

### APPLICATION FORM FOR ENVIRONMENTAL AUTHORISATION

Application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

	(For official use only)					
File Reference Number:	14/12/16/3/3/2/2013					
NEAS Reference Number:	DEA/EIA/					
Date Received:	09/10/2020					
PROJECT TITLE						
CDC Gas to Power project: Proposed Gas Infrastruc	ture					
Indicate if the DRAFT report accompanies the applica Report	tion	Yes 5	<b>☑</b> Final	Enviro	nmental	Impact
•		No [				
PRE-APPLICATION CONSULTATION						
Was a pre-application meeting held			Yes	✓		
Date of the pre-application meeting			22 May	and 12	June 201	19
Reference number of pre-application meeting held			Not app	plicable		
Was minutes compiled and submitted to the Departm	nent for approval		Yes	✓		

A copy of the pre-application meeting minutes must be appended to this application as APPENDIX 1.

# Kindly note the following:

- 1. This form must always be used for applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting where this Department is the Competent Authority.
- 2. This application form is current as of **April 2021**. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.environment.gov.za/documents/forms.
- 3. The onus is on the Applicant/EAP to determine all applicable listed activities that would require Environmental Authorisation prior to the commencement of the construction activities. Should any revision of your development comprise any other activities that constitute a listed activity/ies as defined in Listing Notice 1, 2, or 3 of the EIA Regulations, 2014 as amended, it must also form part of the Application for Environmental Authorisation.
- 4. An application fee is applicable (refer to **Section 2**). Proof of payment must accompany this application. The application will not be processed without proof of payment unless one of the exclusions provided for in the Fee Regulations is applicable AND such information in the exclusion section of this application form has been confirmed by this Department.
- 5. A cover letter on your company letterhead indicating the nature of this application must be appended to this form i.e. new application for Environmental Authorisation, updated application for Environmental Authorisation.
- 6. An electronic copy of the signed application form must be submitted of both the Applicant and EAP.

- 7. This form must be marked "for Attention: Chief Director: Integrated Environmental Authorisations" and submitted to the Department at the format as prescribed in the process to upload documents form.
- 8. The required information must be typed within the spaces provided in the form. The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided. Spaces are provided in tabular format and will extend automatically when each space is filled with typing. A legible font type and size must be used when completing the form. The font size should not be smaller than 10pt (e.g. Arial 10).
- 9. Where applicable black out the boxes that are not applicable in the form.
- 10. The use of the phrase "not applicable" in the form must be done with circumspection. Where it is used in respect of material information that is required by the Competent Authority for assessing the application, this may result in the rejection of the application as provided for in the Regulations.
- 11. Unless protected by law, all information contained in and attached to this application, will become public information on receipt by the Competent Authority. Upon request during any stage of the application process, the Applicant / EAP must provide any registered interested and affected party with the information contained in and attached to this application.
- 12. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report and declaration of interest of the specialist must also be submitted.
- 13. Please note that this form must be copied to the relevant Provincial Environmental Department(s)
- 14. An application for Environmental Authorisation lapses if the applicant fails to meet any of the timeframes prescribed in terms of the EIA Regulations, 2014, as amended.
- 15. An application for environmental authorisation must be accompanied by a report generated by the web based environmental screening tool (in Appendix 11). This has been stipulated as a requirement for the submission of applications for environmental assessment in the Environmental Impact Assessment Regulations. The Screening Tool allows for the generation of a Screening Report referred to in Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended, whereby a Screening Report is required to accompany any application for Environmental Authorisation.

### **Departmental Details**

### Online Submission:

ElAapplications@environment.gov.za or https://sfiler.environment.gov.za:8443/.

# Please read the process for uploading files to determine how files are to submitted to this Department.

### Postal address:

Department of Forestry, Fisheries and the Environment Attention: Chief Director: Integrated Environmental Authorisations Private Bag X447 Pretoria 0001

### Physical address:

Department of Forestry, Fisheries and the Environment Attention: Chief Director: Integrated Environmental Authorisations

Environment House 473 Steve Biko Road

Arcadia

Queries must be directed to the Directorate: Coordination, Strategic Planning and Support at:

Email: EIAAdmin@environment.gov.za

### 1. **COMPETENT AUTHORITY**

**Identified Competent** Authority to consider the application: Reason(s) in terms of

Department of Environment Fisheries & Forestry
Applicant is an organ of state

S24C of NEMA:

### 2. **FEES**

Applicants are required to tick the appropriate box below to indicate that either proof of payment is attached or that, in the applicant's view, an exclusion applies. Proof of payment or a motivation for exclusions must be attached as APPENDIX 2 of this application form.

Proof of payment attached	No
Payment Reference Number	No payment required as applicant is an organ of state.
Exclusion in terms of Regulation 2(a) or 2(b) of GNR 141 of 28 February 2014	

An applicant is excluded from paying fees if:

- The activity is a community based project funded by a government grant; or
- The applicant is an organ of state.

TYPE OF EXCLUSION	Tick where applicable.
	Proper motivation must be
	attached to the application
The activity is a community based project funded by a government	
Grant	
The applicant is an organ of state	✓

FEE AMOUNT	Fee
Application for an environmental authorisation for which basic assessment is required in terms of the Environmental Impact Assessment Regulations	
Application for an environmental authorisation, for which S&EIR is required in terms of the Environmental Impact Assessment Regulations	R10 000 ✓

Department of Forestry, Fisheries and the Environment banking details for the payment of application fees:

**Payment Enquiries:** 

Email: eiafee@environment.gov.za

Banking details: ABSA Bank

Branch code: 632005

Account number: 1044 2400 72

Current account

Reference number: Reference number to be provided in the specific format indicating centre point coordinates of site in decimal degrees to 5 or 6 decimal places: latitude/longitude

e.g. -33.918861/18.423300

Status: Tax exempted

### 3. GENERAL INFORMATION

Name of the Applicant:	The Coega Development Corporation (CDC)				
RSA Identity/ Passport	670518 5193 081				
Number:					
Name of contact person for	Mr Sadick Davids				
applicant (if other):	070740.7400.004				
RSA Identity/ Passport	670518 5193 081				
Number:	Asting Evaluaiva Managar Operations				
Responsible position, e.g. Director, CEO, etc.:	Acting Exclusive Manager, Operations				
Company/ Trading name (if	Coega Development Corporation (CDC)				
any):	Cooga Development Corporation (CDO)				
Company Registration	82003891/07				
Number:					
BBBEE status:	Level 2 Contributor				
Physical address:	Corner Alcyon & Zibuko St, Zone 1, Coega SEZ, Port Elizabeth, 6100				
Postal address:	Pvt Bag X6009, Port Elizabeth				
Postal code:	6000 Cell: 084 570 2849				
Telephone:	041 403 0400 Fax: 041 4030401				
E-mail:	Sadick.davids@coega.co.za				
Name of the landowner:	Coega Development Corporation (CDC)				
Name of contact person for	Mr Sadick Davids				
landowner (if other):	D. t. Day, VCCCC Day Elizabath				
Postal address: Postal code:	Pvt Bag X6009, Port Elizabeth  6000 Cell: 084 570 2849				
Telephone:	041 403 0400 Fax: 041 4030401				
E-mail:	Sadick.davids@coega.co.za				
L-mail.	<u>Saulck.davids(c)coega.co.za</u>				
Name of Person in control	Coega Development Corporation				
of the land:	Cooga Dovolopinom comportation				
Name of contact person for	Mr Sadick Davids				
person in control of the					
land:					
Postal address:	Private Bag X6009, Port Elizabeth				
Postal code:	6000 Cell: 084 570 2849				
Telephone:	041 403 0400 Fax: 041 4030401				
E-mail:	Sadick.davids@coega.co.za				

In instances where there is more than one landowner, please attach a list of those landowners with their contact details as **APPENDIX 3**.

Note that part of the proposed gas infrastructure falls within the Port of Ngqura, which is TNPA owned. This is specifically the FSRU(s), jetty and landing platform, trestle along the breakwater to support the gas and LNG pipelines, part of the pipelines themselves, and the seawater intake pipeline. See TNPA letter of landowner consent for the EIA in Appendix 3. The remainder of the project falls on CDC owned land.

Unless the application is in respect of linear activities or Strategic Infrastructure Projects as contemplated in the Infrastructure Development Act (Act No. 23 of 2014), written consent of landowner/s must be submitted in **APPENDIX 3**.

The originally signed declaration undertaking by the applicant must be submitted as APPENDIX 9.

Provincial Environmental	Department of Economic Development, Environmental Affairs and Tourism				
Authority:					
Name of contact person:	Dayalan Govender				
Postal address:	P/Bag X5001, Greenacres, South Af	rica,			
Postal code:	6057	Cell:	071 674 9710		
Telephone:	041 508 5811	Fax:	041 508 5865		
E-mail:	Dayalan.Govender@dedea.gov.za				
Local Municipality:	Nelson Mandela Bay Municipality				
Name of contact person in	Sizwe Mvunelwa				
(Environmental Section)					
Postal address:	PO Box 11, Port Elizabeth				
Postal code:	6000	Cell:	079 490 0666		
Telephone:	041 506 1394	Fax:	-		
E-mail:	smvunelwa@mandelametro.gov.za	·			

In instances where there is more than one Local/Provincial Authority involved, please attach a list of those Local/Provincial Authorities with their contact details as **APPENDIX 4**.

# 4. ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) INFORMATION

Company of Environmental Assessment Practitioner:	SRK Consulting (South Africa) (Pty) Ltd					
B-BBEE	Contribution level (indicate 1 to 8 or non-compliant)	2	Percenta Procurer recogniti	ment	125%	
EAP name:	Nicola Rump					
EAP Qualifications:	MSc					
Professional	CEAPSA; IAIASA					
affiliation/registration:						
Physical address:	Ground Floor, Bay Suites, 1a Hu	ımewood	Road, Hume	erail, 6013		
Postal address:	PO Box 21842, Port Elizabeth, 6	0000				
Postal code:	6000 Cell: 082 4252751					
Telephone:	041 509 4800 Fax: 041 509 4850					
E-mail:	nrump@srk.co.za					

The appointed EAP must meet the requirements of Regulation 13 of the EIA Regulations, 2014 as amended. The declaration of independence of the EAP and undertaking under oath or affirmation that all the information submitted or to be submitted for the purposes of the application is true and correct must be submitted as **APPENDIX 10**.

### 5. PROJECT DESCRIPTION

Please provide a **detailed** description of the project.

The overall/ultimate proposed gas to power project will comprise of three power plants with power generation capacities of 1000 MW each, as well as infrastructure to facilitate importation LNG, regasification, storage and transmission of gas to the power plants. A total power generation capacity of up to 3000 MW will therefore be available once the full extent of the project has been developed (which may be spread over a number of phases), the timing of which is unknown at this stage and is dependent on the CDC securing successful clients for the development of each component.

This particular application deals with the gas infrastructure components of the project, facilitating the supply of gas to the power plants, and gas and LNG to third party off-takers.

The proposed gas infrastructure will consist of all key supporting infrastructure required for the operation of the CDC's proposed gas to power plants in the Coega SEZ. This will be made up specifically of infrastructure for the import, storage and transmission of LNG via the Port of Ngqura, to the various power plants, and seawater for cooling to and from the Zone 10 power plants (should they be seawater cooled) and heating water to the onshore storage and regasification unit. Additional capacity of supply of LNG and natural gas (NG) to third party off takers, potentially including the Dedisa peaking power plant, should this be converted to gas, will also be included. The key infrastructure includes the following:

- Up to two floating storage and regasification units (FSRUs), moored in the Port, which will receive, store and
  regasify the LNG from the LNG carrier (LNGC). It is proposed that onshore storage and regasification facilities
  will replace the FSRUs once the demand for NG reaches a point where onshore storage and regasification is
  the more feasible option, at which point the FSRU will be removed;
- A new jetty with offloading platform and berthing facilities for the FSRU and LNGC in the port of Nggura;
- A trestle structure to support the gas and cryogenic pipelines running within the port from the offloading
  platform parallel to the eastern breakwater, to the point where the pipelines will cross under the breakwater
  near the admin craft basin, thereafter running underground;
- A LNG and gas hub, consisting of storage and regasification facilities (for expansion of the gas infrastructure, once the FSRU is no longer the most feasible option for LNG storage and regasification), and a truck delivery centre for third party off-takers. Gas metering, admin, control rooms, workshops, and vents will be included in the LNG and gas hub;
- Gas pipelines (for transmission of NG) from the FSRU and jetty to the three proposed power plants, the LNG and gas hub (for third party offtakers) as well as the boundary of the Dedisa power plant in Zone 13;
- Cryogenic pipelines (for transmission of LNG) from the berthing facilities in the port to the storage and regasification unit at the LNG and gas hub (once this has replaced offshore storage and regasification at the FSRU); and
- Pipelines for the transmission of seawater from the abstraction point in the port, to the Zone 10 power plants (if seawater cooled) and regasification plant at the LNG and gas hub in Zone 10 (for heating water).

Does the project form part of a Renewable Energy Development Zone (REDZ) as per GN 114?	NO
Does the project form part of an Electricity Grid Infrastructure (EGI) as per GN 113?	NO
Does the project form part of any of the Strategic Infrastructure Projects (SIPs) as described in	NO
the National Development Plan, 2011?	
Did you attached the confirmation of SIP obtained from the relevant sector representative (SIP	NO
Coordinators) and not a motivation from an EAP	

### If **YES**, is selected:

- For an application in terms of GN 113 and/or 114, then a map confirming this must be attached;
- For a SIP project, kindly indicate which SIPs are applicable in APPENDIX 5 and attach the confirmation of SIP applications from the relevant sector representative in APPENDIX 5. Should no proof be provided, the application will be considered as a normal EIA Application.

### Not Applicable

Please indicate which sector the project falls under by ticking the relevant block in the table below:

Table 1: National Sector Classification in terms of Regulation 9 of the EIA Regulations, 2014 as amended

1	Infrastructure /Transport Services/Roads – Public		42	Services/Waste Management Services/Disposal facilities - General	
2	Infrastructure /Transport Services/Roads – Private		43	Services/Waste Management Services/Treatment facilities - Hazardous	
3	Infrastructure /Transport Services/Rail – Public		44	Services/Waste Management Services/Treatment facilities - General	
4	Infrastructure /Transport Services/Rail – Private		45	Services/Waste Management Services/Storage Facilities - General	
5	Infrastructure /Transport Services/Airport/Runways/Landing Strip/Helipad - Commercial		46	Services/Waste Management Services/Storage Facilities - Hazardous	
6	Infrastructure /Transport Services/Airport/Runways/Landing Strip/Helipad - Private		47	Services/Waste Management Services/Storage Facilities - Nuclear	
7	Infrastructure /Transport Services/Airport/Runways/Landing Strip/Helipad - Public Services		48	Services/Burial and cemeteries - Cemeteries	
8	Infrastructure /Transport Services - Ports		49	Services/Burial and cemeteries - Cremators	
9	Infrastructure /Transport Services - Inland Waterways		50	Services/Water services/Storage - Dams	
10	Infrastructure /Transport Services - Marina		51	Services/Water services/Storage - Reservoirs	
11	Infrastructure /Transport Services - Canal		52	Services/Water services - Desalination	
12	Infrastructure /Localised infrastructure - Infrastructure in the Sea/Estuary/Littoral Active Zone/Development Setback/100M Inland/or coastal public property.	<b>~</b>	53	Services/Water services - Treatment & Waste Water	
13	Infrastructure /Localised infrastructure - Zip Lines & Foefie Slides		54	Services - Hospitality	
14	Infrastructure /Localised infrastructure - Cableway or Funiculars		55	Mining - Prospecting rights	

15	Infrastructure /Localised infrastructure – Billboards		56	Mining - Mining Permit
16	Infrastructure /Localised infrastructure/Storage/Dangerous Goods/Hydrocarbon - Gas	<b>√</b>	57	Mining - Mining Right
17	Infrastructure /Localised infrastructure/Storage/Dangerous Goods/Hydrocarbon - Petroleum		58	Mining/Exploration Right - Gas or Oil Marine
18	Infrastructure /Localised infrastructure/Storage/Dangerous good – Chemicals		59	Mining/Exploration Right - Gas or Oil Terrestrial
19	Utilities Infrastructure/Pipelines/water - Fresh/Storm Water		60	Mining/Production Right - Gas or Oil Marine
20	Utilities Infrastructure/Pipelines/water - Waste Water		61	Mining/Production Right - Gas or Oil Terrestrial
21	Utilities Infrastructure/Pipelines/Dangerous Goods - Chemicals		62	Mining/Underground gasification of coal - Oil
22	Utilities Infrastructure/Pipelines/Hydrocarbon – Petroleum		63	Mining/Beneficiation - Hydrocarbon
23	Utilities Infrastructure/Pipelines/Hydrocarbon - Gas	✓	64	Mining/Beneficiation - Mineral
24	Utilities Infrastructure/Telecommunications/ Radio Broadcasting - Tower		65	Agriculture/Forestry/ Fisheries - Crop Production
25	Utilities Infrastructure/Telecommunications/ Radio Broadcasting - Mast		66	Agriculture/Forestry/ Fisheries - Animal Production
26	Utilities Infrastructure/Telecommunications/ Radio Broadcasting - Receivers		67	Agriculture/Forestry/ Fisheries - Afforestation
27	Utilities Infrastructure - Marine Cables		68	Agriculture/Forestry/ Fisheries/Aquaculture/Inland- Alien
28	Utilities Infrastructure/Electricity /Generation/Non Renewable/Hydrocarbon – Petroleum (Gas)		69	Agriculture/Forestry/ Fisheries/Aquaculture/Inland- Indigenous

29	Utilities Infrastructure/Electricity /Generation/Non Renewable/Hydrocarbon – Coal	70	Agriculture/Forestry/ Fisheries/Aquaculture/Marine - Alien	
30	Utilities Infrastructure/Electricity /Generation/Non Renewable - Nuclear	71	Agriculture/Forestry/ Fisheries/Aquaculture/Marine - Indigenous	
31	Utilities Infrastructure/Electricity /Generation/Renewable - Hydro	72	Agriculture/Forestry/ Fisheries - Agro- Processing	
32	Utilities Infrastructure/Electricity /Generation/Renewable/Solar - PV	73	Transformation of land - Indigenous vegetation	
33	Utilities Infrastructure/Electricity /Generation/Renewable/Solar - CSP	74	Transformation of land - From open space or Conservation	
34	Utilities Infrastructure/Electricity /Generation/Renewable - Wind	75	Transformation of land - From agriculture or afforestation	
35	Utilities Infrastructure/Electricity /Generation/Renewable - Biomass/ biofuels	76	Transformation of land - From mining or heavy industrial areas	
36	Utilities Infrastructure/Electricity /Generation/Renewable - Wave	77	Any activities within or close to a watercourse	
37	Utilities Infrastructure/Electricity /Distribution and Transmission - Power line	78	Any activity in an estuary, on the seashore, in the littoral active zone, or in the sea.	<b>√</b>
38	Utilities Infrastructure/Electricity /Distribution and Transmission – Substation	79	Activity requiring permit or licence in terms of National or Provincial legislation governing the release or generation of emissions - Emissions	<b>√</b>
39	Utilities Infrastructure/Gas /Distribution and Transmission – Compressor Station	80	Activity requiring permit or licence - Marine Effluent	
40	Services/Waste Management Services/Disposal facilities - Hazardous	81	Activity requiring permit or licence - Fresh Water Effluent	
82	Release of Genetically Modified Organisms			

# Table 1

Does the listed activity/ies applied for form part of a larger project which is not a listed activity		NO
itself e.g. a road that is a listed activity that is needed to access a drilling site where the drilling		
does not constitute a listed activity.		
If indicated yes above, please provide a brief description on how the activity/ies relate to the large	er project th	at forms
part there of:		

### Not applicable

### 6. SITE DESCRIPTION

Provide a detailed description of the site involved in the application.

Province/s	Eastern Cape
District Municipality/ies	Cacadu District Municipality
Local Municipality/ies	Nelson Mandela Bay Municipality
Ward number/s	Ward 53
Nearest town/s	Motherwell, Bluewater Bay, Port Elizabeth
Farm name/s and number/s	Erf 255, 329, 220, 252, 281, 275, 312 and Erf 329 (Cryogenic & NG Pipelines)
	Erf 220 and Erf 252 (LNG & Gas hub)
	Erf 251, 255 and 355 (Seawater intake pipeline, jetty and FSRU)
Portion number/s	-

### Surveyor General 21 digit code:

(If there are more than 4, please attach a list with the rest of the codes as **APPENDIX 6**. Where the 21 digit SGID and farm name are not available, the coordinates of the boundary of the property or properties must be provided in **APPENDIX 6**.

Cryogen	Cryogenic & NG Pipelines																			
С	0	7	6	0	0	2	3	0	0	0	0	0	2	5	5	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	3	2	9	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	2	2	0	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	2	5	2	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	2	8	1	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	2	7	5	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	3	1	2	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	3	2	9	0	0	0	0	0
LNG & G	as h	ub																		
С	0	7	6	0	0	2	3	0	0	0	0	0	2	2	0	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	2	5	2	0	0	0	0	0
Seawate	r Inta	ke Pi	pelin	e, FS	RU aı	nd jet	ty													
С	0	7	6	0	0	2	3	0	0	0	0	0	2	5	1	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	2	5	5	0	0	0	0	0
С	0	7	6	0	0	2	3	0	0	0	0	0	3	5	5	0	0	0	0	0
1		2				3						4						5		

A locality map must be attached to the application form, as **APPENDIX 7**. The scale of the locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map. The map must include the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any:
- road names or numbers of all the major roads as well as the roads that provide access to the site(s)
- a north arrow:

### Locality map:

- a legend;
- the prevailing wind direction;
- site sensitivities, including but not limited to vegetation, wetlands, watercourses, heritage sites, critical biodiversity area/s, World Heritage Site, etc. and it must be overlaid by the study area; and
- GPS co-ordinates (Indicate the position of the proposed activity with the latitude and longitude at the centre point for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should be to at least three decimal places. The projection that must be used in all cases is the WGS-84 spheroid in a national or local projection)

A project schedule must be submitted as **APPENDIX 8**, and must include milestones for:

- public participation (dates for advertisements, workshops and other meetings, obtaining comment from organs of state including state departments);
- the commencement of parallel application processes required in terms of other statutes and where relevant, the alignment of these application processes with the EIA process;
- the submission of the key documents (e.g. Basic Assessment Report, Scoping Reports, EIA Reports and Environmental Management Programmes).

Project Plan (e.g. Gantt chart)

Note:

All the above dates must take into account the statutory timeframes for authority responses that are stipulated in the 2014 NEMA EIA Regulations. Possible appeals may impact on project timeframes/milestones. Regulation 45 states that "An application in terms of these Regulations lapses, and a competent authority will deem the application as having lapsed, if the applicant fails to meet any of the time-frames prescribed in terms of these Regulations, unless extension has been granted in terms of regulation 3(7)." It is recommended that the Department be approached for guidance on the process to be followed, prior to submitting an application.

### 7. ACTIVITIES APPLIED FOR

For an application for authorisation that involves more than one listed activity that, together, make up one development proposal, all the listed activities pertaining to this application must be provided below.

Note that Listed activities (or the equivalent similar listed activities) that have already been authorised for the whole of the Coega SEZ are not applied for but have been listed in Section 2.1.2 of the FEIR for completeness, as previously agreed with the Competent Authority.

Activity No(s):	Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 1</b> of the EIA Regulations, 2014 as amended	Describe the portion of the proposed project to which the applicable listed activity relates.
15	The development of structures in the coastal public property where the development footprint is bigger than 50 square metres, excluding –  (i) the development of structures within existing ports or harbours that will not increase the development footprint of the port or harbour	The cryogenic and natural gas pipelines, as well as the seawater intake pipeline, include footprints exceeding 50 m² outside the port and within coastal public property.
17	Development –  (iii) within the littoral active zone  (v) if no development setback exists, within a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever is the greater; in respect of — (a) fixed for floating jetties or slipways;  (e) infrastructure or structures with a development footprint of 50 square metres or more –	Mooring facilities in the port and infrastructure for intake of seawater and transport of LNG and gas to storage facilities and the power plants are proposed within 100 m of the high water mark of the sea and within the littoral active zone. This includes a new jetty, offloading platform and trestle to support the LNG and gas pipelines within the port, a cryogenic pipeline as well as gas pipelines associated with land-based regasification infrastructure, and a seawater intake pipeline from the port to the zone 10 power plants and onshore regasification areas at the LNG and Gas Hub.
18	The planting of vegetation or placing of any material on dunes or exposed sand surfaces of more than 10 square metres, within the littoral active zone, for the purpose of preventing the free movement of sand, erosion or accretion, excluding where –  (i) the planting of vegetation or placement of material relates to restoration and maintenance of indigenous coastal vegetation undertaken in	LNG and gas pipelines, seawater intake pipeline, and LNG and gas hub will be constructed within the littoral active zone/dunes and will therefore require stabilisation measures, exceeding 10 m2. This may include planting of vegetation as part of rehabilitation of the site during construction. The CDC's Standard Vegetation Specification for Construction (dated 2005)

	accordance with a maintenance management plan; or  (ii) such planting of vegetation or placing of material will occur behind a development setback.	will be adhered to, however specific measures to address revegetation of coastal vegetation will be required.
Activity No(s):	Provide the relevant <b>Scoping and EIA Activity(ies)</b> as set out in <b>Listing Notice 2</b> of the EIA Regulations, 2014 as amended	Describe the portion of the proposed project to which the applicable listed activity relates.
4	The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.	The proposed gas infrastructure includes both on & off-shore infrastructure for storage of up to approximately 340,000 m³ of LNG, and other dangerous goods such as chemicals and fuels.
6	The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.	The development of the gas infrastructure will require licences, including an Atmospheric Emission Licence in terms of NEM:AQA (Act 39 of 2004) for the storage of fuel and potentially a coastal waters discharge permit may also be required for the discharge of heating water required for regasification
7	The development and related operation of facilities or infrastructure for the bulk transportation of dangerous goods — (i) in gas form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 700 tons per day; (ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1 000 metres in length, with a throughput capacity of more than 50 cubic metres per day	All proposed infrastructure for the conveyance of LNG and Natural Gas falls within the Coega SEZ and the Port of Ngqura, and will be in pipelines exceeding 1 km in length, with throughput capacities exceeding the thresholds specified. In the event that either of these activities are deemed to occur outside of an industrial complex, then this activity would be triggered.
14	The development and related operation of- (ii) an anchored platform; or (iii) any other structure or infrastructure on, below or along the sea bed;	The development of an LNG terminal for the FSRU will require the construction of a jetty and mooring structures, as well as a trestle running inside the harbour breakwater to support the gas and LNG pipelines. All of these will require the construction of piling or other structures into the sea bed for support.
Activity No(s):	Provide the relevant <b>Basic Assessment Activity(ies)</b> as set out in <b>Listing Notice 3</b> of the EIA Regulations, 2014 as amended	Describe the portion of the proposed project to which the applicable listed activity relates.

Please note that any authorisation that may result from this application will only cover activities specifically applied for. Only those activities listed above shall be considered for authorisation. The onus is on the applicant to ensure that all applicable listed activities are included in the application. Environmental Authorisation must be obtained prior to commencement with each applicable listed activity.

Coordinate points indicating the location of each listed activity must be provided as part of **APPENDIX 6** as well part of the reports to be submitted. Coordinates must be provided in degrees, minutes and seconds using the Hartebeesthoek94 WGS84 co-ordinate system.

### 8. PUBLIC PARTICIPATION

Provide details of the public participation process proposed for the application as required by Regulation 41(2) of the EIA Regulations, 2014 as amended.

The following activities are to be conducted:

- Place a newspaper notice, on-site posters, and an e-notice in the foyer of the CDC's offices;
- Establish an IAP database, based on the extensive number of EIAs conducted in the Coega SEZ, with additions specifically due to the nature of this project. The database includes the following:

- Landowners:
- Land Occupiers;
- Adjacent Landowners;
- Adjacent Land Occupiers;
- Ward Councillor;
- Organs of State; and
- The municipality.
- SMS or email notification to all identified potential IAPs, notifying them of the availability of the Draft Scoping Report, the 30 day comment period, and (for those who aren't automatically registered, as indicated in) inviting them to register as IAPs. Email notification will include the distribution of the executive summary of the report;
- Make a copy of the Draft Scoping Report available for download via the Public Documents link on SRK's website (https://www.srk.com/en/public-documents);
- Make hard copies of the Draft Scoping Report available at the following venues:
  - The Ward Councillor's office; and
  - SRK's Port Elizabeth office.
- Provide a 30 day comment period on the Draft Scoping Report; and
- Collate registered IAP comments on the Draft Scoping Report into a Final Scoping Report for submission to DEFF.
- Notify registered IAPs of the submission of the Final Scoping Report to DEFF
- Make a copy of the Draft Environmental Impact Report available for download via the Public Documents link on SRK's website (<a href="https://www.srk.com/en/public-documents">https://www.srk.com/en/public-documents</a>) and distribute and executive summary;
- Make hard copies of the Draft Environmental Impact Report available at the following venues:
  - SRK's Port Elizabeth office.
- Provide a 30 day comment period on the Draft Environmental Impact Report;
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- Notify registered IAPs of the submission of the Final Environmental Impact Report to DEFF.
- Notify registered IAPs of DEFF's decision on the application and appeals process.

### 9. OTHER AUTHORISATIONS REQUIRED

Are there any other applica	ations for Environmental Authorisation on the same property?	YES							
, , , , , , , , , , , , , , , , , , ,									
If YES, please indicate the	following:								
Competent Authority  The site falls within the Coega Special Economic Zone and port of Ngqura, and a of other environmental authorisation apply in this area. it is not feasible to attach the Application.									
Application Reference Number									
Project Name									
Please provide details of the steps taken to ascertain this information:									
Environmental Authorisations are available on the Coega Development corporation's web site: <a href="www.coega.co.za">www.coega.co.za</a> .									

### IF YES IS SELECTED, PLEASE ATTACH OTHER AUTHORISATIONS ISSUED.

Applications in terms of the National Environmental Management Act ("NEMA") & specific environmental management Acts ("SEMAs"):

LEGISLATION	AUTHORISATION REQUIRED	APPLICATION SUBMITTED
Is Section 50(5) of the National Environmental Management: Protected Areas Act applicable to your proposed development?	NO	
(The proposed development is within a proclaimed protected area as defined the Act.)		

National Water Act (Act No. 36 of 1998)		NO	
National Environmental Management: Air Quality Act (Act No. 39 of 2004)	YES		NO
National Environmental Management: Biodiversity Act (Act No. 10 of 2004)		NO	
National Environmental Management: Integrated Coastal Management		NO	
Act (Act No. 24 of 2008)			
National Environmental Management: Protected Areas Act (Act No. 57 of		NO	
2003)			
National Environmental Management: Waste Act (Act No. 59 of 2008)		NO	
Others: Please specify		NO	

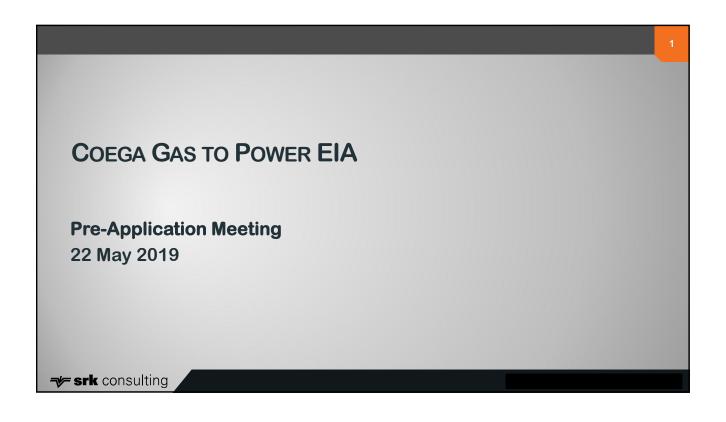
### Please be advised that:

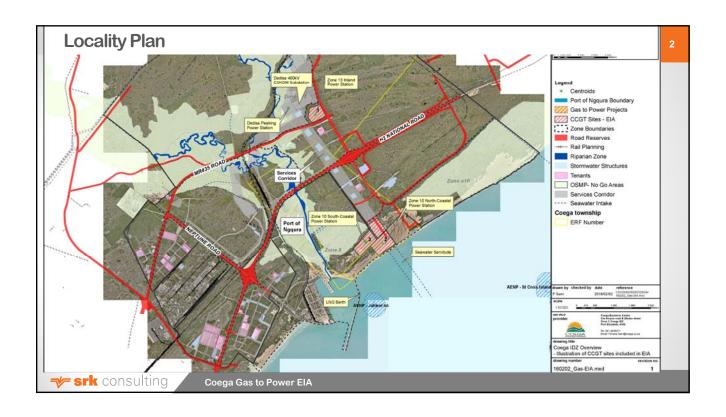
- If a Waste Management license is required in terms of the National Environmental Management: Waste Act, please contact the Department for guidance on the Integrated Permitting System. An IPS application can only be lodged with this Department in the event that this Department is the Competent Authority for both the EIA and Waste related activities:
- If Sections 7B and 7C of the National Environmental Management: Integrated Coastal Management Act is applicable to your proposed development, you are required to obtain pre-approval for a reclamation application prior to an Application for Environmental Authorisation being lodged with the Competent Authority;
- If Section 50(5) of the National Environmental Management: Protected Areas Act is applicable to your proposed development, you are required to obtain approval from the Management Authority prior to an Application for Environmental Authorisation being lodged with the Competent Authority; and
- If Section 38 of the National Heritage Resources Act (Act No. 25 of 1999) is applicable to your proposed development, you are requested to submit the Notice of Intent form to the relevant SAHRA or a Provincial Heritage Resources Authority and attach a copy to this form. If it is indicated that a Heritage Impact Assessment will be required, the Heritage Impact Assessment must be undertaken as one of the specialist studies of the EIA process to be undertaken in terms of the NEMA EIA Regulations, 2014, as amended.

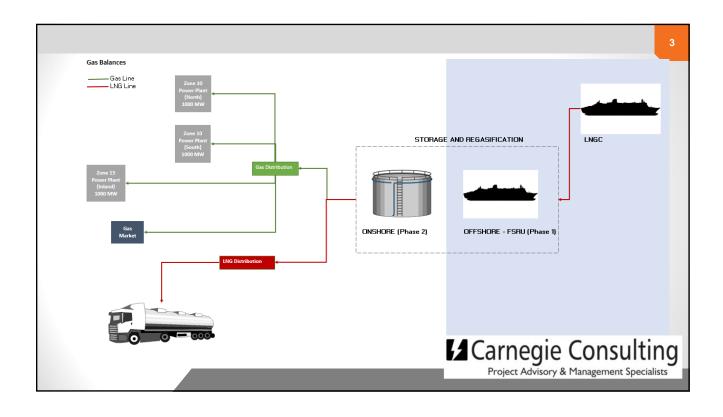
# 10. LIST OF APPENDICES

		SUBMI	TTED
APPENDIX 1	Copy of the pre-application meeting minutes	YES	
APPENDIX 2	Proof of Payment / Motivation for exclusion		NO
APPENDIX 3	List of land owners (with contact details) and written consent of land owners.	YES	
APPENDIX 4	List of Local/Provincial Authority involved (with contact details)	YES	
APPENDIX 5	Strategic Infrastructure Projects		NO
APPENDIX 6	List of SGIDs and coordinates	YES	
APPENDIX 7	Locality map	YES	
APPENDIX 8	Project schedule	YES	
APPENDIX 9	Declaration of Applicant	YES	
APPENDIX 10	Declaration of EAP and undertaking under oath or affirmation	YES	
APPENDIX 11	Screening Tool Report	YES	
APPENDIX 12	Undertaking under Oath / Affirmation	YES	

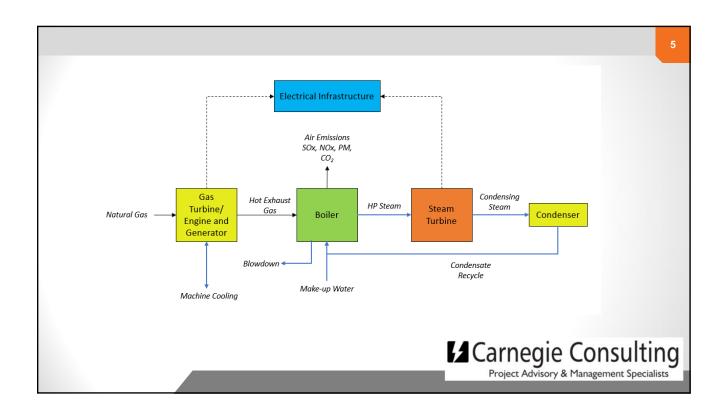
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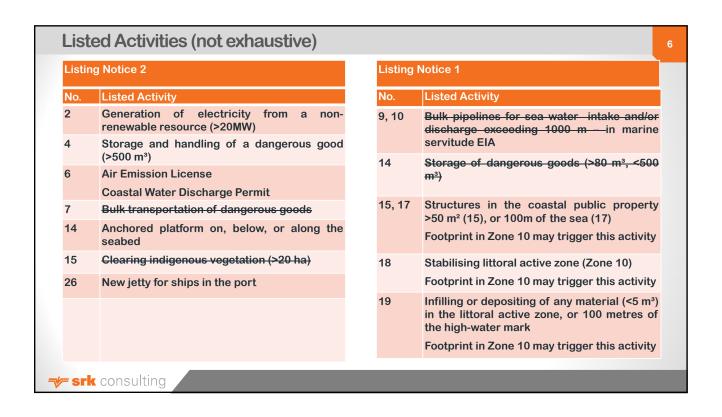






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# Coordination with Marine Pipeline Servitude EIA

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- Sea water needed for cooling
- Heated seawater to be discharged as effluent
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# **Alternatives**

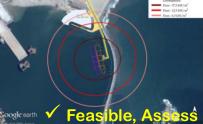
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A number of alternatives have been considered and eliminated in the feasibility studies.

### **Examples**

- Jetty for LNG Terminal
- Evaporative cooling





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# Approach to dealing with technology options

9

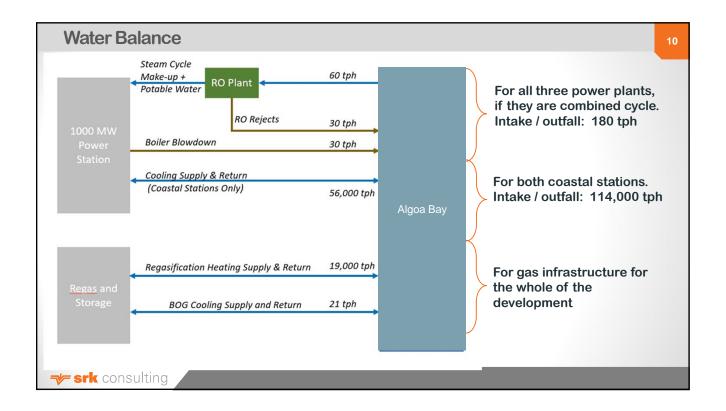
Input / Output model for the power plant based on consideration that has the greater environmental impact:

- Open Cycle Gas Engine (OCGE), Open Cycle Gas Turbine (OCGT), Combined Cycle Gas Turbine (CCGT)
  - □ OCGT has lowest efficiency (power output per unit of gas) → gas volumes based on OCGT
  - □ CCGT has requirement for steam generation, → demineralised water demand based on CCGT
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- · Operating conditions

Assumes 100% capacity, 80% of the time, i.e. above intended mid-merit range. Determines

- Gas volumes
- Air emissions
- Water volumes
- Cooling water technology would use 'once through' sea water cooling for assessment
  - Once through cooling' technically feasible for Zone 10 power plants. Demand for sea water based on 'once through cooling'
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# Coordinating permitting requirements

- AEL, or more probably Provisional AEL
- · Coastal Water Discharge Permit (cooling water and/or small quantities of desalination brine)
- Water Use License (to be determined)
- Permitting (AEL & CWDP) to follow the EIA process, but key objective of the EIA process is to provide all information to inform permitting authorities during the course of the EIA

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Coega Gas to Power EIA

# **Thank You**

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29 May 2019 494090



# Record of Pre-Application Meeting: Coega Gas to Power Project **DEDEAT Boardroom, 22 May 2019**

### Present:

WH Wavne Hector (DEA) ME Muhammad Essop (DEA) CA Coenrad Agenbach (DEA) MK Mmamohale Kabasa (DEA) **VB Viwe Bivana** (CDC Chair) SN Sandisiwe Ncemane (CDC) AS Andrea Shirley (CDC) KS Khuthala Somdaka (CDC) AS Asive Ralarala (CDC) SM Sikelelwa Mtyeku (CDC) AM Aphiwe Matwebi (CDC) (Chris Carnegie Consulting) CC Chris Carnegie

(SRK) NR Nicola Rump **RG** Rob Gardiner (SRK)

### Agenda items

### 1. Welcome and Introductions:

Round of introductions by all.

### 2. Apologies

None

### 3. Circulation of the attendance register

Attendance register was circulated

### 4. Background & Project Description

RG provided a brief overview of the proposed project. A copy of the presentation delivered is provided as Appendix A. The following key points were mentioned:

- a. Three 1000 MW power plants are proposed (located in Zone 10 south, Zone 10 north and Zone 13) as well as supporting infrastructure for LNG import and regasification.
- b. The zone 10 (coastal) power plants may be seawater cooled, while the zone 13 (inland) one will be air cooled.
- c. The technology of the planed power plants may differ and could be either turbine or engine driven and closed or open cycle.
- d. Gas infrastructure will include a Floating Storage and Regasification Unit (FSRU), Floating Storage Unit or land-based storage and regasification – all will be included in the study.
- e. A new jetty in the Nggura harbour will be required for the LNG to be imported via ships.
- Desalination of seawater is proposed, as demineralized process water is required in the event that 'closed cycle' technology (CCGT) is implemented. Process water could possibly also be obtained from the NMBM water supply.

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### 5. Proposed Approach with regard to Authorizations / Phasing of EIA

RG provided a brief overview of the proposed approach to the EIA process. Further details are provided in the presentation (Appendix A). The following key points were mentioned:

- a. All proposed technology options will be assessed in the EIAs and will not be presented as alternatives as the Proponent wishes to apply for all. It is planned that the EIA will assess the reasonable worst case impacts from the various technology options, for example, with regard to efficiency, air emissions, water usage, etc.
- b. Separate authorisations will be required (for subsequent transfer to investors when these have been identified). It is therefore anticipated that four EIA applications will be required for the project (one per authorisation): one for each of the three power stations and one for the supporting infrastructure. The phasing of the project is currently uncertain as it would depend on the involvement of investors/ DoE procurement.
- c. Listed Activities applied for include LN2 activities 2, 4, 6, 14, 15, 26 & LN1 activities 15, 17, 18, 19.
- d. Coordination is required with the Marine Pipeline Servitude (MPS) EIA, which is expected to recommence shortly. This is of importance for the seawater cooling option for the zone 10 power plants, and for the process water requirements (following desalination) for the 'closed cycle' technology option. Infrastructure for seawater intake and discharge is to be addressed in the MPS EIA up to the boundary of the power plant sites. It is recognised that the project design will need to align with that of the MPS once this has been determined.
- e. It is anticipated that the EIA application forms for the project could be ready for submission to the DEA within the next month (aligning with the application for the MPS).

### 6. Discussion regarding the way forward

The following discussion points were raised / noted by the DEA in response to the proposed approach as summarised above, with input from the CDC and SRK where clarity was required:

- ME confirmed that all communications on the project should be directed to both CA and ME, who will send on to the relevant officials as required.
- b. ME requested that the accepted minutes of the pre-application meeting (taken by the EAP) are attached to the application form(s) on submission thereof.
- c. ME and CA commented that due to the linkages between the Marine Pipeline Servitude EIA and the zone 10 power plants (if seawater cooled), running those processes concurrently with the MPS EIA would pose a risk for the zone 10 applications (e.g. of them lapsing), as the DEA would not be able to authorise these before the MPS is authorised and the design would depend on the authorised design for the MPS.
- d. ME therefore recommended that the applications are staggered and that those for the zone 10 power plants are delayed until submission of the FEIR for the MPS (at which stage a preferred alignment and design will be known). There would still be a risk of the application lapsing however, should appeals be raised against the MPS authorisation.
- e. CA noted that appeals to an authorisation effectively suspends it, meaning that any other project linked to / reliant on that authorisation (e.g. the MPS) would also be affected.
- f. ME noted that risks and administrative difficulties were associated with applying for an "open-ended" EA (i.e. applying for authorisation to cover all options, as opposed to one specific technology / option) and asked how this would be addressed by the EAP in the EIA process.
- g. RG responded that SRK's proposed approach is to focus on inputs and outputs into the system and the sources thereof, as opposed to the finer details of the inner working of the power generation technology. He further explained that the significance ratings of impacts are expected to be greater than would occur in reality as the worst case will be taken from each technology option.
- h. VB requested DEA to clarify what is meant by an open-ended authorisation and stressed that the CDC has a strategic vested interest in the project and that the zone 10 power plants are a critical component of that interest.
- i. RG confirmed that a previous feasibility report had looked at technology alternatives, and screened out those that are considered not to be feasible (and therefore will not be assessed in the EIA). It is proposed that alternatives in the EIA process are addressed in this way, as the CDC does not want to eliminate technology options from the application, as this may preclude potential developers, which are still to be selected via a procurement process.
- j. ME and CA outlined three possible approaches to the application process to limit risk resulting from uncertainties with regard to the MPS EIA:
  - i) Delay all 4 applications until the MPS has been authorised;
  - ii) Eliminate seawater cooling as an option for the power plants in zone 10 (thereby de-linking the applications from the MPS) and lodge all four applications now. If necessary the CDC could then apply for an amendment to the authorisation for the Zone 10 power plants to change from air to water cooling. This would however expose the project to the risk of a second round of appeals;

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k. Apply for the zone 13 power plant and gas infrastructure now and delay the zone 10 applications until after the MPS has been authorised or at least a FEIR submitted.

- CA noted that while they cannot prescribe to the proponent how to time the applications, they could
  provide recommendations to limit risk. They cannot legally give an open ended authorisation as it must
  be specific as to the project description. They also noted that the worst case scenario is likely to be
  problematic.
- m. ME made reference to the 2014 EIA regulations for scoping and noted that alternatives must be scoped out during scoping and that the alternatives must be feasible. Seawater cooling would be unfeasible without the MPS. ME suggested that the various technologies should be considered as alternatives.
- n. AS noted that the need and desirability for the MPS is not dependent on the power plants, but that these have been accommodated in the planning for it.
- o. ME confirmed that should the application for the zone 13 power plant and the gas infrastructure be lodged together, they would be assigned to the same DEA official and will be considered together.
- p. ME and CA advised that PPP for multiple applications may be combined and gave the following advice:
  - i) For each application the PPP must fulfill the requirements of the EIA Regulations. Comments and responses must be specific to each application (or repeated if applicable to all). IAPs must be made aware of this.
  - ii) A newspaper advert (or poster) does not require an application number. A single media advert can be placed for multiple applications, provided it is stipulated that is the case.
  - iii) PPP can be conducted before lodging the application but once the application has been lodged, another round of PPP is compulsory (e.g. 30 day comment period).
  - iv) Onsite notices (in response to the AS's request for confirmation regarding placing an electronic notice in the entrance foyer of the CDC building). DEA confirmed that this would be satisfactory for remote sites in the SEZ but that the EAP must notify all tenants and investors and note in the report how the legal requirements have been complied with.
- q. CA advised that the listed activities should be reviewed in detail to ensure that the application is complete with regard to what may be triggered for each application. If necessary a revised application form can be submitted with the FEIR but it is important to apply for all possibly triggered activities upfront and ensure they are assessed.
- r. All triggered listed activities, including those for which the CDC has already obtained authorisation, must be listed. An explanation should be provided as to why each pre-authorised activity is not part of this application and will not be assessed, or alternatively why it is relevant to the application and assessed.
- s. CA recommended that the DSR is circulated for comment prior to commencement of the application and noted that it is not necessary for the EAP to wait the full allocated time to submit final reports.
- t. RG noted that an air quality impact assessment including cumulative air emissions and greenhouse gases, and water consumption and source as key issues for assessment via the EIA (noting that other studies would also form part of the EIA).
- u. CA noted that the specialist study reports must be specific to each application.

### 7. Closure

ME indicated that there are a number of issues still to discuss, thus recommended a second pre-application meeting to continue the discussion and close the gaps. The issues to be discussed include the following:

- i) Assessment of alternatives
- ii) Listed activities and how these are relevant to each application
- iii) Specialist studies note these must include cumulative assessments, risk assessment, climate change study
- iv) Further advice as to how the DEA would recommend the EIA processes to be run

The meeting was closed at 17:10 with the agreement that the EAP will contact DEA to schedule a follow up meeting.

Minutes compiled by:

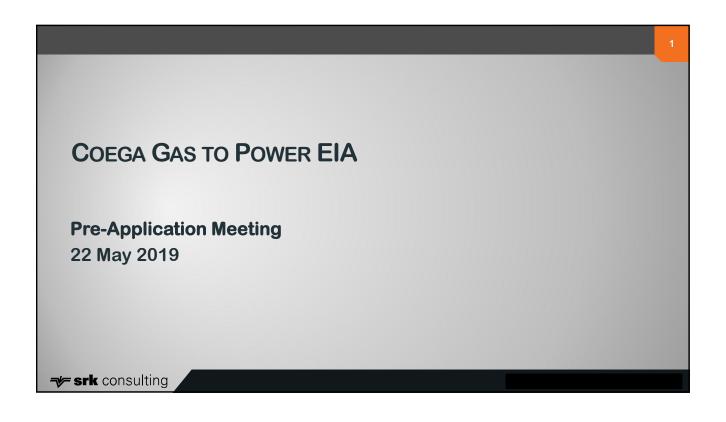
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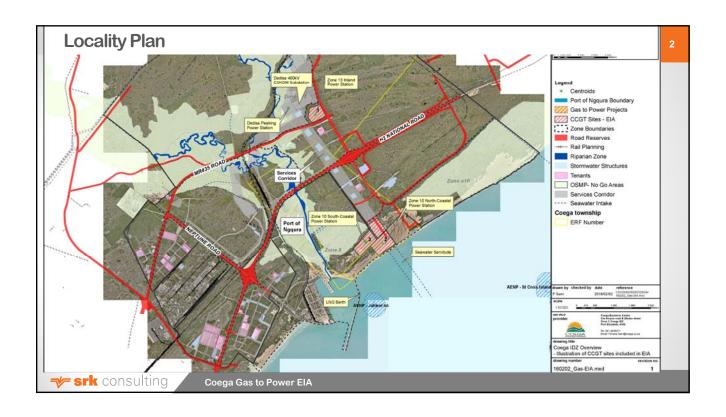
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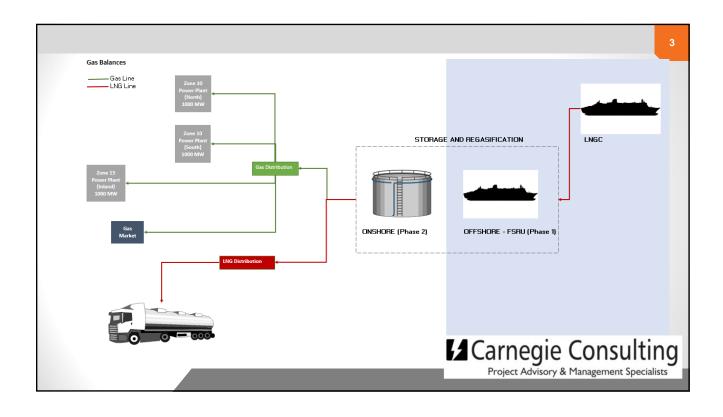
Nicola Rump

Principal Environmental Scientist

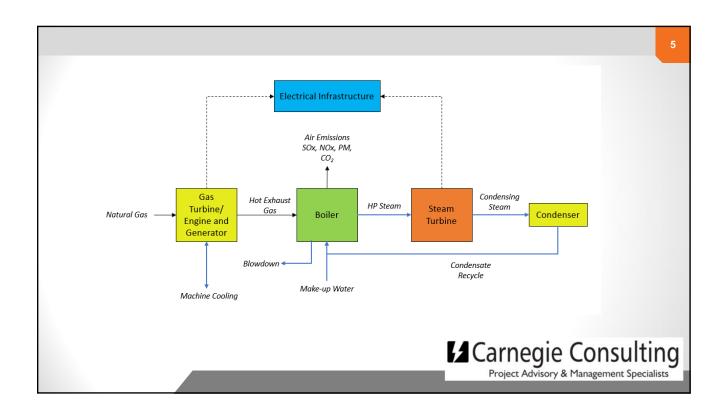
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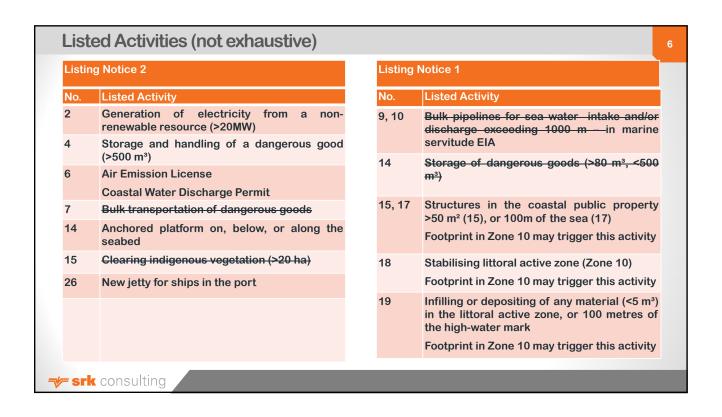






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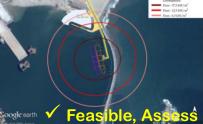
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# Approach to dealing with technology options

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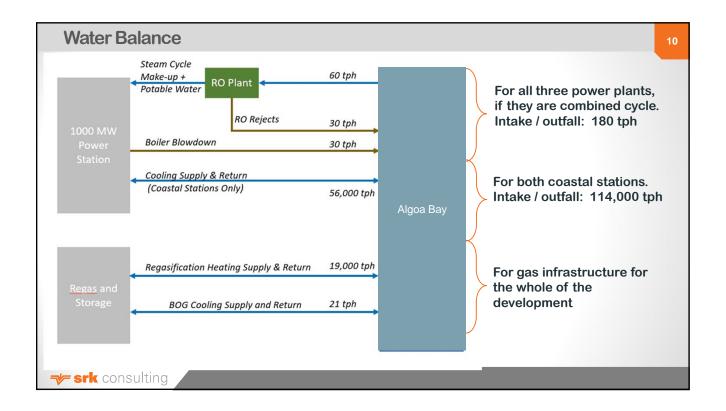
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Tel: +27 (0)41 509 4800



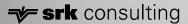
# ATTENDANCE REGISTER FOR THE SRK PRE-APPLICATION MEETING: COEGA GAS TO POWER EIA TO BE HELD AT DEDEAT OFFICES, CENTRAL, PE ON THE 22 MAY 2019 COMMENCING AT 15h00

(	12 Andrea Shirtey	11. Sandisime Alemane	10. Chris Carnegie	9 Nive Ralargia	8. Aphine Matureby	WAYNE HEAD	6. MUHAMMAD ESSOP	5. MMAMOHALE KABASA	4SIKELELWA MIJEW	3. Khuthala Sondaka	2 Micola Rump	1 2 Gordiner	NAME
	CDC	CX	C.C.	CNC	CDC	DER: SID	DEA: SID	43E. 439	COC	E	SRX	SRK	ORGANISATION
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# COEGA GAS TO POWER EIA

**Pre-Application Meeting**12 June 2019



# **Proposed Agenda**

- 1. Welcome and Introductions
- 2. Apologies
- 3. Circulation of the attendance register
- 4. Background & Project Description
  - 1. Strategic context
  - 2. Project description
  - 3. Need and desirability
  - 4. Listed and specified activities
  - 5. Alternatives
  - 6. Preliminary desktop assessments
  - 7. Identified impacts, associated assessments, proposed terms of reference
- 5. Proposed Approach with regard to Authorizations / Phasing of EIA
  - 1. Proposed approach to Public Participation
  - 2. Anticipated timing of EIA
- 6. Discussion regarding the way forward
- 7. Closure

# Overview of presentation

- 1. Strategic context
- 2. Project description
- 3. Need and desirability
- 4. Listed and specified activities
- 5. Alternatives
- 6. Preliminary desktop assessments
- 7. Identified impacts, associated assessments, proposed terms of reference
- 8. Proposed approach to Public Participation
- 9. Anticipated timing of EIA

### 1. Strategic context - IRP

- 1. Integrated Energy Plan (IEP) 2016
- 2. Integrated Resources Plan (IRP) 2010–2030
- 3. Determination in Nov 2015:
  - 3126 MW of baseload and/or mid-merit energy generation capacity from gas-fired power generation
  - From Independent Power Producers
- 4. Determination in Nov 2015
  - Additional 600 MW
- 5. DoE studied Coega (Ngqura), Richards Bay and Saldanha Concluded that the programme should focus initially on Coega and Richards Bay
- 6. SEA for the development of a gas pipeline network CSIR SEA

### 1. Strategic context – feasibility studies

- 1. CCGT Plant identified during the EIA for the Aluminium smelter
- 2. Power lines from the proposed CCGT site locality to Dedisa and Grassridge substations authorised in 2006 (Ref: 12/12/20/781)
- 3. 2004 CSIR EIA started for a 1600 MW LNG Terminal and CCGT plant. Process stopped at Scoping stage.
- 4. 2009 Worley Parsons PFS for 3200 MW CCGT power plant in Coega IDZ linked to LNG terminal
- 5. 2016 PRDW Pre-feasibility Report (FEL2) (DoE and TNPA): Importing of up to 3.96 mtpa into the Port of Ngqura
- 6. 2016 Mott-MacDonald IPP LNG-to-Power project (DoE), for 2000 MW at Richards Bay and 999 MW at Coega

#### 1. Strategic context - Locality Plan Dedisa 400kV ESKOM Substation Legend Centroids Port of Nggura Boundary Gas to Power Projects CCGT Sites - EIA Dedisa Peaking Zone Boundaries Power Station Road Reserves -+-- Rail Planning Riparian Zone Stormwater Structures Services Tenants Corridor OSMP- No Go Areas Services Corridor Zone 10 North-Coastal ---- Seawater Intake Power Station Coega township Zone 10 South-Coastal Power Station **ERF Number** Port of Nggura Seawater Servitude AENP - St Croix Island drawn by checked by date LNG Berth AENP Jahleel Isla service Coega Business Centre Cnr Alcyon road & Zibuko street Zone 1, Coega IDZ Port Elizabeth, 6100 provider Coega IDZ Overview - Illustration of CCGT sites included in EIA 160202\_Gas-EIA.mxd

### 2. Project Description - Overview

#### Gas Infrastructure

- Liquefied Natural Gas Carrier
- Floating Storage Regasification Unit
- Land based storage & regasification
- New jetty to connect to berth
- Gas pipeline: FSRU to gas distribution hub
- 3<sup>rd</sup> party offtake of LNG and NG (truck loading)
- Gas reticulation: gas distribution hub to power plants

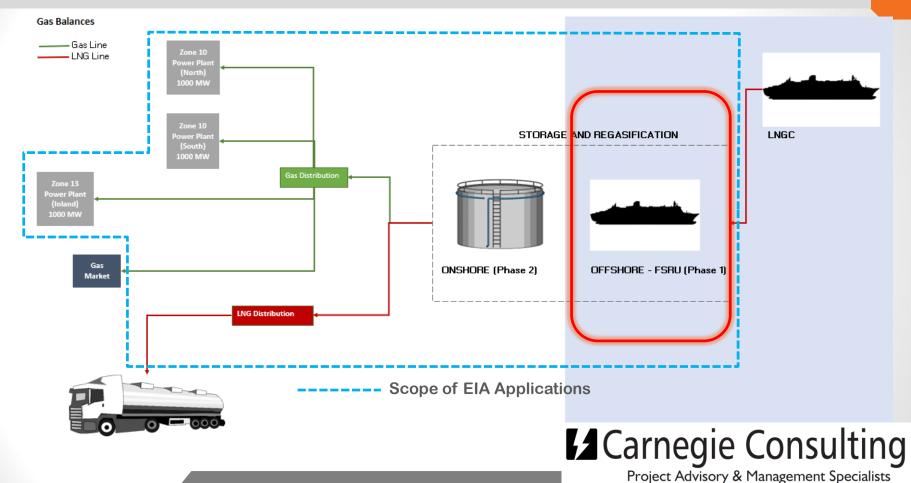
#### **Zone 13 Power Plant**

- 1,000 MW
- RE, OCGT, or CCGT
- Air Cooled
- Liquid fuels (diesel and fuel oil) for backup

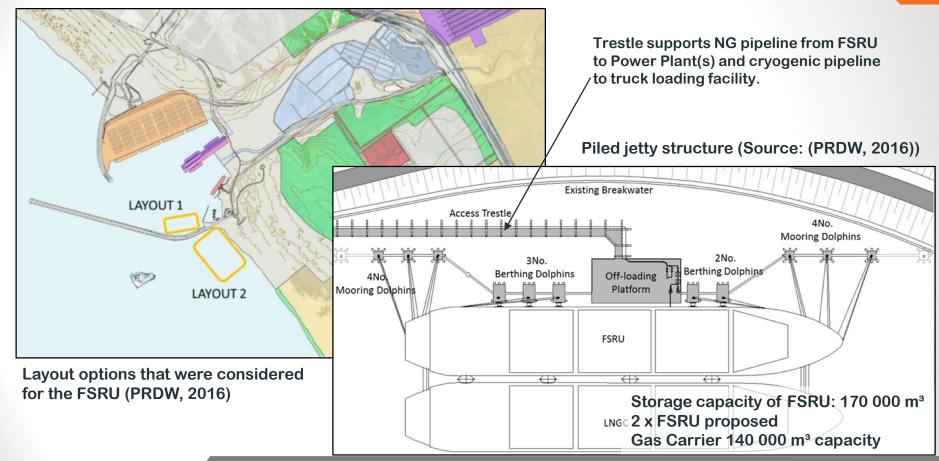
### 2 x Zone 10 power Plants

- 2 x 1000 MW power plants
- RE, OCGT, or CCGT
- Liquid fuels (diesel and fuel oil) for backup
- Sea water cooled or air cooled

Intention is to have a stand alone Environmental Authorisation for each of these components.



# 2. Project Description – Gas Infrastructure



# 2. Project Description – gas infrastructure example pictures

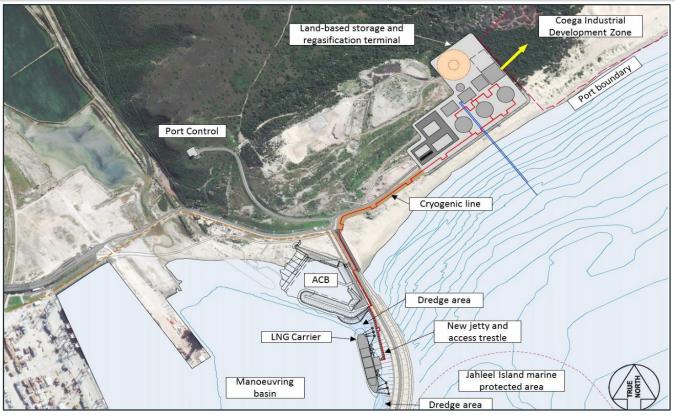








# 2. Project Description – Gas Infrastructure



Land Based gas storage and regasification (PRDW, 2016)

Land based LNG Storage Tanks: 160 000 m³ per tank 2 x tanks proposed

Gas Carrier: 140 000 m<sup>3</sup> capacity

Length of pipeline: >1 000 m Diameter of pipeline: tbd

Note that this is a concept drawing only and that it is expected that at least the following elements will change:

- Number of tanks
- Sea water intake and outfall

### 2. Project Description – Gas Infrastructure

### LNG Regasification

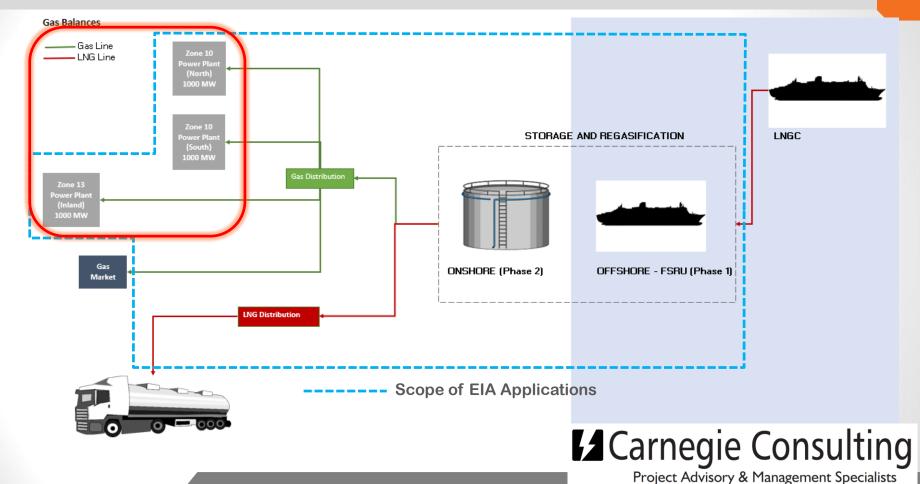
- Requires seawater for heating
- FSRU: heating water obtained directly from the ship, and discharged into the Port
- Land Based Storage: Seawater intake and discharge pipelines. Unknown dimensions and alignment. To be assessed in Marine Pipeline servitude EIA
- Temperature differential of -8°C
- Volumes 20 840 m³ per hour
- 19 285 tpd

#### **Gas Distribution**

- Gas pipelines to the power plants and the truck loading facility
- > 6.0 km to the Zone 13 power plant and existing Dedisa peaking power plant
- < 1 km to the Zone 10 power plants and Truck loading Facility
- Pipeline diameters: tbc

### **LNG Truck loading facility**

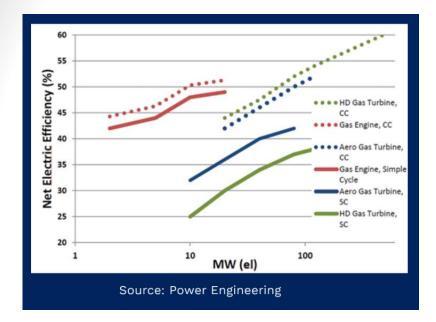
- Estimated offtake of 787 tpd of LNG
- 40 x 20 ton LNG trucks per day



# 2. Project Description – Power Plants

- 1000 MW each
- Base load or mid-merit
- Gas Turbine or Gas Engine
- Open Cycle or Closed Cycle
- Air Cooled (Zone 10 power plants have option for once through sea water cooling)
- Footprint: 7 11 Hectares / power plant
- No carbon capture proposed
- Onsite storage of diesel (2 x 4000 m³) and fuel oil (2 x 4000 m³)
- Power evacuation via already approved power lines. Short power lines and substation to connect to these

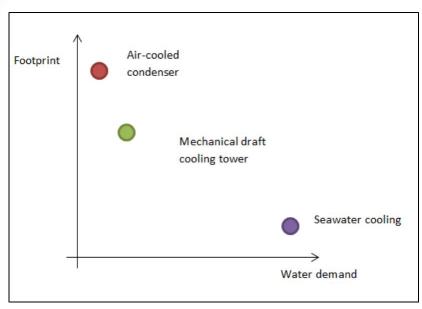
### 2. Project Description – Options



### **Discussion points:**

- Choice of generator and open or closed cycle affects efficiency of power output, and responsiveness to demand fluctuations
- Fuel volumes, and gas infrastructure specifications, based on open cycle gas turbine operating at 100% daily load factor at an 80% annual despatch factor, i.e. base load
- Closed cycle requires demineralised water (±790 m³/day/power plant). Source of this water from municipality or return effluent water from CDC WWTW (once developed)

# 2. Project Description – Air Cooled or Seawater cooled



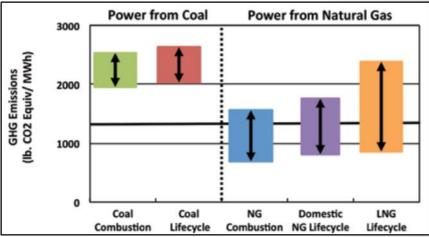
Footprint and water demand for three cooling methods (Source: Mott Macdonald, 2016).

### **Discussion topics:**

- Seawater cooling not feasible in Zone
   13 inland power plant
- Sea water volumes: 56 196 m³ per hour required per power plant
- Temperature differential of 8°C
- Infrastructure to be assessed by Marine Pipeline Servitude EIA to determine environmental feasibility before taking seawater cooling forward as an option

### 3. Need and Desirability

- In terms of the Department of Energy's IRP and determination
- Location within a Special Economic Zone – consistent with land use planning and strategic goals of the Coega Development Corporation
- Potential to unlock gas industry in region



Fuel combustion and Life-cycle GHG Emissions for Existing Power plant technology (Source: (Transnet SOC Ltd, 2015))

# 4. Listed Activities potentially triggered

#### Listing Notice 2

- 2 Generation of electricity from a non-renewable resource (>20MW) each plant
- 4 Storage & handling of a dangerous good (>500 m³) gas infrastructure includes on & off shore storage of ~300,000m³ LPG
- 6 Air Emission License each power plant (burning of gas); CWDP (TBC)
- 7 Bulk transportation of dangerous goods LNG / NG pipelines if outside SEZ
- 14 Anchored platform on, below, or along the seabed required for LNG terminal mooring

#### Listing Notice 3

- 12 Clearing 300 m<sup>3</sup> veg in littoral active zone / 100 m of high water mark for zone 10 & gas infrastructure
- 14 Infrastructure >10 m<sup>2</sup> in front of development setback / 10 km of national park gas infrastructure

#### Listing Notice 1

- 11 Powerlines >275kV and associated infrastructure connecting the power plants to authorised infrastructure
- 14 Storage of dangerous goods (>80 m³, <500 m³) back-up fuels for each power plant
- 15, Structures in the coastal public property >50 m<sup>2</sup>
- 17 (15), or 100m of the sea (17) -
  - Footprint in Zone 10 & gas infrastructure
- 18 Stabilising dunes / littoral active zone Zone 10) & gas infrastructure
- 19A Infilling or depositing of material (<5 m³) in the littoral active zone, or 100 metres of the highwater mark Zone 10 & gas infrastructure

# 5. Approach to dealing with technology options

Input / Output model for the power plant based on consideration that has the greater environmental impact:

- Open Cycle Gas Engine (OCGE), Open Cycle Gas Turbine (OCGT), Combined Cycle Gas Turbine (CCGT)
  - □ OCGT has lowest efficiency (power output per unit of gas) → gas volumes based on OCGT
  - □ CCGT has requirement for steam generation, → demineralised water demand based on CCGT
  - □ OCGE has largest footprint → space requirements based on OCGE
- Operating conditions

Assumes 100% capacity, 80% of the time, i.e. above intended mid-merit range. Determines:

- Gas volumes
- Air emissions
- Water volumes
- Cooling water technology would use 'once through' sea water cooling for assessment
  - □ 'Once through cooling' technically feasible for Zone 10 power plants. Demand for sea water based on 'once through cooling'
  - ☐ Air cooling would require more space → space requirements based on Air Cooling

### 6. Preliminary Desktop Assessments

Baseline descriptions of the following based on other studies in the SEZ

- Geology
- Topography
- Climate
- Heritage (terrestrial archaeology & palaeontology)
- Surface & groundwater including wetlands
- Ecology
- Air quality including Coega's air quality monitoring network
- Near shore plume analysis and impact assessment (Marine Pipeline Servitude EIA)
- Marine Modelling Study on Effluent Dispersion (Marine Pipeline Servitude EIA)
- Marine specialist report for the marine pipeline (Marine Pipeline Servitude EIA)

## 7. Identified impacts, associated assessments, proposed ToR

- Air quality
  - Increased air emissions from power plants decreasing ambient air quality
  - Emissions will primarily comprise CO<sub>2</sub> and NOx with smaller amounts of SO<sub>2</sub> and PM
  - Greenhouse gas / climate change assessment
  - Cumulative impacts
  - Specialist study proposed; Terms of Reference below
- Noise
  - Noise emissions from the power plants resulting in nuisance impacts on nearby tenants and the public
  - The major noise sources are the air-cooled condenser / cooling tower, steam turbine generator, combustion inlet filter house, and exhaust stack / heat recovery steam generator. The combustion turbine and generator may be housed in acoustic enclosures to reduce noise
  - Specialist study proposed; Terms of Reference below
- Quantitative risk assessment
  - Impact of FSRU and LNGC on harbour traffic QRA formed part of the FEL2 study.
  - Would need to update to accommodate two FSRU's and extended to include all bulk storage and pipelines
  - Cumulative in that as storage volumes increase, so does the risk
  - Specialist study proposed; Terms of Reference below

## 7. Identified impacts, associated assessments, proposed ToR

- Marine impacts on port
  - Dredging studies completed during FEL2 study
  - Expect that studies need to be confirmed by marine ecologist
  - Specialist study proposed; Terms of Reference below
- Waste impacts
  - Low significance
  - To be addressed through standard management measures in EMPr
- Visual Impacts
  - · Low significance. In industrial setting.
  - Noted that the EIA for the SEZ specifies that no visible plumes are permitted
  - To be addressed through standard management measures in EMPr, complying with the CDC's architectural guidelines
- Terrestrial ecology impacts
  - Low significance. Development footprint to comply with the Coega Open Space Management Plan
  - Proximity of Damara Tern identified in PPP
  - To be addressed via mitigation measures in the EMPr
- Traffic Impacts
  - Low significance: low traffic volumes and well designed road infrastructure
  - To be addressed through standard management measures in EMPr

## 7. Identified impacts, associated assessments, proposed ToR

- Stormwater & erosion impacts
  - Low significance: more significant for infrastructure close to the coast
  - Expected that a stormwater management plan would be development for each site.
  - Erosion impacts to be addressed through standard management measures in EMPr
- Impacts on surface and groundwater
  - Large quantities of liquid fuels to be stored poses a risk of water contamination
  - Existing baseline study in Zone 13, and a separate baseline study for Zone 10 being proposed
  - Expect that all infrastructure will be designed according to legally binding standards
  - Proposed to evaluate based on desktop information and through standard management measures in EMPr
- Socio-Economic Impacts
  - EA for the SEZ includes measures to address socio-economic impacts with the development of the SEZ in general. No significant deviations from these impacts are expected
  - Propose to include standard management measures in EMPr
- Heritage (archaeology and palaeontology)
  - Already assessed for the affected zones
  - Propose to include standard management measures in EMPr

# 8. Specialist studies – ToR for Air quality / Climate change study

- Baseline assessment;
- Description of the sources of emissions and compilation of an emissions inventory for the proposed facility;
- Dispersion modelling for key pollutants identified as part of the emissions inventory;
- Predict ambient concentrations as isopleths on a base map of the surrounding area;
- Assessment of impacts during construction, operation and decommissioning phases of the projects;
- Identify 'abnormal' operating conditions (e.g. start-up & maintenance) that may lead to air emissions;
- Make recommendations of management and mitigation measures (including optimal height of stacks) associated with impacts from the proposed power plants;
- Determine GHG emissions and conduct a climate change assessment.

# 8. Specialist studies – ToR for Noise study

- Identify receptors that are potentially sensitive to noise through a desktop study;
- Conduct noise measurements conforming to the specification set out in the SANS guidelines;
- Ensure that the protocols followed during the survey work will comply with those set out within ISO 1996-1:2003, equivalent SANS guidelines;
- Describe the affected environment (the "baseline"), based on existing and, where required, primary information obtained as part of the specialist study;
- Identify and assess impacts, including cumulative impacts of the project;
- Recommend practical mitigation and optimisation measures; and
- Provide recommendations and management measures for consideration.

# 8. Specialist studies – ToR for Marine ecology study

- Provide a broad baseline description of the marine environment (including aspects relating to water quality, current, marine ecology and others considered necessary by the specialist) at the Port of Ngqura;
- Assess the significance of the potential impact of the project and related facilities on the marine environment, including potential impacts on mariculture;
- Recommend mitigation measures to minimise impacts and enhance benefits associated with the proposed project;
- Provide detailed mitigation and monitoring measures if required; and
- Identify any applicable legislation and/or license/permit applications that may be required, such as a Coastal Waters Discharge Permit, and describe requirements.

### 8. Specialist studies – ToR for QRA

- Conduct a Quantitative Risk Assessment on the following:
  - FSRU and LNGC berth
  - Cryogenic pipeline
  - Land based storage of LNG
  - Land based regasification plant
  - NG pipelines from regasification plant (FSRU or land based) berth to power plants

Note that this study will not be intended as an MHI study, although the QRA elements would be similar, due to the absence of detailed information required for MHI. The intention is to determine safe distances/buffers to nearby activities and anticipated measures that would be required to maintain acceptable risk levels.

### 9. Public Participation

- Newspaper Advert one for all applications, and one notice in the CDC building (not on the site).
- Distribute BID for comment pre-application (previously done in 2016).
- No Pre-application DSR, due to time pressure recognised that this poses a risk during scoping
- Key stakeholders: ELC, SEZ tenants, DoE, Eskom, Transnet, DEDEAT, SANParks, DEA Oceans & Coasts, DEA's Biodiversity, DWS, NMBM air emission licensing department, Provincial air quality
- Public open days proposed at EIA stage
- Reports made available on line and in two main libraries in Port Elizabeth and Motherwell
- Each application to have separate reports, and comments to be recorded at a project specific level, unless applicable to all.
- Will comply with the Statutory comment periods on each report
- Based on IAP comments received on the 2016 BID, the following key social and environmental concerns have been identified:
  - Impact on air quality, including upset conditions (e.g. start up and maintenance);
  - Noise impacts;
  - Impacts on the marine environment, related to discharge of cooling water;
  - Impacts on the Damara Tern and breeding site(s) near Zone 10;
  - Safety concerns relating to firefighting.

# 10. Timelines for applications

- Delay submission of the two zone 10 power plant applications (seawater cooled) & proceed with zone 13 air cooled power plant & gas infrastructure applications
- Include simplified Gantt chart indicating anticipated schedule for the 4 applications

# **Thank You**

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#### Record of Second Pre-Application Meeting: Coega Gas to Power Project DEA Boardroom, 12 June 2019

#### Present:

ME Muhammad Essop (DEA) CA Coenrad Agenbach (DEA) MK Mmamohale Kabasa (DEA) MM Malusi Madonsela (DEA) **VB Viwe Biyana** (CDC) SN Sandisiwe Ncemane (CDC)

CC Chris Carnegie (Chris Carnegie Consulting)

DK Darryll Kilian (SRK) **RG** Rob Gardiner (SRK)

#### Agenda items

#### 1. Welcome and Introductions

Round of introductions by all.

#### 2. Apologies

Nicola Rump

#### 3. Circulation of the attendance register

Attendance register was circulated and is attached.

#### 4. Background & Project Description

RG provided a brief overview of the proposed project. A copy of the presentation delivered is attached. The following key points were mentioned:

- CA queried whether Eskom are happy to have the gas pipeline in the power line servitude. SN confirmed that the servitude is a corridor for multiple services and is administered by the CDC. SN further confirmed that due to the relatively short distance of the pipeline, the close proximity to power lines is not a concern.
- b. MK asked how long the gas pipeline from the jetty structure to the gas distribution hub / land based storage site was. RG confirmed that this would be more than a kilometre.
- c. CA asked for confirmation that there are minimum setback distances from pipelines and gas infrastructure and that this had been identified in determining the infrastructure layout. RG confirmed that this formed part of the feasibility studies.
- d. CA gueried whether storage was sea based or land based, i.e. are they alternatives. RG responded that options are to accommodate phasing, initially from floating storage & regasification, and as the economics of the project warrant it, becoming land based storage & regasification. RG further confirmed that both sea and land based infrastructure would be applied for in a single application.
- e. CC confirmed that 'layout option 2' for the port infrastructure, depicted in the presentation, was eliminated from further consideration due to the economics of re-aligning the breakwater structure.
- CC confirmed that maximum storage would be 340 000 m³ at any one time. There would be a transition period where land based storage is constructed while the floating storage is still operational, but total gas stored at any one time would not exceed this amount.
- g. CA asked whether the zoning on these sites is suitable. VB confirmed that the project is consistent with the CDC's zoning masterplan.

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h. ME asked what would happen to the FSRU once the land based storage is commissioned. CC confirmed that the infrastructure for docking would remain, but the FSRU would up anchor and the LNGC would dock where the FSRU had previously docked.

- i. With reference to the infrastructure in the Port, ME asked what would change once the FSRU is removed and storage & regasification transitions to land based. CC confirmed that there is no change to the infrastructure when this transition to land based storage occurs.
- j. CC clarified that in terms of volumes, land based storage could be more than that stored in FSRUs. The EIA however will assess the total (maximum) storage volume forecast.
- k. CA asked whether there would be other storage facilities, e.g. natural gas at, or for, off takers. CC confirmed that there would not be. It was also confirmed that there would be other storage at the power plants (diesel and fuel oil).
- CA asked for clarification on the off takers of gas. CC clarified that there would be three 1 000 MW power plants, Dedisa, and then LNG for trucks, and NG for trucks.
- m. RG commented that, due to the volume of trucks expected for off taking of gas, a traffic impact assessment is not required. He further confirmed that expected traffic volume falls within the design capacity of the road network within the SEZ.
- n. RG confirmed that the assessment is based on power plants operating at 100% capacity 80% of the time, i.e. Base Load.
- o. CC clarified that the power generation technologies would be a combination of gas turbines and gas engines, and so these should not be viewed as alternatives. The EIA will look at configurations that have the highest negative impact, i.e. least efficient conversion of gas to power.
- p. Clarified that there would be a need for makeup water for the closed cycle technology option (less than 1 ML/day per power plant). ME queried the source of this water, and confirmed that the only current source for water is from the municipality. RG confirmed that desalination as an option, as previously discussed, will not be considered in the EIA. In the event that desalination becomes feasible at some point in the future, then that would be assessed separately.
- q. ME highlighted the need to determine the best practicable environmental option. This might involve considering a number of configurations. The assessment should aim to determine the parameters within which the internal configuration can be adjusted.
- r. Discussed that the primary fuel source is intended to be Gas, with liquid fuels (diesel, fuel oil) only as a backup. If an authorisation is issued, then it will need to specify this.
- s. CC confirmed that each power plant would accumulate power at one point on site (a collector substation). This is included in the scope of the EIA.
- t. Each power plant will have two 400 kV lines to evacuate that amount of power. ME confirmed that the EIA would need to describe the alignment of these power lines.
- u. RG confirmed that seawater cooling might be feasible for the Zone 10 power plants. It has however been decided to delay those two power plant EIAs until the marine pipeline servitude EIA has determined the feasibility of sea water cooling.
- v. The meeting concluded that seawater/air cooling option cannot be a hybrid system, as with engines, but the EIA must determine the Best Practicable Environmental Option (BPEO) in terms of cooling.
- w. CC queried whether air cooling can be applied for even if sea water cooling was assessed as the BPEO. ME confirmed that an amendment can be applied for at a later stage and would then determine, based on the information available at that time, whether sea water cooling is the BPEO. Importantly, the EIA needs to consider cooling technologies as alternatives.

#### 5. Proposed Approach with regard to Authorisations / Phasing of EIA

RG provided a brief overview of the proposed approach to the EIA process. Further details are provided in the presentation. The following key points were mentioned:

- a. Confirmed that roads within the SEZ are addressed in the original EIA for the SEZ. ME advised that access roads within each of the power plants should be listed, and that the roads within the SEZ are described in the EIA reports.
- b. Highlighted that there is a significant amount of specialist work already completed in the SEZ and this will be used in the EIA process.
- c. VB asked about the interaction between DEA and the NMBM (as the authority for the Air Emission License). ME clarified that the NMBM and the Provincial Authority would be commenting authorities, and they might be approached directly by DEA, in addition to input made during the EIA process.
- d. ME advised that DEA does not need permission from other Departments in order to make a decision, but does expect to get comments.
- e. CA advised that the ELC meetings might be useful to supplement comments, but that the EAP needs to obtain comments within the prescribed commenting timeframes, which might not align with the ELC meetings and timeframes. The EAP must notify all relevant parties and request comments as part of the EIA process.

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f. ME reiterated that conducting PPP prior to submitting the application is advised, but that it is not a legal requirement.

- DEA advised that the Department looks at extensions critically and does not grant them easily.
- h. CC clarified that the message from DEA is not to rush to submit the application, but to get the background studies done and obtain views of stakeholders.
- i. ME advised that the EAP can submit documents faster than the prescribed times.
- j. CA asked about the Quantitative Risk Assessment. Recommended that the capacity of emergency services to respond to emergency situations be addressed in the study, noting that this is not the final Major Hazard Installation study.
- k. CA highlighted the proximity of the Marine Protected Area in relation to marine impact studies.
- I. RG noted that the impact of cooling water inside the Port will also be addressed. ME highlighted the need for the EIA to ensure that these studies are still relevant.
- m. MK highlighted the need in the EMPr to make a clear distinction between the phases of gas infrastructure development. In effect one would have an EMPr that addresses sea-based storage, and one that addresses land-based storage.
- n. ME recommended that climate change be assessed separately from air quality. He also recommended that the Climate Change department within DEA be consulted.
- o. CA advised that the climate change assessment also consider the impact of the climate change on the facility, e.g. sea level rise and how this can be accommodated.
- p. ME advised that the marine assessment should evaluate all infrastructure in the marine environment.
- q. CA highlighted the need for cumulative assessment, especially for air quality impacts, e.g. for each additional power plant.
- r. MK advised that the mitigation measures must be practical and enforceable.
- s. ME advised that the use of the CDC building TV screen is not sufficient and an on-site notice is required (e.g. at entrances).
- t. RG brought to the meeting's attention that due to time pressures, no pre-application scoping report is proposed. ME highlighted risks associated with this approach, and that the method of obtaining input is not prescribed by the regulations.
- u. ME to provide contact details for DEA's Air Quality and Climate Change departments.
- v. ME advised that copies of draft reports need to be submitted to DEA, Biodiversity Conservation, Air Quality, and Climate Change. Each Department to advise on the requirements for a report (i.e. hard copy of soft copy).
- w. DEA needs one colour copy of each report (not a lever arch file) and one USB (entire report on single USB, with all appendices etc.). It is important to check that the USB is not locked or corrupted. MK requested that a soft copy of the application form be included on the USB.
- x. ME placed on record that when an application changes during the application process, that the revised application form be submitted together with the relevant report.
- y. ME highlighted the importance of compliance with Chapter 6 of the EIA regulations.
- z. RG confirmed the intention to submit an application form before the end of July. ME highlighted the need to confirm the measurements recorded as 'tbc' in the presentation.
- aa. ME reminded meeting the EAP is an individual and not SRK.

#### 6. Discussion regarding the way forward

The following discussion points were raised during the closing of the meeting:

- a. ME confirmed that the meeting was beneficial.
- b. ME offered the Department's guidance on issues that might arise during the course of the EIA.
- c. All communications on the project should be directed to both CA and ME, who will send on to the relevant officials as required.
- d. MK highlighted that comments made by the Department need to be addressed and that if these aren't understood the EAP is welcome to contact the Department for clarification.
- e. ME advised that, when submitting the application form, the officials in this meeting are mentioned by name so that the file gets allocated to the same officials.

#### 7. Closure

The meeting was closed at approximately 12h30.

Minutes compiled by:

**Rob Gardiner** 

Principal Environmental Scientist

#### SRK Consulting (South Africa) (Pty) Ltd

SRK Consulting Page 4

#### Attachments:

- Attendance register
   Copy of presentation

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Meeting:	THE RESERVE OF THE PARTY OF THE	Second Pre-applica	Second Pre-application meeting for the Coega Gas to Power EIA	Gas to Power EIA		
Project	Project Number:	494090		Date:	12 June 2019	
Venue:		DEA – Pretoria		Time:	10h00	
TITLE	NAME ANI	NAME AND SURNAME	ORGANISATION / DIVISION/CAPACITY	TELEPHONE	EMAIL	SIGNATURE
MR	MUHAMN	MUHAMMAD ESSOP	DEA	012 299 9410	messop@environment.gov.za	Lussy
MS	MMAMOH	MMAMOHALE KABASA	DEA	012 399 9420	mkabasa@environment.gov.za	Contract of the contract of th
MR	COENRAD	COENRAD AGENBACH	DEA	012 399 9403	cagenbach@environment.gov.za	How Dank.
MS	SANDISIW	SANDISIWE NCEMANE	сос	082 145 5853	Sandisiwe.Ncemane@coega.co.za_	
MS	VIWE	VIWE BIYANA	CDC	078 134 7381	Viwe.Biyana@coega.co.za	San
MR	DARRY	DARRYLL KILIAN	SRK	011 441 1297	DKilian@srk.co.za	
MR	ROBG	ROB GARDINER	SRK	002 897 7026	RGardiner@srk.co.za	M Kali
MR	CHRIS (	CHRIS CARNEGIE	CARNERGIE ENERGIE	082 605 1366	chris@chriscarnegie.com	
Mr	Malusi Madonsela	ladonsela	ОЕА	012 3999053	Smodensela@environmetrgev.za	Meters Habert

# APPENDIX 2 PROOF OF PAYMENT/ MOTIVATION FOR EXCLUSION

No payment required – applicant is an organ of state

#### APPENDIX 3 LIST OF LAND OWNERS WRITTEN CONSENT OF LAND OWNERS

Additional Landowners are as follows:
Port of Ngqura – Transnet National Ports Authority
See attached letter from TNPA confirming consent for the EIA



#### 5 March 2019

#### Ms. Sandisiwe Ncemane

Coega Development Corporation Corner Alcynon & Zibuko Street Coega SEZ Port Elizabeth, 6100

Dear Madam

#### **RE: CONSENT TO UNDERTAKE GAS TO POWER EIA STUDIES**

We refer to our correspondence dates 1 March 2019 and your acceptance of the conditions therein as per your electronic mail of 4 March 2019.

The TNPA hereby grants its consent to the CDC undertaking the requested EIA studies for its Gas to Power Project.

Trusting you find the above in order.

Kind Regards

Tandi Lebakeng

Port Manager: Port of Ngqura

**Transnet National Ports Authority** 

E-mail: Tandi.Lebakeng@transnet.net

Transnet SOC Ltd Registration Number 1990/000900/30 TNPA Port of Ngqura N2 Neptune Road Port of Ngqura Port Elizabeth, 6012

P.O. Box 612054 Bluewater Bay, Port Elizabeth South Africa, 2017 T +27 41 507 8495

# APPENDIX 4 LIST OF LOCAL/PROVINCIAL AUTHORITY INVOLVED

Table A: List of Authorities to be notified during EIA process

Title	Name	Company	Capacity
Mr	Sibulele Nondoda	DEDEAT	Coastal Zone Management (Cacadu Region)
Mr	Andries Struwig	DEDEAT	Assistant Director IEM
Mr	Dayalan Govender	DEDEAT	Regional Manager
Mr	Lyndon Mardon	DEDEAT	Provincial Air Quality Officer
Adv	Avhantodi Munyai	DEFF	Air Quality
	Jongikhaya Witi	DEFF	Climate change monitoring and evaluation
Ms	Lerato Moja	DEFF	Air Quality
	Mactavish Makwarela	DEFF	Climate change mitigation
Mrs	Masina Litsoane	DEFF	Environmental Impact Management
	Mapula Tshangela	DEFF	Climate change mitigation
Mr	Olebogeng Matshediso	DEFF	Air Quality
Ms	Phumeza Skepe	DEFF	Environmental Impact Management
Mr	Sibonele Mbanjwa	DEFF	Climate change adaptation
Mr	Stanley Tshitwamulomoni	DEFF	Biodiversity
Dr	Thuli Mdluli	DEFF	Air Quality Manager
Mr	Vumile Senene	DEFF	Air Quality
Mr	Wayne Hector	DEFF	Deputy Director: Strategic Infrastructure Development
Mr	Muhammad Essop	DEFF	Assistant Director – Priority Infrastructure Projects
Mr	Coenrad Agenbach	DEFF	Strategic Infrastructure Development
Ms	Milicent Solomons	DEFF	Director: Strategic Infrastructure Development
Dr	Monde Mayekiso	DEFF:Oceans & Coast	Deputy Director General
Mr	Mulalo Tshikotshi	DEFF:Oceans & Coast	Pollution Manager
Mrs	Nitasha Baijnath-Pillay	DEFF:Oceans & Coast	Coastal Pollution Management Division
Mr	Reuben Molale	DEFF:Oceans & Coast	Coastal Pollution Management Division
Dr	Yazeed Peterson	DEFF: Ocean & Coast	Coastal Pollution Management Division
Mr	Vusi Kubheka	DMRE	ASD: Mineral Regulation
Ms	Marisa Bloem	DWS	Water Use Licences
Ms	Ncumisa Mnotoza	DWS	Water Quality Management
Ms	Thandi Mmachaka	DWS	Water Quality Management
Mr	Sello Mokhanya	ECPHRA	
Adv	Lungisa Malgas	SAHRA	Chief Executive Officer
Ms	Briege Williams	SAHRA	Heritage Officer
Ms	Lesa La Grange	SAHRA	Manager
Mr	Ruan Brand	SAHRA	Heritage Officer
Mr	Sizwe Mvunelwa	NMBM: Public Health	Executive Director
Ms	Rosa Blaauw	NMBM	Environmental Manager
Mr	Patrick Nodwele	NMBM: Environmental Health	Director
Ms	Buyiswa Humani	NMBM: Environmental Health	Manager: Air Pollution & Noise Control Section
Dr	Ane Oosthuizen	SANPARKS	National Marine Co-ordinator
Mr	Rob Milne	SANPARKS	Representative
MR	McDonald Mdhuli	DMR	District Roads Engineer
Ms	Deidre Thompson	DMR	Environmental Management
Mr	Azwihangwisi Mulaudzi	DMR	Deputy Director: Mine Environmental Management
Ms	Brenda Ngebulana	DMR	Manager
Mr	Vusi Kubheka	DMR	Acting Regional Manager

# APPENDIX 5 STRATEGIC INFRASTRUCTURE PROJECTS

## Not applicable to this project

# SIP 1: Unlocking the northern mineral belt with Waterberg as the catalyst

- Unlock mineral resources
- Rail, water pipelines, energy generation and transmission infrastructure
- Thousands of direct jobs across the areas unlocked
- Urban development in Waterberg first major post-apartheid new urban centre will be a "green" development project
- Rail capacity to Mpumalanga and Richards Bay
- Shift from road to rail in Mpumalanga
- Logistics corridor to connect Mpumalanga and Gauteng.

# SIP 2: Durban-Free State-Gauteng logistics and industrial corridor

- Strengthen the logistics and transport corridor between SA's main industrial hubs
- Improve access to Durban's export and import facilities
- Integrate Free State Industrial Strategy activities into the corridor
- New port in Durban
- Aerotropolis around OR Tambo International Airport.

# SIP 3: South-Eastern node & corridor development

- New dam at Mzimvubu with irrigation systems
- N2-Wild Coast Highway which improves access into KwaZulu-Natal and national supply chains
- Strengthen economic development in Port Elizabeth through a manganese rail capacity from Northern Cape
- A manganese sinter (Northern Cape) and smelter (Eastern Cape)
- Possible Mthombo refinery (Coega) and transhipment hub at Ngqura and port and rail upgrades to improve industrial capacity and performance of the automotive sector.

# SIP 4: Unlocking the economic opportunities in North West Province

- · Acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure
- Enabling reliable supply and basic service delivery
- Facilitate development of mining, agricultural activities and tourism opportunities
- Open up beneficiation opportunities in North West Province.

### SIP 5: Saldanha-Northern Cape development corridor

- Integrated rail and port expansion
- Back-of-port industrial capacity (including an IDZ)
- Strengthening maritime support capacity for oil and gas along African West Coast
- Expansion of iron ore mining production and beneficiation.

### SIP 6: Integrated municipal infrastructure project

Develop national capacity to assist the 23 least resourced districts (19 million people) to address all the maintenance backlogs and upgrades required in water, electricity and sanitation bulk infrastructure. The road maintenance programme will enhance service delivery capacity thereby impacting positively on the population.

# SIP 7: Integrated urban space and public transport programme

Coordinate planning and implementation of public transport, human settlement, economic and social infrastructure and location decisions into sustainable urban settlements connected by densified transport corridors. This will focus on the 12 largest urban centres of the country, including all the metros in South Africa. Significant work is underway on urban transport integration.

# SIP 8: Green energy in support of the South African economy

Support sustainable green energy initiatives on a national scale through a diverse range of clean energy options as envisaged in the Integrated Resource Plan (IRP2010) and support bio-fuel production facilities.

## Indicate capacity in MW:

# SIP 9: Electricity generation to support socioeconomic development

Accelerate the construction of new electricity generation capacity in accordance with the IRP2010 to meet the needs of the economy and address historical imbalances. Monitor implementation of major projects such as new power stations: Medupi, Kusile and Ingula.

Indicate capacity in MW: Gas infrastructure development in support of 3000 MW gas power generation

### SIP 10: Electricity transmission and distribution for all

Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development.

Align the 10-year transmission plan, the services backlog, the national broadband roll-out and the freight rail line development to leverage off regulatory approvals, supply chain and project development capacity.

# SIP 11: Agri-logistics and rural infrastructure

Improve investment in agricultural and rural infrastructure that supports expansion of production and employment, small-scale farming and rural development, including facilities for storage (silos, fresh-produce facilities, packing houses); transport links to main networks (rural roads, branch train-line, ports), fencing of farms, irrigation schemes to poor areas, improved R&D on rural issues (including expansion of agricultural colleges), processing facilities (abattoirs, dairy infrastructure), aquaculture incubation schemes and rural tourism infrastructure.

# SIP 12: Revitalisation of public hospitals and other health facilities

Build and refurbish hospitals, other public health facilities and revamp 122 nursing colleges. Extensive capital expenditure to prepare the public healthcare system to meet the requirements of the National Health Insurance (NHI) system. The SIP contains major builds for 6 hospitals.

# SIP 13: National school build programme

A national school build programme driven by uniformity in planning, procurement, contract management and provision of basic services. Replace inappropriate school structures and address basic service backlog and provision of basic services under the Accelerated School Infrastructure Delivery Initiative (ASIDI). In addition, address national backlogs in classrooms, libraries, computer labs and admin buildings. Improving the learning environment will strengthen outcomes especially in rural schools, as well as reduce overcrowding.

# SIP 14: Higher education infrastructure

Infrastructure development for higher education, focusing on lecture rooms, student accommodation, libraries and laboratories, as well as ICT connectivity. Development of university towns with a combination of facilities from residence, retail to recreation and transport. Potential to ensure shared infrastructure such as libraries by universities, FETs and other educational institutions. Two new universities will be built - in Northern Cape and Mpumalanga.

# SIP 15: Expanding access to communication technology

Provide for broadband coverage to all households by 2020 by establishing core Points of Presence (POPs) in district municipalities, extend new Infraco fibre networks across provinces linking districts, establish POPs and fibre connectivity at local level, and further penetrate the network into deep rural areas.

While the private sector will invest in ICT infrastructure for urban and corporate networks, government will co-invest for township and rural access, as well as for e-government, school and health connectivity.

The school roll-out focus is initially on the 125 Dinaledi (science and maths-focussed) schools and 1525 district schools. Part of digital access to all South Africans includes TV migration nationally from analogue to digital broadcasting.

### SIP 16: SKA & Meerkat

SKA is a global mega-science project, building an advanced radio-telescope facility linked to research infrastructure and high-speed ICT capacity and provides an opportunity for Africa and South Africa to contribute towards global advanced science projects.

# SIP 17: Regional integration for African cooperation and development

Participate in mutually beneficial infrastructure projects to unlock long-term socio-economic benefits by partnering with fast growing African economies with projected growth ranging between 3% and 10%.

The projects involving transport, water and energy also provide competitively-priced, diversified, short and medium to long-term options for the South African economy where, for example, electricity transmission in Mozambique (Cesul) could assist in providing cheap, clean power in the short-term whilst Grand Inga in the DRC is long-term. All these projects complement the Free Trade Area (FTA) discussions to create a market of 600 million people in South, Central and East Africa.

### SIP 18: Water and sanitation infrastructure

A 10-year plan to address the estimated backlog of adequate water to supply 1.4m households and 2.1m households to basic sanitation.

The project will involve provision of sustainable supply of water to meet social needs and support economic growth. Projects will provide for new infrastructure, rehabilitation and upgrading of existing infrastructure, as well as improve management of water infrastructure.

### SIP 19: Water and Sanitation

- a. Vaal River System including Phase 2 of the Lesotho Highlands Water Project: Gauteng
- b. Phase 2A of the Mokolo Crocodile River (West) Augmentation Project: Limpopo
- c. uMkhomazi Water Project: KwaZulu Natal
- d. Olifants River Water Resource Development Project Phase 2: Limpopo
- e. Vaal-Gamagara: Northern Cape
- f. Mzimvubu Water Project: Eastern Cape
- g. Rehabilitation of the Vaalharts-Taung Irrigation Scheme: Northern Cape & North West
- h. Groot Letaba River Water Development Project Nwamitwa Dam: Limpopo
- i. Berg River Voëlvlei Augmentation Scheme: Western Cape
- i. Rustfontein Water Treatment Works: Free State
- k. Orange-Riet Canal Increase of Bulk Raw Water Supply: Free State

# SIP 20: Energy

- a. Emergency/Risk Mitigation Power Purchase Procurement Programme (2000MW): National
- b. Small IPP Power Purchase Procurement Programme (100MW): National
- c. Embedded Generation Investment Programme (EGIP)-400MW: National

# SIP 21: Transport

- a. N1 Windburg Interchange to Windburg Station: Free State
- b. N1 Musina Ring Road: Limpopo
- c. N1 Polokwane Eastern Ring Rd Phase 2: Limpopo
- d. N1 Ventersburg to Kroonstad: Free State (2 projects in One)
- e. N2 Mtunzini Toll Plaza to Empangeni T-Junction: KwaZulu Natalf. N3 Cato Ridge to Dardanelles: KwaZulu Natal
- g. N3 Dardenelles to Lynnfield Park: KwaZulu Natal
- h. N3 Paradise Valley to Mariannhill Toll Plaza: KwaZulu Natal
- i. N2 Edwin Swales to South of EB Cloete Interchange: KwaZulu Natal
- j. N3 Ashburton Interchange to Murray Road: KwaZulu Natal
- k. N3 Mariannhill Toll Plaza to Key Ridge: KwaZulu Natal
- I. N2 EB Cloete Interchange: KwaZulu Natal
- m. Small Harbours Development: National
- n. N3 New alignment via De Beers Pass: Free State
- o. Boegoebaai Port and Rail Infrastructure Project: Northern Cape

# SIP 22: Digital Infrastructure

a. National Spatial Infrastructure Hub

# SIP 23: Agriculture and Agro-processing

- a. Marine Tilapia Industry: Eastern Cape
- b. Natural Dehydrated Foods: Mpumalanga

SIP 24: Human Settlements

# APPENDIX 6 LIST OF SGIDS / COORDINATES OF THE BOUNDARY OF THE PROPERTY OR PROPERTIES / COORDINATES OF LISTED ACTIVITIES

Coordinates of the boundary of the site within which the facility will be located

Infrastructure	Latitude	Longitude
Cryogenic Pipeline	-33.79991347530	25.69747568290
	-33.79984014190	25.69778937650
	-33.79771889570	25.69706931640
	-33.79756649620	25.69744521720
	-33.79158902580	25.69403703480
	-33.78333133880	25.70627454060
	-33.78263523470	25.70568826780
	-33.77981710310	25.71044693610
Fire Water Pipeline	-33.79991347530	25.69747568290
	-33.79984014190	25.69778937650
	-33.79771889570	25.69706931640
	-33.79756649620	25.69744521720
	-33.79158902580	25.69403703480
	-33.78333133880	25.70627454060
	-33.78263523470	25.70568826780
Gas Pipelines	-33.79991347530	25.69747568290
	-33.79984014190	25.69778937650
	-33.79771889570	25.69706931640
	-33.79756649620	25.69744521720
	-33.79158902580	25.69403703480
	-33.78333133880	25.70627454060
	-33.78263523470	25.70568826780
	-33.77981710310	25.71044693610
	-33.78388497520	25.70545309700
	-33.77992966400	25.70203260390
	-33.77657691310	25.70763234670
	-33.74905734380	25.67534484500
	-33.74687045750	25.68003913540
	-33.74811719180	25.67453223630
	-33.74456911740	25.67560090850
FSRU	-33.79991347530	25.69747568290
LNG & Gas Hub	-33.77569624560	25.70683012000
	-33.77367313810	25.71017778030
	-33.77809610730	25.71402790860
	-33.78009666300	25.71070893620

Cooling Pipeline	-33.79561220659	25.69461233785
	-33.78700572693	25.70444500000
	-33.7841473	25.70565973
	-33.78561545	25.70326513
	-33.78346096	25.70676213
	-33.78165053	25.70352073
	-33.7813619	25.70405874
	-33.77993502	25.71051422

# APPENDIX 7 LOCALITY MAP

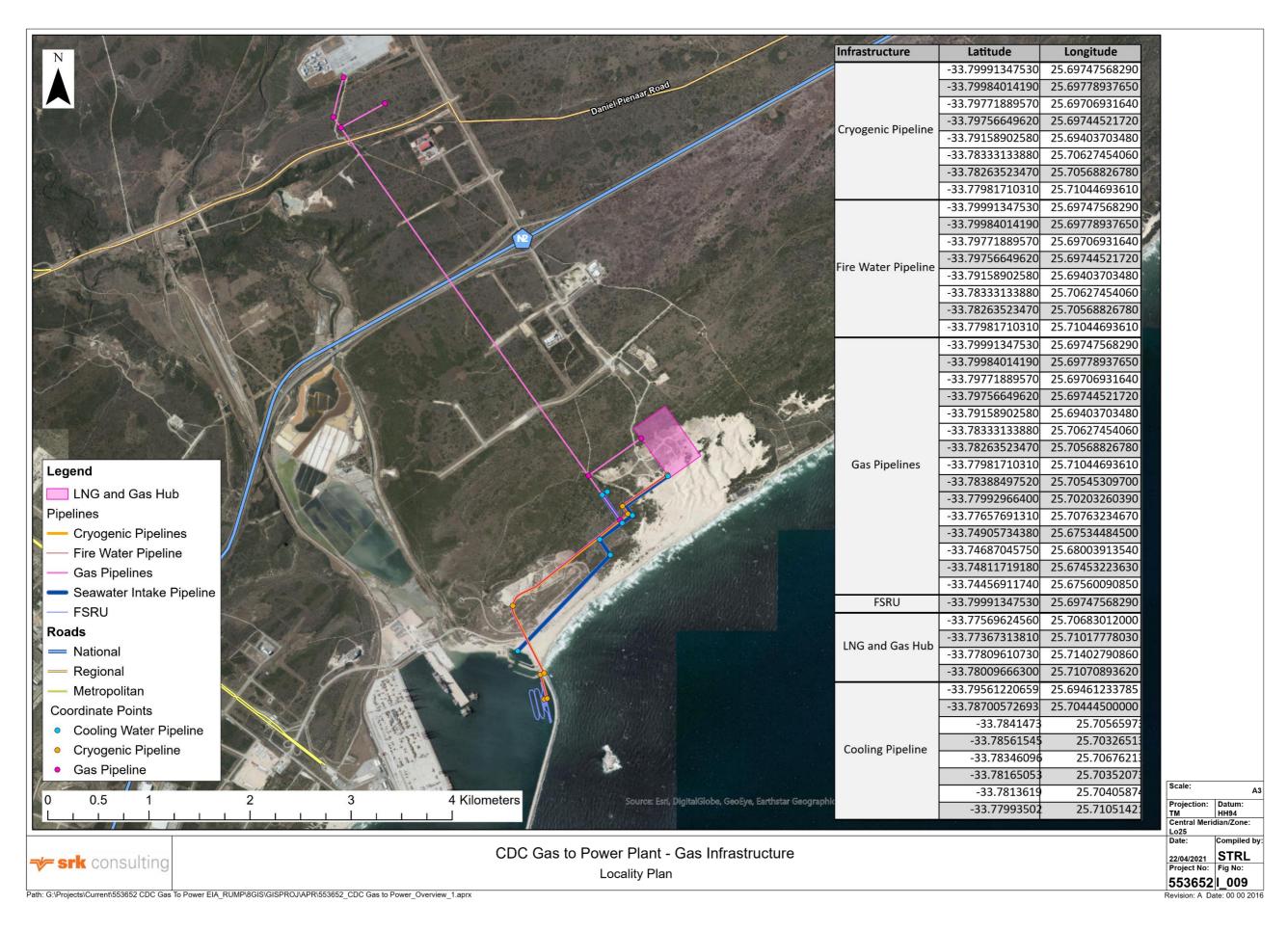


Figure 1: Site locality map for the Gas Infrastructure

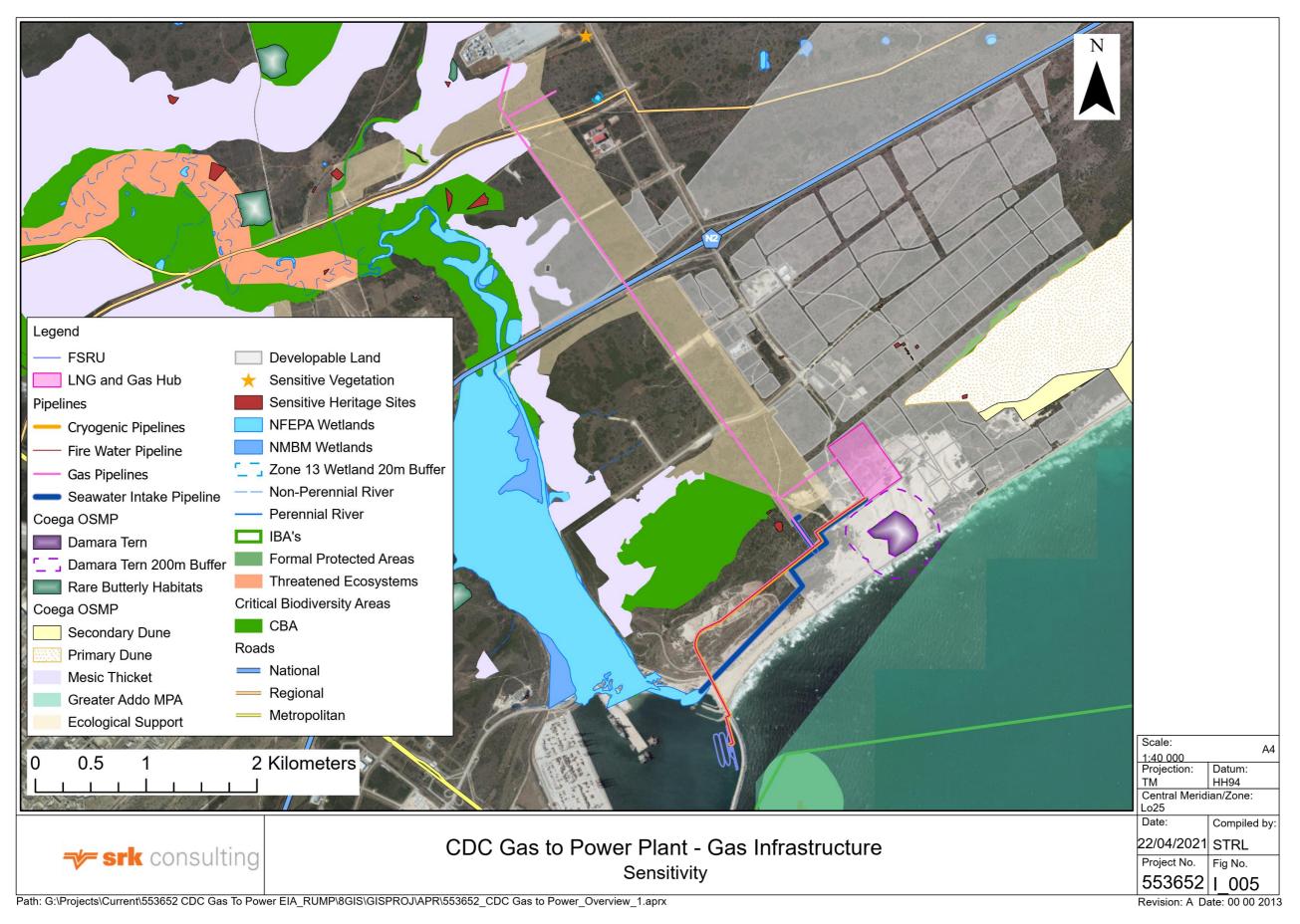


Figure 2: Terrestrial and marine environmental sensitivities in the area of the proposed Gas Infrastructure development footprint including buffer areas identified

# APPENDIX 8 PROJECT SCHEDULE

Store / Activity	Target Dates	
Stage / Activity	Start	End
Submission of applications for environmental authorisation	09 /10/2020	
Submission of Draft Scoping Report (DSR) and Plan of Study for EIA to DEFF	09 /10/2020	
Public Comment Period for DSR	09 /10/2020	09/10/2020
Submission of Final Scoping Report and Plan of Study for EIA to DEFF	20/11/2020	
DEFF approval of Plan of Study for EIA (potentially including recommendations)	20/11/2020	22/01/2021
Complete Specialist Studies and Compile Draft EIR		05/02/2021
Public Comment Period for Draft EIR	16/03/2021	18/04/2021
Submit Final EIR to DEFF for a decision	26/04/2021	
DEFF decision making period on Final EIR (107 days)	27/04/2021	13/08/2021

# **APPENDIX 9 DECLARATION OF THE APPLICANT**

# I. MOGAMAD SADIEK DAVUS . declare that -

- I am, or represent<sup>1</sup>, the applicant in this application;
- I have appointed an Environmental Assessment Practitioner (EAP) to act as the independent EAP for this application / have obtained exemption from the requirement to obtain an EAP2;
- I will take all reasonable steps to verify whether the EAP and specialist/s appointed are independent and have expertise in conducting environmental impact assessments or undertaking specialist work as required, including knowledge of the Act, the EIA Regulations and any guidelines that have relevance to the proposed activity:
- I will provide the EAP and the Competent Authority with access to all information at my disposal that is relevant to the application;
- I will be responsible for the costs incurred in complying with the Regulations, including but not limited to -
  - costs incurred in connection with the appointment of the EAP or any person contracted by the EAP;
  - costs incurred in respect of the undertaking of any process required in terms of the Regulations:
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the Regulations:
  - · costs in respect of specialist reviews, if the Competent Authority decides to recover costs; and
  - the provision of security to ensure compliance with conditions attached to an environmental authorisation, should it be required by the Competent Authority;
- I will inform all registered interested and affected parties of any suspension of the application as well as of any decisions taken by the Competent Authority in this regard;
- I am responsible for complying with the conditions of any environmental authorisation issued by the Competent Authority:
- I hereby indemnify the Government of the Republic of South Africa, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action which the applicant or EAP is responsible for in terms of these Regulations;
- I will not hold the Competent Authority responsible for any costs that may be incurred by the applicant in proceeding with an activity prior to obtaining an environmental authorisation or prior to an appeal being decided in terms of these Regulations;
- I will perform all obligations as expected from an applicant in terms of the Regulations;
- all the particulars furnished by me in this form are true and correct; and
- I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in section 49B of the Act.
- I am aware that in terms of Section 24F of the National Environmental Management Act, as amended (Act No. 107 of 1998) that no listed activity may commence prior to an environmental authorisation being granted by the Competent Authority.

Signature<sup>3</sup> of the applicant/ Signature on behalf of the applicant

COEGA DEVELOPMENT CORPORATION (PLY) Ltd.

Name of company (if applicable)

APRIL 2021

Date:

<sup>1</sup> If this is signed on behalf of the applicant, proof of such authority from the applicant must be attached. If the applicant is a juristic person, a signature on behalf of the applicant is required as well as proof of such authority.

<sup>2</sup> If exemption is obtained from appointing an EAP, the responsibilities of an EAP will automatically apply to the person conducting the environmental impact assessment in terms of the Regulations.

<sup>3</sup> Only original signatures will be accepted. No scanned, copied or faxed signatures will be accepted. An EAP may not sign on behalf of an applicant.

GENELSBITKEFIDE WOON- EN POSADPES

1. Berum de benya van u GEREGISTREERDE WOOS. POSADRES in tiendie seidde.

PEGISTERED RESIDENTIAL AND POSTAL ADDRESS.

1. Keep the poof of your REGISTERED RESIDENTIAL AND POSTAL ADDRESS in this pocket.

DAVIDS VANCERNAGE

MOGAMAD SADIEK VOORBUNE/PORENUES

GESCORTEDISTRIK OF-LAND

CHECKERSON DATE OF BEEN 1967-05 SOUTH AFRICA

DATE INSUED

1988-11-09

Ulteralik of GESAG van DIE Digertuan-demena.

TREASO AV ANTHORITY OF THE

Advocate of the High Court of South Africage Business Centre Conf. Alsyon Rd & Zibuic Street Zone 1, Coege 10Z Pon Elizabeth 6000 South Africa. ATRUE COPY OF THE ORIGINAL Commissioner of Oaths Jack F Matiza

# APPENDIX 10 DECLARATION OF THE EAP

I,Nicola Rump, declare that –	
<ul> <li>I act as the independent environmental assessment practitioner in this application;</li> <li>I have expertise in conducting environmental impact assessments, including knowledge of the any guidelines that have relevance to the proposed activity;</li> <li>I will comply with the Act, Regulations and all other applicable legislation;</li> <li>I will perform the work relating to the application in an objective manner, even if this results in vithat are not favourable to the applicant;</li> <li>I will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulation the application and any report relating to the application;</li> <li>I undertake to disclose to the applicant and the Competent Authority all material information in reasonably has or may have the potential of influencing - any decision to be taken with respect the Competent Authority; and - the objectivity of any report, plan or document to be prepared by submission to the Competent Authority, unless access to that information is protected by law, in indicated that such information exists and will be provided to the Competent Authority;</li> <li>I will perform all obligations as expected from an environmental assessment practitioner in term</li> </ul>	ions when preparing my possession that to the application by y myself for which case it will be
and	
<ul> <li>I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicte terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act.</li> </ul>	d of an offence in
Disclosure of Vested Interest (delete whichever is not applicable)  I do not have and will not have any vested interest (either business, financial, personal or other activity proceeding other than remuneration for work performed in terms of the Regulations;	) in the proposed
I have a vested interest in the proposed activity proceeding, such vested interest being:	
SRK Consulting - Certified Electronic Signature  SSS552/4407/Other  5044-8266-830-RUMP-23/04/2021  This signature has been printed digitally. The Authorhas given permission for its use for this document. The details are stored in the BRK Signature betabase	
Signature of the environmental assessment practitioner	

SRK Consulting (South Africa) (Pty) Ltd

Name of company:

23 April 2021

Date

# APPENDIX 11 SCREENING TOOL REPORT

# SCREENING REPORT FOR AN ENVIRONMENTAL AUTHORIZATION OR FOR A PART TWO AMENDMENT OF AN ENVIRONMENTAL AUTHORISATION AS REQUIRED BY THE 2014 EIA REGULATIONS – PROPOSED SITE ENVIRONMENTAL SENSITIVITY

**EIA Reference number:** 

**Project name:** Proposed COega 1000MW Gas-to-Power - Gas Infrastructure

**Project title:** DEA Screening Tool Report

Date screening report generated: 01/07/2020 09:12:28

**Applicant:** Coega Development Coorporation

Compiler: SRK Consulting

Compiler signature:

# **Table of Contents**

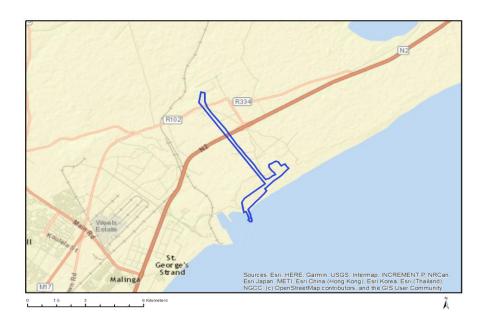
F	roposed Project Location	3
	Orientation map 1: General location	3
N	Nap of proposed site and relevant area(s)	4
	Cadastral details of the proposed site	4
	Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area	4
	Environmental Management Frameworks relevant to the application	5
E	nvironmental screening results and assessment outcomes	5
	Relevant development incentives, restrictions, exclusions or prohibitions	5
	Nap indicating proposed development footprint within applicable development incentive, estriction, exclusion or prohibition zones	6
	Proposed Development Area Environmental Sensitivity	6
	Specialist assessments identified	7
F	esults of the environmental sensitivity of the proposed area	9
	MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY	9
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# **Proposed Project Location**

# Orientation map 1: General location



# Map of proposed site and relevant area(s)



# Cadastral details of the proposed site

# Property details:

No	Farm Name	Farm/ Erf No	Portion	Latitude	Longitude	Property Type
1	COEGA	251	0	33°47'5.59S	25°40'46.77E	Erven
2	COEGA	312	0	33°46'41.45S	25°41'21.42E	Erven
3	COEGA	329	0	33°43'53.15S	25°41'36.46E	Erven
4	COEGA	255	0	33°47'29.26S	25°41'58.21E	Erven
5	COEGA	342	0	33°45'31.28S	25°40'23.29E	Erven
6	COEGA	344	0	33°46'4.27S	25°40'36.77E	Erven
7	COEGA	355	0	33°48'10.02S	25°41'54.19E	Erven
8	COEGA	351	0	33°45'35.12S	25°42'47.18E	Erven

Development footprint<sup>1</sup> vertices: No development footprint(s) specified.

Wind and Solar developments with an approved Environmental Authorisation or applications under consideration within 30 km of the proposed area

No	EIA Reference No	Classification	Status of application	Distance from proposed area (km)
1	12/12/20/2449	Solar PV	Approved	2.2
2	14/12/16/3/3/1/1172	Solar PV	Approved	29.8

<sup>&</sup>lt;sup>1</sup> "development footprint", means the area within the site on which the development will take place and incudes all ancillary developments for example roads, power lines, boundary walls, paving etc. which require vegetation clearance or which will be disturbed and for which the application has been submitted.

# Environmental Management Frameworks relevant to the application

No intersections with EMF areas found.

# Environmental screening results and assessment outcomes

The following sections contain a summary of any development incentives, restrictions, exclusions or prohibitions that apply to the proposed development site as well as the most environmental sensitive features on the site based on the site sensitivity screening results for the application classification that was selected. The application classification selected for this report is:

Utilities Infrastructure | Pipelines | Hydrocarbon | Gas | Pipelines - Hydrocarbon - Gas.

# Relevant development incentives, restrictions, exclusions or prohibitions

The following development incentives, restrictions, exclusions or prohibitions and their implications that apply to this site are indicated below.

Incentiv	Implication
e,	
restricti	
on or	
prohibit	
ion	
Strategic	https://screening.environment.gov.za/ScreeningDownloads/DevelopmentZones/GNR
Transmiss	350 of 13 April 2017.pdf
ion	
Corridor-	
Eastern	
corridor	

# Map indicating proposed development footprint within applicable development incentive, restriction, exclusion or prohibition zones



# Proposed Development Area Environmental Sensitivity

The following summary of the development site environmental sensitivities is identified. Only the highest environmental sensitivity is indicated. The footprint environmental sensitivities for the proposed development footprint as identified, are indicative only and must be verified on site by a suitably qualified person before the specialist assessments identified below can be confirmed.

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		Х		
Animal Species Theme		Х		

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Aquatic Biodiversity Theme	Χ			
Archaeological and Cultural		Х		
Heritage Theme				
Civil Aviation Theme			Χ	
Plant Species Theme			Х	
Defence Theme			Χ	
Terrestrial Biodiversity Theme	Х			

# Specialist assessments identified

Based on the selected classification, and the environmental sensitivities of the proposed development footprint, the following list of specialist assessments have been identified for inclusion in the assessment report. It is the responsibility of the EAP to confirm this list and to motivate in the assessment report, the reason for not including any of the identified specialist study including the provision of photographic evidence of the site situation.

N 0	Speci alist asses smen t	Assessment Protocol
1	Agricul tural Impact Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted_Agriculture_Assessment_Protocols.pdf
2	Archae ologica I and Cultur al Herita ge Impact Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted General Requirement Assessment Protocols.pdf
3	Palaeo ntolog y Impact Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted General Requirement Assessment Protocols.pdf
4	Terrest rial Biodiv ersity Impact Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted Terrestrial Biodiversity Assessment Protocols.pdf
5	Aquati c Biodiv ersity Impact Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted_Aquatic_Biodiversity_Assessment.pdf
6	Hydrol ogy Assess	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted_General_Requirement_Assessment_Protocols.pdf

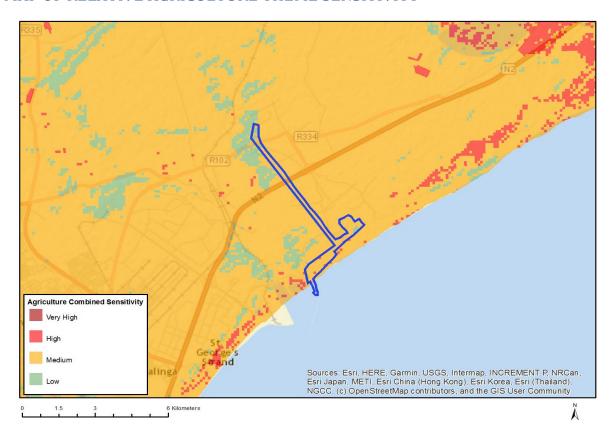
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	ment	
7	Geotec hnical Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted General Requirement Assessment Protocols.pdf
8	Socio- Econo mic Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted_General_Requirement_Assessment_Protocols.pdf
9	Seismi city Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted_General_Requirement_Assessment_Protocols.pdf
1 0	Plant Specie s Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted General Requirement Assessment Protocols.pdf
1	Animal Specie s Assess ment	https://screening.environment.gov.za/ScreeningDownloads/AssessmentProtocols/ DraftGazetted General Requirement Assessment Protocols.pdf

# Results of the environmental sensitivity of the proposed area.

The following section represents the results of the screening for environmental sensitivity of the proposed site for relevant environmental themes associated with the project classification. It is the duty of the EAP to ensure that the environmental themes provided by the screening tool are comprehensive and complete for the project. Refer to the disclaimer.

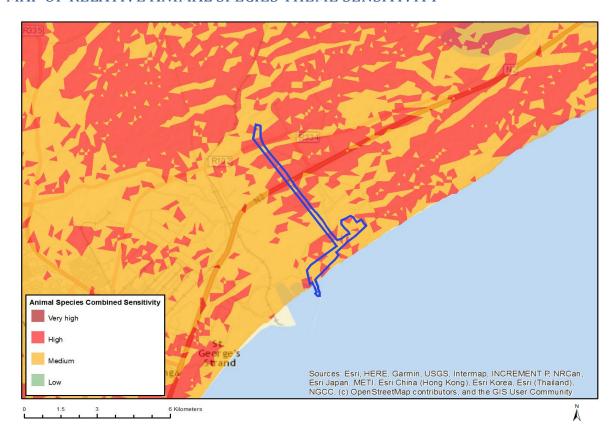
# MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	Х		

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
Low	Land capability;01. Very low/02. Very low/03. Low-Very low/04. Low-Very low/05. Low
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

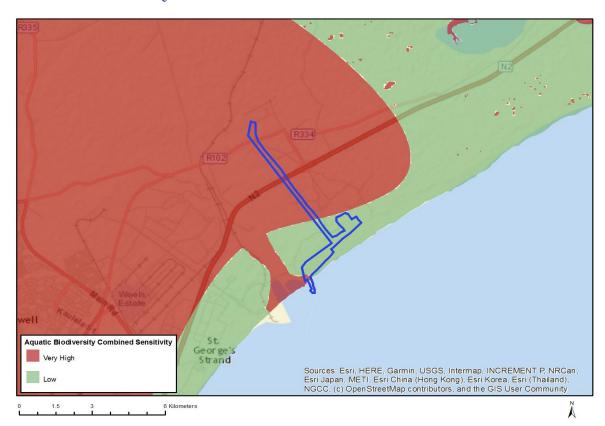
# MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	Χ		

Sensitivity	Feature(s)	
High	Aves-Circus maurus	
Medium	Insecta-Chrysoritis thysbe whitei	
Medium	Insecta-Aloeides clarki	

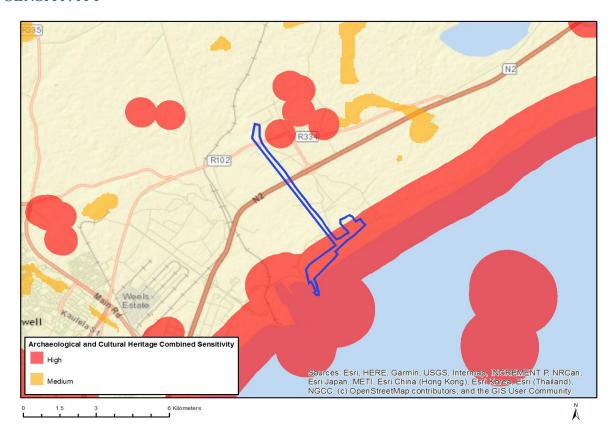
# MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Х			

Sensitivity	Feature(s)	
Low	Low sensitivity	
Very High	Strategic water source area	
Very High	Wetlands and Estuaries	

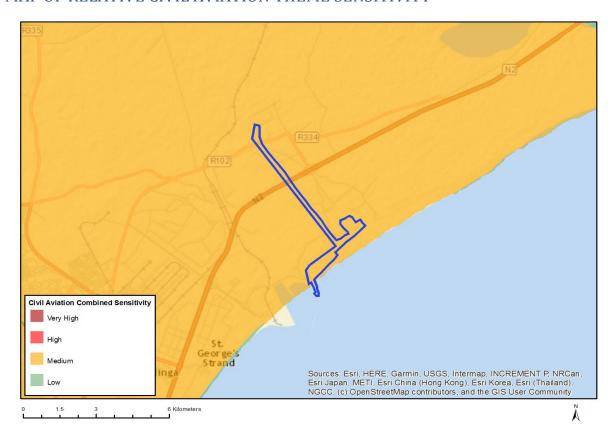
# MAP OF RELATIVE ARCHAEOLOGICAL AND CULTURAL HERITAGE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	Χ		

Sensitivity	Feature(s)
High	Within coastal belt
High	Within 1 km of a protected area

# MAP OF RELATIVE CIVIL AVIATION THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		Х	

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Between 15 and 35 km from a civil aviation radar
Medium	Between 15 and 35 km from a major civil aviation aerodrome

# MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY

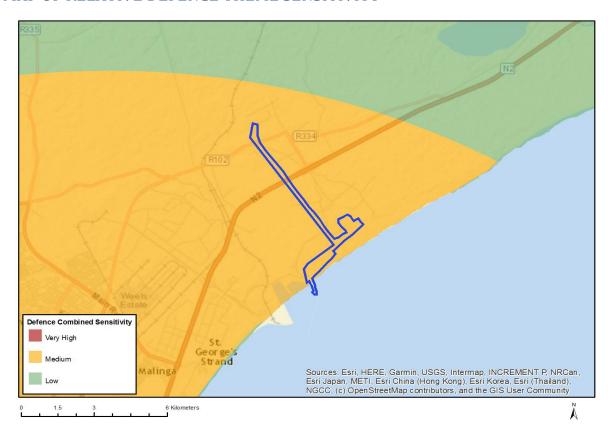


Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		Χ	

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Selago zeyheri
Medium	Sensitive species 99
Medium	Syringodea flanaganii
Medium	Sensitive species 491
Medium	Sensitive species 275
Medium	Erica chloroloma
Medium	Erica glumiflora
Medium	Rhombophyllum rhomboideum
Medium	Gymnosporia elliptica
Medium	Sensitive species 695
Medium	Apodolirion macowanii
Medium	Sensitive species 236
Medium	Sensitive species 264
Medium	Sensitive species 18
Medium	Rapanea gilliana
Medium	Marsilea schelpeana
Medium	Sensitive species 294
Medium	Syncarpha recurvata
Medium	Sensitive species 396
Medium	Sensitive species 672
Medium	Zygophyllum divaricatum

Medium	Sensitive species 5
Medium	Cotyledon adscendens
Medium	Strelitzia juncea
Medium	Corpuscularia lehmannii
Medium	Sensitive species 381

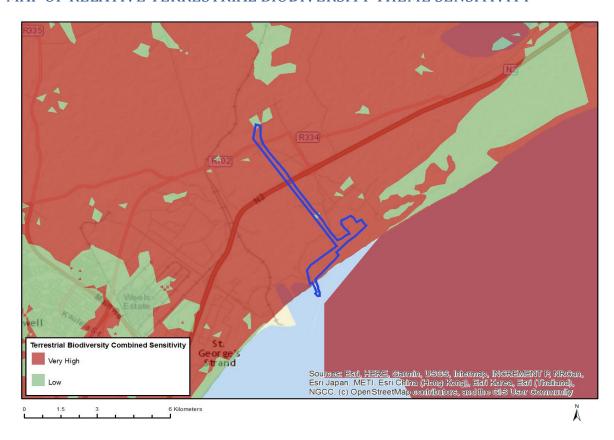
# MAP OF RELATIVE DEFENCE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		Х	

Sensitivity	Feature(s)
Low	Low sensitivity
Medium	Defence Site

# MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Forest
Very High	Critical Biodiversity Area 1
Very High	Ecological Support Area 1

# APPENDIX 12 UNDERTAKING UNDER OATH/ AFFIRMATION

I, Nicola Rump, swear under oath / affirm that all the information sulpurposes of this application is true and correct.	bmitted or to be submitted for the
Remp	
Signature of the Environmental Assessment Practitioner	
SRK Consulting (South Africa) (Pty) Ltd	
Name of Company	
23/4/2021	
Date 10495796-2	
Aperdula R.S. (W/O.)	
Signature of the Commissioner of Oaths	
2021-04-23	
Date	
SUID-AFRIKAANSE POLISIEDIENS	
VISPOL AANKLAG KANTOOR HUMEWOOD	
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VISPOL COMMUNITY:SERVICE CENTRE	
SOUTH AFRICAN POLICE SERVICE	