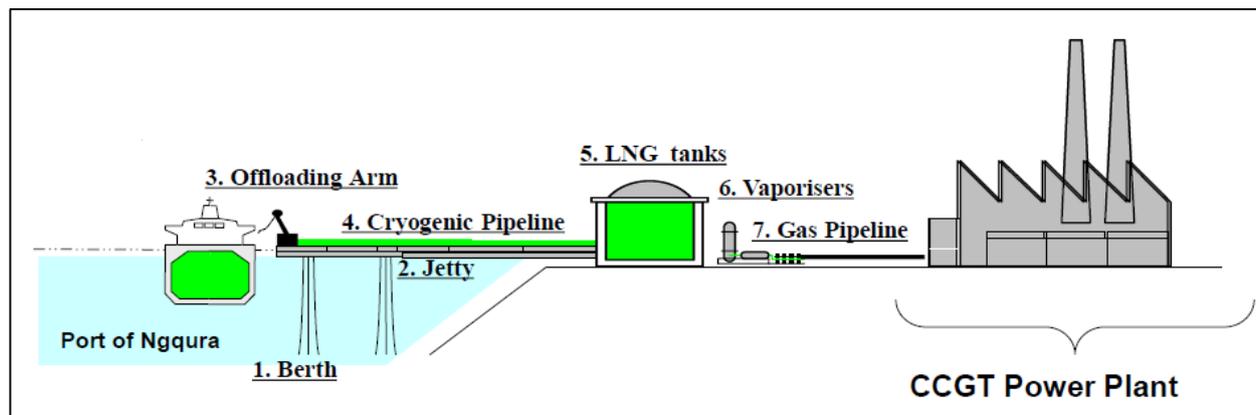


Figure 1: Conceptual representation of LNG to Power process (source: CDC)

WHAT IS AN ENVIRONMENTAL IMPACT ASSESSMENT?

An Environmental Impact Assessment (EIA) is a planning and decision-making tool that is used to identify the environmental consequences of a proposed project, before the development takes place. The purpose of the EIA is to describe the potential consequences of the proposed development in environmental, economic and social terms. Public issues and concerns must therefore be identified timeously so that these can be recorded and responded to in the EIA. All comments received in writing are included in the submission to the competent authority for their consideration.

The EIA consists of two phases. The first phase is a Scoping Study, which identifies potential issues requiring more detailed investigation via specialist studies. A complete list of specialist studies and the issues they should address will be detailed in the Draft Scoping Report, which will be made available for public and authority review.

The second phase is the Impact Assessment phase, during which detailed investigations of the issues identified during scoping, will be undertaken.

POTENTIAL IMPACTS

A number of potential impacts have been identified which will be considered further in the process as required. Typical impacts that may be investigated as part of this EIA include:

- Air Quality;
- Noise;
- Socio-Economic;
- Marine ecology; and
- Waste.

Specialist baseline and impact assessments will be conducted for those impacts that could potentially be significant and which require additional information

PUBLIC PARTICIPATION

Public participation is the cornerstone of the Environmental Impact Assessment process. The principles of the National Environmental Management Act (NEMA) govern most aspects of Environmental Impact Assessments, including public participation. These include the ongoing provision of sufficient information (in a transparent manner) to Interested and Affected Parties (IAPs).

During the Public Participation Process, input from the applicant, technical experts, government authorities and the general public will be gathered to result in a better understanding of the project for all involved, and more informed decision-making throughout the process. IAPs will be given the opportunity to comment on the findings of both the Scoping and EIA Reports, and findings of the Specialist studies during the specified comment periods.

IAPs are hereby invited to comment on environmental, social and economic issues relating to the proposed project.

To receive further communications regarding this development, please register by sending the completed and signed registration sheet at the back of this document to SRK Consulting.

ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

The flow diagram below provides an overview of the EIA process according to the 2014 EIA Regulations:

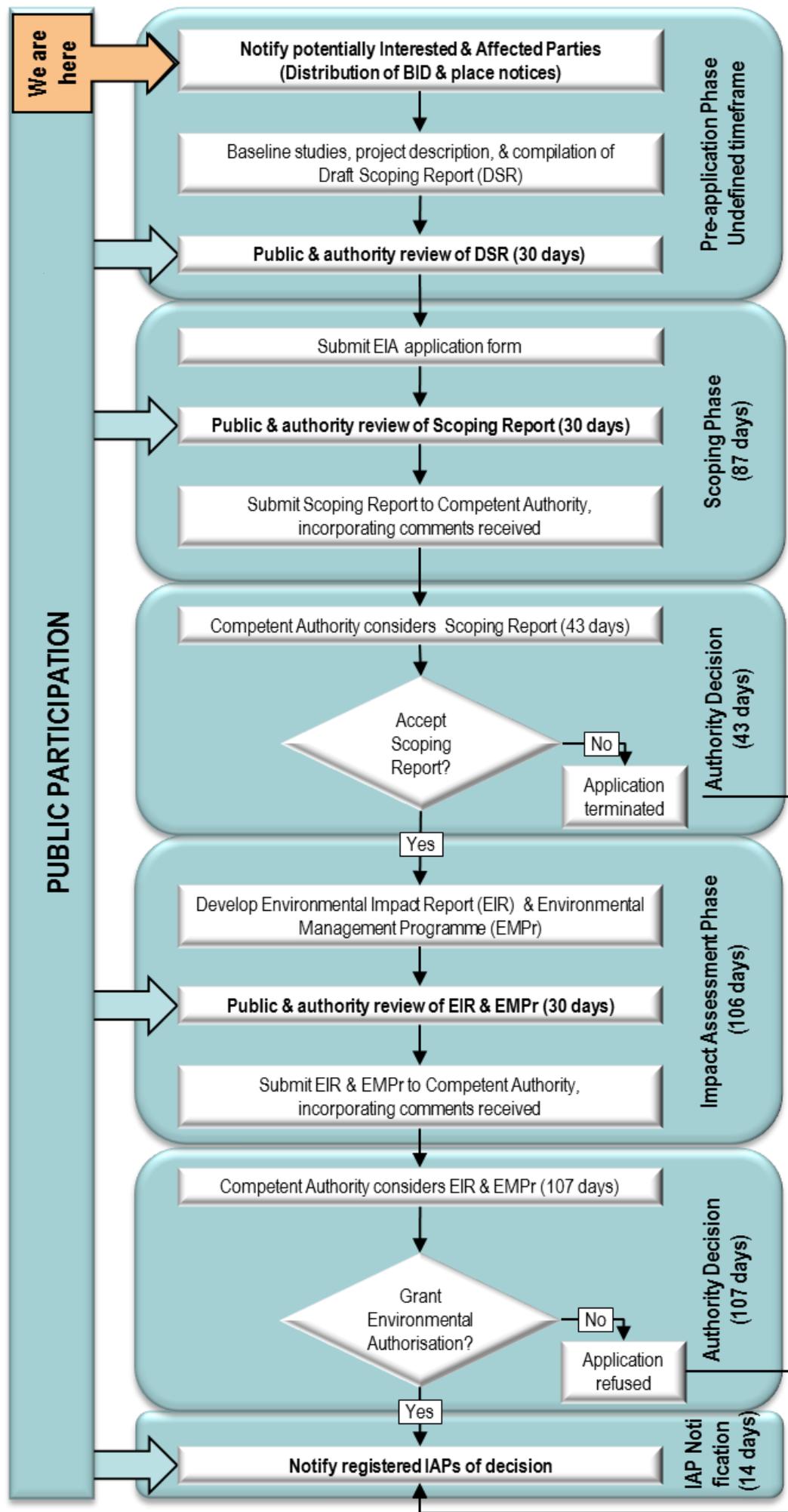


Figure 2: A typical Environmental Impact Assessment Process and stages where public comment will be invited

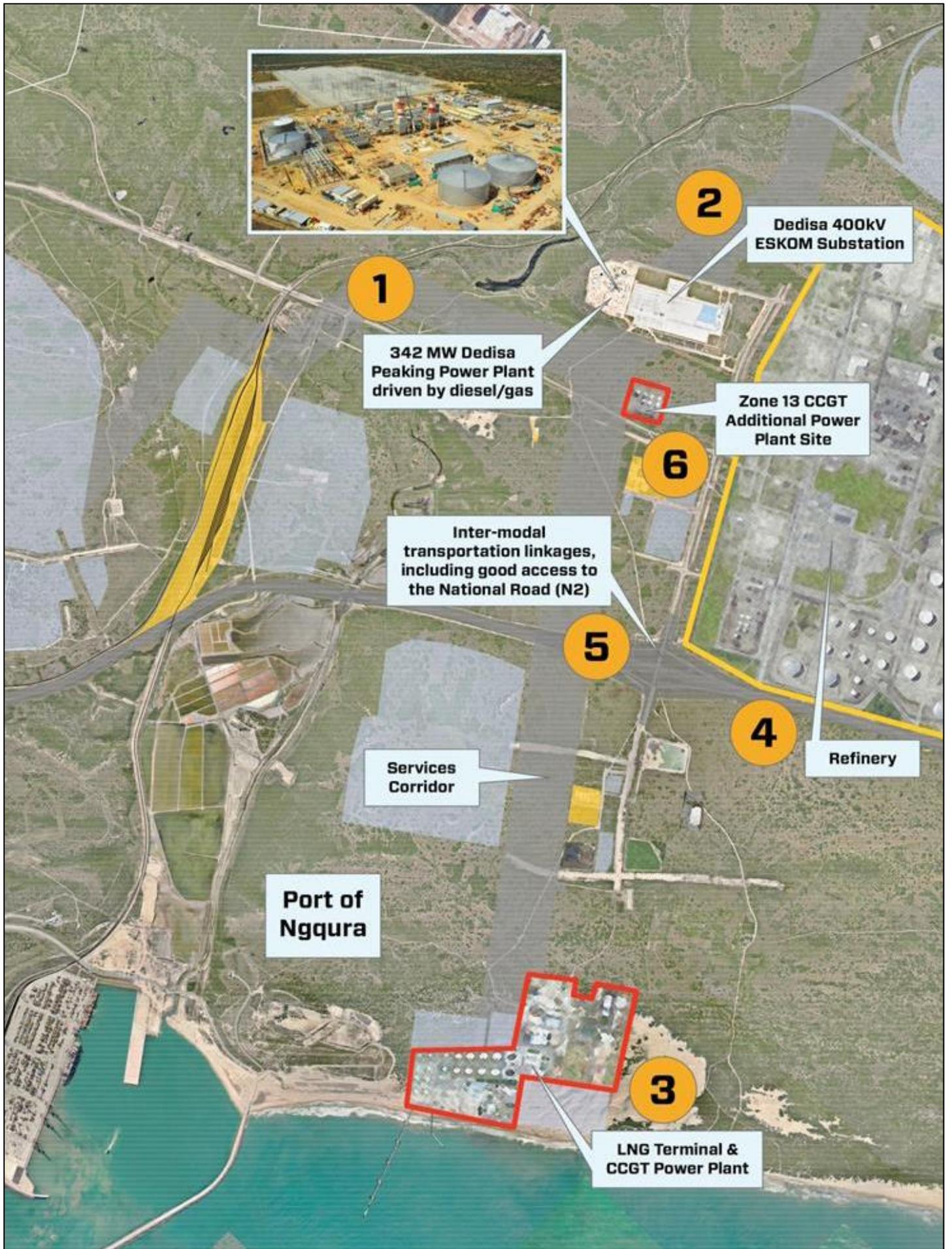


Figure 3: Locality Plan showing overview of nearby energy sector projects in the IDZ (note: red outlines indicate sites for the proposed Gas to Power plant in Zones 10 and 13)

