

Cape Times

20 September 2018

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Thursday, September 20 2018 | CAPE TIMES

THE PRESET 24

MOST READ KULCOZA

1. Kim Kardashian's cute snap of "the

OSAKA CRUISES ON

JAPAN'S Naomi Osaka closed to victory in her first match since lifting the US Open title, beating Dominika Cibulkova 6-2, 6-1 in the last 16 at the Pan-Pacific Open in Tokyo yesterday.

Osaka, who dunned Serena Williams to become Japan's first Grand Slam singles champion earlier this month, produced another display of power, hitting to put away Slovak Cibulkova in

IN DIANA'S FOOTSTEPS

LONDON: Prince William followed in his mother's footsteps yesterday as he found a children's hospice 30 years after she opened it.

Diana was 27 when she visited the Acorns hospice in Selly Oak, Birmingham, in December 1985. Her son is now 36 and a father of three.

Some of the staff and supporters who were present at both events said

NEWS EDITOR'S NOTE



SHAVUYA MZANTSI
shavuya.mzantsi@cape.co.za

The zol story blows on...

IN today's edition, we report that the State suspects Sean Davison, a proponent of allowing the terminally ill to die with dignity through the legalisation of euthanasia, may have been involved in more cases of "murder", as defined by current legislation, other than the one he has been arrested for.

He appeared in the Cape Town Magistrate's Court yesterday on a charge of premeditated murder relating to the 2013 assisted suicide of Anusch Burger.

Other big stories we bring you today include a follow-up on the Constitutional Court's landmark ruling decriminalising the possession, consumption and private cultivation of dagga at home.

The so-called Dagga Couple who initiated the case now wants to take on the State again.

This time they want to free those who have criminal records for the possession of dagga.

Out of the blue, the DA has announced Alan Winde as its premier candidate next year.

In just less than a month since the tragic death of three firemen battling a blaze in a Johannesburg building, we report on the narrow escape of four of our city firefighters injured when a gas cylinder exploded in Bellary yesterday.

One of them is recovering in hospital.

The tragic death of four members of a Phillips family in a fire turns the spotlight on the living conditions many in disadvantaged communities continue to face daily. We feature this story as a follow-up.

In Khayelitsha, the Mdumandla Animal clinic aims to vaccinate 100 dogs for free as part of International Rabies Day on September 28. It deserves your support.

These are some of the few stories to enjoy in this edition.

COMPETITION

As part of Heritage Day celebrations, Robben Island Museum is granting South Africans an opportunity to visit the island for free on the day. A total of 25 tickets are on offer to readers in the form of a competition.

To win, answer the following question: How long has Robben Island Museum been operating as a museum?

Email your answer to: ted.vandenberg@cape.co.za

The competition ends at 15m.

Spring Deals

Polished Porcelain Tiles

99%

Ceramic Wall Tiles

200 x 300 mm

59%

Ceramic Floor Tiles

200 x 400 mm

69%

Non Slip Tiles

600 x 600 mm

69%

Porcelain Tiles

600 x 600 mm

89%

Porcelain Tiles

600 x 600 mm

149%

Open Monday 24th Sept 10am to 5pm

malls@times

41 Peka Road, Sandton, Gauteng. Tel: 011 835 1000. www.malls@times.co.za

NOTIFICATION OF PUBLIC MEETING FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE DEVELOPMENT OF A PHASED GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE (EGI)

The Department of Environmental Affairs hereby informs all Interested and Affected Parties (I&APs) of the second round of public outreach meetings for the Gas Transmission Pipeline and EGI Expansion SEA. This SEA supports the objectives of the Operation Phakisa Oceans Economy Offshore Oil and Gas Lab as well as the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all. It aims to pre-assess the environmental, social and economic constraints and opportunities for gas transmission pipeline and EGI development within the proposed corridors. The results of the assessment will serve to inform suitable routing options for gas pipelines and EGI expansion within the corridors.

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Date	Venue	Time
22 October 2018	CSIR: 15 Lower Hope Road, Rosebank, Cape Town	17H00 – 20H00

Please register your interest in the project by submitting your name and contact details to the following address: gasnetwork@csir.co.za or on the SEA website: <http://gasnetwork.csir.co.za> Please confirm attendance to the above meeting by 02 October 2018 via gasnetwork@csir.co.za

Environmental Affairs Energy Public Enterprise

SANBI Biodiversity for Life South African National Biodiversity Institute

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SOLD OUT

Join former Springbok Rugby Captain, Francois Pienaar, South African Duminy, South African mountaineer and businesswoman, and South African DJ, Poppy Ntshongwana and other captains, they've decided to Run for... participating in one of the world's most beautiful... for... charities.

2018 | 09:00-10:30

Hosted by Aden Thomas

Cost: R250

Cape Town Hotel School

48 Beach Road, Mouille Point, Granger Bay, Cape Town

Includes a gourmet breakfast and a one month subscription to the Cape Times.

TO BOOK Book online at Quicket.co.za

CAPE TIMES

heart

Pretoria News Business Report

11 October 2018



BUSINESS OF DIGITAL



SNAPPING UP
Snap will release on its mobile app entertainment the grip on teenage edge over Facebook programming, said Snap's big and producing its is to keep users c longer periods – companies looker audiences. The rol Summer, a docu influencers in Lag and Class of Las, college roommat disappearance of movie builds on 5 original program launched Good U, hosted by former Peter Hamby, ex of the president Snap has release series through pa media company produces a daily while Walt Disney edition of Sports.



BID TO EXTEND
SWITZERLAND'S yesterday that pr extend Swiss ban corners of the gic blowers. In a ca scrutiny, the Fed a 3-2 majority rej Zurich prosecutor former private ba who derailed all th Banking Act, requ regulated bank's confidential, but a leaked account d as Western gover on tax evasion. S had worried that successful, would blowers from sup people accused i tax havens throa by secrecy laws. asked the court t the secrecy oblig to include people relationships to S subsidiaries abroa against the 2016 changes brought law. Elmer, who v expressed relief a positive one, de made clear by the secrecy law is no in country's exta attorney, Gander who headed the of private bank A dismissed in 200 of alleged tax eve tax authorities across the globe. I Reuters



PRESIDENT REQUESTS APPROVAL
NIGERIAN President Muhammadu Buhari asked investors to approve the issuance of \$2.8 billion (\$41bn) of eurobonds. The debt will mostly be used to finance infrastructure projects and the government's 2018 fiscal deficit, the Nigerian senate said on Twitter. Bank of America Merrill Lynch analysts said last week that they expected Nigeria, Africa's top oil producer, to tap international capital markets before the end of the year, pending the senate's approval. I Bloomberg

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GLOBAL WARMING

Losses from climate disasters soar

Direct costs from all such incidents over the past 20 years amounted to \$2.9 trillion

MICHAEL TAYLOR
Reuters

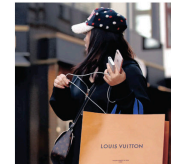
ECONOMIC losses caused by climate-related disasters have soared by

world, and that probably will be the case in the future as well," said Ricardo Mena, an official at the Geneva-based UNISDR.
On Monday, climate scientists warned that if global average tem-

\$492bn and Japan at \$376bn. In the past two decades, 1.3 million people were killed and 4.4 billion were injured, left homeless, displaced or required emergency help.
More than half the deaths were

the "tip of the iceberg", he noted. Puerto Rico was the only high-income territory ranked among the top 10 places for annual losses as a percentage of economic growth, alongside Haiti, Honduras, Cuba, El Salvador,

MARKETS



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Date	Venue	Time
15 October 2018	CSIR: Corner of Carlow Road & Rustenburg Road, Auckland Park, Johannesburg	17h00 – 20h00

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ken-down refineries, with a contained capacity of 445 000 barrels daily. Those refineries – two in the oil hub of Port Harcourt, one in Warri in the Niger

network that helps transport illegal crude out of the country.
Both elements, he said, have not been sufficiently challenged by the

convention. And security in the Delta region, where there are kidnappings like the Delta Avengers, has kidnapped foreign oil

buy the government-owned refineries. He was unavailable for comment, but previously said he does not apologise for his expansionist desires.

ers pass on the duties to consumers and Chinese markets sell off, the spat has raised concerns that shoppers would rein-in spending. I Bloomberg

EMPLOYMENT

Amazon scraps AI recruiting tool that showed bias against women

JEFFREY DASTIN
Reuters

AMAZON.COM'S machine-learning specialists uncovered a big problem: their new recruiting engine did not like women.
The team had been building computer programmes since 2014 to review job applicants' resumes with the aim of mechanising the search for top talent, five people familiar with the effort said. Automation has been key to Amazon's e-commerce dominance, be it inside warehouses or driving pricing decisions.
The company's experimental hiring tool used artificial intelligence to give job candidates scores ranging from

one to five stars – much like shoppers rate products on Amazon. "Everyone wanted this holy grail," one of the people said. "They literally wanted it to be an engine where I'm going to give you 100 resumes, it will spit out the top five, and we'll hire those."
But by 2015, the company realised its new system was not rating candidates for software developer jobs and other technical posts in a gender-neutral way. That is because Amazon's computer models were trained to vet applicants by observing patterns in resumes submitted to the company over a 10-year period. Most came from men, a reflection of male dominance across the tech industry.
In effect, Amazon's system taught itself that male candidates were prefer-

able. It ended resumes that included the word "women's," as in "women's chess club member." And it downgraded graduates from all-women's colleges, according to people familiar with the matter.
Amazon edited the tool to make them neutral to these terms. But that was no guarantee that the machines would not devise other ways of sorting candidates that could prove discriminatory, the people said.
The Seattle company ultimately disbanded the team by the start of last year because executives lost hope for the project.
Amazon declined to comment on the recruiting engine or its challenges, but the company says it is committed to workplace diversity and equality.

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The Star Business Report 11 October 2018



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GLOBAL WARMING

Losses from climate disasters soar

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MICHAEL TAYLOR
Reuters

ECONOMIC losses caused by climate-related disasters have soared by about two-and-a-half times in the past 20 years, the UN said yesterday.

From 1998 to 2017, direct losses from all disasters totalled \$2.9 trillion (\$424bn), of which 77 percent was due to extreme weather that is intensifying

world, and that probably will be the case in the future as well," said Ricardo Meru, an official at the Geneva-based UNISDR.

On Monday, climate scientists warned that if global average temperatures rise more than 1.5°C above pre-industrial times, it would lead to more suffering – especially among the world's poorest.

The planet has already heated up by about 1°C.

\$492bn and Japan at \$376bn.

In the past two decades, 1.3 million people were killed and 4.4 billion were injured, left homeless, displaced or required emergency help.

More than half the deaths were caused by 563 earthquakes and related tsunamis, said the report drawing on data from the Centre for Research on the Epidemiology of Disasters in Belgium.

Although rich countries shoulder

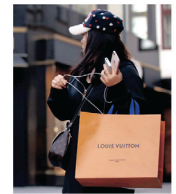
the "tip of the iceberg", he noted.

Puerto Rico was the only high-income territory ranked among the top 10 places for annual losses as a percentage of economic growth, alongside Haiti, Honduras, Cuba, El Salvador, Nicaragua, Georgia, Mongolia, Tajikistan and North Korea.

Mami Mizutori, UN special representative for disaster risk reduction, called for greater efforts to tackle high fatalities in earthquake-prone regions.

Thursday, October 11 2018 | THE STAR

MARKETS



LOUIS Vuitton owner Morgan Stanley was bearish about luxury goods. | Reuters

stocks s luxury slumps

rgan Stanley note on luxury goods stocks by LVMH, pushing it to a six-month low. Morgan Stanley owner Morgan Stanley was bearish about luxury goods. | Reuters

ector "looks stretched" for indicators even correction," Morgan Stanley led by Kapa Patel downgrading the sub-weight from neutral to "sell," saying that luxury shoppers may be autos, but they're still tite for handbags and he trade war plays out the country's high-landscape. rds from LVMH, home n leather goods and champagne, as well as s in Viscay offer signs ight with the US and ring economic slowly degrading the Ch-top-end retail. That's gloomier scenarios in cles showrooms and e offices. n Tuesday that its l-uperformed especially hinese tourist destina- and the gambling i, while the company's s business "grew rap- too. LVMH said it did arkets as it reported a i third-quarter sales and is "intact," said n, senior analyst at illigence in London. list to confirm Asian yant." ic stand-off between a escalated last month Donald Trump slapped ry on \$200 billion of s. China said it would levies on \$60 billion of US goods. As retail- dities to consumers ickers sell off, the spat cerns that shoppers pending. | Bloomberg

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EMPLOYMENT

Amazon scraps AI recruiting tool that showed bias against women

JEFFREY DASTIN
Reuters

AMAZON.COM's machine-learning specialists uncovered a big problem: their new recruiting engine did not like women.

The team had been building computer programmes since 2014 to review job applicants' resumes with the aim of mechanising the search for top talent, five people familiar with the effort said. Automation has been key to Amazon's e-commerce dominance, be it inside warehouses or driving pricing decisions.

The company's experimental hiring tool used artificial intelligence to give job candidates scores ranging from

one to five stars – much like shoppers rate products on Amazon. "Everyone wanted this holy grail," one of the people said. "They literally wanted it to be an engine where I'm going to give you 100 resumes, it will spit out the top five, and we'll hire those."

But by 2015, the company realised its new system was not rating candidates for software developer jobs and other technical posts in a gender-neutral way. That is because Amazon's computer models were trained to vet applicants by observing patterns in resumes submitted to the company over a 10-year period. Most came from men, a reflection of male dominance across the tech industry.

In effect, Amazon's system taught itself that male candidates were prefer-

able. Generalised resumes that included the words "women's" or "in women's chess" were penalised. And it downgraded resumes of two all-women's colleges, even though people familiar with the company said they were good.

Amazon said it wanted to make the machine-learning tool more gender-neutral. But that the machines would not be able to do that without being told how to spot discriminatory patterns, the people said.

The Seattle company ultimately dismantled the team by the start of last year because executives lost hope for the project.

Amazon declined to comment on the recruiting engine or its challenges, but the company says it is committed to workplace diversity and equality.

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New taps in Ritchie still dry

NORMA WILDEN
STAFF REPORTER

WHILE taps in hundreds of homes are completed, many still have to fetch water from the river.

The situation due to the multi-million Water Scheme project to satisfy the needs of households until 2035, but households with taps for several years.

While the RBWS is expected by the end of the year, in Fraser Mol yesterday residents reported taps at residence dry.

Taps, that houses in 2017 at least three months of the information residents are still producing collected water drinking, washing, watering flushing toilet. "The situation bearable, especially for the elderly," residents continue.

SANDI KWON HUI
CHIEF REPORTER

THE BARKLY Association is opening a case against the Department of Correctional Services' drains were not being pumped where inmates now had to be locked inside their cells at 5pm.

"Prisoners are only released in the morning at 6am."

Members added that the situation was ridiculous and attempts to have placed under administration.

It added that the Department of Correctional Services' drains were not being pumped where inmates now had to be locked inside their cells at 5pm.

"Prisoners are only released in the morning at 6am."

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tion of the school at Barkly West Primary yesterday were later dismissed.

"No contractor has been on site. Any attempt to solve the problem do not last and it is back to square one."

"Children cannot be exposed to

that is struggling to process the high volumes of sewage. It will

Ntuanne stated that attendance had dropped slightly yesterday

issues at an inter-governmental level."

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Offer valid until end of October 2018 or while stocks last. Prices and specifications subject to change without prior notification. E & EO Terms and Conditions apply. Recommended retail price excludes PDI and on the road costs (licence and registration), metallic paint and accessories.

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Business Day 20 September 2018

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BusinessDay www.businessday.co.za Thursday 20 September 2018

Messi and Barcelona

● The deadly Argentinian striker scores

Agency Staff
Barcelona

Lionel Messi had said it was time Barcelona won the Champions League again and on Tuesday he played like a man on a mission, scoring a hat-trick in a 4-0 destruction of PSV Eindhoven.

It was his eighth treble in the competition, taking him above the record of seven he shared with Cristiano Ronaldo to top of the list. Messi marked other milestones too. He has now scored in 14 different Champions League campaigns, with only Paul Scholes and Ryan Giggs ahead of him on that list, respectively 13 and 12.

Three times Messi has hit hat-tricks in his opening game. "He makes the extraordinary look ordinary," said Barcelona's coach, Ernesto Valverde. "Messi is a man of his word."

Spain's sports newspaper Marca said he wanted this Champions and he led by example.

The first goal was impressive enough. Ousmane Dembélé had earned a free kick, the referee for a warning, run forward, a yard outside the penalty.

PSV's wall edged forward, desperate to close the gap, but

Messi arced the ball over all them, spinning it away to Jonny Zeef's left hand and in the top corner.

"He has an incredible first foot," said Rikie, said, "A lot of the time when he takes a kick, you really see the ball directly to the place you're going to celebrate from."

Messi described it as "Mandalorian touch." Eight minutes converted to 2008, more or less personal record broken.

In the World Cup played at the time, however, it is that Messi cannot do it alone and Barcelona will need others to share it.

Andrés Iniesta has gone 11 he was not missed at the Camp Nou, where Philippe Coutinho quipped and could have his hat-trick had he been more precise, while Dembélé might have been man of the match had Messi not scored.

With a trademark club side, son, blighted by injury, both him, Dembélé looks back.

HORSE RACING

Resignations put sector problems in the spotlight

David Mollert
Racing writer

Two CEO resignations – those of Ryan du Plessis at Phakisa Gaming & Leisure and Lyndon Barnard at the National Horseracing Authority (NHA) – have thrown the spotlight on horse racing only months after the Markus Jooste saga.

In a statement, Phakisa stated that Du Plessis stood down for "personal reasons".

His position will be taken by John Stuart, the company's international executive director.

Stuart, who began his business career with KPMG, immediately had a lot on his plate, with "proposed" action regarding wages rising in the Eastern Cape.

Stuart will lead the presentation of Phakisa's financial results on October 5.

With the share price having dropped 25% from its 52-week high of R10.00, shareholders will be keeping their fingers crossed for some positive news.

At the time, Wednesday Phakisa shares were trading at R10.40.

De Plessis has given an assurance that he will not consider disposing of any Phakisa shares held directly or indirectly by him or his family in the foreseeable future.

The statement said: "With 39 years of experience in the horse racing and gaming industry, the board welcomes Stuart's increased participation in the business and looks forward to his ongoing participation."

Stuart is director of Premier Gateway International and he will presumably be in Singapore next Tuesday when the company hosts an international look-again Challenge, featuring a four-strong team representing SA.

The Sporting Post reported on Wednesday that shares were attacked at R10.00 and shares were thrown at horses being

Turfpoint selections

1st Race (2) American Hustle (2) 2nd Race (2) San Mateo (2) 3rd Race (2) Du Plessis (2) 4th Race (2) Du Plessis (2) 5th Race (2) Du Plessis (2) 6th Race (2) Du Plessis (2) 7th Race (2) Du Plessis (2) 8th Race (2) Du Plessis (2) 9th Race (2) Du Plessis (2) 10th Race (2) Du Plessis (2) 11th Race (2) Du Plessis (2) 12th Race (2) Du Plessis (2) 13th Race (2) Du Plessis (2) 14th Race (2) Du Plessis (2) 15th Race (2) Du Plessis (2) 16th Race (2) Du Plessis (2) 17th Race (2) Du Plessis (2) 18th Race (2) Du Plessis (2) 19th Race (2) Du Plessis (2) 20th Race (2) Du Plessis (2) 21st Race (2) Du Plessis (2) 22nd Race (2) Du Plessis (2) 23rd Race (2) Du Plessis (2) 24th Race (2) Du Plessis (2) 25th Race (2) Du Plessis (2) 26th Race (2) Du Plessis (2) 27th Race (2) Du Plessis (2) 28th Race (2) Du Plessis (2) 29th Race (2) Du Plessis (2) 30th Race (2) Du Plessis (2) 31st Race (2) Du Plessis (2) 32nd Race (2) Du Plessis (2) 33rd Race (2) Du Plessis (2) 34th Race (2) Du Plessis (2) 35th Race (2) Du 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Consultation during the Round 3 Public Outreach Roadshow (Additional Consultation)

Isolezwe (isiZulu)
22 May 2019



ISOLEZWE
ULWESITHATHU, MEYI 22, 2019 **5**

MHLENGI SHANGASE neNTATHI YESOLEZWE

IPHUTHWE yithuba lokuba nguNgongqoshe wezeMpilo KwaZulu-Natal, iMeya yaseNewcastle ngemuva kokuboshelwa icala elithinta ukubulawa komholi we-ANCYL waseMahlali Region. UDkt Ntuthuko Mahlaba ubethwele ngegoma kuKhongolose ukuba kube nguye ozovala isikhala sikaDkt uSibongiseni Dhlomo.

Imithombo yeSolezwe iveze ukuthi uMahlaba nguyena muntu obezothatha izintambo njengoba uDhlomo eya ePhalamende. "UDhlomo nguye kuphela kwiKhabinethi obengudokotela yingakho kucaatshangwe igama likaMahlaba. Kuthe uma kuvela lezi zinsolo abhekene nazo kwagqamuka igama likaDkt Shu Shabalala," kusho umthombo ongathandanga ukudalulwa. Uthe uShabalala uyaziwa

Iphunyukwe iqatha imeya ngecala

kwezempilo futhi uyahlonishwa ngenxa yamagalelo akhe. Omunye umthombo iverze ukuthi uShabalala uhlonishelwa ukuthi ungumuntu ongakaze avele kwabezindaba kabi. "Konke kusemneni kaNdunankulu ozofungiswa ngoba uma kunjalo uzothatha uShabalala amfungsise bese emgokela ukuba uNgongqoshe wezeMpilo KwaZulu-Natal," kuqhuba umthombo. Omunye umthombo uthe okhulumela i-ANC, uNk

Nomagu Simelane-Zulu, nguyena muntu ozojushelwa kwezempilo. "Izingxoxo ziyaqhubeka kanti igama likaNomagu liyavela kwezempilo. Ngomunye wabantu ongwabumba lo mnyango," kusho umthombo. Umthombo ubuye wazeve ukuthi obengusoswebhu we-ANC esiShayamthetho, uNkz Nontembeko Boyce, angase ajushelwe kwesikaSomlomo wesiShayamthetho. Uthe ngomunye wabantu besifazane abangabali kuKhongolose abanamava.

"Uzokhumbula ukuthi i-ANC inqume ukuthi bonke oSomlomo kumele kube abantu besifazane. Nguyena muntu onamava esiShayamthetho ngoba ubhele i-ANC esiShayamthetho." Umthombo uthe kuvela negama likaMnuz Muleki Ndobe, ongame abe nguNgongqoshe wezokuBusa nokuBambisana neziNdaba zoMdabhu. "UNDobe vele igama lakhe liphezu kuDube bafuna ukususa uNk Nomsa Dube-Ncube kulo mnyango bese bamfake kulona obuphethwe uMnuz Sihle Zikalala. Kodwa njengoba sisho

kulele kuye uZikalala ukuthi ucabangani.

"Uyazi ukuthi abantu abafake emagameni amathathu obekuzokhethwa kuwo ozoba uNdunankulu wesifundazwe, uNk Simelane-Zulu noMnuz Siphlo Hlomuka. Kwenziwe ngamabomu ngoba kubalekelwa uNk Nomsa Dube-Ncube noNk Peggy Nkonyeni asebenkantshubomvu ukuze kuqokwe uZikalala," kusho umthombo.

Ukukhumbula ukuthi abantu abakhuluma kanje bafuna ukuxova i-ANC. "Okokuqala uShabalala akheho ohlini olya esiShayamthetho. Okunye ukuthi nina nyaxova ngoba akukaze kukhulunywe kuPEC (Provincial Executive Committee) ukuthi obani abazoba oNgongqoshe," kusho uNk Simelane-Zulu.

Namhlanje kuzofungiswa amalungu esiShayamthetho, kukhethwe uSomlomo wesifundazwe kanjalo nePhini lakhe bese kukhethwa uZikalala kwesikaNdunankulu.

ISAZISO NGOMHLANGANO WOKWABELANA NGOLWAZI ETHEKWINI MAYELANA NOCWANINGO LWESU LEZEMVELO EZINHLELWENI ZOKWAKHIWA KWAMAPAYIPI E-GAS KANYE NOKWANDISWA KWE-NGQALASIZINDA YOMBANI

Umnyango weZemvelo, besebenzisana noMnyango woMboni kanye noMnyango ophathelene namabhizinisi omphakathi, bagashe i-Council for Scientific and Industrial Research (CSIR) ukuba yenze ucwaningo lwesu lezemvelo ukuze bathole izindawo ezilungele ukumhla yamapayipi e-gas, kanye nokwandiswa kwengqalasizinda yombani. Ucwaningo lochwepheshe olwenziwe kule phrojekthi selandelayo, ngakho leminyango ithanda ukunikema kumhlango womphakathi wokwabelana ngemphumela yochwephesha etholakele, nokuba umphakathi ubeke eyabo imivo. Imininingwane yomhlango lwendlela kanje:

Usuku	Indawo	Isikhathi
13 ku Nhlanguvana (June) 2019	CSIR: 359 King George V (5th) Avenue, Durban	17H00 – 20H00

Yonke imigulule yale projekthi, ihlangene nemiphumela yocwaningo lochwepheshe, iyatholakele kulezi Ngosi:

- Gas Pipeline SEA: <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>
- EGi Expansion SEA: <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

Sicela ukuqinisekisa abakhona kulomhlango kungakashayi umhlaka 4 ku Nhlanguvana 2019 ngokuba bathumele isikhahlezi ku gasnetwork@csir.co.za

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

NDP 2030

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UNobhala wesifundazweni, unKz Nomatshelwa, uthe kumele kudakidwe imibiko yophenyo olwenziwe eminyangweni. Uthe indaba olungakhothelela kosonkontleka esikhathini ngezinye zezinto okumele ngizive nakuzona. "Sifuna umnyango ozongena noma kwenye indawo kodwa bona bayiswa kwenye. "Sifuna ukuthi ikhethwe imibiko yophenyo ngoba ziningi izinto ebeziphendwa kodwa akukho imibiko nowodwa esike sawubona. "Umuntu ozongena noma kungathiwa kuqhubeka uDlungwane uyusele othisha bakwaGrade R imali ngoR750 kulabo abaneziqu kuthi labo abangenza banyusela ngoR500. Abaholi balezi ziyunyana bathe bazosebenza nanoma ngubani ozongena kodwa bamexwayisa ngokuthi kumele azebenzane nabo uma efuna ukuphumelela.

R20 000 – R5 million Bring ID, Payslip – Monday to Saturday	Ntokozo 073 887 4038 Freddie (Manager)	Sizwe 078 737 1213 Siyanda
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ISAZISO NGOMHLANGANO WOKWABELANA NGOLWAZI ETHEKWINI MAYELANA NOCWANINGO LWESU LEZEMVELO EZINHLELWENI ZOKWAKHIWA KWAMAPAYIPI E-GAS KANYE NOKWANDISWA KWE-NGQALASIZINDA YOMBANI

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Sicela ukuqinisekisa abakhona kulomhlango kungakashayi umhlaka 4 ku Nhlanguvana 2019 ngokuba bathumele isikhahlezi ku gasnetwork@csir.co.za

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Primary Healthcare Services

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Seniors @ R250

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<p>Machibisa Khumbiwe Mthembu 072 545 0215 Lot 42 I-dondele Road Machibisa / Pietermaritzburg</p>	<p>New Hanover Kolene Dlamini 082 995 8828 2 Dale Street / New Hanover Kwa Zulu Natal</p>	<p>Nquthu Zandile Mshini 082 903 0215 Nquthu / Tati Road Machibisa / Nquthu</p>
<p>Riverview Zandile Mshini 082 243 3323 / 081 755 7000 140 Corner Agincourt and Buckfield Road / Riverview Ethekweni</p>	<p>Sweetwaters Zandile Mshini 082 822 2345 Mhangale Road / Sweetwaters Pietermaritzburg / Kwa Zulu Natal</p>	<p>Umbumbulu Nquthu Mshini 074 888 8859 4032 Impassoni Road Umbumbulu / Kwa Zulu Natal</p>
<p>Mdantsane Kusheba Portia Susan Sinyo - 072 235 3482 Mashale Nursery school / 9830 R2 / Midway Highway / Eastern Cape</p>		

Monday to Friday 08H00 – 17H00
Saturday 09H00 – 13H00

Consultation From: R200 (including medication)

Ingabe Unezinhlungu Ngenxa Ye-Endometriosis?

Sifuna abantu besifazane abazobamba iqhaza kwucwaningo lophenyo ukuze bathole ukuthi ingabe umuthi ocwaningwayo uyakwazi yini ukunciphisa ubuhlungu obubangelwa i-endometriosis.

Ukuze bafaneleke, ababambiqhaza kulolu cwaningo kuzoba abantu besifazane:

- Abaneminyaka yobudala engu-18 kuye kwengu-50
- Ababhekana nezimpawu ezibuhlungu ngenxa ye-endometriosis
- Abaya esikhathini nyanga zonke
- Abahlizwe eminyakeni edule engu-10 ukuze kubhekwe i-endometriosis
- Izintfuneko ezengezwe zizayebenza

Sicela ushayeke ucingo ku-031 461 1629 ukuze uthole ulwazi olwengezwe futhi uthole ukuthi ingabe uyafaneleka yini ukubamba iqhaza kwucwaningo.

Uma ufaneleka, uzothola umuthi ocwaningo nokumakela okutholene nocwaningo mahlala futhi ungase unwebezwe ngezindiko zokuthutha.

Tongaat, Verulam and Phoenix Sun
21 May 2019

Tongaat & Verulam Tabloid - 21 May 2019 - Page 6

Moonsamy emp



Mr India South Africa, Desmin Moonsamy seen with local businesswoman

Mothers Day Celebration

The Belvedere Senior Citizens Club hosted a grand Mother's Day celebration to honour local mothers at the Belvedere Community Hall on Monday, 13 May.

The seniors had a splendid day and were lavished with special gifts. Programme coordinator, Ragene Pillay said, "The members were celebrated and treated to a hearty breakfast, a scrumptious lunch, fun and games, and entertainment. The event was a motivational talk to empower the mothers."

"On behalf of the Belvedere Senior Citizens Club, we would like to wish all the mothers a blissful Mother's Month."

The Belvedere Seniors Group meet every Mondays and Wednesdays at the community hall.

NOTIFICATION OF PUBLIC INFORMATION SHARING SESSION IN DURBAN FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE DEVELOPMENT OF A PHASED GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE (EGI)

The Departments of Environmental Affairs, Energy and Public Enterprises have commissioned the Council for Scientific and Industrial Research (CSIR) to undertake a Strategic Environmental Assessment to identify suitable corridors for a Phased Gas Pipeline Network, as well as additional corridors for the expansion of Electricity Grid Infrastructure. The Specialist Assessments undertaken for the project have been completed and the Departments would like to invite you to a public information sharing session to engage on the outcomes of the studies and to gather stakeholder inputs. The details of the session are as follows:

Date	Venue	Time
13 June 2019	CSIR: 359 King George V (5 th) Avenue, Durban	17H00 – 20H00

All the project documents, including the Specialist Assessment reports, can be downloaded from the website:

- Gas Pipeline SEA: <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>
- EGI Expansion SEA: <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

Please confirm attendance to the above information sharing session by **04 June 2019** via email to gasnetwork@csir.co.za

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NOTIFICATION OF PUBLIC INFORMATION SHARING SESSION IN DURBAN FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE DEVELOPMENT OF A PHASED GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE (EGI)

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Workshop to create awareness about chronic diseases

Media Ministries Drug Free Nation SA recently conducted a back to basics workshop with pastors in the Verulam area.

The workshop was well attended and received by the local pastors. Founder of Media Ministries Drug Free Nation SA, Pastor Clive Roopnarain said, "Back to basics is a workshop that speaks about holistic development (body, mind and spirit). It is an informative programme that includes a live presentation, audio visuals and a powerful health programme."

"The subject for this workshop was cutting edge technology. Pastors were addressed on many health issues and advised on alternative medicine to help with



Pastor Clive Roopnarain seen with Verulam based Pastors at the Back to Basics workshop

some chronic illnesses. They were also encouraged to invest in their health by maintaining a balanced diet and exercising regularly, thereby bringing balance to an unbalanced lifestyle.

"Our community is plagued with chronic diseases such as diabetes, hypertension (blood pressure), heart conditions, arthritis and many other sicknesses. The back to basics workshop aims to create an awareness on the various chronic diseases and how to prevent becoming a statistic. The workshop promotes a positive lifestyle change," added Pst Roopnarain.

Southern Star
21 May 2019

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talk to us



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The suspect's vehicle was involved in a rear-end collision during the heist.

Bogus inspector



The bogus inspectors used fake Department of Health uniforms to enter shops and homes.

A case of fraud has been opened for investigation at SAPS Port Shepstone after two men and a woman misrepresented themselves on Friday, 10 May. It is alleged they pretended to be inspectors from the Department of Health. They approached a supermarket on Nelson Mandela Drive in Port Shepstone and proceeded to check the expiry dates of various items. They allegedly further requested...

ATM card robber caught

NOTIFICATION OF PUBLIC INFORMATION SHARING SESSION IN DURBAN FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE DEVELOPMENT OF A PHASED GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE (EGI)

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Now insurance giant, Santam, has sued the municipality for R14 million in the Durban High Court. The damages claim has been filed on behalf of its clients, the owners of Crimson Clover Trading 17 (Pty) Ltd, trading as Island Hotel. Apart from having to shut its doors, the flood damaged the infrastructure, plumbing, electrical circuits, fixtures and stock. The owners were forced to conduct mop-up operations and hire engineers to repair structural and other damages. In the summons, Santam claimed that the municipality had failed to ensure that its stormwater management system functioned in a way that would prevent the flooding of the low-lying area where the hotel was located. Prior to serving the R14 million claim, Santam served the municipality with a condonation application in July 2017.

A condonation application was made because Santam were not able to sue the municipality in the required period. This was rejected by the city in April

According to the records, Santam was unable to file the claim against the municipality within six months because of various delays. To determine the extent of damage to the hotel, Du Plessis said Santam hired loss adjusters in the same month.

"Santam advised its attorneys to pursue its claim for recovery and TCG Engineers were hired to establish which entity was responsible for the flood," said Du Plessis. By December 2016, the engineers were still unable to establish the responsible entity and the attorney's responded by making a Promotion of Access to Information Act (Paia) application to gain the information they required. Du Plessis said it received a response to its Paia application four months later. The law firm forwarded a request for condonation to the municipality in April 2017.

Still with no conclusive information on which entity was responsible for the stormwater system was received, Santam's attorneys (Norton Rose)

Further correspondence, the municipality eventually responded in April 2018 and stated that the condonation request was denied. In its responding documents, the municipality's legal representative, Samantha Mahadeo, asked why Santam's condonation application was filed 22 months after the flood and 16 months after the Paia application response was received in April 2017.

She accepted that the municipality was responsible for managing stormwater but not the berm (a raised bank) that was meant to prevent flooding of the affected area. "The applicant has not shown good cause for the application to be granted," said Mahadeo.

In response, Du Plessis said according to legislation, it was not required to justify the delay that arose between filing and launching a condonation application. A trial date for the condonation application is yet to be decided.

Highway Mail

22 May 2019

16 Highway Mail | COMMUNITY



Dee Munks, Mala Naidoo and Kamani Kisten.

Mala's talk fascinates at

THE MS Society KZN hosted a Malawell workshop on chronic and autoimmune disease on Saturday, 18 May with Mala Naidoo giving an inspirational talk.

Mala was diagnosed with MS, RA, Hashimoto's Thyroiditis, fibromyalgia, and depression four years ago.

Mala is the author of *A Flaming Challenge* where she shares her experience. Dee Munks from the MS Society thanked Mala for the talk. "I am so thankful to have been a part of the audience. I was mesmerised by Mala's passion and conviction to such a fascinating and empowering subject."

"I pray that this powerful message reaches far and wide, to all 'corners' of the earth and may it begin the healing of the world as well as individuals," said Munks.



Nina Mitchell and



Rita and Shaun Garibass with Sifiso.

TAKE NOTE

Westville market

Headway-Natal, at 11 Menston Road in Westville, hosts its craft market on Saturday, 8 June from 9am to 1pm.

There is a tea garden and bacon-and-egg rolls, pancakes and pies will be on sale, a white elephant store, live entertainment and the main attraction, goodies made by members of Headway-Natal. Contact 031 266 2709.

NOTIFICATION OF PUBLIC INFORMATION SHARING SESSION IN DURBAN FOR THE STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE DEVELOPMENT OF A PHASED GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE (EGI)

The Departments of Environmental Affairs, Energy and Public Enterprises have commissioned the Council for Scientific and Industrial Research (CSIR) to undertake a Strategic Environmental Assessment to identify suitable corridors for a Phased Gas Pipeline Network, as well as additional corridors for the expansion of Electricity Grid Infrastructure. The Specialist Assessments undertaken for the project have been completed and the Departments would like to invite you to a public information sharing session to engage on the outcomes of the studies and to gather stakeholder inputs. The details of the session are as follows:

Date	Venue	Time
13 June 2019	CSIR: 359 King George V (5 th) Avenue, Durban	17H00 – 20H00

All the project documents, including the Specialist Assessment reports, can be downloaded from the website:

- Gas Pipeline SEA: <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>
- EGI Expansion SEA: <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

Please confirm attendance to the above information sharing session by **04 June 2019** via email to gasnetwork@csir.co.za

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Springfield Weekly Gazette
23 May 2019

The Springfield Weekly Gazette • 23 May 2019 • Page 18

LET'S TALK
BUSINESSImprove your odds
of getting a loanNOTIFICATION OF PUBLIC INFORMATION
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loan, go to a bank that specialises in those.
If you own a construction company, find a
bank that works in your industry.
Don't assume your loan will work out.
Do the legwork to find a partner that can
help you grow. Alternative financing options
might help owners who are in unusual
situations.

3. Create an ongoing relationship.
Don't just work with your banker – talk to
them. You, as the business owner who needs
to borrow, should get to know the person on
the other side of the table.

Ask about the ratios the bank likes to see
for numbers like DSCR. Connect at the
beginning of each year to share your plans.
If you have a bad year, it's not the end of
the world. Keep the lines of communication
open. Remember, banks hate surprises. You
can have a relationship with more than one
banker too.

Larger companies should use at least two
banks to separate their interests. As your
operation grows, consider diversifying your
financial relationships. At first glance, the
amount of information required to apply for
a business loan can be daunting.

But once you've put the information together
the first time, it's much easier to keep your
information organised and up to date for
future applications. Whether your business
is just starting out or looking to expand, these
tips will improve your odds of securing
financing and help you build the business of
your dreams.

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Invitation to
Maridamma
prayer

The Shree Ramulu Temple society of Puntans Hill invites the public to their Maridamma Prayer on 26 May, 10 am at the shree ramulu temple, 60 silver willow road.

For more information contact Seetha Devi Viranna on 083 6577042



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23 May 2019

6 IZINDABA

Umlazi Eyethu • 24 Meyi 2019

Ube yisibonelo ng

Zoloh Guma

UHLAHLE indlela ekhombisa ubudoda u-Agiza Hlongwane oyiphini loMqondisi wezokuXhumana ehovisi likaNgqongqoshe weMpilo KwaZulu-Natali ngokufundisa umkake uZonke Hlongwane nokugqame emcimbi wokubungaza ukugogoda kukaZonke obuseNanda ngoMgqibelo ntabama.

UZonke ubenza umcimbi wokubungaza ukugogoda kwakhe kwizifundo zeBachelor's Degree In Child And Youth Care eDurban University of Technology.

Kwenzeka lokhu-nje uZonke ubesanda kufaka kwenye yezinkundla zokuxhumana isincomi sikanyeni wakhe ngokumseka kuze kube uyagogoda, nesifundeke kanje: "Uyazi enkonzweni ngizwe ngifikelela izinyembezi uma ngicabanga indlela azidele ngayo umyeni wami kuze ngibe lapha engikhona."

Uyabona uma kuthiwa kuyobongwa namaghave, aphiwe nemihele? kusuke kubalwa amaghave afana no-Agiza

Hlongwane.

Ngisho ngithi ngiyathandazi ngibonga uNkulunkulu, ngizwa sengathi amazwi ami awaneli."

Izikhulumi zibe sezisina zidedelana ngalezi zithandani kusuka kwabakwaHlongwane kuze kufike kwabakwaShazi zincoma isenzo sika-Agiza sokuba nesibindi esehlula amanye amadoda nokuhlala indlela kwamanye ngokuphathe abesifazane.

Ethula inkulomo yakhe uMfundisi uJames Msezane weBanda iGood Hope Family Church abeyibhekise ku-Agiza uthe:

"Mkhwenkweni, phambili wami, ngicabanga ukuba sonke siyafunda ngezinto ozenzile minyaka onayo. Kubhekile ukuthi eminyaka onayo ukwazi ukufeza izinto ezifana nalezi. Sifundile kakhulu ngizabanga ukuthi nabanye obabefundile kuvuwa."

Izindaba azibhekiswanga ku-Agiza, bhele kcphe umamezo uZethu Hlongwane kakhulu ukhuluma

ISAZISO NGOMHLANGANO WOKWABELANA NGOLWAZI ETHEKWINI MAYELANA NOCWANINGO LWESU LEZEMVELO EZINHLELWENI ZOKWAKHIWA KWAMAPAYIPI E-GAS KANYE NOKWANDISWA KWE-NGQALASIZINDA YOMBANI

Umnyango weZemvelo, besebenzisana noMnyango woMboni kanye noMnyango ophathelene namabhizinisi omphakathi, baqashe i-Council for Scientific and Industrial Research (CSIR) ukuba yenze ucwaningo lwesu lezemvelo ukuba bathole izindawo ezilungele ukuhamba imihube yamapayipi e-gas, kanye nokwandiswa kwengqalasizinda yombani. Ucwaningo lochwepheshe olwenziwe kule phrojekthi selugediwe, ngakho leminyango ithanda ukunimema kumhlango womphakathi wokwabelana ngemiphumela yochwephesha etholakele, nokuba umphakathi ubeke eyabo imivo. Imininingwane yomhlango ilandela kanje:

Usuku	Indawo	Isikhathi
13 ku Nhlanguvana (June) 2019	CSIR: 359 King George V (5th) Avenue, Durban	17H00 – 20H00

Yonke imiqulu yale projekthi, ihlangene nemiphumela yocwaningo lochwepheshe, iyatholakala kulezi Ngosi:

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Sicela ukuqinisekisa abakhona kulomhlango kungakashayi umhlaka 4 ku Nhlanguvana 2019 ngokuba bathumele isikhahlemezini ku gasnetwork@csir.co.za

ISAZISO NGOMHLANGANO WOKWABELANA NGOLWAZI ETHEKWINI MAYELANA NOCWANINGO LWESU LEZEMVELO EZINHLELWENI ZOKWAKHIWA KWAMAPAYIPI E-GAS KANYE NOKWANDISWA KWE-NGQALASIZINDA YOMBANI

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Kids World, ozokwenzelwa khona e-Ushaka Marine ngoMfumfu 5 nango-12 (Okthoba).

Izingane ezizongelana uMiss Ushaka Kids World kufanele zibe neminyaka eyi-6-8 ubudala, zona ezizokhuluma ngoMfumfu 5

Ungangenela kwi-online noma ugqalise amafomu amabili ayi-A4 nezithombe ezisezingeni eliphezulu, esisodwa sobuso nesiphelele kube ndawonye nefomu lokungenela elidingekayo. Kufuneka umazisi uma

ngabaxhasi nemiklomelo kuzotholakala kwi-website kanti abaphumelele bazofakwa emikhankasweni yokukhangisa Ushaka Marine World futhi bamanywe emcimbini ekhethekile.

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A.7.2 Media Articles

Stage 2 Consultation (Draft Refined Corridors, Municipal and Industry Feedback Exercise, and Draft Specialist Assessment and SEA Chapters)	
Consultation for the Draft Refined Corridors	
Copy of the Article placed in Engineering News on 6 July 2018 to inform the general public and stakeholders of the SEA and the Draft Refined Corridors	
<p>7/30/2019 Engineering News - Key enviro assessment launched for SA gas and power networks</p> <p>.....</p> <p>https://www.engineeringnews.co.za/article/research-bodies-compiling-gas-pipeline-grid-infrastructure-assessment-2018-07-06</p> <h3>Key enviro assessment launched for SA gas and power networks</h3> <p>6TH JULY 2018 BY: <u>NADINE JAMES</u> - CREAMER MEDIA WRITER</p> <p>The Council for Scientific and Industrial Research (CSIR) and the South African National Biodiversity Institute (SANBI) are undertaking a strategic environmental assessment (SEA) for the development of a phased gas pipeline network and the expansion of the electricity grid infrastructure (EGI) corridors.</p> <p>The Department of Environmental Affairs commissioned the research as part of Operation Phakisa's offshore oil and gas exploration lab, as well as Strategic Integrated Project 10 – or SIP 10 – which is focused on electricity transmission and distribution for all.</p> <p>The Operation Phakisa Oceans Economy Lab aims to unlock the potential of the South African coast, with 11 initiatives identified as part of the offshore oil and gas exploration critical area. The development of a phased gas pipeline network was identified as Initiative A1.</p> <p>The estimated timeframe for the project is 24 months. The corridors are expected to be identified and assessed, with supporting documentation completed and the legal implementation process</p> <p>https://www.engineeringnews.co.za/print-version/research-bodies-compiling-gas-pipeline-grid-infrastructure-assessment-2018-07-06 1/5</p>	

7/30/2019

Engineering News - Key enviro assessment launched for SA gas and power networks

agreed upon by the end of 2018. Thereafter, it will be submitted for Cabinet consideration and subsequent gazetting.

Nine 100-km-wide corridors have been identified as key areas where gas transmission pipelines are required to meet future energy requirements. The CSIR notes that these extend along the coast from the border of Namibia to the border of Mozambique, including an inland link from Richards Bay to Gauteng; from Sasolburg to the border of Mozambique through Gauteng and Mpumalanga; from Cape Town to Port Elizabeth through the Karoo; and a link from the Shale Gas SEA 'sweet spot' area to the coastal corridor between Mossel Bay and Port Elizabeth.

The development of each phase will be based on its own viable business case. The SEA will also include the preassessment of an extension of the Eastern and Western gazetted EGI corridors to the borders of Mozambique and Namibia respectively.

The EGI extension will support potential business cases extending to these neighbouring countries and facilitate potential power sharing. Three proposed additional EGI corridors are being considered as part of this SEA.

One issue that has been identified is that the environmental authorisation (EA) process being applied to linear infrastructure, including gas transmission pipelines and EGI, may be too rigid to be an effective assessment mechanism for these types of structures.

"The current process locks the routing options to an approved route, determined well in advance of any construction process, which results in many challenges, such as complicated servitude and landowner negotiations," notes the CSIR.

<https://www.engineeringnews.co.za/print-version/research-bodies-compiling-gas-pipeline-grid-infrastructure-assessment-2018-07-06>

2/5

7/30/2019

Engineering News - Key enviro assessment launched for SA gas and power networks

Another challenge of the current EA process is the lengthy timeline for achieving EA, owing to the number of sector regulations triggered by the activity, such as water use licences and other permits. The CSIR further cites the cascading nature of authorisations, failure to facilitate strategic planning and investment on a spatial scale, as well as authorisations having a limited validity period, as some of the other challenges.

To address these challenges, the SEA team aims to streamline the EA process through the identification and preassessment of strategic corridors for gas pipeline development and future EGI expansion. It also aims to develop environmental management measures and planning interventions, through which requirements and specifications will be established to comply with when developing a gas pipeline or transmission powerline within the proposed corridors while informing the level of assessment required on the ground.

This process will, therefore, enable the developer to have greater flexibility when undertaking land negotiation and facilitate upfront infrastructure investment.

As part of their assessment, the CSIR and SANBI will undertake negative constraints mapping using available data sets and inputs from specialists to identify key environmental criteria that should be adhered to when the developer is planning the precise route of a gas pipeline or transmission line within the corridors.

Examples of key environmental criteria to take into consideration are protected areas, and critical biodiversity areas. Additional constraints, such as topography, erosion, current land-use and forested areas, will also be considered.

<https://www.engineeringnews.co.za/print-version/research-bodies-compiling-gas-pipeline-grid-infrastructure-assessment-2018-07-06>

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7/30/2019

Engineering News - Key enviro assessment launched for SA gas and power networks


The results will serve to identify the optimum location for the proposed corridors, containing the lowest sensitivity areas and the least engineering constraints, and to inform suitable routing options for gas pipelines and EGI expansion.

The SEA, including the specialist assessments, will be made available for comment through the project website, which can be accessed from the CSIR landing page.

The SEA project team will consult with a wide range of stakeholders, including government, industry and specialists, to validate the findings of the assessment, but will also receive additional input based on national, provincial and local priorities.

As part of the public outreach plan for the SEA, two rounds of open public briefings in the study area were proposed, along with supplementary sector-specific meetings.

Round 1 was completed in November 2017, whereby six public briefings were undertaken in Cape Town and George, East London, Durban, Johannesburg and Springbok.

Interested and affected parties, as well as stakeholders, are encouraged to visit the project website, register their interest and submit comments using email or the stakeholder portal. 

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A.7.3 Correspondence Sent to Authorities and Municipalities

CORRESPONDENCE SENT TO AUTHORITIES AND MUNICIPALITIES FOR THE AUTHORITY AND PUBLIC OUTREACH ROADSHOWS
Stage 1 Consultation: Project Initiation; Preliminary Corridors and Negative Mapping
Consultation during the Round 1 Authority Roadshow
Example of one of the Invite Letters issued to the Provincial Government Departments for the Round 1 Authority Roadshow
<div>  </div> <div> <p>environmental affairs</p> </div> <div> <p>Department: Environmental Affairs REPUBLIC OF SOUTH AFRICA</p> </div> <div> <p>Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA</p> </div> <div> <p>Ref: EDMS 161 704</p> </div> <div> <p>Enquiries: D Fischer</p> </div> <div> <p>Tel: 012 399 8843 Email: dfischer@environment.gov.za</p> </div> <div> <p>Ms Elizabeth Botes Head of Department The Department of Environment and Nature Conservation 90 Long Street, Kimberley, 8300 Private Bag X6120 Kimberley 8301</p> </div> <div> <p>Dear Ms. Botes</p> </div> <div> <p>STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: PROVINCIAL GOVERNMENT, AND DISTRICT MUNICIPALITY AND LOCAL MUNICIPALITY CONSULTATION FOR AN INTRODUCTION TO THE SEA PROCESS AND INITIAL CORRIDORS</p> </div> <div> <p>In order to support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab held in 2014, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and the Department of Public Enterprises (DPE) (representing iGas, Eskom and Transnet), committed to jointly lead an initiative to streamline and integrate a regulatory process to facilitate the efficient and effective development of a phased gas pipeline network in the country while ensuring sustainable development.</p> </div> <div> <p>It was agreed that in order to achieve this streamlined and efficient authorisation process, a Strategic Environmental Assessment (SEA) methodology would be used to identify and pre-assess suitable gas routing corridors and expand the identified electricity grid infrastructure (EGI) power corridors (that were assessed as part of a separate SEA Process which concluded in 2016). It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.</p> </div> <div> <p>In April 2017, the DEA appointed the Council for Scientific and Industrial Research (CSIR) to undertake the Phased Gas Pipeline Network and EGI expansion SEA. The CSIR will undertake the SEA in collaboration with the South African National Biodiversity Institute (SANBI).</p> </div> <div> <p>As part of the SEA, the CSIR and SANBI will assess the suitability and sensitivity of the proposed corridors for the phased gas pipeline network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team will require a detailed understanding of both negative (constraints) and positive (development opportunities) within the corridors to inform routing options. Much of this information can be garnered from available national datasets; however consultation with government and other stakeholders will be an essential input into this process.</p> </div> <div> <p>As part of the consultation process, the SEA Project Team proposes a series of public meetings and focus group meetings with the relevant government departments (Provinces, and District and Local Municipalities) to discuss the following:</p> </div> <div> <ol style="list-style-type: none"> 1. The approach to the SEA Process and the location of the initial corridors with respect to provincial and municipal considerations; 2. The identification of significant constraints or development opportunities impacting on the location of possible options within the corridors; and 3. Any additional information (e.g. Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and Environmental Management Frameworks (EMFs)) that should be taken into account when further assessing the location of the corridors and possible routing options. </div> <div> <p>This is a request to meet with yourself and other senior officials from the Northern Cape Provincial Government, and from affected District and Local Municipalities, to provide the DEA with an opportunity to introduce the study and to have discussions on how the location of the corridors and possible routing opportunities can be informed by your inputs.</p> </div>

It is kindly requested that the relevant Heads of Department from the Northern Cape Provincial Government and relevant District and Local Municipalities, and officials responsible for the following areas (where applicable) are present at this meeting:

- Agriculture;
- Economic Development;
- Tourism;
- Environment;
- Planning;
- Mining;
- Social Development;
- Human Settlements;
- Infrastructure Development;
- Transport;
- Public Works;
- Premier;
- Water; and
- Traditional Authorities.

Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity. We have attached an invitation template for your convenience.

As part of the SEA Process, the SEA Project Team also intends to undertake a series of public meetings. We kindly request your assistance to also extend this invitation to increase awareness of the public meeting and to ensure good attendance thereto. A Background Information Document and Poster will be sent for distribution.

The following date and time has been suggested:

Focus Group Meeting (Provincial Departments, and District and Local Municipalities)		Public Meeting	
Date:	9 November 2017	Date:	8 November 2017
Time:	09:30 – 11:30	Time:	18:00 to 20:00
Venue:	Namakwa District Municipality (Lecture Hall): HJ Visser Building, Van Riebeeck Street, Springbok, 8240	Venue:	Libra Hall: van Niekerk Street, Bergsig, Springbok

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

Tel: +27 12 399 9309
 Fax: +27 12 399 9260
 E-mail: smoganetsi@environment.gov.za
 Postal Address: Private Bag X447, Pretoria, 0001

Should you require additional information, you are welcome to consult with the CSIR Project Team using the contact details provided below:

Ms. Rohaida Abed
 Project Manager
 Council for Scientific and Industrial Research (CSIR)
 PO Box 17001, Congella, Durban, 4013
 Email: gasnetwork@csir.co.za
 Tel: +27 31 242 2300

The DEA is looking forward to working with you on this very important project.

Yours sincerely



Ms N Ngcaba
 Director General
 Department of Environmental Affairs
 Letter signed by:
 Ms Dee Fischer
 Chief Director Integrated Environmental Management Support
 Department of Environmental Affairs
 Date: 9 October 2017

**Example of the Generic Invite Letter issued to the Provincial Government Departments for their Distribution
for the Round 1 Authority Roadshow**



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Ref: EDMS 161 704

Enquiries: D Fischer

Tel: 012 399 8843 Email: dfischer@environment.gov.za

Dear Government Stakeholder

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: CONSULTATION WITH PROVINCIAL DEPARTMENTS, AND AFFECTED DISTRICT AND LOCAL MUNICIPALITIES TO INTRODUCE THE SEA AND INITIAL CORRIDORS

Attendance Request:

You are hereby invited by the National Department of Environmental Affairs (DEA) to attend consultation meetings on the Strategic Environmental Assessment (SEA) for the identification of energy corridors, as well as assessment and management measures for the development of a Phased Gas Pipeline Network and Expansion of the Electricity Grid Infrastructure (EGI) for South Africa.

Background:

In order to realise the potential of the gas reserves in the country and to contribute to the transition to a low carbon economy, the Operation Phakisa Offshore Oil and Gas Lab has set a target of achieving 30 exploration wells in the next 10 years. In addition, the need to accelerate the planning for gas to power as part of the Government's Integrated Resource Plan (IRP) and for State Owned Entities to pre-plan for the logical development of gas transmission servitudes within South Africa was identified. The phased development of a gas pipeline network therefore forms part of the infrastructure envisaged as an enabler for the offshore oil and gas exploration and exploitation and has the potential to unlock further possibilities for the growth of the gas industry in SA.

To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab and to ensure that when required, environmental authorisations are not a cause for delay, the DEA, Department of Energy (DoE) and the Department of Public Enterprises (DPE) (representing iGas, Eskom and Transnet) intend to apply a SEA methodology to identify and pre-assess suitable gas routing corridors. The intention of undertaking SEAs is to pre-assess environmental sensitivities within the proposed development areas at a regional scale to achieve a streamlined and efficient authorisation process.

In April 2017, the DEA appointed the Council for Scientific and Industrial Research (CSIR) to undertake a SEA for the Phased Gas Pipeline Network and for the expansion of the electricity power corridors that were assessed as part of a separate SEA Process (in response to the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016.

It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.

As part of the SEA, the CSIR and South African National Biodiversity Institute (SANBI) will assess the suitability and sensitivity of the proposed corridors for the phased gas pipeline network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team will require a detailed understanding of both negative (constraints) and positive (development opportunities) within the corridors to inform routing options. Much of this information can be garnered from available national datasets; however consultation with government and other stakeholders will be an essential input into this process. It is proposed that nine corridors will be assessed for gas and that two of the previously assessed EGI SEA corridors (i.e. Western and Eastern Corridors) will be extended and re-assessed. Refer to Figure 1 below.

The Project Initiation Phase of the SEA is now complete and additional information can be found on the dedicated project website: <https://gasnetwork.csir.co.za>.

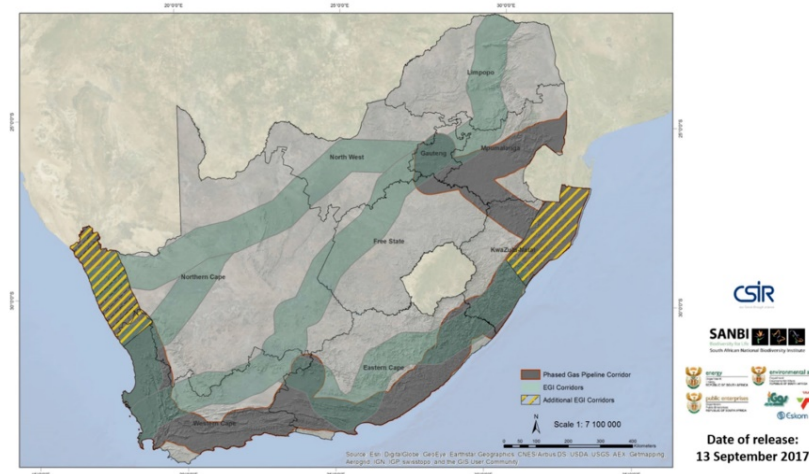


Figure 1: Proposed Phased Gas Pipeline Network and EGI expansion corridors.

Meeting Details:

As part of the consultation process, the SEA Project Team proposes a series of focus group meetings with the relevant government departments (Provincial Departments and, District and Local Municipalities) to discuss the following:

1. The approach to the SEA Process and the location of the initial corridors with respect to provincial and municipal considerations;
2. The identification of significant constraints or development opportunities impacting on the location of possible options within the corridors; and
3. Any additional information (e.g. Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and Environmental Management Frameworks (EMFs)) that should be taken into account when further assessing the location of the corridors and possible routing options.

This is a request to meet with yourself and other senior officials from your department, to provide DEA with an opportunity to introduce you to the study and to have discussions on how the location of the corridors and possible routing opportunities can be informed by your inputs.

It is kindly requested that the relevant Head of Department or suitable alternative representative from the Northern Cape Provincial Government, and relevant District and Local Municipalities be present at this meeting. Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity.

The following date and time has been suggested and the venue will be confirmed in due course:

Date: Thursday, 9 November 2017

Time: 10:30 - 12:30

Venue: To be confirmed

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

Tel: +27 12 399 9309

Fax: +27 12 399 9260

E-mail: smoganetsi@environment.gov.za

Postal Address: Private Bag X447, Pretoria, 0001

Kindly confirm attendance and submit the details of the attendee(s) to the CSIR Project Team using the contact details provided below, by 16 October 2017:

Ms. Rohaida Abed
Project Manager
Council for Scientific and Industrial Research (CSIR)
PO Box 17001, Congella, Durban, 4013
Email: gasnetwork@csir.co.za
Tel: +27 31 242 2300

As part of the SEA Process, the SEA Project Team also intends to undertake a series of public meetings. The Public Meeting details are shown below:

Date: Wednesday, 8 November 2017

Time: 17:00 - 19:00

Venue: To be confirmed

It would be appreciated if your Department could also extend this invitation to increase awareness of the public meeting and to ensure good attendance thereto. A Background Information Document and Poster have been compiled and will be sent for distribution in order to facilitate awareness of the project.

Should you require additional information, you are welcome to consult with the CSIR Project Team (Rohaida Abed) using the contact details provided above.

The DEA is looking forward to working with you on this very important project.

Yours sincerely



Ms N Ngcaba
Director General: Department of Environmental Affairs
Letter signed by: Ms Dee Fischer
Chief Director: Integrated Environmental Management Support
Department of Environmental Affairs
Date: 9 October 2017

Example of the Generic Template Letter issued to the Provincial Government Departments for their Editing and Distribution for the Round 1 Authority Roadshow

[INSERT CONTACT DETAILS OF Provincial Government Offices]

[INSERT Provincial Government Logo]

[INSERT NAME OF RECIPIENT]
[INSERT TITLE OF RECIPIENT]
[INSERT ORGANISATION OF RECIPIENT]
[INSERT ADDRESS OF RECIPIENT DEPARTMENT]
[INSERT CITY, ZIP OF RECIPIENT DEPARTMENT]

Dear XXXX

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: CONSULTATION WITH PROVINCIAL DEPARTMENTS, AND AFFECTED DISTRICT AND LOCAL MUNICIPALITIES TO INTRODUCE THE SEA AND INITIAL CORRIDORS

Attendance Request:

You are hereby invited by the National Department of Environmental Affairs (DEA) to attend consultation meetings on the Strategic Environmental Assessment (SEA) for the identification of energy corridors, as well as assessment and management measures for the development of a Phased Gas Pipeline Network and Expansion of the Electricity Grid Infrastructure (EGI) for South Africa.

Background:

In order to realise the potential of the gas reserves in the country and to contribute to the transition to a low carbon economy, the Operation Phakisa Offshore Oil and Gas Lab has set a target of achieving 30 exploration wells in the next 10 years. In addition, the need to accelerate the planning for gas to power as part of the Government's Integrated Resource Plan (IRP) and for State Owned Entities to pre-plan for the logical development of gas transmission servitudes within South Africa was identified. The phased development of a gas pipeline network therefore forms part of the infrastructure envisaged as an enabler for the offshore oil and gas exploration and exploitation and has the potential to unlock further possibilities for the growth of the gas industry in SA.

To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab and to ensure that when required, environmental authorisations are not a cause for delay, the DEA, Department of Energy (DoE) and the Department of Public Enterprises (DPE) (representing iGas, Eskom and Transnet) intend to apply a SEA methodology to identify and pre-assess suitable gas routing corridors. The intention of undertaking SEAs is to pre-assess environmental sensitivities within the proposed development areas at a regional scale to achieve a streamlined and efficient authorisation process.

In April 2017, the DEA appointed the Council for Scientific and Industrial Research (CSIR) to undertake a SEA for the Phased Gas Pipeline Network and for the expansion of the electricity power corridors that were assessed as part of a separate SEA Process (in response to the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016.

It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.

As part of the SEA, the CSIR and South African National Biodiversity Institute (SANBI) will assess the suitability and sensitivity of the proposed corridors for the phased gas pipeline network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team will require a detailed understanding of both negative (constraints) and positive (development opportunities) within the corridors to inform routing options. Much of this information can be garnered from available national datasets; however consultation with government and other stakeholders will be an essential input into this process. It is proposed that nine corridors will be assessed for gas and that two of the previously assessed EGI SEA corridors (i.e. Western and Eastern Corridors) will be extended and re-assessed. Refer to Figure 1 below.

The Project Initiation Phase of the SEA is now complete and additional information can be found on the dedicated project website: <https://gasnetwork.csr.co.za>.

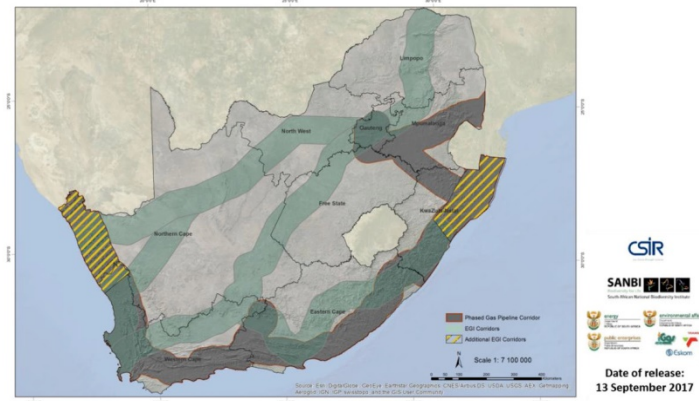


Figure 1: Proposed Phased Gas Pipeline Network and EGI expansion corridors.

Meeting Details:

As part of the consultation process, the SEA Project Team proposes a series of focus group meetings with the relevant government departments (Provincial Departments and, District and Local Municipalities) to discuss the following:

1. The approach to the SEA Process and the location of the initial corridors with respect to provincial and municipal considerations;
2. The identification of significant constraints or development opportunities impacting on the location of possible options within the corridors; and
3. Any additional information (e.g. Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and Environmental Management Frameworks (EMFs)) that should be taken into account when further assessing the location of the corridors and possible routing options.

This is a request to meet with yourself and other senior officials from your department, to provide DEA with an opportunity to introduce you to the study and to have discussions on how the location of the corridors and possible routing opportunities can be informed by your inputs.

It is kindly requested that the relevant Head of Department or suitable alternative representative from the [INSERT DEPARTMENT NAME] be present at this meeting. Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity.

The following date and time has been suggested and the venue will be at Namakwa District Municipality (Lecture Hall): HJ Visser Building, Van Riebeeck Street, Springbok, 8240.

Date: Thursday, 9 November 2017
Time: 09:30 - 11:30

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

Tel: +27 12 399 9309
 Fax: +27 12 399 9260
 E-mail: smoganetsi@environment.gov.za
 Postal Address: Private Bag X447, Pretoria, 0001

Kindly confirm attendance and submit the details of the attendee(s) to the CSIR Project Team using the contact details provided below, by 16 October 2017:

Ms. Rohaida Abed
Project Manager
Council for Scientific and Industrial Research (CSIR)
PO Box 17001, Congella, Durban, 4013
Email: gasnetwork@csir.co.za
Tel: +27 31 242 2300

As part of the SEA Process, the SEA Project Team also intends to undertake a series of public meetings. The Public Meeting details are shown below:

Date: Wednesday, 8 November 2017

Time: 18:00 - 20:00

Venue: Libra Hall: van Niekerk Street, Bergsig, Springbok

It would be appreciated if your Department could also extend this invitation to increase awareness of the public meeting and to ensure good attendance thereto. A Background Information Document and Poster have been compiled and will be sent for distribution in order to facilitate awareness of the project.

Should you require additional information, you are welcome to consult with the CSIR Project Team using the contact details provided above.

The DEA is looking forward to working with you on this very important project.

Yours sincerely

[INSERT NAME OF SIGNATORY FROM PROVINCE]

Stage 2 Consultation (Draft Refined Corridors, Municipal and Industry Feedback Exercise, and Draft Specialist Assessment and SEA Chapters)

Consultation for the Draft Refined Corridors

Copy of the Generic Letter issued to the Provincial Government Departments and District Municipalities to Spread Awareness of the SEA and Draft Refined Corridors



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Ref: EDMS 161 704

Enquiries: D Fischer

Tel: 012 399 8843 Email: dfischer@environment.gov.za

Dear Government Stakeholder

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE (EGI) IN SOUTH AFRICA: CONSULTATION AND COLLABORATION WITH PROVINCIAL DEPARTMENTS, AND AFFECTED DISTRICT AND LOCAL MUNICIPALITIES TO INTRODUCE THE SEA

Background:

Operation Phakisa (2014) is a Government initiative to fast track the implementation of solutions on critical development issues. It includes the 1) Oceans Economy Lab; 2) Health Lab and 3) Education Lab that were identified to ensure a better, faster and more effective implementation of priority programmes. The Oceans Economy Lab aims to unlock the potential of the South African coast and considers the following four critical areas:

- Marine Transport and Manufacturing;
- Offshore Oil and Gas Exploration;
- Aquaculture;
- Marine Protection Services and Ocean Governance.

This communication is related to the critical area of Offshore Oil and Gas Exploration. Eleven initiatives were identified as part of the Offshore Oil and Gas Exploration critical area and the development of a Phased Gas Pipeline Network was identified as initiative A1 of the Offshore Oil and Gas Exploration Lab.

In order to realise the potential of the gas reserves in the country and to contribute to the transition to a low carbon economy, the Operation Phakisa Offshore Oil and Gas Lab (2014) also set a target of achieving 30 exploration wells in the next 10 years. To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab and to ensure that when required, environmental authorisations are not a cause for delay, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and the Department of Public Enterprises (DPE), as well as iGas, Eskom and Transnet, have commissioned the Council for Scientific and Industrial Research (CSIR) to undertake a Strategic Environmental Assessment (SEA) to identify and pre-assess suitable corridors for a Phased Gas Pipeline Network and for the expansion of the EGI corridors that were assessed as part of a previous SEA Process (which was in response to the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all), which concluded in 2016. The CSIR is undertaking the SEA in collaboration with the South African National Biodiversity Institute (SANBI).

The SEA Process is a **high level assessment undertaken before an Environmental Impact Assessment (EIA) Process**, and it is intended to be a pro-active instrument for addressing environmental consequences before implementation and to support the site specific authorisation process. The vision of the SEA is the development of a strategic gas pipeline network and expansion of the gazetted EGI corridors in an environmentally responsible and efficient manner that responds effectively to South Africa's economic and social development needs.

The SEA is **effective, efficient and responsible**, as it will:

- Identify strategic 100 km wide corridors for the phased gas pipeline network and future EGI expansion at a national scale based on future energy supply and demand requirements.
- Identify environmental sensitivities as well as social and economic development priorities at a national, regional and localised level.
- Devise mechanisms to secure long term energy zones and corridors (against unfavourable land uses and activities).

- Streamline the authorisation process by pre-assessing environmental sensitivities to avoid fatal flaws and focus on the site specific level of assessment required.
- Enable developer's greater flexibility to consider a range of route alternatives within the pre-assessed corridors to minimise the impacts of land negotiation issues.
- Promote collaborative governance between authorising authorities mandated to approve or license aspects of gas pipeline and EGI development.
- Contribute to skills development as part of the SEA Process via the implementation of an internship programme within the SEA Project Team, experience gained within the team itself, conferences etc.
- Develop a generic Environmental Management Programme (EMPr), Norms or Standards and a Pre-construction Site Specific Development Protocol, which prescribes the level of site specific assessment required.

Norms or Standards will be developed for areas of lower sensitivity within the corridors, where the need for an Environmental Authorisation application will be negated, provided that the Norms or Standard and a specific level of assessment (such as a compliance statement, specialist site verification, adherence to the generic EMPr etc.) is applied. Therefore, some level of site assessment will still be required. The level of stakeholder engagement required at a project specific level will be detailed in the Standards and/or include in the EMPr.

The Pre-construction Site Specific Development Protocol will be developed to provide guidance to the applicant when undertaking the environmental assessment within the corridors and to ensure environmental protection at a site level.

Approach to the SEA:

The SEA Process was initiated in April 2017 and is being undertaken in the following three phases:

- Phase 1: Inception;
- Phase 2: Assessment of the Corridors; and
- Phase 3: Gazetteing and Decision- Making Framework.

The Inception Phase (i.e. Phase 1) was completed in June 2017. During this phase, an Inception Meeting was held; and the project specific website (<https://gasnetwork.csir.co.za>) and email address (gasnetwork@csir.co.za) were created, and an Expert Reference Group (ERG) and Project Steering Committee (PSC) were convened. The first PSC and ERG meetings for the SEA Process took place on 13 September 2017 at the CSIR Offices in Pretoria.

The SEA Process is currently in Phase 2, which is focused on the assessment of the corridors. The following specialist studies have been commissioned as part of the SEA:

- Biodiversity and Ecological Impacts (Terrestrial and Aquatic Ecosystems, Flora and Fauna) for the gas corridors and the additional EGI corridors;
- Fauna (including Bat Impact Assessment) (for the gas corridors and the additional EGI corridors);
- Avifauna (for the gas corridors and the additional EGI corridors);
- Visual Aesthetics (for the additional EGI Corridors only);
- Impacts of seismicity on the gas corridors and the additional EGI corridors; and
- Socio-economics and planning assessment (including governance, gas benefits and regional planning for the gas corridors (and the additional EGI corridors as applicable).

A Soils and Agricultural specialist is also appointed to provide inputs to the sensitivity mapping, EMPr and Protocols for the agricultural land component.

The next ERG and PSC meeting is planned for June 2018 to provide feedback on the draft specialist studies.

Way forward in terms of Consultation and Collaboration with Provinces and Municipalities:

The CSIR and SANBI are reviewing Spatial Development Frameworks (SDFs) of Provinces and District Municipalities in order to obtain information on proposed major infrastructure developments, such as (but not limited to) mining areas, agricultural developments and industrial zone development. The objective of this review is the alignment of the SEA and the Municipality planning processes, where available. To maintain contact, the Project Team has also gathered contact details of the affected Provincial Planning Departments and is in the process of acquiring spatial data for the abovementioned major infrastructure developments and SDFs.

The Project Team would appreciate support from the Provincial Government and Municipalities in this regard, to support alignment of the National and Provincial initiatives, while efficiently using available land resources. It is kindly requested that the Provinces inform the affected municipalities of the SEA Project and accordingly spread awareness. In particular information regarding future planning by the District and Local Municipalities are to be taken into consideration when assessing the best alignment for the proposed gas pipeline and EGI expansion corridors.

Kindly note that relevant representatives from Provincial Government and Municipalities should not hesitate to submit inputs on the SEA Project as they deem suitable. In this regard, project specific information and updates will be made available on the project website.

Additional project background information can be found on the following project website: <https://gasnetwork.csir.co.za/>

Should you require additional information, you are welcome to consult with the CSIR Project Team or the DEA using the contact details provided below:

DEA:	CSIR:
Mr. Simon Moganetsi Director: Systems and Tools Department of Environmental Affairs Private Bag X447, Pretoria, 0001 E-mail: smoganetsi@environment.gov.za Tel: +27 12 399 9309 Fax: +27 12 399 9260	Ms. Rohaida Abed Project Manager Council for Scientific and Industrial Research (CSIR) PO Box 17001, Congella, Durban, 4013 Email: gasnetwork@csir.co.za Tel: +27 31 242 2300

The DEA is looking forward to working with you on this very important project.

Yours sincerely



Ms N Ngcaba
Director General: Department of Environmental Affairs
Letter signed by: Ms Dee Fischer
Chief Director: Integrated Environmental Management Support
Department of Environmental Affairs
Date: 16 April 2018

Consultation during the Round 2 Authority Roadshow

Example of one of the Invite Letters issued to the Provincial Government Departments for the Round 2 Authority Roadshow



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Ref: EDMS 161 704

Enquiries: D Fischer

Tel: 012 399 8843 **Email:** dfischer@environment.gov.za

Mr Mandla Nzilili
Acting Head of Department
The Department of Environment and Nature Conservation
90 Long Street, Kimberley, 8300
Private Bag X6120
Kimberley
8301

Dear Mr Nzilili

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: PROVINCIAL GOVERNMENT, AND DISTRICT MUNICIPALITY AND LOCAL MUNICIPALITY CONSULTATION FOR FEEDBACK ON THE PROGRESS OF THE SEA PROCESS

In order to support the National Development Plan and Operation Phakisa, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet, have commissioned a Strategic Environmental Assessment (SEA) Process to identify and pre-assess suitable gas routing corridors and to expand identified Electricity Grid Infrastructure (EGI) corridors to facilitate a streamlined Environmental Assessment Process for the development of energy infrastructure related to gas and electricity, while ensuring sustainable development. EGI corridors were assessed as part of a separate SEA Process (in response to the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016 and was gazetted in 2018. It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.

The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the abovementioned SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI).

As part of the SEA, the project team is assessing the suitability and sensitivity of the proposed corridors for the Phased Gas Pipeline Network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team requires a detailed understanding of constraints (negative) and development opportunities (positive) within the corridors to inform routing options. Consultation with government and other stakeholders is an essential input into this process.

A first series of public and focus group authority meetings was carried out in November 2017 to present the SEA Process and gather inputs from stakeholders with regards to the proposed location of the abovementioned corridors.

A second round of public meetings and focus group authority meetings with the relevant government departments (Provinces, and District and Local Municipalities) is now planned in Springbok, Upington, Cape Town, George, Port Elizabeth, East London, Durban and Johannesburg, in order to discuss the following:

- The progress made thus far on the SEA Process;
- The draft findings of the specialist studies; and
- The draft findings of the Pinch Point Analysis (including the Utilisation Mapping).

This is a request to meet with yourself and other senior officials from the Northern Cape Provincial Government, and from affected District and Local Municipalities, to provide the SEA Project Team with an opportunity to present progress on the study and to have discussions on how the location of the corridors and possible routing opportunities can be informed by your inputs.

It is kindly requested that the relevant Heads of Department from the Northern Cape Provincial Government and relevant District and Local Municipalities, and officials responsible for the following areas (where applicable) are present at this meeting:

- | | |
|------------------------|------------------------------|
| ▪ Agriculture | ▪ Human Settlements |
| ▪ Economic Development | ▪ Infrastructure Development |
| ▪ Tourism | ▪ Transport |
| ▪ Environment | ▪ Public Works |
| ▪ Planning | ▪ Premier |
| ▪ Mining | ▪ Water |
| ▪ Social Development | ▪ Traditional Authorities |

Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity. We have attached an invitation template for your convenience.

As part of the SEA Process, the SEA Project Team also intends to undertake a series of public meetings. We kindly request your assistance to also extend this invitation to increase awareness of the public meeting and to ensure good attendance thereto. A Background Information Document and Poster are attached for distribution.

The meeting details are indicated below:

FOCUS GROUP MEETING (PROVINCIAL DEPARTMENTS, AND DISTRICT AND LOCAL MUNICIPALITIES)			
UPINGTON (NORTHERN CAPE)		SPRINGBOK (NORTHERN CAPE)	
Date:	Tuesday, 16 October 2018	Date:	Thursday, 18 October 2018
Time:	10:00 to 14:00	Time:	09:00 to 13:00
Venue:	COGHSTA: 54-59 Mark Street, Umbra Building, 2nd Floor, Upington	Venue:	HJ Visser Building, Van Riebeeck Street, Springbok, 8240
PUBLIC MEETING			
SPRINGBOK (NORTHERN CAPE)			
Date:	Wednesday, 17 October 2018		
Time:	17:00 to 20:00		
Venue:	Kokerboom Motel: Next to N7, Droëdap Road, Springbok (Coordinates: 29°42'45.2"S, 17°53'15.4"E)		

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. Should you require additional information, you are welcome to consult with the CSIR Project Team. The relevant contact details are provided below:

Name:	Mr. Simon Moganetsi	Name:	Ms. Rohaida Abed (Project Manager, CSIR)
Tel:	+27 12 399 9309	Tel:	+27 31 242 2300
Fax:	+27 12 399 9260	E-mail:	gasnetwork@csir.co.za
E-mail:	smoganetsi@environment.gov.za	Postal Address:	PO Box 17001, Congella, Durban, 4013
Postal Address:	Private Bag X447, Pretoria, 0001		

The DEA is looking forward to working with you on this very important project.

Yours sincerely



Ms N Ngcaba
Director General

Department of Environmental Affairs

Letter signed by:

Ms Dee Fischer

Chief Director Integrated Environmental Management Support

Department of Environmental Affairs

Date: 03 August 2018

**Example of the Generic Invite Letter issued to the Provincial Government Departments for their Distribution
for the Round 2 Authority Roadshow**



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Ref: EDMS 161 704

Enquiries: D Fischer

Tel: 012 399 8843 Email: dfischer@environment.gov.za

Dear Government Stakeholder

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: CONSULTATION WITH PROVINCIAL DEPARTMENTS, AND AFFECTED DISTRICT AND LOCAL MUNICIPALITIES TO PROVIDE FEEDBACK ON THE PROGRESS OF THE SEA PROCESS, SPECIALIST FEEDBACK AND DRAFT REFINED CORRIDORS

Attendance Request:

You are hereby invited by the National Department of Environmental Affairs (DEA) to attend a second round of consultation meetings on the Strategic Environmental Assessment (SEA) for the identification of energy corridors, as well as assessment and management measures for the development of a Phased Gas Pipeline Network and Expansion of the Electricity Grid Infrastructure (EGI) for South Africa.

Background:

In order to realise the potential of the gas reserves in the country and to contribute to the transition to a low carbon economy, the Operation Phakisa Offshore Oil and Gas Lab has set a target of achieving 30 exploration wells in the next 10 years. In addition, the need to accelerate the planning for gas to power as part of the Government's Integrated Resource Plan (IRP) and for State Owned Entities to pre-plan for the logical development of gas transmission servitudes within South Africa was identified. The phased development of a gas pipeline network therefore forms part of the infrastructure envisaged as an enabler for the offshore oil and gas exploration and exploitation and has the potential to unlock further possibilities for the growth of the gas industry in SA.

To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab, as well as the National Development Plan (NDP), and to ensure that when required, environmental authorisations are not a cause for delay, the DEA, Department of Energy (DoE) and the Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet have commissioned a SEA to identify and pre-assess suitable gas routing corridors and to expand identified EGI corridors to facilitate a streamlined Environmental Assessment (EA) Process for the development of energy infrastructure related to gas and electricity, while ensuring sustainable development.

In April 2017, the DEA appointed the Council for Scientific and Industrial Research (CSIR) to undertake a SEA for the Phased Gas Pipeline Network and for the expansion of the EGI corridors that were assessed as part of a separate SEA Process (in response to the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016 and was gazetted in 2018. This SEA is being undertaken in collaboration with the South African National Biodiversity Institute (SANBI).

It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.

As part of the SEA, the CSIR and SANBI will assess the suitability and sensitivity of the proposed corridors for the phased gas pipeline network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team require a detailed understanding of both negative (constraints) and positive (development opportunities) within the corridors to inform routing options. Much of this information can be garnered from available national datasets; however consultation with government and other stakeholders will be an essential input into this process.

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- **Inception Phase:** (Completed in June 2017) during which the project team convened the Expert Reference Group and Project Steering Committee.
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 - Task 4: Environmental Assessment: The specialist team was appointed in December 2017 to assess the draft refined corridors. The draft findings of these studies will be made available for stakeholder review (once finalised) and presented at the second round of the Public and Authority Outreach (as detailed in this correspondence below). The comments received from the public and stakeholders will then be taken into consideration, where applicable, and a final pinch point analysis will be undertaken and the final corridors determined.
- **Phase 3: Decision-support Outputs and Gazetting:** This phase will translate the outputs from Phase 2 into environmental management measures and planning interventions for inclusion in the relevant legal environmental framework and local government planning tools, including Municipal Spatial Development Frameworks, to ensure that long term energy planning is secured. The final outputs of the SEA will be released for public comment through publication in the Government Gazette.

Figure 1 indicates the draft refined corridors that are being assessed by the specialists.

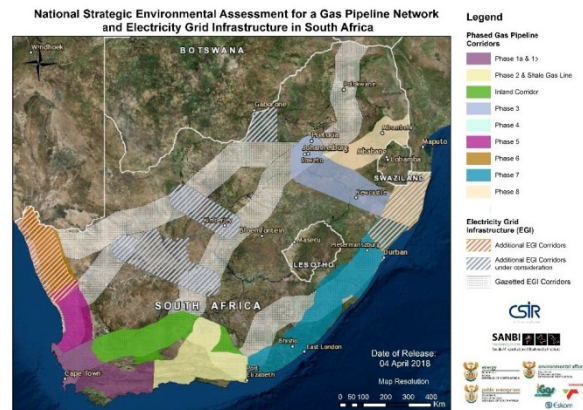


Figure 1: Refined Gas Corridors and Expanded EGI Corridors

Meeting Details:

Based on the progression of the SEA, the SEA Project Team are now planning the second round of public meetings and focus group authority meetings with the relevant government departments (Provinces, and District and Local Municipalities), in Springbok, Upington, Cape Town, George, Port Elizabeth, East London, Durban, and Johannesburg, in order to discuss the following:

- The progress made thus far on the SEA Process and to provide an update on the tasks currently underway (i.e. assessment of the corridors and finalization of the specialist studies following peer review);
- The draft findings of the specialist studies and corresponding feedback from the authorities; and
- The draft findings of the Pinch Point Analysis (including the Utilisation Mapping).

This is a request to meet with yourself and other senior officials from your department, to provide the SEA Project Team with an opportunity to present progress on the study and to have discussions on how the location of the corridors and possible routing opportunities can be informed by your inputs.

It is kindly requested that the relevant Head of Department or suitable alternative representative from the Northern Cape Provincial Government, and relevant District and Local Municipalities be present at this meeting. Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity.

The focus group authority meeting details are indicated below:

	Upington, Northern Cape	Springbok, Northern Cape
Date	Tuesday, 16 October 2018	Thursday, 18 October 2018
Time	10:00 to 14:00	09:00 to 13:00
Venue	COGHSTA: 54-59 Mark Street, Umbra Building, 2nd Floor, Upington	HJ Visser Building, Van Riebeeck Street, Springbok

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

- Tel: +27 12 399 9309
- Fax: +27 12 399 9260
- E-mail: smoganetsi@environment.gov.za
- Postal Address: Private Bag X447, Pretoria, 0001

Kindly confirm attendance and submit the details of the attendee(s) to the CSIR Project Team using the contact details provided below, by **02 October 2018**:

- Ms. Rohaida Abed
- Project Manager
- Council for Scientific and Industrial Research (CSIR)
- PO Box 17001, Congella, Durban, 4013
- Email: gasnetwork@csir.co.za
- Tel: +27 31 242 2300

As part of the SEA Process, the SEA Project Team also intends to undertake a series of public meetings. The Public Meeting details are shown below:

Date: Wednesday, 17 October 2018

Time: 17:00 to 20:00

Venue: Kokerboom Motel: Next to N7, Droëdap Road, Springbok (Co-ordinates: 29°42'45.2"S; 17°53'15.4"E)

It would be appreciated if your Department could perhaps assist our SEA team in extending this invitation to increase awareness of the public meeting and to ensure good attendance thereto. A Background Information Document and Poster have been compiled and are attached for distribution in order to facilitate awareness of the project.

Should you require additional information, you are welcome to consult with the CSIR Project Team (Rohaida Abed) using the contact details provided above.

The DEA is looking forward to working with you on this very important project.

Yours sincerely



Ms N Ngcaba
Director General

Department of Environmental Affairs

Letter signed by:

Ms Dee Fischer

Chief Director Integrated Environmental Management Support

Department of Environmental Affairs

Date: 02 August 2018

Example of the Generic Template Letter issued to the Provincial Government Departments for their Editing and Distribution for the Round 2 Authority Roadshow

[INSERT CONTACT DETAILS OF Provincial Government Offices]

[INSERT Provincial Government Logo]

[INSERT NAME OF RECIPIENT]
[INSERT TITLE OF RECIPIENT]
[INSERT ORGANISATION OF RECIPIENT]
[INSERT ADDRESS OF RECIPIENT DEPARTMENT]
[INSERT CITY, ZIP OF RECIPIENT DEPARTMENT]

Dear XXXX

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: CONSULTATION WITH PROVINCIAL DEPARTMENTS, AND AFFECTED DISTRICT AND LOCAL MUNICIPALITIES TO PROVIDE FEEDBACK ON THE PROGRESS OF THE SEA PROCESS, SPECIALIST FEEDBACK AND DRAFT REFINED CORRIDORS

Attendance Request:

You are hereby invited by the National Department of Environmental Affairs (DEA) to attend a second round of consultation meetings on the Strategic Environmental Assessment (SEA) for the identification of energy corridors, as well as assessment and management measures for the development of a Phased Gas Pipeline Network and Expansion of the Electricity Grid Infrastructure (EGI) for South Africa.

Background:

In order to realise the potential of the gas reserves in the country and to contribute to the transition to a low carbon economy, the Operation Phakisa Offshore Oil and Gas Lab has set a target of achieving 30 exploration wells in the next 10 years. In addition, the need to accelerate the planning for gas to power as part of the Government's Integrated Resource Plan (IRP) and for State Owned Entities to pre-plan for the logical development of gas transmission servitudes within South Africa was identified. The phased development of a gas pipeline network therefore forms part of the infrastructure envisaged as an enabler for the offshore oil and gas exploration and exploitation and has the potential to unlock further possibilities for the growth of the gas industry in SA.

To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab, as well as the National Development Plan (NDP), and to ensure that when required, environmental authorisations are not a cause for delay, the DEA, Department of Energy (DoE) and the Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet have commissioned a SEA to identify and pre-assess suitable gas routing corridors and to expand identified EGI corridors to facilitate a streamlined Environmental Assessment (EA) Process for the development of energy infrastructure related to gas and electricity, while ensuring sustainable development.

In April 2017, the DEA appointed the Council for Scientific and Industrial Research (CSIR) to undertake a SEA for the Phased Gas Pipeline Network and for the expansion of the EGI corridors that were assessed as part of a separate SEA Process (in response to the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016 and was gazetted in 2018. This SEA is being undertaken in collaboration with the South African National Biodiversity Institute (SANBI).

It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.

As part of the SEA, the CSIR and SANBI will assess the suitability and sensitivity of the proposed corridors for the phased gas pipeline network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team require a detailed understanding of both negative (constraints) and positive (development opportunities) within the corridors to inform routing options. Much of this information can be garnered from available national datasets; however consultation with government and other stakeholders will be an essential input into this process.

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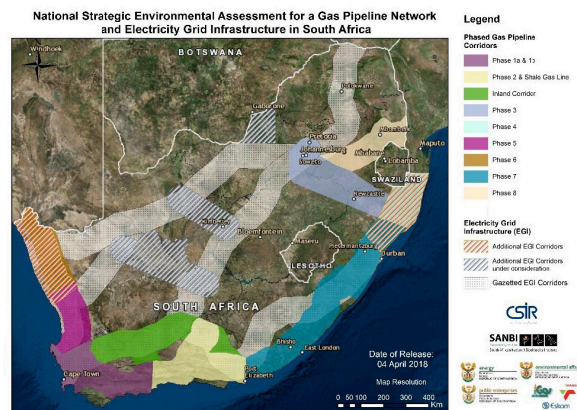


Figure 1: Refined Gas Corridors and Expanded EGI Corridors

Meeting Details:

Based on the progression of the SEA, the SEA Project Team are now planning the second round of public meetings and focus group authority meetings with the relevant government departments (Provinces, and District and Local Municipalities), in Springbok, Upington, Cape Town, George, Port Elizabeth, East London, Durban, and Johannesburg, in order to discuss the following:

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- The draft findings of the Pinch Point Analysis (including the Utilisation Mapping).

This is a request to meet with yourself and other senior officials from your department, to provide SEA Project Team with an opportunity to present progress on the study and to have discussions on how the location of the corridors and possible routing opportunities can be informed by your inputs.

It is kindly requested that the relevant Head of Department or suitable alternative representative from the [INSERT DEPARTMENT NAME] be present at this meeting. Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity.

The focus group authority meeting details are indicated below:

	Upington, Northern Cape	Springbok, Northern Cape
Date	Tuesday, 16 October 2018	Thursday, 18 October 2018
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Venue	COGHSTA: 54-59 Mark Street, Umbra Building, 2nd Floor, Upington	HJ Visser Building, Van Riebeeck Street, Springbok

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The DEA is looking forward to working with you on this very important project.

Yours sincerely

[INSERT NAME OF SIGNATORY FROM PROVINCE]

Copy of Generic Letter Sent to All Previous Attendees of Authority Meetings



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Ref: EDMS 161 704

Enquiries: D Fischer

Tel: 012 399 8843 Email: dfischer@environment.gov.za

Dear Government Stakeholder

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: CONSULTATION WITH PROVINCIAL DEPARTMENTS, AND AFFECTED DISTRICT AND LOCAL MUNICIPALITIES TO PROVIDE FEEDBACK ON THE PROGRESS OF THE SEA PROCESS, SPECIALIST FEEDBACK AND DRAFT REFINED CORRIDORS

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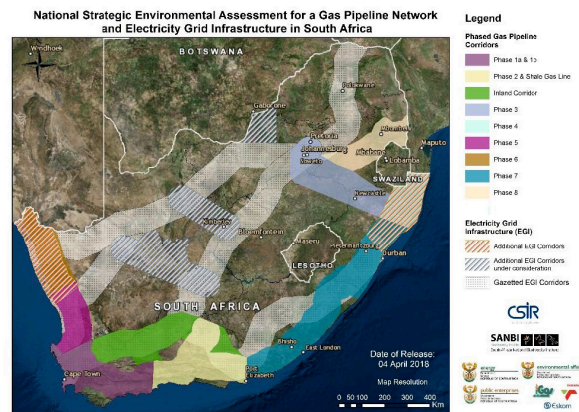


Figure 1: Refined Gas Corridors and Expanded EGI Corridors

Meeting Details:

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It is kindly requested that the relevant Head of Department or suitable alternative representative from Provincial Government, and relevant District and Local Municipalities be present at this meeting. Please ensure that this invitation is extended to the relevant persons responsible for the above areas at the earliest opportunity.

The focus group authority meeting details are indicated below:

Province	Date	Venue	Time
AUTHORITY MEETINGS			
Western Cape - George	8 October 2018	George Civic Centre: Banqueting Hall, 71 York Street, George	09H30 – 14H30
Eastern Cape - Port Elizabeth	9 October 2018	Eastern Cape DEDEAT Offices: Collegiate House, Cnr of Athol Fugard Terrace & Castle Hill, Central Port Elizabeth, 6001	11H00 – 16H00
Eastern Cape - East London	10 October 2018	Calgary Conference Centre (Museum): Stutterheim Road, East London, 5201 (Co-ordinates: 32°54'48.4"S; 27°53'46.6"E)	11H00 – 16H00
KwaZulu-Natal - Durban	12 October 2018	CSIR: 359 King George V (5th) Avenue, Durban	09H00 – 14H00
Gauteng - Johannesburg	15 October 2018	SALGA Office: 33rd Hoofd Street, Forum 2, 3rd Floor, Braampark, Braamfontein, Johannesburg	10H00 – 15H00
Northern Cape – Upington	16 October 2018	COGHSTA: 54-59 Mark Street, Umbra Building, 2nd Floor, Upington	10H00 – 14H00
Northern Cape - Springbok	18 October 2018	HJ Visser Building, Van Riebeeck Street, Springbok, 8240	09H00 – 13H00
Western Cape - Cape Town	19 October 2018	SALGA House: 7th Floor, 44 Strand Street, Cape Town	09H00 – 14H00

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

- Tel: +27 12 399 9309
- Fax: +27 12 399 9260
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- Postal Address: Private Bag X447, Pretoria, 0001

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- Project Manager
- Council for Scientific and Industrial Research (CSIR)
- PO Box 17001, Congella, Durban, 4013
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Eastern Cape - East London	10 October 2018	Premier Hotel Regent: Marine Park Complex, 22 Esplanade, Beachfront, Quigney, East London	17H00 – 20H00
KwaZulu-Natal - Durban	11 October 2018	CSIR: 359 King George V (5 th) Avenue, Durban	17H00 – 20H00
Gauteng - Johannesburg	15 October 2018	CSIR: Corner of Carlow Road & Rustenburg Road, Auckland Park, Johannesburg	17H00 – 20H00
Northern Cape - Springbok	17 October 2018	Kokerboom Motel: Next to N7, Droëdop Road, Springbok (Coordinates: 29°42'45.2"S, 17°53'15.4"E)	17H00 – 20H00
Western Cape - Cape Town	22 October 2018	CSIR: 15 Lower Hope Road, Rosebank, Cape Town	17H00 – 20H00

It would be appreciated if your Department could perhaps assist our SEA team in extending this invitation to increase awareness of the public meeting and to ensure good attendance thereto. A Background Information Document and Poster have been compiled and are attached for distribution in order to facilitate awareness of the project.

Should you require additional information, you are welcome to consult with the CSIR Project Team (Rohaida Abed) using the contact details provided above.

The DEA is looking forward to working with you on this very important project.

Yours sincerely

Ms N Ngcaba
Director General

Department of Environmental Affairs

Letter signed by:

Ms Dee Fischer

Chief Director Integrated Environmental Management Support

Department of Environmental Affairs

Date: 02 August 2018

Consultation during the Round 3 Public Outreach Roadshow (Additional Consultation)

Example of one of the Invite Letters issued to the KZN District Municipalities for the Round 3 Authority Roadshow



Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Enquiries: D Fischer
Tel: 012 399 8843 **Email:** dfischer@environment.gov.za

Linda Mncube
Manager: Planning and IDP
iLembe District Municipality
P.O.Box 1788
KwaDukuza
4450

Email: Linda.Mncube@ilembe.gov.za; Zibuyile.Buthelezi@ilembe.gov.za; and Rajan.Munien@ilembe.gov.za

Dear Linda Mncube

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: ADDITIONAL PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

As you are aware, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet, have commissioned a Strategic Environmental Assessment (SEA) Process to identify and pre-assess suitable gas routing corridors and to expand identified Electricity Grid Infrastructure (EGI) corridors to facilitate a streamlined Environmental Assessment Process for the development of energy infrastructure related to gas and electricity, while ensuring the highest level of environmental protection. It is proposed that the final corridors be embedded and integrated into Provincial and Local planning mechanisms to secure long term energy planning.

The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the abovementioned SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI).

As part of the SEA, the project team is assessing the suitability and sensitivity of the proposed corridors for the Phased Gas Pipeline Network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team requires a detailed understanding of constraints and opportunities within the initial corridors to inform routing options. Consultation with government and other stakeholders is an essential input into this process.

Two rounds of Authority Meetings and Public Information Sharing Sessions were undertaken as part of the SEA in November 2017 and October 2018 at various key locations throughout the country. The DEA is arranging an additional Public Information Sharing Session in Durban in order to allow stakeholders to discuss the project, raise queries and receive responses as best as possible, and to be updated on the progress made and the findings of the specialist assessments. By way of an update, kindly note that the Specialist Assessment chapters, and Parts 1 and 2 of the SEA Report, which provide an introduction and description of the SEA Project, were released for comment from 25 April 2019 to 10 June 2019. Please visit the project website to download the information, using the links provided below:



Batho pele - putting people first

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: ADDITIONAL PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

- **Gas Pipeline SEA:** <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>
- **EGI Expansion SEA:** <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

This correspondence serves as an invitation to you and relevant senior officials from the District Municipality to attend the Public Information Sharing Session in Durban. It is also kindly requested that your office assist the DEA, at your earliest convenience, with extending this invitation to relevant senior officials that fall within the affected Local Municipalities within your District. We have attached a generic Local Municipality invitation letter for your convenience. It is further requested that the SEA Project Team be copied (on gasnetwork@csir.co.za) on all invite correspondence sent to the affected Local Municipalities.

The Public Information Sharing Session details are indicated below:

Date:	Thursday, 13 June 2019
Time:	17:00 to 20:00
Venue:	CSIR: 359 King George V (5th) Avenue, Durban, 4013

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

Tel: +27 12 399 9309

Fax: +27 12 399 9260

E-mail: smoganetsi@environment.gov.za

Postal Address: Private Bag X447, Pretoria, 0001

Kindly confirm attendance and submit the details of the attendee(s) to the CSIR Project Team using the contact details provided below, by **04 June 2019**:

Ms. Rohaida Abed

Project Manager

Council for Scientific and Industrial Research (CSIR)

PO Box 17001, Congella, Durban, 4013

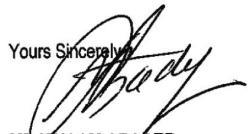
Email: gasnetwork@csir.co.za

Tel: +27 31 242 2300

Should you require additional information, you are welcome to consult with the CSIR Project Team using the contact details provided above.

The DEA is looking forward to working with you on this very important project.

Yours Sincerely,



MR ISHAAM ABADER

DEPUTY DIRECTOR GENERAL: LEGAL AUTHORISATION, COMPLIANCE AND ENFORCEMENT

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

DATE:

20/05/2019

Example of the Generic Invite Letter issued to the KZN District Municipalities for their Distribution for the Round 3 Authority Roadshow



Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

Enquiries: D Fischer
Tel: 012 399 8843 **Email:** dfischer@environment.gov.za

Dear Government Stakeholder

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: ADDITIONAL PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Attendance Request:

You are hereby invited by the National Department of Environmental Affairs (DEA) to attend an additional Public Information Sharing Session in Durban regarding the Strategic Environmental Assessment (SEA) for the identification of energy corridors, as well as assessment and management measures for the development of a Phased Gas Pipeline Network and Expansion of the Electricity Grid Infrastructure (EGI) for South Africa.

Background:

As you are aware, the DEA, Department of Energy (DoE) and Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet, have commissioned a SEA Process to identify and pre-assess suitable gas routing corridors and to expand identified EGI corridors to facilitate a streamlined Environmental Assessment Process for the development of energy infrastructure related to gas and electricity, while ensuring the highest level of environmental protection. It is proposed that the final corridors be embedded and integrated into Provincial and Local planning mechanisms to secure long term energy planning.

The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the abovementioned SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI).

As part of the SEA, the project team is assessing the suitability and sensitivity of the proposed corridors for the Phased Gas Pipeline Network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team requires a detailed understanding of constraints and opportunities within the initial corridors to inform routing options. Consultation with government and other stakeholders is an essential input into this process.

The SEA consists of the following three Phases:

Inception Phase: (Completed in June 2017) during which the project team convened the Expert Reference Group and Project Steering Committee.



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STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: ADDITIONAL PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Phase 2: Assessment of the Corridors:

Task 1: Initial Corridors (Completed in June 2017). Initial draft gas pipeline and EGI corridors were developed.

Task 2: Negative Mapping (Completed in October 2017). A draft wall to wall map was compiled for the country highlighting areas of low, medium, high and very high sensitivity in terms of environmental features and engineering constraints. The results of the draft negative mapping was also presented during the first round of the Public and Authority Outreach from 1 - 13 November 2017, in Springbok, Cape Town, George, East London, Durban and Johannesburg.

Task 3: Corridor Refinement (completed in January 2018). A Draft Pinch Point Analysis was undertaken based on the wall to wall negative mapping, and feedback received from the authorities, specialists and the public. This process entailed shifting the corridors slightly, where possible, to obtain more areas of low sensitivity within the corridors. This resulted in the completion of the draft refined corridors (Figure 1).

Task 4: Environmental Assessment: The specialist team was appointed in December 2017 to assess the draft refined corridors. The draft findings of these studies were presented during the second round of the Public and Authority Outreach from 8 – 22 October 2018, in George, Port Elizabeth, East London, Durban, Johannesburg, Uptington, Springbok and Cape Town. In addition, the Specialist Assessment chapters, and Parts 1 and 2 of the SEA Report, which provide an introduction and description of the SEA Project, were released for comment from 25 April 2019 to 10 June 2019. Please visit the project website to download the information, using the links provided below:

Gas Pipeline SEA: <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>

EGI Expansion SEA: <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

The comments received from the public and stakeholders will then be taken into consideration, where applicable, and a final pinch point analysis will be undertaken and the final corridors determined.

Phase 3: Decision-support Outputs and Gazetting: This phase will translate the outputs from Phase 2 into environmental management measures and planning interventions for inclusion in the relevant legal environmental framework and local government planning tools, including Municipal Spatial Development Frameworks, to ensure that long term energy planning is secured. The final outputs of the SEA will be released for public comment through publication in the Government Gazette.

Figure 1 indicates the draft refined corridors that are being assessed by the specialists.

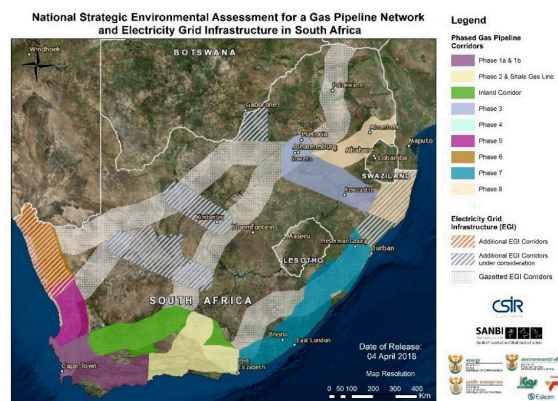


Figure 1: Refined Gas Corridors and Expanded EGI Corridors

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: ADDITIONAL PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Public Information Sharing Session Details:

The DEA is arranging an additional Public Information Sharing Session in Durban in order to allow stakeholders to discuss the project, raise queries and receive responses as best as possible, and to be updated on the progress made and the findings of the specialist assessments.

This correspondence serves as an invitation to you and relevant senior officials from the Local Municipality to attend the Public Information Sharing Session in Durban. Please ensure that this invitation is extended to the relevant persons at the earliest opportunity.

The Public Information Sharing Session details are indicated below:

Date:	Thursday, 13 June 2019
Time:	17:00 to 20:00
Venue:	CSIR: 359 King George V (5th) Avenue, Durban, 4013

Mr. Simon Moganetsi, Director: Systems and Tools (DEA) is the relevant official to liaise with regarding this request. His contact details are listed below.

Tel: +27 12 399 9309

Fax: +27 12 399 9260

E-mail: smoganetsi@environment.gov.za

Postal Address: Private Bag X447, Pretoria, 0001

Kindly confirm attendance and submit the details of the attendee(s) to the CSIR Project Team using the contact details provided below, by **04 June 2019**:

Ms. Rohaida Abed

Project Manager

Council for Scientific and Industrial Research (CSIR)

PO Box 17001, Congella, Durban, 4013

Email: gasnetwork@csir.co.za

Tel: +27 31 242 2300

Should you require additional information, you are welcome to consult with the CSIR Project Team using the contact details provided above.

The DEA is looking forward to working with you on this very important project.

Yours Sincerely,

MR. JSHAAM ABADER

DEPUTY DIRECTOR GENERAL: LEGAL AUTHORISATION, COMPLIANCE AND ENFORCEMENT

DEPARTMENT OF ENVIRONMENTAL AFFAIRS

DATE: 20/05/2019

Copy of the Personalised Invite Letter issued to the South Durban Community Environmental Alliance (SDCEA) for the Round 3 Authority Roadshow



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X447, Pretoria, 0001, Environment House, 473 Steve Biko Road, Pretoria, 0002 Tel: +27 12 399 9000, Fax: +27 86 625 1042

Enquiries: D Fischer

Tel: 012 399 8843 **Email:** dfischer@environment.gov.za

Mr Desmond D'Sa
SDCEA Coordinator
South Durban Community Environmental Alliance
18 Major Calvert Street
Austerville
Durban
KwaZulu-Natal
4052

Tel: 031 461 1991
Email: desmond@sdceango.co.za

Dear Mr. D'Sa

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: RE-SCHEDULED PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Background:

As you are aware, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet, have commissioned a Strategic Environmental Assessment (SEA) Process to identify and pre-assess suitable gas routing corridors and to expand identified Electricity Grid Infrastructure (EGI) corridors to facilitate a streamlined Environmental Assessment Process for the development of energy infrastructure related to gas and electricity, while ensuring the highest level of environmental protection. It is proposed that the final corridors be embedded and integrated into Provincial and Local planning mechanisms to secure long term energy planning.

The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the abovementioned SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI).

As part of the SEA, the project team is assessing the suitability and sensitivity of the proposed corridors for the Phased Gas Pipeline Network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team requires a detailed understanding of constraints and opportunities within the initial corridors to inform routing options. Consultation with government and other stakeholders is an essential input into this process.



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STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: RE-SCHEDULED PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

The Durban public information sharing session took place on 11 October 2018 at the CSIR Offices in Glenwood. At the outset of the session, the following key concerns were raised by yourself on behalf of the South Durban Community Environmental Alliance (SDCEA):

- The CSIR should not play the role of both a consultant and referee. An independent facilitator should be appointed to ensure that the needs, concerns and values of stakeholders are fairly and carefully considered and addressed.
- The session was not advertised in local newspapers.
- Absence of an isiZulu speaking person at the session, as part of the project team.

Overall, it was requested that an additional information sharing session be organized in Durban and that the agenda of the session be discussed with a group of stakeholders identified during the session on 11 October 2018, prior to the next session.

The DEA recognises the concerns raised by yourself on behalf of the stakeholders during the public information sharing session held on 11 October 2018, and are therefore arranging a second information sharing session in Durban in order to allow stakeholders to discuss the project, raise queries and receive responses as best as possible, and to be updated on the progress made and the findings of the specialist assessments.

In line with the request from the stakeholders, the following has been put in place:

- An independent facilitator will be available at the public information sharing session as requested to facilitate the proceedings. The contracting of the facilitator is currently being finalized. Once the contracting is concluded, the details and CV of the independent facilitator will be communicated to you.
- A proposed agenda is attached for any inputs or amendments as required (Appendix A). It will also be possible to change the agenda on the evening of the public information sharing session.
- The public information sharing session will be advertised in the Isolezwe; Springfield Weekly Gazette; Southern Star; Tongaat, Verulam and Phoenix Sun; Highway Mail; and Eyethu Umlazi newspapers, approximately three weeks before the session. E-mail communication regarding the public information sharing session will be sent to all attendees that attended the 11 October 2018 session, which will include the agenda for input (based on the attendance register included in Appendix B).
- We are also requesting that the SDCEA forward an invitation to the session to relevant parties and any other stakeholders on their database.
- A person versed in isiZulu will be available throughout the public information sharing session, as was the case in the session of 11 October 2018.

The details of the public information sharing session are as follows:

- **THURSDAY, 13 JUNE 2019**
- **TIME: 17H00 UNTIL 20H00**
- **VENUE: CSIR, 359 KING GEORGE V (5TH) AVENUE, DURBAN, 4013**

The Specialist Assessment chapters, and Parts 1 and 2 of the SEA Report, which provide an introduction and description of the SEA Project, were released for comment from 25 April 2019 to 10 June 2019. Please visit the project website to download the information.


STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: RE-SCHEDULED PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

- **Gas Pipeline SEA:** <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>
- **EGI Expansion SEA:** <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

Should you require additional information, you are welcome to consult with the DEA and the CSIR Project Team. The relevant contact details are provided below:

DEA TEAM	
Dee Fischer Chief Director IEMS Tel: +27 12 399 8843 Fax: +27 12 399 9260 E-mail: dfischer@environment.gov.za	Simon Moganetsi Director: Systems and Tools Tel: +27 12 399 9309 Fax: +27 12 399 9260 E-mail: smoganetsi@environment.gov.za
CSIR TEAM	
Annick Walsdorff SEA Project Leader Tel: +27 21 888 2589 Fax: +27 21 888 2693 Email: AWalsdorff@csir.co.za	Rohaida Abed SEA Project Manager Tel: +27 31 242 2318 Fax: +27 31 261 8172 Email: RAbed@csir.co.za

We trust that these arrangements deal with many of the issues that were raised. We look forward to further engagement on this process with your organization.

Yours sincerely


MR ISHAAM ABADER
DEPUTY DIRECTOR GENERAL: LEGAL AUTHORISATION, COMPLIANCE AND ENFORCEMENT
DEPARTMENT OF ENVIRONMENTAL AFFAIRS
DATE:

20/05/2019

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: RE-SCHEDULED PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Appendix A – Proposed Agenda of the Public Information Sharing Session

PROPOSED AGENDA

PUBLIC INFORMATION SHARING SESSION

STRATEGIC ENVIRONMENTAL ASSESSMENT FOR THE IDENTIFICATION OF ENERGY CORRIDORS AS WELL AS ASSESSMENT AND MANAGEMENT MEASURES FOR THE DEVELOPMENT OF A GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE (EGI) FOR SOUTH AFRICA

Proceedings will be as follows:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:10	Welcome and Introductions	DEA
17:10 – 17:20	Background on the Phased Gas Pipeline Network Corridors	CSIR
17:20 – 17:40	Pinch Point Analysis	SANBI
17:40 – 18:40	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	SANBI
18:40 – 19:00	Discussion	All
19:00 – 19:30	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:30 – 19:50	Discussion	All
19:50 – 20:00	Way Forward and Closing	DEA

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: RE-SCHEDULED PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Appendix B – Attendance Register of the 11 October 2018 Durban Information Sharing Session



SEA for Gas Pipeline Network and Expansion of EGI for South Africa
Durban, CSIR Durban
11th October 2018
Attendance Register

Please sign in and confirm your contact details below.

Organisation	Name
DEA	Sugata Canyale
ESKOM	Alvina Erasmus
Port TUG	Samir Alwan
OCEANS NOT OIL	JANE SLOAN
WILDBRAND	KHALID MATHEE
SANBI	Shirley Odgers
Environment	Alice Mampela
Private	Dina van Nieuwen
Private	Denise Poth
U	ANITA VAN NIEUWEN

Organisation	Name
PRIVATE	JOHN JORDAN
PUB	Gill Palmer
WESSA SKZ/CONSERVATION/UNESCO	PADRY NORMAN
NEW LYN INN	SARIE CROFT
SOLACE	Shirley Mathanga
Equity Africa	Ulrich Steenkamp
KEN'S FISHING	MAISON
ERE	FRANCOIS
Sidra	Shirley Mathanga
DESA	DESA
HOUSE BOBART	HOUSE BOBART
SA KAPONGES	SA KAPONGES
IGAS	MADITSI KOPISO
ITOM	MURIEL LUTHE
FA-S	LENTSOE TSHINANE
Harry Gonda District Municipality	Lucky Zandi

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA: RE-SCHEDULED PUBLIC INFORMATION SHARING SESSION WITH STAKEHOLDERS IN DURBAN TO PROVIDE FEEDBACK ON THE SEA AND SPECIALIST STUDIES UNDERTAKEN

Organisation	Name
Private Sustainability Solutions	Raymond Mokoena
NEPSA	Letsatsi Mokoena
NEPSA	Vusumathi Zwane
BAE BELMONT ENERGY	MOSES TEMBE
CSIR	A. Malsdorf
CSIR	B. Mokoena
CSIR	R. Abed
SANBI	F. Daniels
SANBI	T. Molebu
ME	A. EDSSON
Private	Sue George
Unknown	Nora Chavesaux
Unknown	Samson Mokoena

Example of one of the Cover Letters issued to the KZN Libraries for the Placement of Project Documents



CSIR Environmental Management Services

PO Box 17001, Congella, Durban, 4013
Tel: +27 31 242 2300
Fax: +27 31 261 8172
Email: gasnetwork@csir.co.za

5 July 2019

Aquadene Public Library
4 Via Ammannia
Aquadene
Richards Bay
3900

Tel: 035 907 5579

Attention: Librarian
(Submitted by courier to the above recipient)

RE: STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE PHASED GAS PIPELINE NETWORK AND ELECTRICITY GRID INFRASTRUCTURE (EGI) EXPANSION FOR SOUTH AFRICA: DISTRIBUTION OF BACKGROUND INFORMATION DOCUMENT AND PRESENTATION DELIVERED AT THE PUBLIC INFORMATION SHARING SESSIONS FOR PLACEMENT IN THE LIBRARY

In order to support the National Development Plan (NDP) and Operation Phakisa, the Department of Environmental Affairs (DEA), in partnership with the Department of Energy (DoE) and Department of Public Enterprises (DPE), as well as iGas, Eskom and Transnet, have commissioned a Strategic Environmental Assessment (SEA) Process to identify and pre-assess suitable gas routing corridors and to expand identified Electricity Grid Infrastructure (EGI) corridors to facilitate a streamlined Environmental Assessment (EA) Process for the development of energy infrastructure related to gas and electricity. The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the abovementioned SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI). The SEA Process was initiated in April 2017 in line with the aforementioned objective.

As part of the SEA, the project team is assessing the suitability and sensitivity of the proposed corridors for the Phased Gas Pipeline Network and EGI from an environmental, social and economic perspective. In order to do this successfully, the SEA Project Team requires a detailed understanding of constraints and opportunities within the corridors to inform routing options. Consultation with government and other stakeholders is an essential input into this process.

The SEA consists of the three phases, i.e. Inception Phase, Phase 2 (Assessment of the Corridors) and Phase 3 (Decision-support Outputs and Gazetting). The Inception Phase was completed in June 2017. The SEA is currently nearing completion of Phase 2. In particular, the specialist team was appointed in December 2017 to assess the draft refined corridors. In addition, the Specialist Assessment chapters, and Parts 1 and 2 of the SEA Report, which provide an introduction and description of the SEA Project, were released to stakeholders for comment from 25 April 2019 to 24 June 2019. The comment period has also been extended by a further 30 days and will end on **7 August 2019**. The reports are available for download at the links provided below:

- Gas Pipeline SEA: <https://gasnetwork.csir.co.za/resources/gas-pipeline-sea-draft-sea-report/>
- EGI Expansion SEA: <https://gasnetwork.csir.co.za/resources/egi-expansion-sea-draft-sea-report/>

The comments received from the public and stakeholders will then be taken into consideration, where applicable, and a final pinch point analysis will be undertaken and the final corridors determined.

Board members: Prof. T. Majazi (Chairperson), Ms P. Baleni, Dr A. Childs, Dr R. Masango, Mr S. Massie, Ms T. Mokhabuki, Dr V. Mthethwa, Mr J. Netshitenzhe, Dr C. Render, Mr C. Shariff, Dr T. Dlamini (CEO)

www.csir.co.za

Two rounds of Authority Meetings and Public Information Sharing Sessions were undertaken as part of the SEA in November 2017 and October 2018 at various key locations throughout the country. An additional Public Information Sharing Session was also held on 13 June 2019 in Durban in order to allow stakeholders to discuss the project, raise queries and receive responses, and to be updated on the progress made and the findings of the specialist assessments. During this meeting, it was requested that copies of the Background Information Document and presentation delivered at the additional Public Information Sharing Session be placed in selected and recommended libraries within KwaZulu-Natal.

Request from the SEA Project Team:

Linked to the above, kindly find attached the following:

- Three copies of the Background Information Document in English;
- Three copies of the Background Information Document in isiZulu;
- Three copies of the Presentation delivered at the 13 June 2019 Public Information Sharing Session in English; and
- Three copies of the Presentation delivered at the 13 June 2019 Public Information Sharing Session in isiZulu.

It is therefore requested that you kindly keep the above documents in the Public Library for Interested and Affected Parties to refer to for additional information related to the project. Please ensure that these documents are not removed from the library.

Kindly note that additional project background information can be found on the following project website:
<https://gasnetwork.csir.co.za/>

Should you have any queries or require additional information please do not hesitate to contact the undersigned using the contact details provided below.

- Address: PO Box 17001, Congella, Durban, 4013
- Email: gasnetwork@csir.co.za
- Tel: +27 31 242 2300
- Fax: +27 31 261 8172

Thank you for your input throughout this SEA Process.

Sincerely,



Annick Walsdorff
Project Leader
CSIR Environmental Management Services



Rohaida Abed
Project Manager
CSIR Environmental Management Services

CORRESPONDENCE SENT TO MUNICIPALITIES AND INDUSTRY FOR THE FEEDBACK EXERCISES

Stage 2 Consultation (Draft Refined Corridors, Municipal and Industry Feedback Exercise, and Draft Specialist Assessment and SEA Chapters)

Municipal Feedback Exercise

Example of one of Letters and Grid Maps sent to the District Municipality Planning Departments for the Municipal Feedback Exercise



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DEA Reference: EDMS 161 704 (Gas and EGI extension SEA)

Enquiries: Mr. Simon Moganetsi

Tel: 012 399 9309 **Fax:** 012 399 3620 **Email:** SMoganetsi@environment.gov.za

Private Bag X447 • PRETORIA • 0001 • Environment House • 473 Steve Biko Road, Arcadia, PRETORIA

MR. JANNIE LOUBSER
NAMAKWA DISTRICT MUNICIPALITY
TELEPHONE: 027 712 8000
E-MAIL: JANNIEL@NAMAKWA-DM.GOV.ZA

Dear Colleague

PROVINCIAL AND LOCAL GOVERNMENT CONSULTATION ON THE NATIONAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DEA) STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE ELECTRIC GRID INFRASTRUCTURE FOR SOUTH AFRICA

As part of the SEA undertaken for the proposed development of a Phase Gas Pipeline network and EGI expansion in South Africa, the SEA project team has undertaken a detailed review of available strategic planning documentation for those municipalities located within the extent of the proposed EGI expansion corridors (refer to Appendix A).

The review focused on analysing available Integrated Development Plans (IDP) and Spatial Development Frameworks (SDF) for each affected municipality to identify areas designated for future energy intensive activities, such as industrial development or potential mining operations which could be represented spatially. In addition, the SDF review sought to identify areas where there is significant economic potential which could be unlocked through improved access to transmission level electricity.

Priority areas identified through the review were categorised into one of these possible planning categories, namely:

Number	Planning Category	Planning Category Definition
1	Industrial Expansion SEZ & IDZ	Denotes an area that is either an existing heavy industrial area where there is planned expansion or a new area which has been set aside for heavy industrial development.
2	Priority Mining Area	An area set aside for either existing or future mining activity.
3	Urban Expansion	An area set aside for expanding the Urban Edge and new Residential developments outside the Urban Edge.
4	Priority Tourism	An area identified as high value tourism area or earmarked for future tourism development.
5	Priority Agriculture	An area which has high agricultural outputs or potential, has farming activities.
6	Planned Roads	An area which has major National and Provincial road developments, currently or planned in future.

Approach

Maps of the proposed corridors (broken down into 10km by 10km grid cells) were developed for each district and local municipality, one map encompassing all of the above categories. Each grid cell in each of the planning category maps is referenced with a grid number. The features were created according to the spatial information contained within the SDF and IDP documents. Therefore, in the instance where an area depicted in the document matched any of the above planning categories, the grid cells were shaded for that particular area for the appropriate planning category map.

The outputs from this exercise for the Province and District/Local Municipalities is a 10km by 10km planning category map. The category table provides detail on each shaded grid cell, including which planning category the area falls into, a description of the activity taking place within that grid cell (where possible).

The primary objective of this exercise is to receive feedback from provincial departments and district/local municipalities on the above maps (i.e. to verify, propose new additions or remove stated features from the maps). These maps will be best informed by departments and municipality officials responsible for issues concerning the following:

- Industrial development;
- Mining;
- Economic development;
- Spatial planning; and
- Environment.

Provincial sector departments and District/Local Municipality representatives responsible for the above areas are requested to review the mapping outputs together with the categories table. In particular, the SEA project team would like feedback on what changes may be required to the positioning of the features so that the mapping outputs best reflect departmental/municipal future plans and current thinking. You are very welcome to carry out the changes on the map itself and scan the map output to send to us. Your feedback would be highly appreciated by 04 May 2018.

We look forward to your feedback to ensure that the future transmission grid best caters for the future development plans of the Province.

Yours sincerely

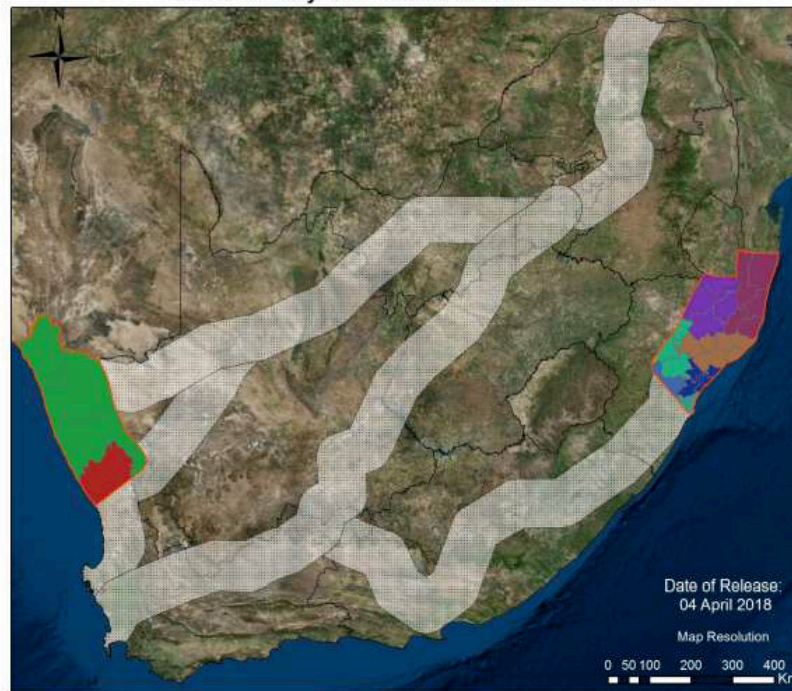


Mrs. Dee Fischer
Chief Director: Integrated Environmental Management Support
Department of Environmental Affairs
Private Bag X447
PRETORIA
0001
Date: 16 April 2018

Fax: 012 399 8843
Email: DFischer@environment.gov.za

APPENDIX A

**National Strategic Environmental Assessment for a Gas Pipeline Network
and Electricity Grid Infrastructure in South Africa**



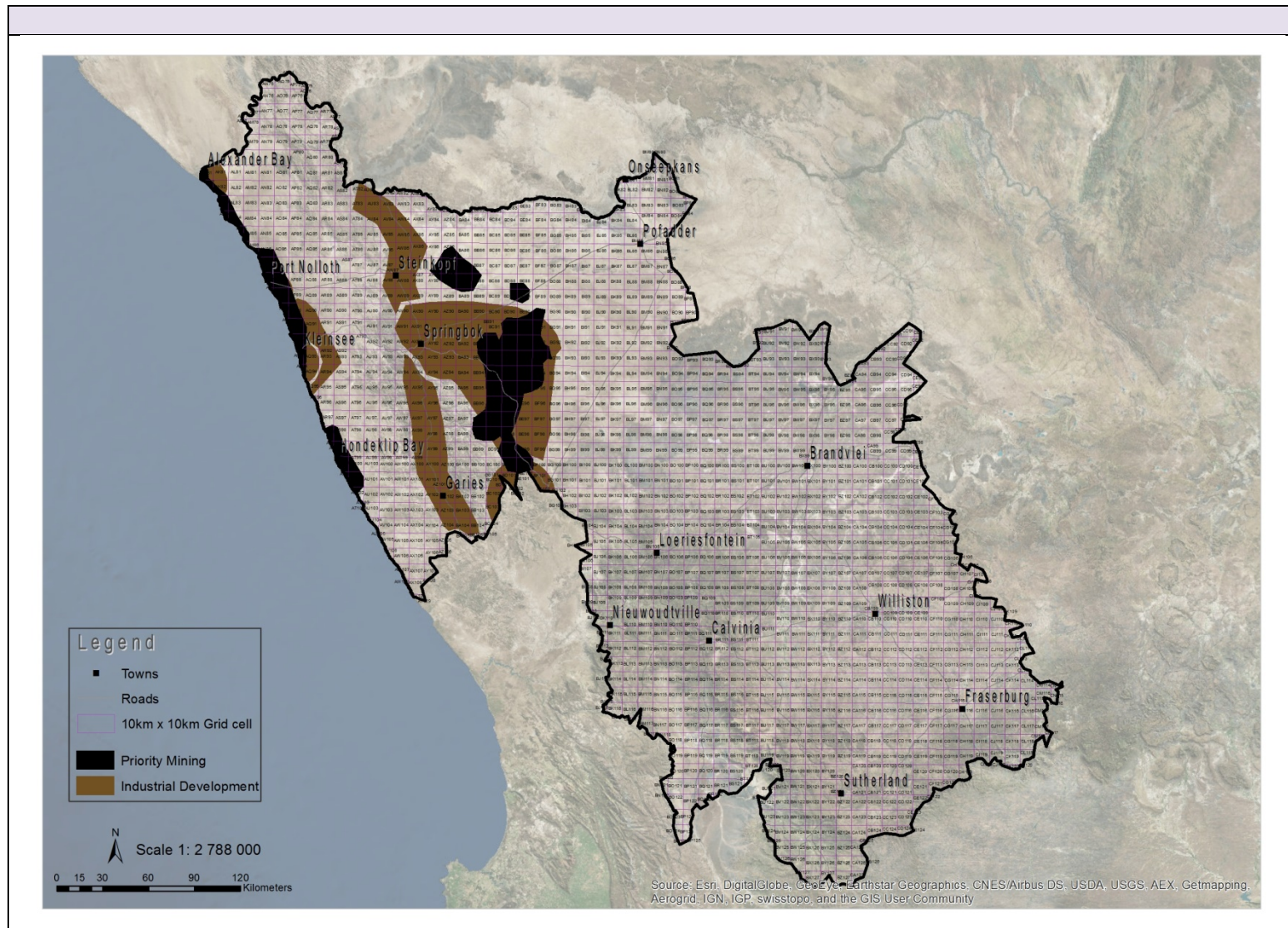
Legend

- Namakwa District Municipality
- UMgungundlovu District Municipality
- Umkhanyakude District Municipality
- Umzinyathi District Municipality
- Uthukela District Municipality
- Uthungulu District Municipality
- West Coast District Municipality
- Zululand District Municipality
- eThekweni Metropolitan Municipality
- ILembe District Municipality
- Additional EGI Corridors
- Gazetted EGI Corridors

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South African National Biodiversity Institute





Example of one of Letters and Grid Maps sent to the Local Municipality Planning Departments for the Municipal Feedback Exercise



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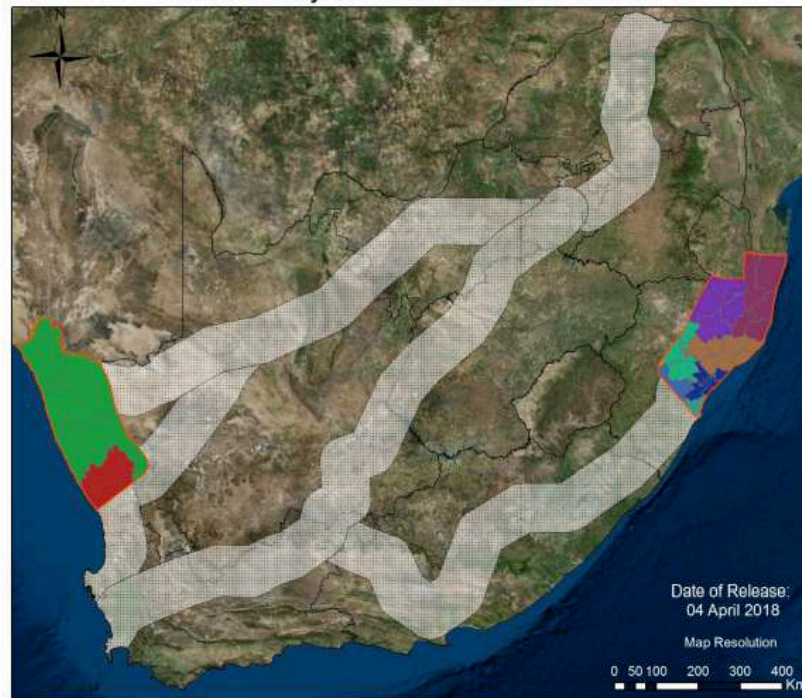


Mrs. Dee Fischer
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APPENDIX A

**National Strategic Environmental Assessment for a Gas Pipeline Network
and Electricity Grid Infrastructure in South Africa**



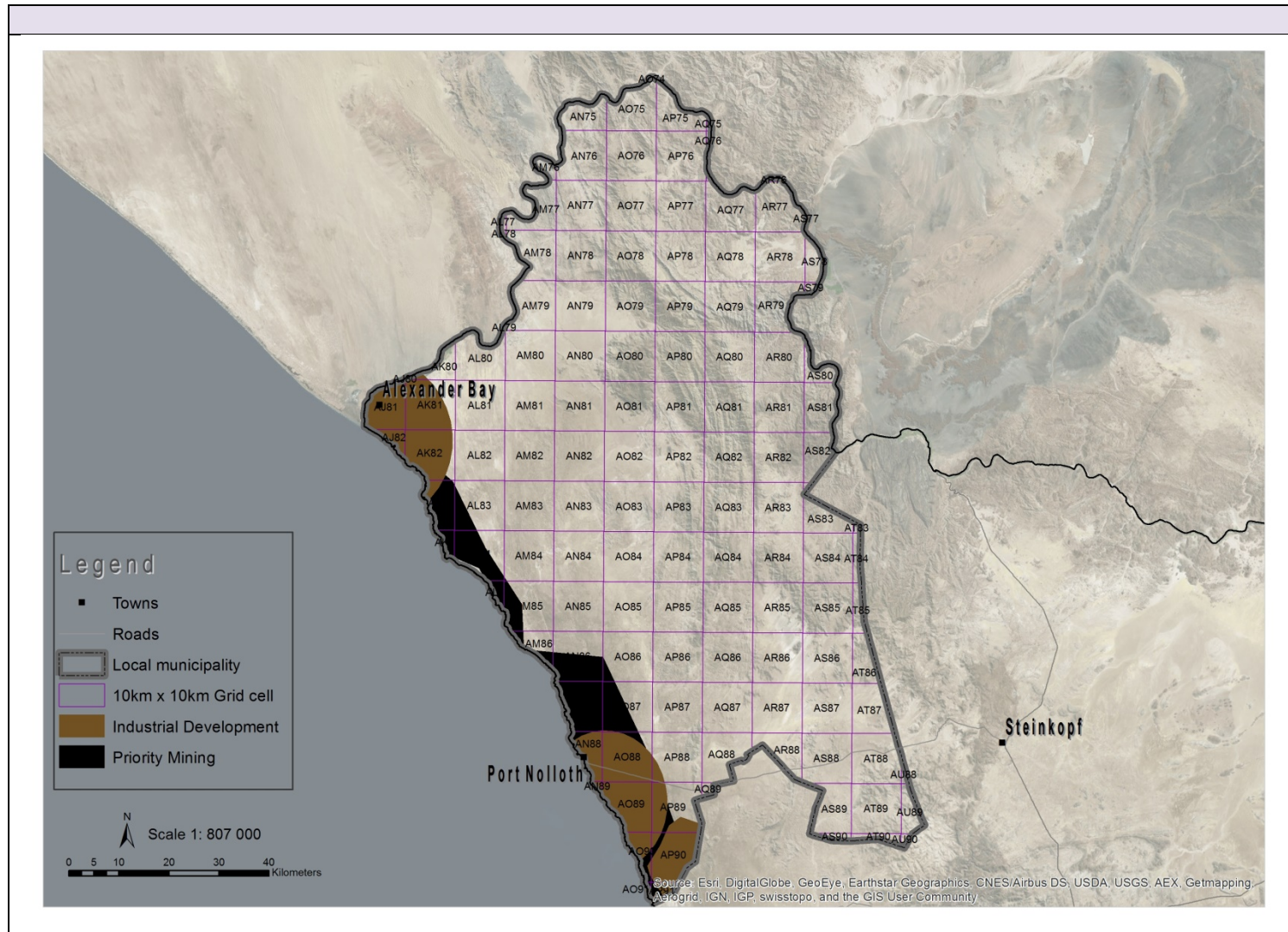
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- West Coast District Municipality
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- eThekweni Metropolitan Municipality
- iLembe District Municipality
- Additional EGI Corridors
- Gazetted EGI Corridors

CSIR

SANBI
South African National Biodiversity Institute





Copy of the Feedback Form and Instructions sent to the District Municipality Planning Departments for the Municipal Feedback Exercise



ELECTRICITY GRID INFRASTRUCTURE EXPANSION
STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)
PROVINCIAL AND MUNICIPAL CONSULTATION

NORTHERN CAPE - NAMAKWA DM

FEEDBACK FORM

Denotes an area that either has existing land uses area where there is planned expansion or a new area which has been set aside for development.

PLEASE COMPLETE	
NAME:	
DEPARTMENT/ MUNICIPALITY:	
DESIGNATION:	
EMAIL:	
PHONE:	



FEEDBACK SESSION INSTRUCTIONS

Please provide feedback on the map by following the instructions below.

		ACTION
SECTION 1	DEACTIVATE 'SHADED' GRID CELL (i.e. REMOVE A FEATURE/ACTIVITY FROM A PARTICULAR LOCATION WITHIN THE CORRIDORS)	PROVIDE GRID CELL REFERENCE NUMBER ON FEEDBACK FORM BELOW (page 3)
SECTION 2	ACTIVATE 'NON-SHADED' GRID CELL (i.e. ADD A FEATURE/ACTIVITY AT A PARTICULAR LOCATION WITHIN THE CORRIDORS)	PROVIDE GRID CELL DETAILS AND INFORMATION ON FEEDBACK FORM BELOW (page 4-5)
SECTION 3	IDENTIFY HIGH PRIORITY AREAS OUTSIDE OF CORRIDOR EXTENT (i.e. ADD A FEATURE/ACTIVITY AT A PARTICULAR LOCATION OUTSIDE THE CORRIDORS)	PROVIDE LOCATION DETAILS AND INFORMATION ON THE FEEDBACK FORM BELOW (page 6)



SECTION 1: DEACTIVATE/DELETE 'SHADED' GRID CELLS (INSIDE CORRIDOR EXTENT ONLY)

PLEASE COMPLETE THE TABLE BELOW FOR CELLS THAT SHOULD BE DEACTIVATED FOR DEVELOPMENT.

GRID CELL REFERENCE NUMBER	COMMENTS



SECTION 2: ACTIVATE/SHADE 'NON-SHADED' GRID CELLS (INSIDE CORRIDOR EXTENT ONLY)

Sector and Activity response options for Section 2 & 3 of the Feedback Form

SECTOR	ACTIVITY
AGRICULTURAL	AGRI - ANIMAL FARMING
MINING	AGRI - CROP FARMING
MANUFACTURING	AGRI - FISHERIES/FISHING
ELECTRICAL	AGRI - PROCESSING
CONSTRUCTION	COMMERCIAL HIGH DENSITY
TRADE	ELECTRIFICATION
TRANSPORT	INDUSTRIAL - CHEMICAL
FINANCE	INDUSTRIAL - HEAVY
COMMUNITY SERVICES	INDUSTRIAL - LIGHT
	MINING
	MUNICS BULK RESIDENTIAL
	PUMPING LOADS
	SMEILER - ALUMINIUM
	SMEILER - FERRO METALS
	SMEILER - IRON/STEEL
	SMEILER - OTHER
	MAJOR ROAD WORKS
	OTHER

Page 4 of 6



PLEASE COMPLETE THE TABLE BELOW FOR GRID CELLS THAT MUST BE ACTIVATED FOR DEVELOPMENT.

GRID CELL REFERENCE NUMBER	SECTOR	ACTIVITY	COMMENTS



SECTION 3: OUTSIDE CORRIDOR

PLEASE PROVIDE DETAILS ON ANY KEY PROVINCIAL/DISTRICT/LOCAL MUNICIPALITY AREAS EARMARKED FOR DEVELOPMENT OUTSIDE THE CORRIDOR EXTENT THAT COULD MOTIVATE SHIFTING THE CORRIDORS IN SUPPORT OF THESE AREAS.

COORDINATES OR NEAREST TOWN	SECTOR	ACTIVITY	COMMENTS

Phased Gas Pipeline Network and EGI Extention SEA Mapping Exercise Instructions

STEP 1	<ul style="list-style-type: none"> Identify the relevant person(s) within your institution with knowledge on future spatial development plans for your province/municipality, concerning industry and mining related development in particular. Request their input and participation in this exercise.
STEP 2	<ul style="list-style-type: none"> Review each of the maps to determine whether the shaded cells are an accurate representation of spatial development plans in your province/municipality with regards to industrial expansion, SEZ and IDZ and or priority mining, Priority Tourism, Priority Agriculture, Planned Roads and Urban Expansion. Review the grid cells on each map in combination with the categories table to determine whether the documents used by the SEA Team to populate the maps are the best available documents.
STEP 3	<ul style="list-style-type: none"> Based on your knowledge of future developments plans in your province/municipality, identify what changes you would like to be made to each of the three maps i.e. which cells you would like to be changed from 'shaded to unshaded' or 'unshaded to shaded'.
STEP 4A	<ul style="list-style-type: none"> The Feedback form is separated into two sections. Section 1 relates to cells INSIDE the corridor which must be changed from 'shaded to unshaded'. Please capture the grid cell reference number for the cell you would like to be 'unshaded' together with a comment, i.e. an explanation of why the cell must be unshaded.
STEP 4B	<ul style="list-style-type: none"> Section 2 of the Feedback Form concerns cells INSIDE the corridor which you are proposing to be changed from 'unshaded' to 'shaded'. Please capture the cell reference number for each proposed cell. In addition, please capture the sector and activity to which the cell relates (referring to the table at the start of Section 2).
STEP 4C	<ul style="list-style-type: none"> Section 3 of the Feedback Form concerns areas completely OUTSIDE the corridor extent only. Please identify areas (coordinates of area/nearest town to area) falling outside the corridors which could motivate shifting the corridors in support of these areas.
STEP 5	<ul style="list-style-type: none"> Capture your municipality or departmental contact details on the front cover of each Feedback Form.
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ELECTRICITY GRID INFRASTRUCTURE EXPANSION
STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)
PROVINCIAL AND MUNICIPAL CONSULTATION

NORTHERN CAPE - RICHTERSVELD LM

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Industry Feedback Exercise

Example of one of Letters sent to the Industrial Stakeholders for the Industry Feedback Exercise



CSIR Environmental Management Services

PO Box 17001, Congella, Durban, 4013
Tel: +27 31 242 2300
Fax: +27 31 261 2509
Email: gasnetwork@csir.co.za

23 May 2018

National Energy Regulator of South Africa
Kulawula House
526 Madiba (former Vermeulen) Street
Arcadia
Pretoria
0007

Attention: Letsatsi Melato (Letsatsi.Melato@nersa.org.za)
Dumisani Mthiyane (Dumisani.Mthiyane@nersa.org.za)
Vusimuzi Zwane (Vusimuzi.Zwane@nersa.org.za)
Kgopotjo Mojanaga (Kgopotjo.Mojanaga@nersa.org.za)
Fhumulani Nenzhelele (Fhumulani.Nenzhelele@nersa.org.za)

Dear Colleagues

RE: CONSULTATION WITH SECTOR SPECIFIC STAKEHOLDERS ON THE NATIONAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS (DEA) STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE PHASED GAS PIPELINE NETWORK AND ELECTRICITY GRID INFRASTRUCTURE (EGI) EXPANSION FOR SOUTH AFRICA

The National Development Plan (NDP) designed a broad set of programmes and interventions to promote growth and development, while reducing poverty and inequality. Infrastructure investment is a key priority in the NDP. As such, eighteen (18) large scale infrastructure projects (SIPs) have been initiated to unlock strategic development potential from project-level, municipal infrastructure to national scale projects. In response to SIP 10 (Electricity Transmission and Distribution for all), Eskom completed a Strategic Grid Plan Study which identified priority corridors where transmission infrastructure expansion is required in order to balance South Africa's energy generation and load requirements up to 2040. These corridors were assessed as part of another Strategic Environmental Assessment (SEA) in 2016 (Electricity Grid Infrastructure (EGI) SEA 2016) and have been gazetted in 2017 (refer to Figure 1). Eskom identified the need for additional EGI Power Corridors to be assessed.

In addition, the President also launched Operation Phakisa in July 2014 to fast track the implementation of government priority programmes to meet the targets set out in the NDP. The phased development of an onshore transmission gas pipeline network forms part of the infrastructure envisaged as an enabler for the offshore oil and gas exploration and has the potential to unlock further possibilities for the growth of the gas industry in South Africa (Operation Phakisa, 2014).

In order to support the programmes above, the Department of Environmental Affairs (DEA), in partnership with the Department of Energy (DoE) and Department of Public Enterprises (DPE) representing iGas, Eskom and Transnet, have commissioned a SEA Process to identify and pre-assess suitable gas routing corridors and to expand identified electricity power corridors to facilitate a streamlined Environmental Assessment (EA) Process for the development of energy infrastructure related to gas and electricity. The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the abovementioned SEA

Board members: Prof T. Majazi (Chairperson), Adv G. Badela, Ms P. Baleni, Dr P. Goyns, Dr A. Llobell, Dr R. Masango, Ms M. Maseko, Mr J. Netshitenzhe, Ms A. Noah, Dr T. Dlamini (CEO)

www.csir.co.za



Process, in collaboration with the South African National Biodiversity Institute (SANBI). The SEA Process was initiated in April 2017 in line with the aforementioned objective.

This SEA therefore focusses on nine gas corridors identified as part of Operation Phakisa as key areas where gas transmission pipelines are required in order to meet future energy requirements, as well as two additional corridors to expand the gazetted EGI corridors (Figure 1 – EGI Expansion_Amendment 1). Recently, Eskom has also identified an additional three EGI corridors to be assessed (Figure 1 – EGI Expansion_Amendment 2). These are in the process of being approved for inclusion in the SEA. The SEA will assess the environmental, social and economic constraints and opportunities for gas pipeline and EGI development within these corridors. The results of the assessment will serve to inform suitable routing options for gas pipelines and EGI expansion within the corridors.

As part of the SEA, the project team has undertaken a detailed review of available strategic planning documentation for the affected municipalities falling within the Gas and EGI corridors. The review focused on analysing available Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) for each affected municipality to identify areas designated for future energy intensive activities, such as industrial development (industrial expansion, IDZ, SEZ) or potential mining operations which could be represented spatially. The project team would like to now supplement the above information with **inputs from Industry**.

The project team is requesting assistance from major energy users and generators on the configuration of the corridors, in terms of:

- Future **energy demand (electricity or gas)** to support development plans of major electricity/gas users in South Africa up to 2040 (i.e. future/planned energy intensive activities); and/or
- Transmission infrastructure requirements to support **future generation plans of electricity** in South Africa up to 2040 (e.g. Renewable projects and Gas to power plants).

Where suitable motivation is provided, the positioning of the corridors will be refined to overlap with areas of aggregated common development interest amongst generators and to accommodate these plans. The outcome of the Gas and EGI Expansion SEA process, if gazetted by government, will mean that bulk generators and bulk users of electricity/Gas will benefit from the accelerated authorisation of transmission level infrastructure in the gazetted corridors.

Please refer to the attached feedback forms for instructions on the way forward.

This feedback exercise will be sent to the following organisations:

Business Unity South Africa	Eskom
Chamber of Mines	Transnet
Energy Intensive User Group of Southern Africa	iGas
National Business Initiative	Council for Mineral Technology
Business Leadership South Africa	Industrial Development Corporation
South African Chamber of Commerce and Industry	PetroSA
SAPVIA	National Development Agency
SAWEA	NERSA
SASTELA	Coega IDZ
SAOGA	Richards Bay IDZ
Saldanha Bay IDZ	Alexkor



Please feel free to send us contact details of additional organisations you believe would have valuable inputs in this process.

The SEA Project Team acknowledges that generators/users may in some instances have some concerns regarding the disclosure of spatial information in this regard. As such, the SEA Project Team agrees to the following data management protocol in terms of managing and or publishing data gathered from generators/users as part of this SEA exercise for the Gas and EGI expansion corridors:

- The SEA Project Team agrees to treat the individual data received as part of this exercise as private, non-public and confidential information. In this instance individual submission data will not be disclosed to any third party or CSIR staff who is not part of the Gas and EGI Expansion SEA Project Team.
- The data received as part of this exercise will be used solely for the specific research purpose described hereinabove and not for any other purpose.
- The SEA Project Team further agrees that any and all reports or analysis of the data prepared as part of this project and made public shall contain only aggregate data.
- The SEA Project Team further agrees that at no time will any names of organisations or other identifying information relating to members contributing to this exercise be published.

The Project Team would like to thank you in advance for your submissions and ultimately your assistance in informing the strategic positioning of South Africa's future electricity transmission grid and gas transmission network. Your feedback would be highly appreciated by **15 June 2018**.

Kindly note that additional project background information can be found on the following project website: <https://gasnetwork.csir.co.za/>

Should you have any queries or require additional information please do not hesitate to contact the undersigned using the contact details provided above. We look forward to collaborating with you on this SEA Process.

Sincerely,

Annick Walsdorff
Project Leader
CSIR Environmental Management Services

Rohaida Abed
Project Manager
CSIR Environmental Management Services

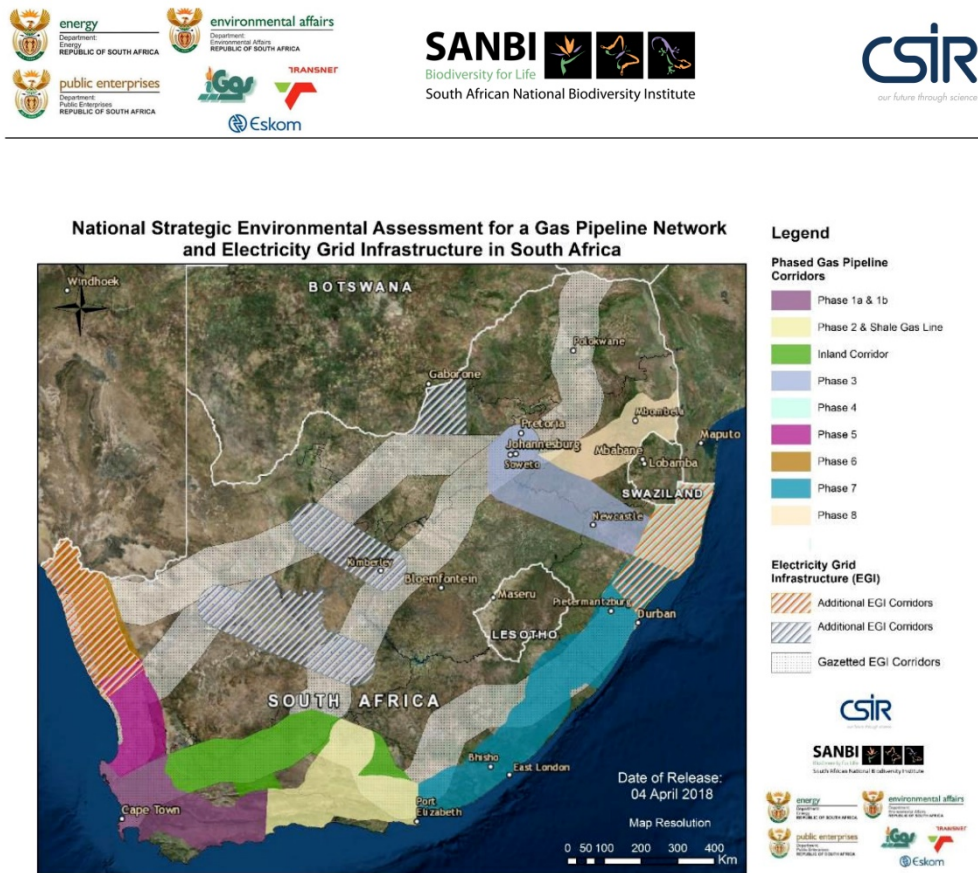


Figure 1 – Proposed location of Gas pipeline and additional EGI corridors (EGI Expansion Corridors_Amendment 1 (Orange striped corridors) and EGI Expansion Corridors_Amendment 2 (Blue striped corridors))

Copy of the Bulk User Feedback Form sent to the Industrial Stakeholders for the Industry Feedback Exercise



NATIONAL GAS PIPELINE NETWORK AND ELECTRICITY GRID INFRASTRUCTURE EXPANSION SEA

BULK ENERGY USERS

FEEDBACK FORM

May 2018

Webpage: <https://gasnetwork.csir.co.za/>

PLEASE COMPLETE	
NAME:	
ORGANISATION/COMPANY:	
DESIGNATION:	
EMAIL:	
PHONE:	



OBJECTIVE

The purpose of this exercise is to gather industry opinion on where:

- electricity transmission level infrastructure expansion needs to be prioritised (in the context of the **EGI expansion corridors**)
- gas transmission level infrastructure needs to be prioritised (in the context of the **Gas pipeline network corridors**)

in 0-5 year, 5-15 year, and 15-30 year time horizons.

The inputs from this exercise will be used to inform the refinement of the corridors as well as the routing and positioning of electricity transmission infrastructure and Gas pipelines within the corridors.

FEEDBACK INSTRUCTIONS

A. EGI Corridors

Participants are requested to select 20km x 20km grid cells within or in the close vicinity of the proposed **EGI corridors** extent where they anticipate (and are able to justify) a future need for the provision of bulk electricity in order to support a planned development or significant development opportunity.

The map of the proposed EGI corridors and grid is available in KMZ format and can be accessed and downloaded from the project website at <https://gasnetwork.csir.co.za/resources/> (**Industry Feedback Exercise/EGI Expansion**). Please note that Google Earth is required to view this file. Google Earth download is available here <http://www.google.com/earth/download/ge/agree.html>.

Please refer to this map when completing the exercise below. Please provide your input in the tables below by selecting up to five individual (different) cells from the map for each time horizon and provide a brief justification for your selection. Please indicate your selected cells in the tables below by including the cell identification (Id) from this map (e.g. 687). The cell identification can be sourced by clicking on the selected cell on the KMZ map and determining the "20km_REF_1" reference number from the "pop up" box. The KMZ map also details the location of Eskom substations (new and existing) for proposed unlocking. The substations are groups in Phases 1 – 4 in terms of time to unlock. Phase I: 2



years, Phase II: 3-4 years, Phase III: 4-5 yrs, Phase IV: 6-8 yr. Please also see Eskom Substation document for more information regarding the proposed installations/upgrades.

B. Gas pipeline network Corridors

Participants are requested to select 20km x 20km grid cells within or in the close vicinity of the proposed **Gas Pipeline network corridors** extent where they anticipate (and are able to justify) a future need for the provision of gas in order to support a planned development or significant development opportunity. Note that this SEA is only looking at transmission pipelines for high pressure gas (it does not look at LPG or LNG supply)

The map of the proposed Gas Pipeline network corridors and grid is available in KMZ format and can be accessed and downloaded from the project website at <https://gasnetwork.csir.co.za/resources/> (Industry Feedback Exercise/Gas Pipeline network).

Please refer to this map when completing the exercise below. Please provide your input in the tables below by selecting up to five individual (different) cells from the map for each time horizon and provide a brief justification for your selection. Please indicate your selected cells in the tables below by including the cell identification (Id) from this map (e.g. 687). The cell identification can be sourced by clicking on the selected cell on the KMZ map and determining the "20km_REF_1" reference number from the "pop up" box.

Organisations are requested to limit submission to one complete form per organisation. However more than one submission per organisation will be considered under certain circumstances. Please contact the CSIR on below details for more information in this regard

Submission:

Please email completed form to gasnetwork@csir.co.za before **15 June 2018**



Note: Individual participant selections will be kept strictly confidential



SECTION 2 – EGI CORRIDORS: PLEASE PROVIDE DETAILS ON ANY AREAS EARMARKED/PLANNED FOR DEVELOPMENT WITHIN AND IN THE VICINITY OF THE EGI CORRIDORS EXTENT THAT COULD INFLUENCE THE FINAL LOCATION OF THE EGI CORRIDORS IN SUPPORT OF THESE AREAS.

GRID CELL REF NUMBER	SECTOR / ACTIVITY	LIFETIME	COMMENTS
<p>"20km_REF_1" reference number from the "pop up" box on KMZ File</p>	<p>1) Please indicate what sector the energy demand in each cell relates to (e.g. mining, manufacturing, housing development, agriculture etc.). Please specify any other.</p> <p>2) Please also indicate what is the primary energy consuming activity for each above cell selection?</p>	<p>Please indicate the anticipated lifetime of the activity requiring energy</p>	<p>Please provide justification for each cell selection (please justify selection by providing details on <u>estimated annual energy requirements</u> e.g. MWh per year/MW, annual production in tonnes or no. of houses to be build etc.)</p>
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE THE PROVISION OF BULK ELECTRICITY SHOULD BE PRIORITISED IN A 0 TO 5 YEAR TIMEFRAME TO SUPPORT YOUR FUTURE DEVELOPMENT ACTIVITIES			



GRID CELL REF NUMBER	SECTOR / ACTIVITY	LIFETIME	COMMENTS
"20km_REF_1" reference number from the "pop up" box on KMZ File	1) Please indicate what sector the energy demand in each cell relates to (e.g. mining, manufacturing, housing development, agriculture etc.). Please specify any other. 2) Please also indicate what is the primary energy consuming activity for each above cell selection?	Please indicate the anticipated lifetime of the activity requiring energy	Please provide justification for each cell selection (please justify selection by providing details on estimated annual energy requirements e.g. MWh per year/MW, annual production in tonnes or no. of houses to be build etc.)
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE THE PROVISION OF BULK ELECTRICITY SHOULD BE PRIORITISED IN A 5 TO 15 YEAR TIMEFRAME TO SUPPORT YOUR FUTURE DEVELOPMENT ACTIVITIES			
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE THE PROVISION OF BULK ELECTRICITY SHOULD BE PRIORITISED IN A 15 TO 30 YEAR TIMEFRAME TO SUPPORT YOUR FUTURE DEVELOPMENT ACTIVITIES			



GRID CELL REF NUMBER "20km_REF_1" reference number from the "pop up" box on KMZ File	SECTOR / ACTIVITY 1) Please indicate what sector the energy demand in each cell relates to (e.g. mining, manufacturing, housing development, agriculture etc.). Please specify any other. 2) Please also indicate what is the primary energy consuming activity for each above cell selection?	LIFETIME Please indicate the anticipated lifetime of the activity requiring energy	COMMENTS Please provide justification for each cell selection (please justify selection by providing details on <u>estimated annual energy requirements</u> e.g. MWh per year/MW, annual production in tonnes or no. of houses to be build etc.)



SECTION 3 – GAS PIPELINE NETWORK CORRIDORS: PLEASE PROVIDE DETAILS ON ANY AREAS EARMARKED/PLANNED FOR DEVELOPMENT WITHIN AND IN THE VICINITY OF THE CORRIDORS EXTENT THAT COULD INFLUENCE THE FINAL LOCATION OF THE GAS PIPELINE NETWORK CORRIDORS IN SUPPORT OF THESE AREAS.

GRID CELL REF NUMBER	SECTOR / ACTIVITY	LIFETIME	COMMENTS
<p>"20km_REF_1" reference number from the "pop up" box on KMZ File</p>	<p>3) Please indicate what sector the energy demand in each cell relates to (e.g. mining, manufacturing, housing development, agriculture etc.). Please specify any other.</p> <p>4) Please also indicate what is the primary energy consuming activity for each above cell selection?</p>	<p>Please indicate the anticipated lifetime of the activity requiring energy</p>	<p>Please provide justification for each cell selection (please justify selection by providing details on <u>estimated annual energy requirements</u> e.g. MWh per year/MW, annual production in tonnes or no. of houses to be build etc.)</p>
<p>PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE THE PROVISION OF BULK GAS SHOULD BE PRIORITISED IN A 0 TO 5 YEAR TIMEFRAME TO SUPPORT YOUR FUTURE DEVELOPMENT ACTIVITIES</p>			



GRID CELL REF NUMBER	SECTOR / ACTIVITY	LIFETIME	COMMENTS
"20km_REF_1" reference number from the "pop up" box on KMZ File	3) Please indicate what sector the energy demand in each cell relates to (e.g. mining, manufacturing, housing development, agriculture etc.). Please specify any other. 4) Please also indicate what is the primary energy consuming activity for each above cell selection?	Please indicate the anticipated lifetime of the activity requiring energy	Please provide justification for each cell selection (please justify selection by providing details on <u>estimated annual energy requirements</u> e.g. MWh per year/MW, annual production in tonnes or no. of houses to be build etc.)
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE THE PROVISION OF BULK GAS SHOULD BE PRIORITISED IN A 5 TO 15 YEAR TIMEFRAME TO SUPPORT YOUR FUTURE DEVELOPMENT ACTIVITIES			
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE THE PROVISION OF BULK GAS SHOULD BE PRIORITISED IN A 15 TO 30 YEAR TIMEFRAME TO SUPPORT YOUR FUTURE DEVELOPMENT ACTIVITIES			



GRID CELL REF NUMBER	SECTOR / ACTIVITY	LIFETIME	COMMENTS
"20km_REF_1" reference number from the "pop up" box on KMZ File	3) Please indicate what sector the energy demand in each cell relates to (e.g. mining, manufacturing, housing development, agriculture etc.). Please specify any other. 4) Please also indicate what is the primary energy consuming activity for each above cell selection?	Please indicate the anticipated lifetime of the activity requiring energy	Please provide justification for each cell selection (please justify selection by providing details on <u>estimated annual energy requirements</u> e.g. MWh per year/MW, annual production in tonnes or no. of houses to be build etc.)

Copy of the Bulk Generator Feedback Form sent to the Industrial Stakeholders for the Industry Feedback Exercise



NATIONAL GAS PIPELINE NETWORK AND ELECTRICITY GRID INFRASTRUCTURE EXPANSION SEA

BULK ELECTRICITY GENERATION

FEEDBACK FORM

May 2018

Webpage: <https://gasnetwork.csir.co.za/>

PLEASE COMPLETE	
NAME:	
ORGANISATION/COMPANY:	
DESIGNATION:	
EMAIL:	
PHONE:	



OBJECTIVE

The purpose of this exercise is to gather industry opinion on where electricity transmission level infrastructure expansion needs to be prioritised (in the context of the **EGI expansion corridors**) in 0-5year, 5-15 year, and 15-30 year time horizons. The inputs from this exercise will be used to inform the refinement of the corridors as well as Eskom routing and positioning of electricity transmission infrastructure within the corridors.

FEEDBACK INSTRUCTIONS

Participants are requested to select 20km x 20km grid cells within or in the close vicinity of the proposed **EGI corridors** extent where electricity transmission infrastructure expansion should be prioritised to support the evacuation of electricity from future energy generation activities.

Please provide your input in the tables below by selecting up to five individual (different) cells for each time horizon and provide a brief justification for your selection. The map of the proposed EGI corridors and grid is available in KMZ format and can be accessed and downloaded from the project website at <https://gasnetwork.csir.co.za/resources/> (Industry Feedback Exercise/EGI Expansion). Please note that Google Earth is required to view this file. Google Earth download is available here <http://www.google.com/earth/download/ge/agree.html>.

Please refer to this map when completing the exercise below. Please indicate your selected cells in the tables below by including the cell identification (Id) from this map (e.g. 687). The cell identification can be sourced by clicking on the selected cell on the KMZ map and determining the "20km_REF_1" reference number from the "pop up" box. The KMZ map also details the location of Eskom substations (new and existing) for proposed unlocking. The substations are groups in Phases 1 – 4 in terms of time to unlock. Phase I: 2 years, Phase II: 3-4 years, Phase III: 4-5 yrs, Phase IV: 6-8 yr. Please also see Eskom Substation document for more information regarding the proposed installations/upgrades.

Organisations are requested to limit submission to one complete form per organisation. However more than one submission per organisation will be considered under certain circumstances. Please contact the CSIR on below details for more information in this regard



Submission: Please email completed form to gasnetwork@csir.co.za before **15 June 2018**

Note: Individual participant selections will be kept confidential



SECTION 2: PLEASE PROVIDE DETAILS ON ANY AREAS EARMARKED/PLANNED FOR DEVELOPMENT WITHIN AND IN THE VICINITY OF THE EGI CORRIDORS EXTENT THAT COULD INFLUENCE THE FINAL LOCATION OF THE EGI CORRIDORS IN SUPPORT OF THESE AREAS.

GRID CELL REF NUMBER	SECTOR / ACTIVITY <i>Please indicate what generation technology the above cell selection/s refer to</i>	LIFETIME <i>Please indicate the total estimated installed capacity (MW) for each cell selection</i>	COMMENTS <i>Please provide justification for each cell selection</i>
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE GENERATION ACTIVITY SHOULD BE PRIORITISED IN A 0 TO 5 YEAR TIMEFRAME			
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE GENERATION ACTIVITY SHOULD BE PRIORITISED IN A 5 TO 15 YEAR TIMEFRAME			



GRID CELL REF NUMBER "20km_REF_1" reference number from the "pop up" box on KMZ File	SECTOR / ACTIVITY <i>Please indicate what generation technology the above cell selection/s refer to</i>	LIFETIME <i>Please indicate the total estimated installed capacity (MW) for each cell selection</i>	COMMENTS <i>Please provide justification for each cell selection</i>
PLEASE SELECT UP TO 5 INDIVIDUAL CELLS WHERE GENERATION ACTIVITY SHOULD BE PRIORITISED IN A 15 TO 30 YEAR TIMEFRAME			


A.7.4 Public Information Sharing Session Posters

Stage 1 Consultation: Project Initiation; Preliminary Corridors and Negative Mapping


Consultation during the Round 1 Public Outreach Roadshow

Copy of the Poster issued via various platforms with details of the Public Information Sharing Sessions for the Round 1 Authority Roadshow


STRATEGIC ENVIRONMENTAL ASSESSMENT FOR A PHASED GAS PIPELINE NETWORK AND ELECTRIC GRID INFRASTRUCTURE EXPANSION IN SOUTH AFRICA






environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



energy
Department:
Energy
REPUBLIC OF SOUTH AFRICA



public enterprises
Department:
Public Enterprises
REPUBLIC OF SOUTH AFRICA

The Department of Environmental Affairs hereby informs all Interested and Affected Parties (I&APs) and stakeholders of the Strategic Environmental Assessment (SEA) to identify the most appropriate development corridors for the location of a phased gas pipeline network to support the oil and gas industry. This process will also consider the expansion of corridors for Electricity Grid Infrastructure that were assessed as part of a separate SEA Process which concluded in 2016. The CSIR has been appointed by the DEA to undertake the SEA Process. The SEA will be focussed on nine corridors identified as key areas where gas transmission pipelines are required in order to meet future energy requirements. As noted above, this SEA will also include two additional corridors to expand the EGI corridors previously assessed. Figure 1 below depicts the proposed draft corridors to be assessed. The SEA will assess the environmental, social and economic constraints and opportunities for gas pipeline and EGI development within these corridors. The results of the assessment will serve to inform suitable routing options for gas pipelines and EGI expansion.


As part of this process the SEA Project Team will also consult with a wide range of stakeholders in order to validate findings from the assessment but to also receive additional input based on national, provincial and local priorities. The following Public Participation Meetings will take place at various locations in South Africa and you are invited to participate in the SEA Process by attending the relevant meeting. This is a platform for the I&APs to make inputs by identifying issues for consideration in the SEA Process.

Province	Date	Venue	Time
Western Cape	1 November 2017	Cape Town Library: 60 Darling St, Cape Town City Centre, Cape Town, 8000	17H30 – 19H15
Eastern Cape	2 November 2017	East London City Hall Conference Centre: Oxford St, East London City Centre, East London, 5201	17H00 – 19H00
Gauteng	6 November 2017	CSIR Johannesburg: Carlow Road & Rustenburg Road, Auckland Park, Johannesburg, 2109	17H00 – 19H00
KwaZulu-Natal	7 November 2017	CSIR: 359 King George V (5 th) Avenue, Durban, 4000	17H00 – 19H00
Northern Cape	8 November 2017	Libra Hall: van Niekerk Street, Bergsig, Springbok	18H00 – 20H00
Western Cape	13 November 2017	George City Hall: 71 York Street, George, 6530	17H00 – 19H00

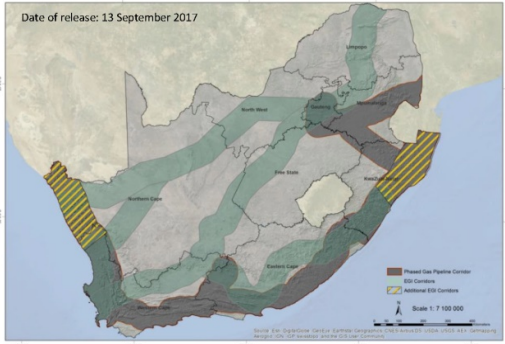
Please register your interest in the project and confirm attendance to any of the abovementioned public meetings by submitting your name and contact details (i.e. contact number, email address and postal address), to the following address: gasnetwork@csir.co.za or on the SEA website: <http://gasnetwork.csir.co.za>. Please confirm attendance by 30 October 2017. Should you have any query, please contact Ms Rohaida Abed (Project Manager: CSIR) by sending an email to gasnetwork@csir.co.za or Tel: (031) 242 2300.


VISION OF THE SEA

Strategic gas pipeline network and EGI is expanded in an environmentally responsible and efficient manner that responds effectively to the country's economic and social development needs.



our future through science





South African National Biodiversity Institute

Figure 1 – Draft Energy corridors

Stage 2 Consultation (Draft Refined Corridors, Municipal and Industry Feedback Exercise, and Draft Specialist Assessment and SEA Chapters)

Consultation during the Round 2 Public Outreach Roadshow

Copy of the Poster issued via various platforms with details of the Public Information Sharing Sessions for the Round 2 Authority Roadshow

STRATEGIC ENVIRONMENTAL ASSESSMENT FOR THE DEVELOPMENT OF A PHASED GAS PIPELINE NETWORK AND EXPANSION OF ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA



The Department of Environmental Affairs (DEA) hereby informs all Interested and Affected Parties (I&APs) and stakeholders of the progress achieved on the Strategic Environmental Assessment (SEA) to identify the most appropriate development corridors for the location of a Phased Gas Pipeline Network and expansion of the Electricity Grid Infrastructure (EGI). The SEA was initiated in April 2017, and the Council for Scientific and Industrial Research (CSIR) was appointed by the DEA to undertake the SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI).

This SEA supports the objectives of the Operation Phakisa Offshore Oil and Gas Lab, as well as the Strategic Integrated Project SIP 10: Electricity transmission and distribution for all. It aims to pre-assess the environmental, social and economic constraints and opportunities for gas transmission pipeline and EGI development within the proposed corridors. The results of the assessment will serve to inform suitable routing options for gas pipelines and EGI expansion within the corridors.

As part of this process the SEA Project Team will also consult with a wide range of stakeholders in order to receive additional input based on national, provincial and local priorities. The first Public and Authority Outreach took place in November 2017 to present the SEA Process and draft initial corridors to stakeholders. The initial corridors have subsequently been refined (Figure 1) and specialist assessments undertaken to pre-assess environmental sensitivities within the proposed corridors. The following Public Participation Meetings will take place at various locations in South Africa to present the draft findings of the specialist studies and you are invited to participate in the SEA Process by attending the relevant meeting. This is a platform for the I&APs to make inputs by identifying issues for consideration in the SEA Process.

Province	Date	Venue	Time
Western Cape - George	8 October 2018	George Civic Centre (Banqueting Hall), 71 York Street, George	17H00 – 20H00
Eastern Cape - Port Elizabeth	9 October 2018	BPO (Business Process Outsourcing) Park: Discovery Building, Zone 4, Coega IDZ, Port Elizabeth	17H00 – 20H00
Eastern Cape - East London	10 October 2018	Premier Hotel Regent: Marine Park Complex, 22 Esplanade, Beachfront, Quigney, East London	17H00 – 20H00
KwaZulu-Natal - Durban	11 October 2018	CSIR: 359 King George V (5 th) Avenue, Durban	17H00 – 20H00
Gauteng - Johannesburg	15 October 2018	CSIR: Corner of Carlow Road & Rustenburg Road, Auckland Park, Johannesburg	17H00 – 20H00
Northern Cape - Springbok	17 October 2018	Kokerboom Motel: Next to N7, Droëdop Road, Springbok (Co-ordinates: 29°42'45.2"S; 17°53'15.4"E)	17H00 – 20H00
Western Cape - Cape Town	22 October 2018	CSIR: 15 Lower Hope Road, Rosebank, Cape Town	17H00 – 20H00

Please register your interest in the project and confirm attendance to any of the abovementioned public meetings by submitting your name and contact details (i.e. contact number, email address and postal address), to the following address: gasnetwork@csir.co.za or on the SEA website: <http://gasnetwork.csir.co.za>. Please confirm attendance by 2 October 2018. Should you have any queries, please contact Ms Rohaida Abed (Project Manager: CSIR) by sending an email to gasnetwork@csir.co.za or Tel: (031) 242 2300.

VISION OF THE SEA

Strategic gas pipeline network and EGI is expanded in an environmentally responsible and efficient manner that responds effectively to the country's economic and social development needs.

National Strategic Environmental Assessment for a Gas network and EGI Expansion in South Africa



Figure 1: Refined Gas Corridors and Expanded EGI Corridors

A.7.5 Background Information Document

An initial Background Information Document was compiled in December 2017 and updated in November 2018 and June 2019. The most recent Background Information Document is included below.

Stage 1 Consultation: Project Initiation; Preliminary Corridors and Negative Mapping	
Stage 2 Consultation (Draft Refined Corridors, Municipal and Industry Feedback Exercise, and Draft Specialist Assessment and SEA Chapters)	
Stage 3 Consultation (Final Pinch Point Analysis, Final Corridors and Draft Decision-Making Tools)	
Copy of the Background Information Document that was issued via various platforms throughout the SEA Process	



DEPARTMENT OF ENVIRONMENTAL AFFAIRS'
GAS PIPELINE NETWORK AND
ELECTRICAL GRID INFRASTRUCTURE EXPANSION
STRATEGIC ENVIRONMENTAL ASSESSMENT

NATIONAL DEPARTMENT OF ENVIRONMENTAL AFFAIRS' (DEA) STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR A PHASED GAS PIPELINE NETWORK AND EXPANSION OF THE ELECTRICITY GRID INFRASTRUCTURE IN SOUTH AFRICA

BACKGROUND INFORMATION DOCUMENT

Document prepared by:

Annick Walsdorff & Rohaida Abed
Environmental Management Services (EMS), CSIR
Email: gasnetwork@csir.co.za
Tel: (031) 242 2300



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



energy
Department:
Energy
REPUBLIC OF SOUTH AFRICA



public enterprises
Department:
Public Enterprises
REPUBLIC OF SOUTH AFRICA





SANBI
Sustainable Use of Natural Resources

BACKGROUND INFORMATION DOCUMENT © CSIR 2019 Page | 1



DEPARTMENT OF ENVIRONMENTAL AFFAIRS'
GAS PIPELINE NETWORK AND
ELECTRICAL GRID INFRASTRUCTURE EXPANSION
STRATEGIC ENVIRONMENTAL ASSESSMENT

INTRODUCTION

In order to realise the potential of the gas reserves in the country and to contribute to the transition to a low carbon economy, the Operation Phakisa Offshore Oil and Gas Lab (August 2014) has set a target of achieving 30 exploration wells in the next 10 years. In addition, the need to accelerate the planning for gas to power as part of the Government's Integrated Resource Plan (IRP) and for State Owned Entities to pre-plan for the logical development of gas transmission servitudes within South Africa was identified. The phased development of an onshore gas transmission pipeline network therefore forms part of the infrastructure envisaged as an enabler for the offshore oil and gas exploration and has the potential to unlock further possibilities for the growth of the gas industry in South Africa.

To support the objectives of the Operation Phakisa Oceans Economy Oil and Gas Lab and to ensure that when required, environmental authorisations are not a cause for delay, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and the Department of Public Enterprises (DPE) (representing iGas, Eskom and Transnet) intend to apply a Strategic Environmental Assessment (SEA) methodology to identify and pre-assess suitable gas routing corridors.

BACKGROUND TO GAS PIPELINE NETWORK AND ELECTRICITY GRID INFRASTRUCTURE EXPANSION SEA

In April 2017, the DEA appointed the Council for Scientific and Industrial Research (CSIR) to undertake a SEA for a Phased Gas Pipeline Network and for the expansion of the electricity grid infrastructure (EGI) corridors that were assessed as part of a separate SEA Process (in response to the Government's Strategic Infrastructure Build Program, Strategic Integrated Project SIP 10: Electricity transmission and distribution for all) which concluded in 2016.

The SEA will be focussed on nine corridors identified as part of Operation Phakisa as key areas where gas transmission pipelines are required in order to meet future energy requirements. As noted above, this SEA will also include two additional corridors to expand the EGI corridors previously assessed. The SEA will assess the environmental, social and economic constraints and opportunities for gas pipeline and EGI development within these corridors. The results of the assessment will serve to inform suitable routing options for gas pipelines and EGI expansion.

It is intended that the final corridors will be submitted to Cabinet for approval to ensure buy-in from all Departments and to encourage the embedment and integration of these corridors into the Provincial and Local planning mechanisms to secure long term energy planning.

The SEA is expected to be completed by the end of 2019.

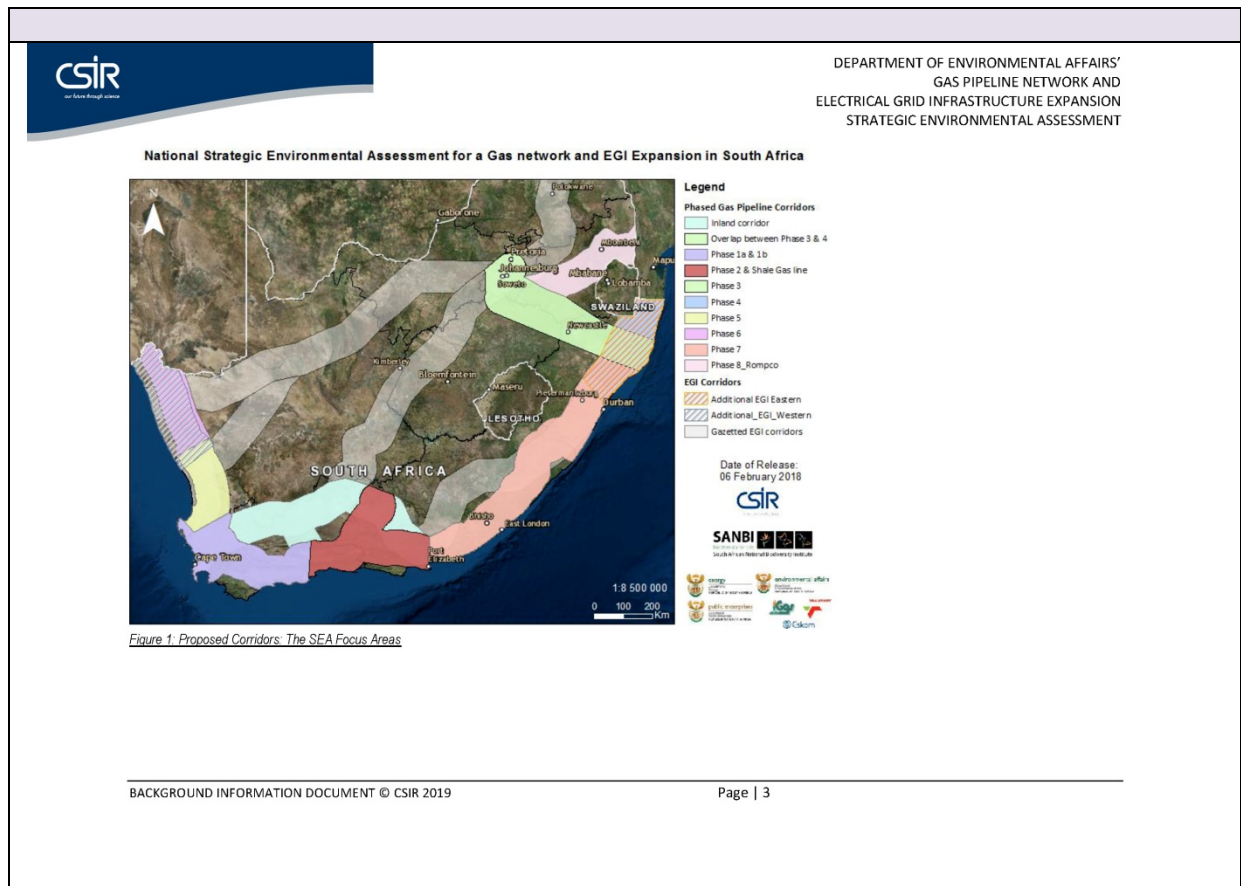
A full description of the SEA vision and objectives is available on Page 4 of this document.

SEA Focus Areas: The Corridors

The proposed gas pipeline corridors are defined as follows (refer to Figure 1):

- 1) From Saldanha Bay to Atlantis and from Atlantis to Mossel Bay on the south coast.
- 2) From Mossel Bay to Coega on the south coast.
- 3) An inland corridor from Saldanha to Mossel Bay and Coega.
- 4) From Coega to Durban on the east coast.
- 5) From Durban to Richards Bay and to the border of Mozambique to facilitate an import option.
- 6) A strengthening of the existing Lilly Pipeline from Sasolburg to Richards Bay and Durban by a second pipeline following a similar route.
- 7) From Sasolburg to the border of Mozambique.
- 8) From Saldanha Bay to Abraham Villiers Bay (landing point for the Ibhubesi field).
- 9) From Abraham Villiers Bay to northwards to the Namibian border (Oranjemund), to link to potential Kudu gas extraction.
- 10) From Mossel Bay and Coega to the Shale Gas areas.

The additional two EGI corridors assessed as part of this SEA are located along the coast, north-west and north-east of the country.





DEPARTMENT OF ENVIRONMENTAL AFFAIRS'
GAS PIPELINE NETWORK AND
ELECTRICAL GRID INFRASTRUCTURE EXPANSION
STRATEGIC ENVIRONMENTAL ASSESSMENT

VISION OF THE SEA

*Strategic gas pipeline network and EGI is expanded in an environmentally **responsible** and **efficient** manner that responds **effectively** to the country's economic and social development needs.*

OBJECTIVES OF THE SEA

The overall objective of this SEA is framed as:

"In partnership with the Department of Energy and Department of Public Enterprises representing iGas, Eskom and Transnet, and in consultation with relevant stakeholders, identify routing corridors, environmental management measures such as norms or standards or minimum information requirements with the intent to streamline the environmental authorisation process or to exempt the development of linear infrastructure associated with energy provision, including a gas pipeline network and electricity grid infrastructure, from environmental authorisation, as well as interventions required to secure on the long term the energy planning corridors and zones identified."

A SEA is an environmental assessment tool used to (i) determine environmental implications of strategic development, policies & plans, (ii) integrate environmental, social and economic considerations, (iii) shape future development and onsite assessment requirements. While the Environmental Impact Assessment (EIA) tool is used to evaluate the impacts of a proposed development on a small scale site, the SEA tool is used to evaluate the opportunities and constraints of the strategic development at regional scale. By focusing on higher-level processes, the SEA tool can provide a framework for future project-level assessments/requirements within the pre-assessed regional scale.

The SEA aims to ensure that the development of a gas transmission pipeline network and EGI would be:

- Effective
 - Identify strategic energy corridors at a national scale based on future energy supply and demand requirements, environmental sensitivities as well as social and economic development priorities at a national, regional and localised level.
- Efficient
 - Pre-assessing environmental sensitivities to avoid fatal flaws and focus on the site specific level of assessment required, with the aim to exempt the developments under consideration from environmental authorisation within the gazetted corridors **or** to streamline the applicable environmental authorisation process within the corridors.
 - Enabling the developers the flexibility to consider a range of route alternatives within the pre-assessed corridors to avoid land negotiation issues.
 - Improve coordination to implementation through the promotion of dialogue and collaborative governance between authorities mandated to approve or license aspects of gas pipeline and EGI development
- Responsible
 - Develop a site specific development protocol which prescribes the level of site specific assessment required and prescribes the assessment process.
 - Share research learnings with government, academic and public forums to promote environmental assessment.
 - Contribute to skills development by involving interns in the delivery of the project and through the widespread promotion and sharing of the research findings.

PHASES OF THE SEA

The SEA process has been designed in three overlapping phases as indicated in Figure 2 below.

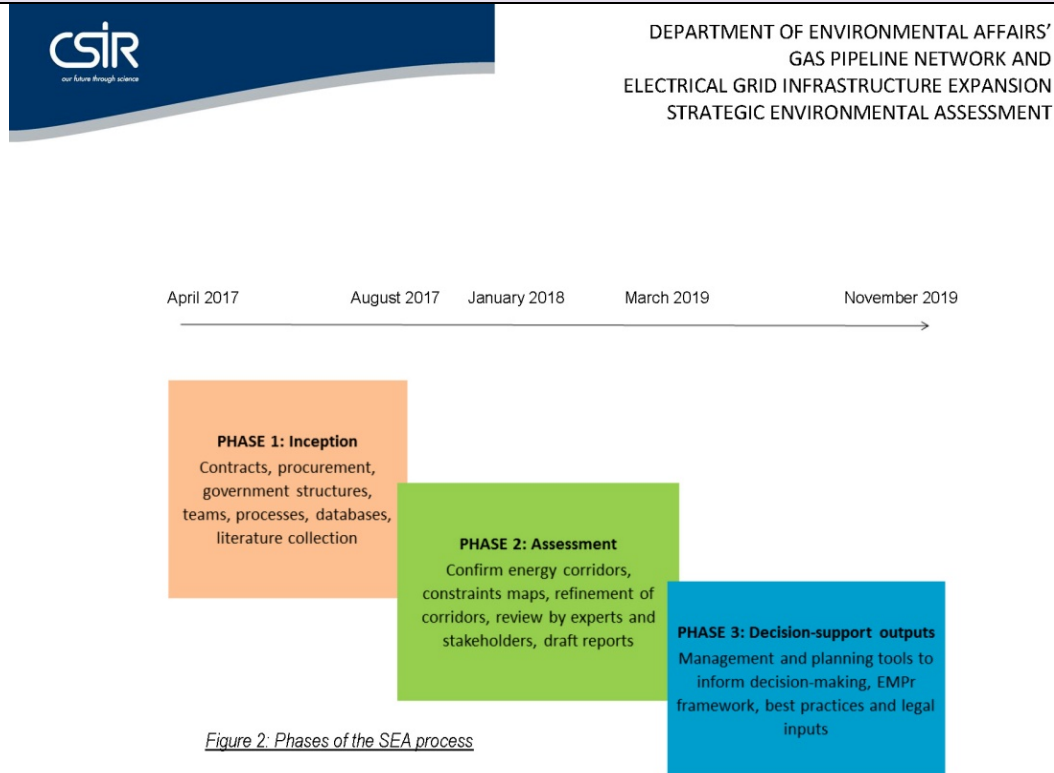


Figure 2: Phases of the SEA process

NEXT STEPS

The corridors (100km in width to enable the identification of routing alternatives) will be the focus areas of the SEA. Phase 1 of the SEA Process was completed in 2017. The SEA Project Team are currently working on Phase 2 of the SEA, which entails the assessment of the corridors. The constraints mapping has been completed to identify key environmental and engineering constraints that should be avoided when planning a transmission pipeline or power line. As part of this exercise the CSIR will also undertake positive mapping and look for favourable areas for transmission pipeline development based on social and economic development opportunities. The Draft Specialist Assessment Chapters were released for comment in April 2019. Following the closure of the comment period, the final corridor refinement process will be undertaken to identify the final corridors for gazetting.

As part of this process the SEA Project Team will also consult with a wide range of stakeholders including government, industry and specialists in order to validate findings from the assessment but to also receive additional input based on national, provincial and local priorities. The SEA Project Team will be engaging with key stakeholders through the following:

1. A series of public meetings (the first round of public meeting was held from 01 November to 13 November 2017. A second round was held from 8 October to 22 October 2018);
2. A series of sector specific meetings;
3. Placing regular feedback and information on the dedicated project website;
4. Gathering written comments sent either via email (gasnetwork@csir.co.za) or via the SEA website: <http://gasnetwork.csir.co.za>).

Additional information can be found on the dedicated project website: <https://gasnetwork.csir.co.za>.

Please register your interest in the project by submitting your name and contact details (i.e. contact number, email address and postal address) to the following address: gasnetwork@csir.co.za or register on the SEA website: <http://gasnetwork.csir.co.za>.

A.7.6 Frequently Asked Questions

An initial set of Frequently Asked Questions was compiled in February 2018 and updated in November 2018. The most recent set of Frequently Asked Questions is included below.

1. Purpose of the Gas Pipeline and Electricity Grid Infrastructure Expansion SEA

1.1. How will the SEA Process facilitate the efficient and effective construction of Gas Transmission Pipeline Infrastructure and the expansion of strategic Electricity Grid Infrastructure in South Africa?

- **Integration**

The Strategic Environmental Assessment (SEA) Process is aimed at integrating environmental, economic and social factors to identify areas where Gas Transmission Pipeline and Electricity Grid Infrastructure (EGI) construction and expansion will have the lowest possible impact on the environment whilst yielding the highest possible social and economic development opportunities to the country. This process will ensure that future Gas Transmission Pipeline and EGI development in these areas is done sustainably.

- **Agreement**

The SEA Process provides a platform for iGas, Transnet, Eskom, government departments, private sector, and non-government institutions to partner and provide input into where strategic gas and electrical transmission infrastructure should be prioritised and corridors established. The intent is for agreement and commitment to be officiated through Cabinet approval and a gazetting process.

- **Alignment**

The cabinet approval and gazetting of the corridors and the outputs of the SEA (final corridors, Environmental Management Programme, Norms or Standards and the pre-construction Site Specific Environmental Assessment Protocol) will allow for alignment of the three spheres of government (including National, Provincial and Local Government) by adopting the corridors and its associated processes into future policies and spatial plans (e.g. Integrated Development Plans (IDPs) and Spatial Development Framework (SDFs)). This will, in turn, create an enabling environment which will allow for the streamlining of development processes in these corridors.

- **Strategic Planning**

The certainty resulting from the adoption of the corridors will allow potential developers to be more proactive when undertaking servitude negotiation with landowners and agree on land parcels and route options based on environmental sensitivity, upfront. Gazetted corridors will also help potential developers to motivate for the necessary funding to build in these corridors.

1.2. What will incentivise developers to develop in the corridors rather than outside?

The outcomes of the SEA will assist in developing in these areas by:

- **Decreasing Risk**

The high level agreement and commitment to the corridors will decrease the risk of not obtaining authorisation, should potential developers target areas for development that have been pre-assessed and classified as having lower levels of environmental sensitivity. Potential developers will be able to assess many risks upfront (including environmental, access to land and cost of land) prior to seeking authorisation for a specific route, if applicable.

- **Streamlined Process**

The corridors represent pre-assessed areas that are best suitable for the development of gas and electrical transmission infrastructure and within which a streamlined environmental permitting process is proposed or where development of such infrastructure would be exempt from environmental authorisation. In addition to scoping level assessment of the corridors, interdepartmental and intergovernmental alignment will allow for streamlined authorisation processes. This will include obtaining the necessary authorisations for other permit requirements such as Water Use Licenses and Forest Clearing Permits.

1.3. How many gas transmission pipelines and EGI power lines will be built in each of the corridors, and will they be constructed in a particular sequence?

- **Gas Transmission Pipelines:**

It is difficult to comment on exactly how many new gas transmission lines will be constructed in each corridor as the possible sources of offshore gas is based on the geology offshore and these reserves have not yet been proven. In addition, South Africa's future demand and generation footprint is unclear. However, it is estimated that one gas transmission pipeline will be constructed within each corridor, as the pipeline will be driven by finding a gas reserve and will only be constructed based on a business case. The proposed project phases are independent of each other and each one will be based on its own business case.

- **EGI:**

The corridors can be considered the future transmission backbone of South Africa. Transmission level power lines already exist within each of the expanded EGI corridors. Where possible; existing lines will be upgraded to support additional capacity. It is difficult to comment on exactly how many new power lines will be necessary in each corridor as the composition and geographical distribution of South Africa's future generation footprint is still unclear. Based on current and available information, no more than three or four new transmission level lines will be needed within each expanded corridor over the course of the next 30 years. The upgrade and development of major transmission substations will also be necessary in each of the expanded corridors.

2. Environmental Authorisation in the Corridors

2.1. Will the SEA replace the need for project level environmental authorisation within the corridors?

The scoping level of environmental assessment undertaken as part of the SEA is not sufficient for project level decision making in terms of NEMA, and further assessments will still be necessary once a specific project is proposed to be constructed. With the scoping requirements being met inside of the corridors, all Gas Transmission Pipeline and Electricity Grid Infrastructure (EGI) projects, and associated infrastructures, that currently require Environmental Authorisation will either follow a streamlined project level environmental assessment process, for example, in the form of a Basic Assessment (BA), or compliance with a Norm or Standard that will be compiled as part of the SEA (where the need for an Environmental Authorisation application will be negated). The scope of the project level process in the corridors will be informed by the pre-construction Site Specific Environmental Assessment Protocols, and will be undertaken in accordance with the relevant regulations current at the time.

2.2. How will integrated authorisation be accomplished?

The SEA Process provides a platform for competent authorities and other permitting or commenting agencies to provide their requirements for development in the corridors upfront. Consensus will be reached on how these requirements will be incorporated into the pre-construction Site Specific Environmental Assessment Protocol. If a proposed project complies with the requirements of the pre-construction Site Specific Environmental Assessment Protocol, it would imply that all the requirements of authorising and permitting authorities have been met, and thus either a single inclusive permit can be issued or multiple authorisations and permits can be issued at the same time.

3. Scope of the SEA

3.1. Is the SEA only considering transmission infrastructure within the corridors?

▪ Gas Transmission Pipelines:

This SEA covers high pressure onshore gas transmission pipelines (i.e. with a pressure greater than 15 bar) and associated infrastructure, including pigging stations, block valves and access roads. Note that compressor stations are excluded from this scope of work. The purpose of this proposed gas pipeline is to transport large quantities of the gas to various markets. The receiver of the gas will be responsible for obtaining their own project specific environmental authorisations, dependent on their specific business case, including for distribution and reticulation to end users.

▪ EGI:

The location of the preliminary corridors is based on the results of a detailed Eskom Strategic Grid Plan study to determine future transmission needs across South Africa in the context of balancing major power supply and demand requirements up to 2040. Therefore, the final location of the corridors will be based on transmission level need only (rather than distribution level) and will facilitate the future transmission backbone of South Africa. However, any change in the Environmental Authorisation process within the corridors, which may be brought about as a result of this assessment, will apply to both transmission and distribution level EGI infrastructure.

4. What issues will be assessed in the SEA?

The SEA will follow a holistic approach, recognising the interconnectivity of environmental, social, and economic opportunities and constraints. The following Strategic Issues have been identified as part of the scope of the assessment:

Specialist Study	Assessment Type	Strategic Issue
Biodiversity and Ecological Impacts	Multi-Author	<u>Terrestrial Ecosystems, Flora and Fauna (including Bats):</u> <ul style="list-style-type: none"> ▪ Fynbos Biome ▪ Savannah and Grassland Biomes ▪ Indian Ocean Coastal Belt Biome ▪ Albany Thicket Biome ▪ Succulent and Nama Karoo Biomes

		<u>Aquatic Ecosystems, Flora and Fauna:</u>	
		<ul style="list-style-type: none"> ▪ Estuaries ▪ Rivers and Wetlands 	
Socio-Economic and Planning Assessment	Multi-Author	<ul style="list-style-type: none"> ▪ Benefits and Opportunities of Gas ▪ Regional and Settlement Planning ▪ Governance and Disaster Management 	
Seismicity	Multi-Author	<ul style="list-style-type: none"> ▪ Earthquakes and Faults 	
Avifauna	Single Author	<ul style="list-style-type: none"> ▪ Avifauna 	
Visual	Single Author	<ul style="list-style-type: none"> ▪ Visual 	

In addition to the above, a Soils and Agricultural specialist will provide inputs to the sensitivity mapping, EMPr and Protocols for the agricultural land component.

5. Who will assess the identified issues?

Authors comprising the Multi-Author Teams within the specified Strategic Issues will undertake the assessment. The Authors will require acknowledged expertise and have been drawn from a broad range of independent specialists and sectors such as research institutions, government, NGOs, universities, the energy and oil and gas sector, etc., and across different regions of South Africa to ensure a broad balance of interest is represented through the reporting structures.

6. What is the primary output of the SEA?

The primary output of the SEA will be a Decision-making Framework to be interpreted by the relevant authorities. This will consist of:

- Final corridors;
- Sensitivity, vulnerability and risk spatial datasets for surface and subsurface environmental attributes;
- Recommended pre-construction Site Specific Environmental Assessment Protocols detailing the level of site specific assessment required;
- Generic Environmental Management Program (EMPr) framework and principles; and
- Norms or Standards.

7. How will stakeholders be engaged during the SEA?

▪ Briefings, Outreach and Participation

There will be two rounds of public outreach during this SEA. The first round took place from 1 November 2017 to 13 November 2017 to inform the public of the SEA Process and to introduce the draft initial corridors. This round of public outreach took place in Cape Town, East London, Johannesburg, Durban, Springbok and George. A second round of public outreach is expected to be undertaken at the end of Phase 2 when the specialist assessment is completed and the finalised corridors are available for comment. It is likely that the second round of public outreach will be conducted at the same locations as those in the first round.

The purpose of the public briefings is not to capture comments in a 'town-hall' fashion (similar to what would be undertaken as part of an EIA Process), but to engage meaningfully on issues and keep people informed of the mechanisms by which they can access information and documents and make comments. It should be noted that the SEA is not a project-level, EIA Process subject to the NEMA EIA Regulations for public participation. It is a national level strategic assessment tool, which is

designed, where practically possible, to engage with as many stakeholders as far as possible.

▪ **Commenting on Reports**

Outputs of the assessment, in report format, will be peer reviewed. Validation through a peer review process is key to ensuring the quality, and thus the credibility of the assessment. Peer review is a standard way of approving the quality of information in the scientific community.

Furthermore, the involvement of different users in the review process is important as it can provide a much broader range of comments, form part of the communication strategy, and contribute to ongoing user engagement in the process. In this regard, all formal comments from 'general' stakeholders on reports will be captured via the project website when documents are made available over certain window review periods. Official comments will be captured and responded to in a formal manner, subject to the 'user conditions' under which they are submitted.

▪ **How can I participate in the Gas Pipeline and EGI Expansion SEA?**

You can participate in the SEA by registering as a stakeholder on the Stakeholder Portal page of this website. As a registered stakeholder you are able to log in to the SEA website to:

- Make official written comments on the draft reports via the project website or via email during specified Report Commenting Windows (RCWs) (these comments will be captured and responded to in the final reports); and
- Keep up to date on project progress and key milestones.

Comments submitted during the RCWs and during the Public Outreach meetings will form part of the official project report.

You can download a guide for registering as a stakeholder [here](#).

If stakeholders have any queries or encounter any technical difficulties during the registration process, they are welcome to contact the project team using the contact details provided on the "Contact Us" webpage on the project website.

8. How wide will the gas transmission pipeline servitude be during the construction and operational phases; and how deep will the gas transmission pipeline be?

A 30 m to 50 m wide construction right of way would be required during the construction phase.

A servitude width of 10 m would be registered on the affected properties during the operational phase. The laying of the proposed gas pipeline would follow the normal servitude procedures and there would be negotiations with the land owners which are affected at the time. The final route selection will depend on these servitude negotiations, on a project specific basis, and the obtaining of the necessary environmental approvals (which will be guided by this SEA Process).

The top of the proposed pipeline would be approximately 1 m underground all along the route, with pigging stations above ground approximately every 130 km but possibly as far apart as 250-500 km with new technology.

9. Will National Government fund the construction of the gas transmission pipelines?

Although iGas, Transnet and Eskom are involved in the Gas Pipeline and EGI Expansion SEA and are State Owned Companies (SOCs), the proposed pipeline development will not be financed by government. It will be financed by developers based on each viable business case.

10. What is the current uptake of Natural Gas in South Africa, and where will the Natural Gas be sourced from?

The current uptake of gas in South Africa is estimated at 196 million GJ/a, from the Pande Temane fields in Mozambique to Sasol's Secunda Gas-to Liquids facility. Sasol's Gas Pipeline Network from Secunda and Gauteng is estimated at 45 million GJ/a. Transnet's Lilly Pipeline supplies methane rich gas (MRG) from Sasol to Durban with offtake points in Newcastle, Empangeni, Richards Bay and Durban, with a current transportation volume of 23 MGJ/a. There is also PetroSA's subsea pipeline to Mossel Bay.

The natural gas will potentially be sourced offshore of South Africa's coast or imported (which includes LNG and gas from Mozambique). However, Shale Gas from the Karoo has also been identified as a potential driver and should be considered.

11. What is the recommended distance of the gas transmission pipeline infrastructure from other infrastructure, including EGI?

The minimum distance for other structures from the gas transmission pipeline is 1 km from high voltage electrical transmission lines and between 300 m and 500 m for other structures, depending on the diameter of and gas pressure in the pipeline. Research also points to other factors for consideration e.g., the longer the two infrastructure run in parallel (in this case specifically gas and EGI) the higher the probability of induced electric current in the pipeline as well as the possibility of current leakage to the pipeline in the event of a pipeline coating failure or during lightning strikes. Consideration must also be given to the "burning radius" which means that, in the case of a pipeline leak and gas ignition, anything within that radius will burn immediately. This is about 800 m (worst case scenario at ~ 100bar). Therefore, based on the above it is recommended that a "safety margin or factor" of at least 5x is applied to the 1 km stated – therefore 5 km distance is considered to be the safest distance from high voltage electrical transmission lines.

12. Why are the previously gazetted Northern and Eastern Electrical Grid Infrastructure (EGI) being expanded to the border of Namibia and Mozambique, respectively?

The extension of the EGI is to assess the corridors to the borders of South Africa, to support potential business cases extending to Mozambique and Namibia, as well as to facilitate potential import and export of power in these regions.

A.7.7 Curriculum Vitae of the Independent Public Facilitator

Curriculum Vitae of Bongzi Shinga

Name of Staff: SHINGA, Bongzi
 Company: Wakhiwe Stakeholder Engagement Specialists
 Position in Company: Stakeholder Engagement Specialist
 Date of Birth: Stakeholder Engagement, Public Participation & Community Liaison and Public Relations
 Nationality: South African

EDUCATION

Qualification	Institution	Year
BSc (Microbiology & Ecology)	University of Zululand	1998

BACKGROUND AND KEY EXPERIENCE

Bongzi Shinga has 18 years' experience in communications management, stakeholder engagement and public participation processes, in support of environmental management and development processes. Her distinguishing and enthusiastic character has contributed to her reputation of implementing effective stakeholder engagement programmes. She has extensive experience in running complex yet successful communication programmes in the water, energy, transportation, mining and conservation sectors.

Bongzi's practical experience includes a record of managing complex projects with often challenging stakeholders. She has successfully established and maintained relationships with stakeholders which is essential for ensuring and achieving desired project outcomes. She has an impressive track record in establishing and managing functional project steering committees which are set up as platforms for facilitating dialogue between communities, stakeholders and developers. She also has actively managed public participation processes for the review of policies and management plans in the conservation and tourism sectors.

Her ability to communicate and interact with all levels of stakeholders (local, provincial and national), in both rural and urban settings has contributed to effective approaches for monitoring and maintaining stakeholder relationships. She is well-versed in the requirements of public participation as applied in environmental assessments in South Africa.

RECENT EXPERIENCE RECORD

- 1) Establishment and management of Project Liaison Committees along the National Route 3. N3TC (Pty) Ltd (August 2017 – August 2020). Stakeholder Engagement Team Leader responsible for the establishment and management of Public Liaison Committees along a 400km road transport corridor between the Cedara interchange, near Hilton, in KwaZulu-Natal and the Heidelberg South interchange in Gauteng. This project forms part of the implementation of SANRAL's new 14-point plan which is a component of the Horizon 2030 Long Term Strategy. This includes the management and operations of all the committees once established.
- 2) KwaDukuza Coast Landfill Management (Pty) Limited (DCLM), KwaZulu-Natal. (January - December 2018). Stakeholder Engagement Specialist responsible for the development of the communication strategy for the KwaDukuza Landfill Site. Other activities included coordination and facilitation of public and/or community meetings.
- 3) Exploration Drilling within Block ER236, off the East Coast of South Africa, KwaZulu Natal (February 2018). Facilitator for the public meeting to present findings on the Draft Scoping Report to stakeholders within the Durban South areas. (This was a special request to assist Eni South Africa BV (Eni), and Sasol Africa Limited (Sasol) to also provide translation of technical content in Zulu in order to engage Durban South residents meaningfully).

- 4) Jane Furse Regional Water Supply Scheme. Sekhukhune District Municipality, Limpopo (February – July 2018). Social Facilitation Team Leader responsible for the consultation process towards the refurbishment of the Jane Furse Water Supply System in the Sekhukhune District Municipality. The stakeholder engagement supported the technical interventions that were required to ensure reliable water supply in the Jane Furse town and to the surrounding Flag Boshielo communities.
- 5) Maloti-Drakensberg Park World Heritage Site (MDP WHS) Tourism Strategy. United Nations Educational, Scientific and Cultural Organisation (UNESCO) (May 2017 - February 2018). Public Participation Team Leader responsible for stakeholder engagement and consultation process to support the development of a sustainable Tourism Strategy for the MDP WHS which is a protected area spanning between the Kingdom of Lesotho and Republic of South Africa.
- 6) Classification of water resources and determination of Resource Quality Objectives in the Mzimvubu Catchment within the Mzimvubu to Tsitsikamma Water Management Area (WMA7). Department of Water & Sanitation (2016 – 2018). Public Participation Team Leader responsible for the stakeholder engagement component, compilation of public documents, the establishment of Project Steering Committee and providing opportunities for stakeholder inputs to the technical process and reports.
- 7) Maloti-Drakensberg Park World Heritage Site Buffer Zone Policy. Ezemvelo KZN Wildlife. (2016). Team leader responsible for stakeholder engagement for the draft policy review, mapping of stakeholders, compilation of public documents and stakeholder liaison which include local government (district and local), Traditional Councils and local community.
- 8) Eskom's Northern KwaZulu-Natal Strengthening Project. Eskom Holdings (SOC) Limited (2016 – 2018). Team leader responsible for the stakeholder engagement process, which is a key component of the Environmental Authorisation Process. Responsible for consulting with 29 Traditional Councils within Umkhanyakude and Zululand Districts.
- 9) Feasibility Study for the Lower uMkhomazi Bulk Water Supply Scheme (including the Ngwadini off-channel Storage Dam). Umgeni Water (2016). Team leader responsible for stakeholder engagement, communication support and landowner consultation in preparation for the geo-technical investigations. Distribution of public documents, project information to landowners within the proposed study area and report writing.
- 10) Feasibility Study for the Mhlabatshane Bulk Water Supply Scheme Phase 2. Umgeni Water (2016). Team leader responsible for stakeholder engagement aspects for the feasibility study. Coordination and planning of meetings with Traditional Councils and local councilors of affected areas.
- 11) Continuation of the Reconciliation Strategy of the KwaZulu-Natal Coastal Metropolitan Area: Phase 2. Dept. Water & Sanitation, 2014 - 2016). Stakeholder Communication Coordinator providing Secretariat services and communication support to the Department of Water and Sanitation for the Strategy Steering (SSC) Committee in KwaZulu-Natal.
- 12) uMkhomazi Water Project Phase 1: Module 1: Technical Feasibility Study: Raw Water, Dept. Water & Sanitation (DWS), KZN, SA (2012- 2015). Public Relations Officer responsible for stakeholder engagement. This included communication support and guidance to the environmental team. Communication management through appropriate approaches to engage Traditional Councils, landowners, local community and public expectations arising from the project. Planning and coordination of all stakeholder meetings.
- 13) uMkhomazi Water Project Phase 1: Module 2: Environmental Impact Assessment. Dept. Water & Sanitation (DWS), KZN, SA (2014- 2016). Facilitation of public meetings for the Raw Water Component of the project. Provision of communication support to Nemai Consulting.
- 14) uMkhomazi Water Project Phase 1: Module 2: Environmental Impact Assessment. Dept. Water & Sanitation (DWS), KZN, SA (2014- 2016). Stakeholder engagement supporting the

Resettlement Action Plan which was developed for the relocation of households affected by the Raw Water Component of the project. Resettlement planning required continuous participation and thorough consultations with a wide range of affected persons and stakeholders in the project area.

- 15) Franschhoek Civic Amenity Centre: Site Selection Process. Stellenbosch Local Municipality, Western Cape (2015). Responsible for the public participation process in support of the site selection process. This included planning of the overall communication process with the residents of Franschhoek, coordination of site visits to existing amenity centres in Cape Town, compilation of documentation to support the Site Selection Report.
- 16) ERICA-SWITCHING STATION 400kV Double Circuit Transmission Power Line Project, Cape Town, Western Cape (2015). Responsible for key stakeholder engagement, coordination of focus group meetings and review of all public participation documentation.
- 17) Operational Environmental Management Programme (EMPr) for the immediate and short term intervention for the treatment of Acid Mine Drainage in the Western, Central and Eastern Basins of the Witwatersrand Gold Field Project: Operational EMPr for the Central Basin water treatment plant (2014). Reviewer for stakeholder engagement process.
- 18) Feasibility Study for Foxwood Dam. Dept. Water & Sanitation. Eastern Cape (2013 - 2014). Stakeholder Engagement Leader responsible for communication and stakeholder engagement requirements for the feasibility study. Establishment and management of both Stakeholder Forum and Technical Working Groups providing inputs to the technical components.
- 19) Classification of water resources and determination of the comprehensive reserve and Resource Quality Objectives in the Mvoti to Umzimkulu Water Management Area. Dept. Water & Sanitation (2012 - 2015). Responsible for the stakeholder engagement component, the establishment of Project Steering Committee and providing opportunities for stakeholder inputs to the technical process and reports.
- 20) Zulti South Mineral Lease Area. Pre-feasibility Social and Socio-Economic Impact Assessment of the Dube and Mkhwanazi Traditional Authority Areas for the Mine Services. Richards Bay Minerals (2012). Stakeholder Engagement Component and contributing author.
- 21) Capacity Building and Leadership Development in support of Conservation and Effective Co-management of the iSimangaliso Wetland Park. KwaZulu-Natal. (2011 - 2013). Appointed as a Programme Co-Facilitator.
- 22) Environmental Impact Assessment for the proposed National Road 3: Keeversfontein to Warden (De Beers Pass Section). KwaZulu-Natal and Free State. South African National Roads Agency Ltd (SANRAL) (2010 ongoing). Subcontracted by Cave, Klapwijk & Associates to manage the Public Participation Process. Role: Public Participation Team Leader.
- 23) Public Participation Process for the construction of Fairbreeze Mine, Mtunzini, KwaZulu-Natal (2013 - 2014). Responsible for Public Participation Process. Exxaro KZN Sands.
- 24) Public Consultation Process for the Closure of Hillendale Mine, KwaZulu-Natal, South Africa (2012). Exxaro Resources. Management of Public Participation Programmes.
- 25) Transnet Multi-Products Pipeline (2009 - 2010). Environmental authorisation for four power lines feeding Pump Stations 1, 3 and 5 and Inland Terminal 2, KwaZulu-Natal and Gauteng. Responsible for Project Management aspects and Public Participation inputs for all four projects.
- 26) Developing a Toolkit for Water Use Allocation Planning for the Department for International Development and Department of Water and Forestry (2003 - 2004). Responsible for Communication, Community Participation and Rural Community Upliftment.

- 27) Water Conservation and Water Demand Management Potential Assessment for Mokolo River Catchment. Limpopo Province. Department: Water and Forestry (2005 – 2006). Responsible for Stakeholder Engagement component and Knowledge, Attitude and Practices (KAP) Survey.
- 28) Environmental Impact Assessment Process for the proposed Nuclear Power Stations in Eastern, Northern and Western Cape Provinces. Eskom Holdings SOC Limited, Generation Division (2007 – 2010). Team Leader for the Public Participation component of the study.
- 29) Environmental Impact Assessment for the proposed 400MW (t) Pebble Bed Modular Reactor Demonstration Power Plant on the Koeberg Nuclear Power Station, Western Cape. (2007 – 2008). Responsible for the Public Participation Process component. Role: Public Participation Team Leader.
- 30) Environmental Authorisation process for the construction of Gamma Substation in the Northern Cape, 765kV Transmission Power Lines from Gamma (Northern Cape) to Grassridge (Eastern Cape). Eskom Holdings SOC Limited, Transmission Division (2006 – 2008). Role: Public Participation Consultant (Team Leader).
- 31) Proposed construction of a 765kV Transmission Power Line from Dealesville (Free State) to De Aar (Northern Cape). Eskom Holdings SOC Limited, Transmission Division (2005 – 2006). Role: Public Participation Consultant (Team Leader).
- 32) Environmental Authorisation Process for the Braamhoek Transmission Power Line & Sub-Station Integration for the Braamhoek (Ingula) Pumped Storage Scheme, KwaZulu-Natal. Eskom Holdings SOC Limited, Generation Division (2004 – 2005). Role: Public Participation Consultant.

CAREER CHRONOLOGY

Employer	Wakhiwe Stakeholder Engagement Specialists	From:	Jan 2016
Position:	Director and Stakeholder Engagement Specialist	To:	Present
Employer:	AECOM SA (Pty) Ltd	From:	Oct 2014
Position:	Public Participation Manager: Environmental Services	To:	Dec 2015
Employer:	ACER (Africa) Environmental Consultants	From:	June 2007
Position	Public Participation Manager & Director	To:	Oct 2014
Employer:	ACER (Africa) Environmental Consultants	From:	2001
Position:	Public Participation Officer	To:	May 2007

LANGUAGES

	Speak	Read	Write
English:	Excellent	Excellent	Excellent
Zulu:	Excellent	Excellent	Excellent
Xhosa:	Good	Good	Good

A.7.8 Notes of ERG Meetings and Public Information Sharing Sessions

A.7.8.1 Notes of ERG Meeting 1 – 13 September 2017

Meeting:	Expert Reference Group 1		
Date of Meeting:	13 September 2017		
Venue of Meeting:	Council for Scientific and Industrial Research(CSIR) Pretoria Campus, Meiring Naude Road, Brummeria, Pretoria: Knowledge Commons – Ulwazi Auditorium		
Duration:	13H00 to 15H10		
Attendees:	<ul style="list-style-type: none"> ▪ Annick Walsdorff (AW) ▪ Samukele Ngema (SN) ▪ Dee Fischer (DF) ▪ Simon Moganetsi (SM) ▪ Thembi Hlatshwayo (TH) ▪ Alfred Mocheke (AM1) ▪ Dries Putter (DP1) ▪ Ernest Daemane (ED) ▪ Aldworth Mbalati (AM2) ▪ Christian Prins (CP) ▪ Johan Pauw (JP) ▪ Rudzani Tshibalo (RT) ▪ Khathutshelo Tshipala (KT) ▪ Tobile Bokwe (TB) ▪ Koogendran Govender (KG) ▪ Mapaseka Lukhele (ML) ▪ Thabani Dlamini (TD) ▪ Joan Arrikum (JA) ▪ Zombango Nondabula (ZN) ▪ Jonathan Booth (JB) ▪ Alan Mukoki (AM3) ▪ Magezi Mhlanga (MM1) 	<ul style="list-style-type: none"> ▪ Nomathemba Mazwi (NM) ▪ Mohsin Seedat (MS) ▪ Keshan Pillay (KP) ▪ Elsabe Swart (ES) ▪ Ajay Trikam (AT) ▪ Thamsanqa Ngwenya (TN) ▪ Khululekile Mase (KM) ▪ G. Kegakilwe (GK) ▪ T. Phetla (TP) ▪ Jannie Loubser (JL) ▪ Robert Fortuin (RF) ▪ Udiv Budhal (UB) ▪ BP Mnguni (BM) ▪ Nomsa Thabethe (NT) ▪ Anel Hietbrink (AH) ▪ Leila Mahomed-Weideman (LM) ▪ Faizel Mulla (FM) ▪ Kevin Chetty (KC) ▪ Mpati Makoa (MM2) ▪ David Mahuma (DM1) ▪ Douglas Phakula (DP2) ▪ Dumisani Mthiyane (DM2) 	<ul style="list-style-type: none"> ▪ Vusimuzi Zwane (VZ) ▪ Fhumulani Nenzhelele (FN) ▪ Adrian Strydom (AS1) ▪ Rudi Hiestermaann (RH) ▪ Thomas Shaw (TS) ▪ Fahiemah Daniels (FD) ▪ Tsamaelo Malebu (TM) ▪ Chris van Rensburg (CvR) ▪ Viwe Biyana (VB) ▪ Graham Taylor (GT) – connected via Video Conference ▪ Sandisiwe Ncemane (SN1) - connected via Video Conference ▪ Andrea Shirley (AS2) - connected via Video Conference ▪ Percy Langa (PL) ▪ Ngqondi Nxokwana (NN) ▪ Jayshree Govender (JG) ▪ Willie Croucamp (WC) ▪ Jan De Wind (JdW) ▪ Nokukhanya Khumalo (NK)
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting and Agenda

In order to introduce the proposed Gas Pipeline corridors and the Strategic Environmental Assessment (SEA) to industry stakeholders, government departments and Non-Government Organisations, and research institutions, an Expert Reference Group (ERG) meeting was held on 13 September 2017 at the CSIR offices in Pretoria. The meeting was chaired by Mrs. Dee Fischer (DF) from the Department of Environmental Affairs (DEA). Presentations were delivered by the DEA, iGas, CSIR and SANBI. The meeting agenda is indicated in the table below.

TIME	ACTIVITY/PRESENTATION	PRESENTER
13:00 - 13:15	Welcome and introductions	DEA
13:15 - 13:45	Background on the Phased Gas Pipeline Network Corridors	iGas
13:45 - 14:15	Introduction to the SEA Process and Proposed Methodology	CSIR and SANBI
14:15 - 15:00	Environmental and Engineering Mapping	SANBI
15:00 - 15:10	Way Forward and Closure	DEA

2. Presentation 1: Welcome and Introductions

SM welcomed all attendees to the ERG meeting and undertook introductions.

Discussion from the Presentation:

SM explained that deliverables and information about the project will also be made available on the project website: <https://gasnetwork.csir.co.za>.

3. Presentation 2: Background on the Phased Gas Pipeline Network Corridors

TD provided a presentation on the background of the gas pipelines and corridors.

Discussion from the Presentation:

Comments or Questions Raised	Answers
SN1: On the phased gas pipelines inception map, it showed three corridors linking the Karoo regions to hubs, how is that reflected in the corridor map?	TD: This is going to be discussed further in a separate presentation during the meeting, but there is an understanding of the need to access the shale gas, and therefore incorporating it into the SEA going forward. This is reflected as a single corridor which links the central Karoo to Port Elizabeth and Mossel Bay.
SN1: Instead of the three legs shown on the phased gas pipelines inception map, you have consolidated it into one corridor?	TD: At this point yes, this corridor is emanating from the shale gas sweet spot, however in the Project Steering Committee (PSC) meeting held earlier, there was a discussion with regards to moving or incorporating other areas where its believed there will be a shale gas found and these will be looked into.

Comments or Questions Raised	Answers
SN1: Perhaps the CSIR will present how the corridors incorporate what is reflected in the phased pipeline inception map.	<p>TD: You must also keep in mind that the shale gas corridor was not included in the original mandate of the SEA; however it will be taken into consideration going forward.</p> <p>Note from CSIR: The need for the inclusion of a corridor from the Shale Gas SEA Assessment Area and Sweet Spot was discussed during the 9 June 2017 focus group meeting with the Project Partners, Coega IDZ, Richards Bay IDZ, Saldanha Bay IDZ and the Department of Trade and Industry. It was confirmed by the Project Partners that the corridor for Shale Gas would extend from the Sweet Spot to Mossel Bay and Port Elizabeth only (and not to Saldanha Bay) as the more immediate need is for a route to Mossel Bay where the market already exists.</p>
<p>JG: Why was the shale gas not confirmed at the start of the project?</p> <p>JG: Are you still looking at the offshore possibilities?</p>	<p>MS: The reason it was not considered is because this project comes from the Operation Phakisa Blue Economy which looks at developing industries around the ocean in line with offshore exploration, so shale gas was excluded.</p> <p>TD: The specific mandate of this project was to explore offshore oil and gas.</p> <p>TD: No, the drivers have changed to only onshore distribution.</p> <p>FM: Offshore gas was in the Operation Phakisa Programme as gas needs a market to be sent out. This is why onshore pipelines were introduced, to generate demand and a market for the gas.</p> <p>KP: Just to qualify that last comment, the pipeline project in Northern Mozambique is floating LNG which gets shipped out to Asian markets. That is another option but it is very expensive and unaffordable to us.</p>
KP: Since the parameters have changed, have you looked at any corridors tapping into gas reserves of other countries, i.e. Mozambique Gas and Botswana in terms of Methane?	<p>TD: The Phase 4 corridor does not only look at Southern Mozambique gas, but also gas coming all the way from the Northern side (Rovuma Basin). We can only assess what is in South Africa.</p> <p>DF: We have thought of engaging Mozambique at a political level to determine if the corridors can be extended, but that would only be some time in the future.</p>
<p>DM2: Just for clarity, is this development of iGas or did it come about in partnership with private industry as well?</p> <p>DM2: NERSA issues licences to developers with a plan to develop a gas pipeline. What process will need to be followed if a developer approaches NERSA and has all the necessary information to get a permit and the location for their pipeline falls within the corridors? What will happen with the SoEs?</p>	<p>TD: No, this is a development by iGas. It is a development to support gas infrastructure growth and development in South Africa.</p> <p>DF: To add, this ERG meeting has been set up to obtain inputs from industry, sectors, government departments, non-government organisations and research institutions, as they have different perspectives.</p> <p>DF: Within the corridors, there are no restrictions as to who can develop a pipeline. The SEA will only highlight the preferable areas they should construct the pipeline in. This would then be set out in the Integrated Development Plan (IDP) or other means which can guide the issuance of permits. We are working at a strategic corridor level for the proposed pipelines.</p> <p>TD: We are not restricting development of pipelines by any other developers within the corridors. The inception of the gas pipelines and corridors are being presented here, not the potential to restrict compatible developments.</p>
AS1: Are we starting to factor in the skills requirements needed for this project? We would need a lead time to avoid not having important skills.	DF: This SEA Process is only considering the environmental factors associated with the 100km wide proposed corridors. Other aspects, such as skills development, would fall into place at a later stage.

Comments or Questions Raised	Answers
DM1: The corridors look about 120 km wide. Is there any specific reason for such a wide span?	DF: We are assessing 100 km wide corridors so there would be enough options. We are also not buying up any servitudes, we are just considering the environmental and engineering sensitivities within the 100 km wide corridors. We did not want to make the corridors that will be assessed too small in order to avoid developers purchasing these small areas and increasing the prices.
NK: There is an inland SEA on shale gas, so why are there no pipelines coming from those areas that were assessed?	TD: There is a corridor that extends from the Shale Gas Sweet Spot area to Mossel Bay and Port Elizabeth, however this is not considered to be the final corridor as discussed at the earlier PSC meeting. We may still need to ensure that all apparent sweet spots are covered and incorporated into this SEA. Note from the CSIR: Refer to the explanation above regarding the Shale Gas SEA.
RH: In relation to the wideness of the corridors, have you calculated the length of the corridors because it is massive?	DF: It does not really matter, we are just assessing the corridors for their suitability towards the construction of a pipeline. It does not restrict anything. We will need to integrate these corridors into the Spatial Development Frameworks (SDFs) of municipalities to potentially highlight any incompatible land uses, but there is currently no way of enforcing that.
RH: In some cases, these corridors would intersect infrastructure like transport systems?	TD: Yes they do, some of them follow roads. As discussed previously, the corridors do not stop development, they are just being assessed for suitability and sensitivity.
RH: One of the points raised was that the corridors were underpinned by business cases. Are you going to share those business cases? From our experience that may be optimistic. RH: For pipelines to work you need anchor tenants, South Africa's industrial base already gets gas, i.e. the large industrial customers. This leaves us with the Mossel Bay refinery and maybe looking at replacing coal electricity plants with gas.	TD: We need to look at the relevant business cases. These will be looked at by iGas, in parallel to the SEA. TD: There are ongoing studies to solidify the market case of the gas pipeline, finding out what potential is there and what is the demand. DF: We are undertaking strategic planning so that the pre-assessment of the corridors would have been finalised regardless of the business case.
JB: Will all the pipelines be underground like the oil pipelines or will it be different and have some parts of it above ground?	TD: Most of the pipelines will be underground. DF: There may be some supporting infrastructure which would be above ground. Please be aware that there are also extensions to the Electricity Grid Infrastructure SEA which is included in this project.

4. Presentation 3: Introduction to the SEA Process

AW and FD provided a presentation on the SEA Process and proposed methodology.

Discussion from the Presentation:

Comments or Questions Raised	Answers
RH: I do not see any mention of the Department of Mineral Resources? There is an ongoing issue with	AW & FD: Mining rights are a layer in the environment and engineering constraints mapping, which includes prospective, existing, closed and active mining rights.

Comments or Questions Raised	Answers
<p>our current pipelines where mining rights are issued over pipeline servitudes.</p> <p>RH: This then becomes a policy issue, where you can have a policy stating that the Department of Mineral Resources cannot issue mining rights over what could potentially be critical infrastructure.</p>	<p>DF: The information might however not always be up to date.</p> <p>DF: We can take this discussion up with what is an incompatible land use so that those do not have impacts on the corridors.</p>
<p>ES: The Northern Cape developed the updated CBA (Critical Biodiversity Area) map that would need to be used as well as the Spatial Strategy map which is new. There are also biodiversity off-set areas in negotiation in some corridor areas.</p> <p>We have challenges when these zones and corridors are communicated to the public and we will need to explicitly stipulate that the corridors do not exempt developers from any other permits or departmental licenses. This SEA process only streamlines the environmental authorisation process.</p>	<p>FD: We already have all the datasets except for the offset areas.</p> <p>MM2: SANRAL can also provide the information relating to off-set areas.</p>
<p>TS: One of the first phases of the Phase gas pipeline network was getting the gas to the Ankerlig power station, given that we are no longer constrained in electricity generation, how relevant is that still?</p> <p>TS: The order is not necessarily important?</p>	<p>DF: We are undertaking strategic planning, regardless of what happens to the demand and the rise and fall of gas. If we only start planning once everything has been decided, we will lose a significant amount of time doing this from scratch. We are supporting the Strategic Infrastructure Project (SIP) programmes and government priorities. This will become a priority at some stage in future, and we are doing forward planning.</p> <p>DF: This project will look at all the phases in one go and gazette all corridors. Then it is up to businesses to assess the viability of a project.</p>
<p>AS1: In one of the slides you included skills development as a continuous line. I am cautioning that this is not omitted, as we need to do some curriculum work and planning before training, and this needs to happen before development happens.</p>	<p>AW: The skills development aspect as shown in the slides is referring to the skills development of Samukele Ngema (Project Intern) and improving his skills on the SEA process.</p> <p>DF: In the process of SEAs, there are also lectures held at universities, to increase skills and involve students.</p>
<p>PL: The Ngonyama Trust, Traditional Authorities, Farmers Associations, Ezemvelo KZN Wildlife and KZN DWS should be added to the list of stakeholders. It is proposed that as part of the SEA Process, you have a meeting in Richards Bay, where there are two key regions i.e. Zululand and King Cetshwayo District Municipalities, and there are three corridors merging there. The King Cetshwayo District Municipality is currently going through an Environmental Management Framework (EMF) process and the SEA Project Team should contact the consultants. The</p>	<p>AW: Noted. We are planning to meet with the Port of Richards Bay (Transnet) and the relevant District and Local Municipality (i.e. City of UMhlatuze and King Cetshwayo). We are also planning a public meeting in Durban or Richard Bay as well as focus group meetings with District and Local Municipalities.</p> <p>DF: We have also decided that before we go to any local municipalities, we go through the provincial governments.</p>

Comments or Questions Raised	Answers
Department of Cooperative Governance and Traditional Affairs (COGTA) is also going through a special corridor planning exercise in the area from Tugela to Vryheid.	
CP: If the electricity supply and energy supply are not connected to this SEA, what process are you trying to speed up? My impression is that whatever is done at a strategic level still goes through an Environmental Impact Assessment (EIA) process at a local level in any case (in terms of development proposals that trigger the need for an EIA). What is the link between the EIA and the SEA on the ground?	DF: We want to apply the avoidance hierarchy as one of the key principles of environmental management. This process identifies areas of High, Medium and Low sensitivities, and it is the desirable aim for all pipelines to go through areas of low sensitivity. CSIR will develop a norm or standard, in close collaboration with the project partners, for the construction of gas pipelines in areas of low environmental sensitivity. The construction of this infrastructure will then be managed through this norm or standard and be excluded from the requirement to obtain an environmental authorisation. There will also be a Pre-Construction Site Specific Protocol and/or Checklist for development within areas of medium, high and very high sensitivity—an EA will be required and the protocol and/or checklist will determine the level of assessment required.
CP: That is the punchline, you can side-step compliance regulation requirements if you are in the corridors.	DF: A developer will still be required to do verification. The department is developing a screening tool that will need to be used by any developer who will then have to provide a screening report. If a developer wants to develop in a specific area, they have to confirm the area sensitivity through the screening tool. We also are looking to bring DWS on board to potentially obtain general authorisation for certain parts of the corridor where the gas infrastructure is not a high risk for them.

5. Presentation 4: Environmental and Engineering Mapping

FD provided a presentation on the environmental and engineering mapping process.

Discussion from the Presentation:

Comments or Questions Raised	Answers
JG: It would be good to include the SANParks expansion footprint programme in the sensitivity layer to assess where the proposed corridors would be in relation to these. This would have an impact on our parks expansion. We could give you the data and use that as the buffer instead of the proposed 10km buffer.	FD: That would be good because it would be the areas which are highly sensitive as compared to the current 10km buffers. DF: Once you have done the digging of the pipelines and rehabilitated the land, in some areas it will not be an issue. So if the pipeline is within the buffer and the proposed expansion area, the land could be rehabilitated? Although it is in the buffer, it is not a high sensitivity. FD: No it would not be high sensitivity.
JG: The 10km buffer is not necessarily the best measure around natural parks as we take into consideration other constraints as well.	
DF: Going through thicket is a high sensitivity as its rehabilitation would take a very long time. Will we look at how we make a provision for that?	FD: With the Electricity Grid Infrastructure SEA, there were a number of rounds for defining the environmental sensitivities, this is just the first cut and it will be better refined as the SEA Process progresses.

Comments or Questions Raised	Answers
<p>RH: You need accessibility to the pipelines for inspections and maintenance purposes, so you have to maintain a clear path.</p> <p>FD: Is this for areas outside of the 10km buffer zones?</p> <p>AW: Can you let other vegetation grow on top, which have shallow roots?</p>	<p>AW: We have started the engineering constraints mapping process and these issues were brought up. These clearance requirements need to be confirmed with the project partners.</p> <p>RH: No, for all areas of the pipeline. You always need access to the pipelines.</p> <p>RH: You do not really want any deep rooted plants and you also just need access for inspections.</p>
<p>PL: With regards to the different ratings for commercial and natural forestry, we must be careful how we rate commercial forestry because if you consider it in terms of economic criteria, it would change a lot. Maybe you should consult people from SA Forestry.</p>	<p>FD: We are still in the process of consultation, and we were looking at environmental related impacts associated with the development of gas pipelines and Electricity Grid Infrastructure. Commercial forestry will not have a high sensitivity as servitudes can be negotiated with the companies. These would form part of the engineering constraints due to the high prices.</p>
<p>NK: I would also suggest you speak to the provincial Heritage authorities because they have their own provincial bodies which have their own legislation and protocols.</p>	<p>FD: We had good engagements in our previous SEA with the provincial authorities for Heritage.</p>
<p>CP: The socio-economic indicators you have listed seem to be more social than economic. What do you envisage from an economic perspective going forward?</p> <p>CP: What about agricultural workers?</p> <p>CP: In the renewables SEA, there was an emphasis on the socio-economic development, enterprise development and localisation within a 50km radius. For this SEA you are looking at socio-economic indicators, can you please clarify what those indicators are?</p> <p>CP: Are you not doing financial feasibility as part of this SEA?</p> <p>CP: So at this point in time, anything is possible as long as it complies with the environmental sensitivities?</p>	<p>FD: It would be more looking at industry and the impacts.</p> <p>FD: We are not really looking at that in this SEA.</p> <p>DF: This would be in the protocols. For example if you are in high agricultural potential area, you would trigger a study to assess what impacts the pipeline has caused, what you have lost in yield and revenue. It does not specifically look at people.</p> <p>FD: A lot of that information would not be spatial, so I am not sure if it is part of this SEA.</p> <p>DF: It would not come from this process, as those are criteria which result from the IDP and the actual tender process of laying the gas pipelines.</p> <p>FD: The financial aspect is looking at the engineering constraints, which is looking at what extra cost will be incurred while trying to overcome engineering constraints.</p> <p>DF: Any proposed development will have to consider the environmental sensitivities and engineering constraints assessed within these proposed corridors.</p>
<p>TB: Looking at the maps right now, they look very red, is this just the first level and will there be improvements?</p>	<p>DF: This is more of an exclusion map, and this is as bad as it gets.</p> <p>FD: Following the specialist studies, sensitivities may be changed by the specialists based on their expert knowledge.</p>

Comments or Questions Raised	Answers
AM2: Eskom will need to replace their power stations. Within the corridors, there are not enough infrastructure in the coastal areas to allow for power station replacement to occur. As a thought for grid planning, have you taken into account the possibility of the corridors going to the current Eskom power stations as a strategic move for the future? so that when they are replaced with gas assets, the infrastructure is already there and ready?	<p>FD: We did not speak much about the development of electricity infrastructure in this SEA as a dedicated SEA process has recently be undertaken for that. During that process, Eskom took into account all possible energy scenarios, including gas power stations. These corridors are only the proposed corridors for gas and extensions to the Electricity Grid Infrastructure SEA.</p> <p>DF: I understand you as enquiring whether we should not have a corridor to the north where we have the power generation happening now. We have not done that. We can talk to Eskom about that, we would need to plot the current power stations and see if they align with the Electricity Grid Infrastructure SEA Corridors and the gas corridors in some way.</p> <p>TB: Maybe this is something to be taken up with Eskom (Power Planning). They would give an appropriate response.</p>
DM1: With regards to the composition of the group, I do not see any representatives of the legal team according to Section 25 of the Constitution, for instances where there would be expropriation in the process down the line.	DF: Our mandate stops at just proposing the corridors and that would also only come in at a later stage.
<p>DM2: How far have you considered gas and electricity sharing a corridor when it comes to engineering because the two affect maintenance costs and the lifespan of specifically the gas pipeline?</p> <p>VZ: Before we issue a construction license for both gas and electricity we usually look at the EIA report. I heard about the screening process which might speed up the issuing of authorisation. We will be concerned if that screening process is not done thoroughly because it will impact our decision to issue a license to construct and impact the cost of providing gas.</p>	<p>FD: Where the gas and electricity corridors overlap, we want to assess them together and ensure there is enough space for the two of them keeping in mind they have to remain 5-10km away from each other.</p> <p>DF: We will not be taking short cuts, our mandate is very clear and covers such aspects, but institutions like banks, who have relied on EIAs will need to start changing their reliance on those documents. Where you apply a standard within an area of low sensitivity, you will not have an EIA. You will have an equivalent process but not an Environmental Authorisation (EA). On the one side you have developers complaining about the environmental handbrake, and on the other side you have banks requesting EAs to avoid risks.</p>
<p>JA: This SEA is coming out of the oil and gas lab of the Operation Phakisa. There were questions around skills development and socio-economic impacts and localisation. I am assuming that the SEA is one work stream. There will be a skills work stream within the oil and gas lab which would answer the questions which were not related to the SEA identifying the corridors.</p> <p>DF: Do they have what we have (i.e. where you can call the consultants and get involved in the process)? Who could we contact for that?</p>	<p>DF: Yes there are other parallel work streams which deal with skills. I am not clear on the scope of their work. We could put a link on the gas network website, to the other work streams related to the Operation Phakisa and contact details.</p> <p>RT: There is an Operation Phakisa website which details the other work streams. It has the 11 different work streams. Mr Bonga oversees the Operation Phakisa so you could contact him.</p>

6. Way Forward and Closure

DF: There are four ERG meetings in total, and we are considering collapsing it into the earlier PSC meeting. We will engage with you for other meetings where you might be contacted as a specific sector meetings. We will only get back to you when we have something to discuss. We will finalise the corridors now. The next steps are to finalise the environmental work and get the specialist studies done.

AW: If you have any other inputs or comments, do not hesitate to send an email to the project team (gasnetwork@csir.co.za) at any time

DF: You can also register as a stakeholder on the website and ask any questions you might have (<https://gasnetwork.csir.co.za>)

AW: After this meeting, the notes of the meeting, presentations and Terms of Reference for the PSC and ERG meeting will be distributed to all members accordingly.

A.7.8.2 Notes of ERG Meeting 2 – 31 July 2018

Meeting:	PSC and ERG Meeting 2		
Date of Meeting:	31 July 2018		
Venue of Meeting:	Council for Scientific and Industrial Research (CSIR) Pretoria Campus, Meiring Naude Road, Brummeria, Pretoria: Knowledge Commons – Ulwazi Auditorium		
Duration:	09H45 o 14H00		
Attendees:	<ul style="list-style-type: none"> ▪ Dee Fischer (DF) ▪ Simon Moganetsi (SM) ▪ Sujata Carlyle (SC) ▪ Thembi Hlatshwayo (TH) ▪ Alfred Mocheko (AM) ▪ Sabelo Malaza (SM1) ▪ Milicent Solomons (MS) ▪ Stanley Tshitwamulomoni (ST) ▪ Vincent Chauke (VC) ▪ Tobile Bokwe (TB) ▪ Ronald Marais (RM) ▪ Mapaseka Lukhele (ML) ▪ Imran Karim (IK) ▪ Shiven Panday (SP) ▪ Neville Ephraim (NE) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Babalwa Mqokeli (BM) 	<ul style="list-style-type: none"> ▪ Fahiema Daniels (FD) ▪ Tsamaelo Malebu (TM) ▪ Somila Xosa (SX) ▪ Nomathemba Mazwi (NM) ▪ Dr. Garry Paterson (GP) ▪ Ajay Trikam (AT) ▪ Lethola Mokakala (LM) ▪ Laurentius Saville (LS) ▪ Paul Hoffman (PH) ▪ Shaazia Bhailall (SB) ▪ Mlamleli Maqokolo (MM) ▪ Robert Fortuin (RF) ▪ Nozipho Maduse (NM1) ▪ Anel Hietbrink (AH) ▪ Gerard Mac Carron (GMcC) ▪ Rian Botes (RB) ▪ Rirhandzu Ntusi (RN) ▪ Nomsa Thabethe (NT) ▪ Jannie Loubser (JL) ▪ Dr. Ragna Redelstorff (RR) – Joined via Video Conference (VC) 	<ul style="list-style-type: none"> ▪ Nokukhanya Khumalo (NK1) – Joined via VC ▪ Dumisani Mthiyane (DM) ▪ Fhumulani Nenzhelele (FN) ▪ Niall Kramer (NK) ▪ Hilton Lazarus (HL) ▪ Laura Peinke (LP) ▪ Percy Langa (PL) – Joined via VC ▪ Kate MacEwan (KMCE) – Joined via VC ▪ Dr. Jaap Smit (JS) ▪ Willie Croucamp (WC) ▪ Andre Spies (AS)
Signed Attendance Register	Included as Appendix A (which includes Apologies)		

1. Purpose of Meeting and Agenda

In order to provide a progress update, and to discuss the Draft Pinch Point Analysis undertaken by the South African National Biodiversity Institute (SANBI) as part of the Strategic Environmental Assessment (SEA), and the preliminary results of the draft Specialist Studies undertaken to date, a Project Steering Committee (PSC) and Expert Reference Group (ERG) meeting was held on 31 July 2018 at the Council for Scientific and Industrial Research (CSIR) offices in Pretoria. The meeting was chaired by Mrs. Dee Fischer (DF) from the Department of Environmental Affairs (DEA). Presentations were delivered by the CSIR and SANBI. The meeting agenda is indicated in the table below.

TIME	ACTIVITY/PRESENTATION	PRESENTER
09:45 – 10:00	Tea and Registration	All
10:00 – 10:10	Welcome and Introductions	DEA
10:10 – 10:20	Background on the Phased Gas Pipeline Network and Expanded EGI Corridors	CSIR
10:20 – 11:00	Pinch Point Analysis	SANBI
11:00 – 11:30	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR
11:30 – 11:45	Break	All
11:45 – 12:15	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR
12:15 – 12:45	Discussion	All
12:45 – 13:15	Seismicity Assessment, Visual Impact Assessment and Social, Planning and Disaster Management Assessment	CSIR
13:15 – 13:30	Discussion, Way Forward and Closing	All
13.30 – 14.00	Lunch	All

2. Welcome and Introductions

DF welcomed all attendees to the PSC and ERG meeting and provided background on agenda.

3. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors

AW undertook introductions, discussed the proceeding of the meeting and provided a brief background on the project.

4. Presentation 2: Pinch Point Analysis Process

TM provided a presentation on the approach to the Pinch Point Analysis, as well as the findings of the draft analysis that was undertaken subsequent to the commencement of the specialist studies. The following questions were raised and responded to.

Comments or Questions Raised	Responses
NK: Has there been interaction with the Mozambique Authorities regarding potential pipeline routing, particularly for the Phase 4 corridor? Regarding the Renaissance Pipeline, which is from the north of Mozambique, have there been any discussions for potential synergies for pipeline routing?	DF: There have not been engagements thus far with other governments outside of South Africa, as the SEA is focused nationally and including other governments as partners to the SEA Process would require extensive engagement. However, there have been discussions from the pipeline point of view and NE will provide more detail.
Was the option for doing nothing (i.e. not constructing) taken into consideration for the Least Cost Path Analysis for the Gas Pipeline?	NE: There were no discussions with the Mozambican Government regarding Phase 4 (from Richards Bay to southern border of Mozambique) for the purpose of the SEA. However, outside of the SEA, the project partners are in discussion with the Mozambican

Comments or Questions Raised	Responses
	<p>Government regarding the Renaissance Pipeline. The Virtual Pipeline is always the first phase of starting a gas pipeline project in terms of building a demand, it is not part of the SEA but certainly part of the background in the planning.</p> <p>DF: SIP Programmes are looking at strategic infrastructure, involving long term consideration to be taken forward in terms of future planning. That is the rationale for the planning we are undertaking to determine areas that can be used and those that cannot be used.</p> <p>Note from the CSIR: The SEA Process assesses the suitability of the corridors for gas pipeline and EGI development. The LCP will look at the best options for the developing the pipeline and EGI from an environmental, engineering and cost perspective. The option of not constructing will need to be looked at on a project specific basis in terms of whether there is demand and a source of gas.</p>
<p>AT: In the Pinch Point Analysis, is there specific reasoning for the use of the highest sensitivity only?</p>	<p>TM: In the Pinch Point Analysis, all areas allocated with a Very High sensitivity (such as Protected Areas), which is the highest level of sensitivity in the four-tier system, were grouped together to form one Very High sensitivity layer for mapping purposes. These Very High sensitivity areas are those that will influence the location of the corridors and potentially the design of the EGI and gas pipeline, and therefore needed to be earmarked as areas to avoid when undertaking the pinch point analysis. The rest of the sensitivity levels ranging from high to low were grouped into a single layer referenced as “remaining areas” for purposes of the pinch point analysis. However, the remaining categories in the four tier mapping were used in other parts of the assessment (i.e. specialist assessment), and it is only in the Pinch Point Analysis where the top category was considered.</p> <p>DF: Considering the Very High sensitivity areas in the Pinch Point Analysis was also undertaken to identify “push factors” and to mask out exclusions.</p>
<p>PH: Will the presentations be shared with the attendees?</p> <p>PH: I would like more information on the reasoning behind the routing of the corridors, specifically in proximity to the Eden District Municipal area. Please share this information following the meeting.</p>	<p>DF: Yes they will be shared and sent via email, as well as be available on the project website.</p> <p>DF: Information is available on the project website and the project team will contact you directly in this regard. Another source of information for the area would be the Shale Gas website, and the project team will share the details with you.</p>

5. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

FD provided a background on the findings of the first draft specialist studies completed for the Biodiversity Assessments (including Bats and Avifauna). The following questions were raised and responded to.

Comments or Questions Raised	Responses
NE: How are the gaps in knowledge going to be addressed?	DF: Addressing these gaps in knowledge could include commissioning research at tertiary institutions to look at some of the knowledge gaps and address these as Research Topics, which could potentially be funded by Operation Phakisa, Eskom, Transnet or other institutions. These studies could be some of the outcomes of the SEA; however it is currently not part of the scope of work. This will be discussed further at the end of this presentation.
NK: Are there details on how trade-offs are made in the assessment? For example, the Kruger National Park would be considered highly sensitive and the first option would be to avoid. However, in consideration of resource requirements and services existing in an area such as Kruger, including electricity, and roads, was there any detailed understanding on what the construction of a gas pipeline would entail?	DF: This is the reason a negative mask is done, with the first option being to exclude, and thereafter undertake the pinch point analysis to determine if one can still manage to obtain at least five pipeline or EGI routings without going into the exclusion areas. There will also be mitigation measures that can be considered such as looking into engineering solutions. FD: The pinch point analysis is undertaken to identify those areas of very high sensitivity and try to find options for the pipeline and EGI routing. If these areas still need to be traversed then there is knowledge on the environmental features and recommended measures.
TB: How are we dealing with the gaps in terms of the assessment going forward? Are we assuming the precautionary principle or that they are not a risk?	FD: In terms of assigning the assessments, the precautionary approach has been used. The Specialist Assessments have identified these gaps in knowledge and would potentially identify areas where, for example, rare or threatened species may be found. We are following the precautionary approach for what is known and some of these gaps would be addressed in the Standards. DF: It is important to note that the assessments would not surpass a walk-through on site (once a project is realised). It will be flagged and then identified as an area to be avoided, if necessary.
SB: Has the engineering solutions taken place yet? This would be an important step to try and avoid sensitive areas and minimise disruptions through engineering solutions. SB: Is environmental change over the next 10 years considered? What is a priority now might not be a priority later. SB: A consideration for climate change models could be incorporated.	DF: Engineering solutions at this point would be for example, to avoid, go under or over. There are no plans to build the gas pipeline anytime soon, and over time there would be different engineering technology and therefore the SEA cannot prescribe engineering solutions or technology at this point. From an environmental point, we are alerting towards sensitivity of an area or features, and therefore should avoid and if avoidance is not possible, an engineering solution needs to be determined, or other mitigation measures should be adopted, or off-setting should take place. DF and FD: Climate change impacts have not been looked at specifically or in detail in this SEA.

Comments or Questions Raised	Responses
	<p>FD: Critical Biodiversity Areas (CBAs) (by way of conservation planning) do take climate change mitigation and adaptation into account. Climate change attributes are built into the sensitivity features within the corridors (such as CBAs), as it is not as easy to make predictions on habitat loss. The protocol remains the same for such areas in the assessment.</p> <p>FD: The climate change models indicate prediction shifts for example the location of the biome, and that is why we assess impacts on the biome regardless of where the biome would be located in future. The protocol would remain.</p> <p>AW: If an area that is not a CBA now and is a CBA in 5/10 years' time, the impact being assessed on a CBA, for example, would remain the same and the recommended measures would also remain the same. Various impacts of the pipeline and EGI corridors on the various sensitivity areas have been assessed, including mitigation measures, therefore allowing application of these should these areas change. It is also important to re-iterate that some form of ground truthing will take place once a project is realised in order to account for the change in environment over time.</p>
<p>PH: A walk-through is essential. Has contact been made with the relevant people, particularly for existing Biospheres, to provide notification of this assessment to possibly obtain knowledge of these areas?</p> <p>PH: Concern is regarding Conservancies and whether they are included in the knowledge sharing regarding this SEA. It would be great if they are considered during the SEA.</p> <p>PH: I can provide details for such Conservancies.</p>	<p>AW: During the first round of Public and Authority Meetings, a request was made to the Authorities to share the invitation with District Municipalities and Local Municipalities in order to involve them in the process and obtain any necessary information. We rely heavily on District Municipalities to share information with Local Municipalities on infrastructure planning occurring in the areas.</p> <p>FD: Conservancies will definitely be considered. The project has been introduced to the Biodiversity Planning Forum which hosts EWT, and Birdlife. Biodiversity Planners have been contacted and made aware of the project, including SANParks.</p> <p>AW: Some Conservancies have been contacted thus far and there is a need to contact more and invite them to the next public meetings regarding this SEA.</p>
<p>SP: Regarding the comment for engineering solutions for pipeline crossings, Horizontal Directional Drilling can be used to cross environmentally sensitive areas, and this has been used on Transnet's NMPP.</p>	<p>DF: The key of this SEA Process is that you know upfront regarding the sensitivities, and it becomes part of the planning design.</p>
<p>NE: Do the white areas in the corridors mean that there is no sensitivity?</p>	<p>FD: It could be a combination of areas that are irreversibly modified or transformed, have no environmental importance or sensitivity, or it could be part of a different biome.</p> <p>DF: In the sensitivity maps it would be green.</p>
<p>TB: The magnitude of these gaps in knowledge needs to be looked at towards the final product because of the inherent understanding that this is fast-tracking the permitting process. The weight of the gaps in knowledge has serious implications on the final product</p>	<p>FD: Agreed that it is not available from a research point of view.</p> <p>DF: The list of gaps in knowledge will be included in the presentation and discussed at the</p>

Comments or Questions Raised	Responses
from the permitting point of view. Hoping that gaps in knowledge is a function of the information not being available from the research point of view and not that it is not provided. The significance of the gaps in knowledge must be remembered when it comes to the final product.	end.
NE: I am under the assumption that each estuary will be unique and that one study will need to be done for each estuary. Is this assumption correct?	FD: No, the estuary study included an assessment of all estuaries within the corridors. A consideration was made according to bioregion (i.e. those considered relatively similar in terms of estuarine types, whereby estuaries on the West Coast are similar etc.). AW: The main recommendation is to avoid estuaries for the gas pipeline development as a result of the issue of scouring at various depths (depending on flow) and the ephemeral nature of estuaries. A 1 km buffer from the coastline was implemented.
NK: Are we attempting to factor in population migration data?	AW: This will be answered in the next presentation.

DF went through the list of Gaps in Knowledge and those that could potentially be Research Topics, and indicated that the recommendation for research will be taken forward (however they do not currently form part of this SEA). Refer to the summary below

Gap in Knowledge	Way Forward
1. Limited info on root systems - Fynbos biome	Research question at tertiary institution.
2. Rehabilitation success - Fynbos (drier areas) and Albany Thicket	Research question at tertiary institution.
3. Extent and distribution of species of special concern - Albany Thicket, Savanna, Grassland, IOCB (faunal records) - Freshwater systems	Could be a research question at tertiary institution, but it could also be a done in a science or peer review form (similar to the Bioblitz in Shale Gas).
4. Population sizes of many Red Data species (birds)	This can be a broad research question, and EWT will be contacted to discuss the collision risk further.
5. Lack of data on physical processes (Estuaries)	If the EGI or Gas Pipeline needs to be routed close to an estuary then a specific estuarine assessment will need to be done at that stage (i.e. once a project has been realised).
6. Electromagnetic radiation flying bats; echolocation	This might be a gap outside the scope of this SEA.

6. Presentation 5: Seismicity Assessment, Visual Impact Assessment, and Social, Planning and Disaster Management Assessment

AW provided a presentation on the findings of the first draft specialist studies completed for the Seismicity Assessment, Visual Impact Assessment, and Social, Planning, and Disaster Management Assessment. The following questions were raised and responded to.

Comments or Questions Raised	Responses
Seismicity Assessment	
TB: How far back does the data used date, and how quickly does the field evolve over time?	AW: The data is quite old, dates far back. The understanding from seismicity experts is that it is something that needs to be re-looked at a local level as all active local faults have not been mapped yet.
TB: I understand that the data takes a long time to be acquired, is there something that	

Comments or Questions Raised	Responses
<p>can be done in the meantime to obtain the relevant/recent data? The concern is recommending all the corridors and when it is time to build then we obtain the data thus delaying the project. The historical data is a concern, and the assessment phase is a perfect opportunity to raise these concerns and get this information.</p>	<p>AW: It could be a research topic and the Council for Geoscience should be looking at this research.</p> <p>DF: The Council for Geoscience should have this monitoring data, as they are doing Seismic monitoring across South Africa. We will get more information on this from the Council for Geoscience.</p> <p>Post-Meeting Note from the CSIR: The US Geological Survey defines it as: “a fault that is likely to have another earthquake sometime in the future. Faults are commonly considered to be active if they have moved one or more times in the last 10,000 years.” To be useful for seismic hazard assessment, we need to know the dimensions of the fault rupture, the amount of slip on the fault, and the date(s) of fault slip. No historic events have produced a definite surface rupture (the crevasses that opened up after the 1809 Cape Town event could well be the result of lateral spreading induced by the earthquake shaking, and not the surface expression of the actual fault rupture). These data are difficult to gather for prehistoric events and only a few palaeoseismological studies have been conducted.</p> <p>The compilers of the “seismotectonic map for Africa” acknowledge these difficulties, and state “An assumption can be made that the occurrence of earthquakes on or near a fault implies late Quaternary activity of that fault.” The Quaternary Period is from 2,580,000 year ago to 12,000 years ago. They do not define what they mean by ‘late Quaternary’, but this could easily be 10s or even 100s of thousands of years ago. So while it may give some idea of seismically-active zones, it does not really help to identify individual active faults. They are working on a continental scale (say 1:5,000,000), while we are working on a local scale (say 1:5,000).</p>
<p>RB: Has the assessment considered using abandoned mining lands, as there are a number of mining lands (including shallow mined areas) not being utilised in the City of Ekurhuleni? Has the assessment also considered the gas pipeline to make use of mining tunnels to route pipelines underground? It would be an alternative in avoiding the use of densely populated or protected areas, because in the City of Ekurhuleni, space is an issue due to urbanisation. We have maps of these mining areas within the City, and the Town Planning department can be consulted with.</p>	<p>DF: For the EGI SEA (2016), Eskom specifically wanted to move away from mining areas due to instability, and this was a push factor for EGI.</p> <p>TB: There is always a concern with regards to the use of mining areas because of stability concerns.</p> <p>DF: Mined areas are regarded as an engineering constraint.</p> <p>NE: Mining areas are push factors for gas pipelines due to instability and unknown conditions of these areas, and you want to avoid placing pipelines in tunnels as it would be a constraint when considering access for construction, and maintenance of the pipelines etc.</p>
<p>NK: A lot of research has gone into the assessment and that South Africa could easily accommodate gas pipelines as it is regarded as fairly stable land. This was also captured in the Shale Gas SEA. The SKA was located in South Africa because of the country’s fairly</p>	<p>Note from the CSIR: Block valves will be installed 30 km apart along the pipeline, which are concrete boxes with an aboveground opening that leads to an inspection chamber. In the event of a leak, a specific section of the pipeline can be isolated by closing the block</p>

Comments or Questions Raised	Responses
<p>stable geology. The SEA has been consulting with the right experts, such as the Council for Geoscience and Professor Ray Durrheim. Gas pipeline development, from an engineering point of view, can be easily accommodated, and it is not something new from a seismicity perspective (for example gas pipelines are common in New Zealand).</p> <p>NK: In terms of risks flowing from a seismic rupture, the study refers to toxicity, and assuming it is what comes out of an eruption of a pipeline. Methane will displace oxygen leading to suffocation or it could ignite causing an explosion but it can be switched off.</p>	<p>valves. The remaining gas within the pipeline will then be vented off suitably.</p>
<p>PH: In terms of all the existing servitudes in the country (such as roads and railway lines), could these not be used as they most probably have been tested from a seismic perspective. That is use existing “corridor” servitudes as far as possible. It is also important to map some of the faults, such as the Tulbagh fault.</p>	<p>AW: Roads are being used as a pull factor, and we trying to remain as close as possible to roads. In identifying the least cost path analysis, existing roads will be a pull factor in terms of finding the best route for the pipeline. However the pipeline is not permitted within the road reserve. With regards to railway lines, a setback of 5 – 10 km is required from railway lines, because of potential corrosion with the pipeline.</p>
<p>WC: What is the source of the seismic map in the presentation? The reason for the question is that in the past 50 years the most severe earthquake experienced in the country was in Tulbagh and is not depicted in this map. Are most of the red areas on the map in Gauteng showing induced or natural events?</p>	<p>AW: The Seismicity specialist assessment was undertaken by Professor Raymond Durrheim and the Council for Geoscience. The Peak Ground Acceleration (PGA) map and study was undertaken by the Council for Geoscience in 2018 and the earthquake recording was considered. The map shown in the presentation represents the PGA modelled to anticipate and give an idea of where seismic activity could take place. The Gauteng region is focused on induced events due to mining.</p> <p>Post-Meeting Note from the CSIR: PGA is a quantity that is used by engineers to design structures. Regions where the risk is relatively high (but still quite low) are the mining districts in Gauteng, North West and Free State Provinces, where gold mining at depths approaching 4 km had induced three shallow earthquakes with M>5 that caused damage to surface structures.</p>
<p>DF: “Hanging” statements on pipeline recommendations needs to be relooked at and packaged correctly. We need to do away with uncertainties and have more certainty in the process, especially because seismicity is not an issue for SA. However because of the way the recommendation is written implies uncertainty.</p> <p>NE: The statement about the release of radioactive material needs to be relooked at as it could create some controversy. We need to be able to quantify natural radioactive material.</p>	<p>AW: Noted. The conclusion led to the understanding that the main issue is the induced earthquakes from mining as well.</p> <p>AW: A comment in this regard will be made on the Specialist study.</p>
<p>NK: Was it a predetermined scope that the gas pipeline must be underground, because they do not have to be?</p>	<p>AW: Yes, that was the provided scope of the project.</p>
Visual Assessment	
<p>TB: Concerned about consistent use of the word avoidance, and proposing that the specialists put forward an alternative should avoidance not being practical. In linear infrastructure, avoidance on its own is not practical. It would have been beneficial to add</p>	<p>AW: Those are the key management actions in the very high sensitivities presented here, there are other management actions provided in the report.</p>

Comments or Questions Raised	Responses
other management actions.	<p>RA: This is linked to the least cost path analysis; whereby all the specialist studies, findings and recommendations will be incorporated and weighted accordingly to find the best route. The information presented here is only for the Visual Assessment.</p> <p>DF: The SEA identifies levels of assessment if development is in areas of high sensitivity and proposes actions that could be taken in those areas. Careful consideration should be placed on wording as well for more practical measures.</p>
<p>RM: Commented on the possibility of possibly weighting the study area. For example the western part of the route has more green (low sensitivity) with a few areas of red (very high sensitivity), whereas the eastern side has more red in its entirety. Therefore the western area weighted in its entirety would have least impact cumulatively except in one area (with red) and would allow unlocking those potential least impact areas with reason.</p>	<p>AW: It is important to remember that these results depicted are only for visual and the process will include weighting of the different assessments, including biodiversity, aquatic, birds, bats etc. and formulate an overall sensitivity map.</p> <p>FD: That is the purpose of doing the Least Cost Path Analysis at a later stage as there is already information on where all the features of sensitivity are located, and what the required mitigation measures are.</p>
<p>NK and WC: Possibly change the wording to “minimise” impact instead of just avoid. Trade-offs could be identified.</p>	<p>Noted.</p>
<p>RB: Please explain the meaning of buffers to towns and villages. Does it mean that one cannot develop within a buffer zone in terms of the VIA?</p>	<p>AW: Buffers have been identified with various sensitivity ratings to guide development on less sensitive areas. For example, an area within 500 m of a town, village or settlement is rated as Very High sensitivity from a visual perspective. The further away the proposed EGI is constructed, the lower the sensitivity will be from a sensitive receptor/feature perspective. It does not mean that if the powerline or pipeline is constructed, a potential developer cannot build within 500 m of such infrastructure. It would just mean that they would be within the viewshed of the infrastructure (but would still be required to obtain any necessary approvals).</p> <p>DF: The buffers indicate flags, for example visual intrusion and trigger the level of assessment required.</p> <p>TM: The assessment also considers the Provincial and District Municipality Spatial Development Frameworks in order to consider planning within municipalities to align or incorporate into the assessment.</p> <p>RM: The reverse could also be achieved, whereby the SEA corridors are included in the SDFs. This will ensure that those constructing are aware of this routing in their planning.</p>
<p>SB: It is predetermined that the pipeline is underground. How are the engineering constraints taken into consideration?</p> <p>WC: How will river crossings be dealt with?</p> <p>NK: Gas pipelines above ground are globally accepted, cheaper, easier to inspect and safety elements are less. This can avoid some of the sensitive areas as well.</p>	<p>AW: The Least Cost Path and Pinch Point Analysis will assess engineering constraints.</p> <p>Post-Meeting Note from the CSIR: The gas pipeline will be underground, even when crossing water features (either by trenching, pipe jacking or HDD).</p> <p>DF: The issue is that it would require a new SEA as the impacts assessed would be different above ground.</p>

Comments or Questions Raised	Responses
	NE: Most pipelines are underground. Areas in other countries where underground cannot be achieved then aboveground becomes an option. It is possible to route the line aboveground where it is essential for a few metres. However in this SEA, below ground lines are considered.
RM: What is the overall width of the servitude?	NE and AW: The right of way will be 30 – 50 m wide for the construction phase, and 10 m wide for the registered servitude during the operational phase.
Social, Planning and Disaster Management Assessment	
TB: Is the rating of high and low sensitivity based on perceived negotiation difficulties for land?	AW: Past experience has shown that in Traditional Authority areas it is usually more difficult to undertake negotiations and achieve agreement than in other areas.
TB: Is this correct when it is based on rules of fair engagement?	AW: The ratings are based on impacts prior to mitigation management actions. A situation perceived to be occurring by the Specialist.
TB: A culture and principle of responsible and fair engagement must be entrenched in the criteria of sensitivities in the social and planning assessment.	
TB: Flagging that the Disaster Management Plans could be talking to current plans (in terms of municipal IDPs) and not necessarily considering the proposed infrastructure in terms of this project and therefore recommendations speaking to their readiness might be underestimated.	Noted.
NK: It might be worthwhile linking up with the Operation Phakisa Incident Management Organisation based in the Western Cape and obtain information that could feed into this SEA.	Noted.
WC: What is the difference between the two slides showing disaster management capabilities?	AW: The one slide shows the District Municipality's disaster management capabilities, whereas the other slide shows that of the Local Municipality. For example, the capabilities of the District and Local Municipalities could in some cases not be aligned in terms of Disaster Management.
NE: On the slide showing the Incident Management Capability Map; the indication of fair in green and good in yellow needs to be re-looked. The legend must be verified.	DF: The comment is noted and would be checked upon.
General	
LS: We should identify research opportunities that exist and try to engage with Universities now, and share those topics now.	DF: Point is taken and will be considered.
SB: Agreed, and in some cases, maybe this research is already being undertaken.	
WC: Will the SEA Report be compiled at the end of Phase 2?	DF: Yes, but we are still far from completion of the SEA Report. We are currently at the Draft Specialist Assessment Phase.
WC: Will the report be made available before gazetting in Phase 3?	Post-Meeting Note from the CSIR: The Draft Specialist Studies will be made available for public review by October 2018. The gazetting process will also include a comment period.
WC: Will there be another ERG?	AW: Yes, we are planning to hold two more meetings, one to discuss the standards and one at the end of the process.

Comments or Questions Raised	Responses
TB: Do the project partners review the reports during the public outreach also?	AW: Partners are being sent the reports as they are completed for review now, prior to the public review.
NK: What does the Skills Development aspect of the SEA entail?	DF: This refers to skills development for the project team members.
NK: Please send a copy of the presentations delivered at the meeting.	Noted.
PL*: Will the specialists provide potential or indicative routes within the corridors? I think this information would be useful. Is this included in their Terms of Reference? * This question was submitted via text message by PL, who joined the meeting via VC.	Post-Meeting Note from the CSIR: The specialists will not provide or recommend potential gas pipeline and EGI routings within the corridors. This is not part of their scope of work. The specialists are only assessing the corridors for sensitivities to inform future route planning by the project developers. SANBI will undertake a Least Cost Path Analysis to identify the best routings from an environmental, engineering and cost perspective, and this will be provided directly to the Project Partners (i.e. the Departments of Environment, Energy, and Public Enterprises, and Eskom, iGas and Transnet). The results of the Least Cost Path Analysis will not be made available on a public platform.

Discussion, Way Forward and Closing

DF noted the following:

- Specialist studies would be sent to ERG and PSC for review in Mid-September
- Public and Authority Outreach Meetings to take place in September/October 2018
- PSC and ERG meeting following the Specialist Review and Public Outreach Meeting
- Work on finalising the SEA Document and discussing

The meeting was closed at 13:30.

A.7.8.3 Notes of ERG Meeting 3 – 4 July 2019

Meeting:	PSC and ERG Meeting 3	
Date of Meeting:	4 July 2019	
Venue of Meeting:	Council for Scientific and Industrial Research (CSIR) Pretoria Campus, Meiring Naude Road, Brummeria, Pretoria: Knowledge Commons – Ulwazi Auditorium	
Duration:	09H45 to 12H00	
Attendees:	<ul style="list-style-type: none"> ▪ Dee Fischer (DF) ▪ Sipho Mokwana (SM) ▪ Neville Ephraim (NE) ▪ Koketso Maditsi (KM) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Fahiem Daniels (FD) ▪ Tsamaelo Malebu (TM1) ▪ Paul Hoffman/Chris Marais (PH/CM) ▪ Robert Fortuin (RF) 	<ul style="list-style-type: none"> ▪ Anel Hietbrink (AH) ▪ Rueben Mabelane (RM) ▪ Maswati Mduli (MM) ▪ Jannie Loubser (JL) ▪ Cobus van Rensburg (CVR) ▪ Anita Loots (AL) ▪ Niall Kramer (NK) ▪ Patle Mohajane (PM) ▪ Janse Rabie (JR) ▪ Tinyiko Masondo (TM2)
Apologies	<ul style="list-style-type: none"> ▪ Zakariyyaa Oumar ▪ Stanley Tshitwamulomoni ▪ Rudzani Tshibalo ▪ Stella Mamogale ▪ Vincent Chauke ▪ Tobile Bokwe ▪ Koogendran Govender ▪ Saneshan Govender ▪ Ronald Marais ▪ Patrick Mulenga ▪ Shiven Panday 	<ul style="list-style-type: none"> ▪ Mohsin Seedat ▪ Frikkie Brooks (Retired) ▪ Laurentius Saville ▪ David Joubert ▪ Shaazia Bhailall ▪ Udiv Budhal ▪ Gerard Mac Carron ▪ Sandra Du Rand ▪ Hilton Lazarus ▪ Percy Langa ▪ Raquel Mazwi
Signed Attendance Register	Included as Appendix A (which includes Apologies)	

1. Purpose of Meeting and Agenda

In order to provide a progress update, as well as to present the findings of the draft final pinch point analysis and corridors, and to seek corresponding feedback from the Project Steering Committee (PSC) and Expert Reference Group (ERG), a PSC and ERG meeting was held on 4 July 2019 at the Council for Scientific and Industrial Research (CSIR) offices in Pretoria. Mrs. Dee Fischer (DF) from the Department of Environmental Affairs (DEA) chaired the meeting. Presentations were delivered by the CSIR and the South African National Biodiversity Institute (SANBI). The meeting agenda is indicated in the table below.

TIME	ACTIVITY/PRESENTATION	PRESENTER
09:45 – 10:00	Tea and Registration	All
10:00 – 10:10	Welcome and Introductions	DEA
10:10 – 10:45	Background and Progress on the SEA Process	CSIR
10:45 – 11:45	Pinch Point Analysis and Final Corridors	SANBI
11:45 – 12:00	Break	All
12:00 – 12:30	Pinch Point Analysis and Final Corridors (Continued)	SANBI
12:30 – 13:00	Discussion	All
13:00 – 13:30	Way Forward and Closing	All
13.30 – 14.00	Lunch	All

2. Welcome and Introductions

DF welcomed all attendees to the PSC and ERG meeting, provided background on the status of the SEA, and discussed the proceeding of the meeting. An induction video was also displayed prior to the commencement of the meeting.

3. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors

AW provided a brief background on the project, as well as a status update and a description of the key tasks remaining for completion. The following questions were raised and responded to.

Comments or Questions Raised	Responses
NK: When you received feedback on the SEA Process, Specialist Assessments and SEA Reports, did you only consider formal comments submitted to you or did you also consider other comments available. For example, there is a fair amount of (controversial) comment online?	DF: No, we did not consider comments that were not formally submitted to the SEA Project Team, such as those online.

4. Presentation 2: Final Pinch Point Analysis Process

FD provided a presentation on the Draft and Final Pinch Point Analyses for the Gas Pipeline and EGI Expansion Corridors. The following questions were raised and responded to.

Comments or Questions Raised	Responses
NK: I wish to congratulate the project team on the progress achieved on the SEA and the detailed work undertaken.	FD: Noted, with thanks.
NK: A regional Gas Utilisation Master Plan (GUMP) is being developed for South Africa,	NE: No, GUMP has not been considered in the location of the gas pipeline corridors or the

Comments or Questions Raised	Responses
Namibia, Mozambique and Botswana (SADC). Has the GUMP been considered in this SEA Process?	SEA Process as the document is in its very early stages of compilation. However, iGas is involved in the GUMP and have made contributions, and presented the SEA to the committee.
NK: In the Engineering Constraints, water stressed areas were listed as an engineering constraint. From what perspective is this a constraint, because pipelines have been built in the Sahara for example? Kindly provide additional clarification regarding this.	AW: We had a focus group meeting in February 2018 with Sasol, Business Unity of South Africa (BUSA) and the Energy Intensive Users Group (EIUG), and they recommended that water stressed areas should be considered as a constraint from a future industrial development perspective, and not in relation to the actual gas pipeline. If areas are water stressed and do not have sufficient water availability, then future industrial areas are not likely to be constructed within these areas. Industrial development is seen as a pull factor for the gas pipeline, and if areas are water stressed, then this could accordingly be seen as a constraint for gas pipeline development in such areas.
NK: It seems like the corridors are being routed away from mining areas. However, I believe that the coal mining areas (especially in the Free State) need to be considered as a pull factor due to the potential coal-bed methane.	NE: Mining areas are avoided from a pipeline safety perspective. In general, based on previous communications with open cast mining operators, they do not want any infrastructure in proximity to their operations, and they tend cover a large area and it involves a significant amount of demolition. In addition, underground mining leads to subsidence, sinking and sinkholes that cause problems for the pipeline. This occurred in the Rompco Pipeline project. Therefore, mining areas are avoided; however, it is still understood that they could present an opportunity in terms of coal-bed methane. DF: It is possible that the transmission line could be routed quite close to the mining area though.
NK: From the opportunities perspective, it is mentioned that the pipeline will go through the Karoo. The terminology used for the extraction of natural gas should not be mistaken for mining. The Gas Industry prefers not to be associated with mining for a number of reasons. For example, during the presentation, shale gas exploration in the Karoo was referred to as mining.	FD: We use mining as both a pull and push factor. Where the demand mapping exercise identified future planned mining areas, we wanted the corridors to be as close to these areas as possible, especially in relation to future gas extraction, such as shale gas. However, at the same time, we understand that the gas pipelines need to be routed away from existing mining areas (i.e. active or previously mined areas) due to the threat of instability. We need to re-look at the terminology we are using when referring to these different industries i.e. not to refer to gas extraction as mining. DF: Your point is noted in terms of the terminology used. For example, we will not refer to the shale gas operation as mining, but rather gas production.
NK: What kind of pipes have been considered in the SEA Process i.e. above ground, below ground or both? Have alternative options been considered such as cryogenic tanks either by road, rail or sea, which is the new thinking in terms of Virtual Pipelines. Virtual pipelines would impact on or influence the placement of actual pipelines.	NE: We have not considered virtual pipelines in the SEA Process. This SEA Process covers the construction of a physical transmission pipeline. Virtual pipelines are in our thinking but that will be a completely different process that uses existing infrastructure, such as road and rail. Our thinking is that virtual pipelines are needed to create a market, and once the market is exceeded and is large enough, then a physical pipeline would be needed.
NK: Why is the SKA listed as a sensitivity? Is it from a light or noise perspective, and mainly related to the construction phase of the gas pipeline (and not the operational phase)?	DF: It is mainly the impact of the construction phase of the gas pipeline and EGI on the SKA facility. FD: It should be noted that only one small potential telescope that has not been

Comments or Questions Raised	Responses
	constructed yet lies close to the corridors. The greater focus area of the SKA falls outside of the corridors.
NK: I take it that the buckets of risks or constraints were partially pre-determined and then as others emerged, those were added. However, I do not see any feedback on security. I realised this when you mentioned that if there is no space in an area for the gas pipeline due to pinch points, then there is a potential to consider moving it to another country. But without understanding what is happening in neighbouring countries, for example in Mozambique, it may result in a security issue especially because gas pipelines bring with it a lot of attention, and people can use this as leverage.	<p>DF and FD: From a security perspective, the gas pipeline will be below ground.</p> <p>NE: The top of the pipeline will be about 1 m below ground for safety reasons, and pipeline markers will be placed every 1 km along the route above ground to inform surrounding land users of the pipeline position.</p>
NK: I genuinely mean that you have done great work on this SEA. Is one of the next steps talking to relevant stakeholders from an economic and growth point of view? The Oil and Gas Industry legislation in the country seems to be coming together, and once it is legislated, the country needs to be ready to act on it. This SEA is a great step towards developing the required infrastructure. I really think that you should get it out there and present it to many more parties.	<p>DF: With the first Renewable Energy Development Zones (REDZ) and EGI SEAs, we took the final corridors and zones to Cabinet when we were ready for a decision. If we took the Gas and EGI Expansion SEA to Cabinet now, it would only be for information, and Cabinet does not really prefer feedback just for information purposes and prefers information that they can make comment on. However, it is a possibility, because when the original REDZ and EGI SEAs were presented, there were many Ministers that saw the potential of the assessment in relation to their portfolios. There is a lot of potential to take the project to Cabinet. As a requirement from the Operation Phakisa lab, the SEA outcomes will need to be presented as a completed task to Operation Phakisa and the Inter-Ministerial Committee (IMC).</p> <p>We will also publish progress on the SEA in newspapers again but the uptake on this, based on previous experience, was not significant. We previously published articles in Engineering News and could potentially look into presenting feedback in Mining Weekly.</p> <p>NK: Those publications are very technical and industry specific and are aimed at stakeholders that are naturally interested. It is understandable that you would need to inform Cabinet and policy makers but if gets into publications that have a wider audience and reach a broader group of stakeholders, it creates a greater public pull and Politicians start putting a greater focus on it based on the amount of people that read these magazines. To me, this is more about economic opportunities and not just technicalities.</p> <p>DF: Maybe we could compile a Communications Strategy near the end of the SEA so that we can draw additional attention to it. Another aspect that needs to be undertaken is that the corridors, once gazetted, need to be incorporated into provincial and municipal Spatial Development Framework Plans (SDFs). Once the corridors are in the SDFs, then it is more likely to be considered in future planning. We are also discussing the potential to incorporate the corridors into the National SDF. These are the type of documents that future developers and planners look at, so it is important for the corridors to be considered within these.</p>
AL: The issue of social facilitation and communications strategies are incredibly important because there are many mega projects that have been stopped by communities who feel that they were not consulted with early enough in the project. You have mentioned that a fairly comprehensive consultation process has been undertaken as part of the SEA but the	AW: There is no formal presentation on the way forward. The way forward indicated on the agenda was focused on a discussion. However, as indicated during the first presentation, Phase 3 of the SEA is focussed on the way forward in terms of the Decision-Making Tools and outputs of the SEA, which include the final corridors, protocols, minimum information

Comments or Questions Raised	Responses
<p>Eastern Cape and KwaZulu-Natal areas are most likely going to be areas where the project may become unfeasible if the communities feel like you have not taken them seriously. How will this be taken into consideration, and will this be discussed in the way forward presentation?</p> <p>AL: From an industrial policy angle, what is the next step?</p>	<p>requirements, and inclusion of the corridors in national and provincial SDFs.</p> <p>DF: We have made a note of this valid point, but from an environmental mandate perspective, the DEA wants to streamline the environmental authorisation process to allow development to take place easily within the corridors while ensuring environmental protection. However, it was noticed on the REDZ and EGI SEAs that although the DEA intended to only protect the environment, anchor points for development were also being created. Therefore, it is important that we bring this to the attention of the Department of Science and Technology and Department of Trade and Industry to promote the work that we are doing.</p>
<p>AL: The issue of localisation and local benefits, whether it be job creation or provision of services to communities, is far more important for large-scale projects. We have seen based on experience at the Presidential Infrastructure Coordinating Committee (PICC) that big projects are put on hold because of these issues.</p>	<p>DF: In KZN, we did come across similar issues for the SEA. What was done in other areas was not sufficient for the communities in KZN. As a result, an additional Public Information Sharing Session was held on 13 June 2019 and we were required to translate summary documents in a second language and place them at selected libraries. This was not undertaken in other areas. One of the lessons learnt during the SEA Process is that executive summaries of the reports need to be translated to a second language and need to be easily accessible.</p> <p>One of the key points to remember and was potentially difficult for the stakeholders to understand is that we may not have a definite outcome in terms of project. A gas pipeline will only be constructed if there is a gas find and a guaranteed customer. The timeframe for this may range a number of years, and there is no guarantee that a pipeline may be built. However, once a project has been identified to take place, there will always be a requirement to engage and consult with stakeholders once a specific route has been identified.</p> <p>As part of the SEA, we are forming policy, so it is important for us to engage with stakeholders as much as we can. Therefore, the lessons taken forward to any further SEAs commissioned by the DEA is that we need to plan for and cost for the translation of executive summaries and placement of such documents in affected libraries. However, these are costs that need to be considered upfront, and it cannot be easily undertaken for this current Gas Pipeline and EGI Expansion SEA that is nearing completion. This is a good learning point for future SEAs.</p>
<p>NK: Have you consulted with any companies that specialise in pipeline equipment and development?</p> <p>NK: Their interest would have been more related to job creation and linking to the pipeline. However, I am referring to approaching companies not directly involved but would have expert capabilities. For example, Chevron is an international company that has developed pipelines in the US, Canada and Russia and they do not have any real interest in South</p>	<p>DF and NE: There were a few pipeline developers and stakeholders from the business community that attended Public Information Sharing Sessions to find out how the pipeline development would influence them.</p> <p>DF: That would be addressed during the project specific stage, once development is guaranteed.</p> <p>NE: This SEA is only the planning phase. The project will only be guaranteed when there is a supply of gas and an off-taker. Once these requirements are fulfilled, then the pipeline</p>

Comments or Questions Raised	Responses
<p>Africa, but they are real experts in terms of what one can and cannot do with regards to pipeline development, as well as future trends in the industry, such as plastics etc.</p>	<p>may be constructed. Until that stage, we are only planning.</p> <p>AW: At the project specific stage, there will also be the requirement to implement the Best Available Technology as well.</p> <p>DF: Yes, the use of Best Available Technology will also be included in tender specifications.</p> <p>NE: You mentioned the use of plastics, and HDPE is an emerging trend in gas pipelines. I have not come across its use in high-pressure transmission pipelines; however, it is definitely used in reticulation pipelines and in some cases distribution pipelines, which is up to 15 bar. Gas transmission is large diameter pipelines, with a pressure exceeding 15 bar up to 100 – 125 bar, and the technology for HDPE has not been identified yet.</p>
<p>NK: I understand that this SEA was framed against Operation Phakisa. Operation Phakisa is focused on offshore oil and gas exploration, yet the Gas Pipeline and EGI Expansion corridors are all onshore. None of these pipelines come from the offshore, for example on the West Coast, there are talks about the Ibhubesi Basin and offshore pipelines leading southwards towards Grotto Bay. Intuitively, it seems those should be linked to the thinking here.</p>	<p>NE: When the Phased Gas Pipeline Network was conceived, the aspiration was to drill 30 wells in the next 10 years. However, five years down line, only one well has been drilled. At the time, we stated that we believed that there is gas offshore based on the information provided by geologists and when the gas is found, we considered how we would get the gas to market. The SEA does not consider offshore pipelines because that is something that the Project Developer would do i.e. they would bring it onshore and from there take it to the market. This is what was considered as part of Operation Phakisa at the time. However, at the same time, we realise that we cannot work in a vacuum. We cannot only address offshore gas development. There are multiple sources of gas available for South Africa, such as indigenous gas that includes both onshore and offshore gas, including shale gas areas, which is covered in the SEA. There is also regional gas, and as part of the SEA we have considered imported gas via the Rompco pipeline corridor and the corridor extending to the southern border of Mozambique via KZN. In addition, the main LNG import ports are Richards Bay, Coega and Saldanha, and all of these ports are covered in the SEA. Therefore, there are multiple drivers for the SEA Process and there are multiple supply options.</p>
<p>JL: The Northern Cape Province and Transnet National Ports Authority are currently busy with planning a new deep water port, called Boegoebaai, about 20 km south of Alexander Bay. There is also a possibility of an SEZ surrounding the harbour. The harbour fits along the coastline section of Phase 6 of the Gas Pipeline SEA and Western Expanded EGI Corridor. I am not sure if the Kudu or Ibhubesi gas fields will influence this harbour.</p>	<p>NE: Thanks for informing us of this new harbour and potential SEZ, which will serve as a potential supply point. The Phase 6 corridor was initially moved away from the coastline due to sensitive environmental and agricultural areas, and well as diamond mining areas. At this stage, the proposed SEZ falls outside of the Phase 6 corridor.</p> <p>AW: If there is specific anchor point that we still need to consider, such as the proposed Boegoebaai Harbour and SEZ, a branch corridor can be developed to cater for and link to the landing point. We would appreciate if you could kindly send us the location files of the proposed Boegoebaai Harbour and SEZ.</p> <p>DF: I believe that a similar SEA Process could be undertaken within all ports and SEZs to allow streamlining of Environmental Authorisations, to inform better planning and facilitate development, whilst still ensuring environmental protection.</p>

Comments or Questions Raised	Responses
	<p>TM1: This was not mentioned in detail at the previous Northern Cape Authority Meetings. We can consider it now, however we would need to know how far along the planning process is for the harbour and SEZ, so that we can approximately consider it in the final pinch point analysis.</p> <p>DF: The project team will contact JL to request the additional information. The proposed harbour and SEZ is regarded as an anchor point, and we can try to accommodate it now.</p> <p>AL: I was also recently at the Northern Cape Lekgotla, and can try to obtain the necessary information if needed.</p>

Discussion, Way Forward and Closing

DF: In terms of the way forward, the Project Team and Partners need to consider the following:

- Compiling a Communications Strategy to look at how the SEA can reach a wider audience and making a presentation to Ministers and the PICC.
- We need to be considerate of the Public Participation Process and expand it in areas where there are likely issues.
- We need to continue to look at changing technologies.
- Address the concerns regarding using the correct terminology relating to mining and gas production and extraction.
- Include a write up in the report regarding virtual pipelines, as it has been raised a few times during the SEA consultation process.

DF: The notes of the meeting and the presentations will be distributed to meeting attendees once finalised. There is also the possibility of including corridors to cover petroleum (crude oil and refined products). However, this will be confirmed in due course. We will meet at the following ERG and PSC.

The meeting was closed at 12.00.

A.7.8.4 Notes of ERG Meeting 4 – 27 November 2019

Meeting:	PSC and ERG Meeting 4	
Date of Meeting:	27 November 2019	
Venue of Meeting:	Council for Scientific and Industrial Research (CSIR) Pretoria Campus, Meiring Naude Road, Brummeria, Pretoria: Knowledge Commons – Ulwazi Auditorium	
Duration:	09H45 to 13H15	
Attendees:	<ul style="list-style-type: none"> ▪ Dr. Dee Fischer (DF) ▪ John Geeringh (JG) ▪ Tobile Bokwe (TB) ▪ Ronald Marais (RM) ▪ Patrick Mulenga (PM) ▪ Viren Heera (VH) ▪ Mapaseka Lukhele (ML) ▪ Khathutshelo Tshipala (KT) ▪ Imran Karim (IM) ▪ Christian Prins (CP) ▪ Nomathemba Mazwi (NM) 	<ul style="list-style-type: none"> ▪ Fhumulani Nenzhelele (FN) ▪ Anel Hietbrink (AH) ▪ Rian Botes (RB) ▪ Wisdom Mpofu (WM) ▪ Niall Kramer (NK) ▪ Percy Langa (PL2) ▪ Paul Lochner (PL1) ▪ Rohaida Abed (RA) ▪ Fahiema Daniels (FD) ▪ Tsamaelo Malebu (TM) ▪ Khuthala Somdaka (KS) (attended via video conference)
Apologies	<ul style="list-style-type: none"> ▪ Stella Mamogale ▪ Sipho Mokwana ▪ Rudzani Tshibalo ▪ Milicent Solomons ▪ Neville Ephraim ▪ Koketso Maditsi 	<ul style="list-style-type: none"> ▪ Mohsin Seedat ▪ Dr. Saneshan Govender ▪ Vusimuzi Zwane ▪ Dumisani Mthiyane ▪ Peter Nelson ▪ Kaashifah Beukes
Signed Attendance Register	Included as Appendix A (which includes Apologies)	

1. Purpose of Meeting and Agenda

In order to provide a progress update, present the findings of the Draft Decision-Making Tools, and to seek corresponding feedback from the Project Steering Committee (PSC) and Expert Reference Group (ERG), the last PSC and ERG meeting was held on 27 November 2019 at the Council for Scientific and Industrial Research (CSIR) offices in Pretoria. The meeting was chaired by Mr. Paul Lochner of the CSIR and Dr. Dee Fischer of the Department of Environmental Affairs (DEA) [now operating as the Department of Environment, Forestry and Fisheries (DEFF)]. Presentations were delivered by the CSIR and the South African National Biodiversity Institute (SANBI). The meeting agenda is indicated in the table below.

TIME	ACTIVITY/PRESENTATION	PRESENTER
09:45 – 10:00	▪ Tea and Registration	All
10:00 – 10:10	▪ Welcome and Introductions	DEFF
10:10 – 10:30	▪ Progress on the SEA Process	CSIR and SANBI
10:30 – 11:00	▪ Current Gazetted Process for EGI Development in the Corridors and Gazetted Generic EMPr	CSIR
11:00 – 12:00	▪ Proposed Draft Decision-Making Tool for EGI Development in the Corridors ▪ Discussion	CSIR All
12:00 – 12:15	▪ Break	All
12:15 – 13:15	▪ Proposed Draft Decision-Making Tool for Gas Pipeline Development in the Corridors ▪ Discussion	CSIR All
13:15 – 14:00	▪ Proposed Draft Generic EMPr for Gas Pipeline Development in the Corridors ▪ Discussion	CSIR All
14:00 – 14:30	▪ Discussion, Way Forward and Closing	All
14.30 – 15.00	▪ Lunch	All

2. Welcome and Introductions

DF welcomed all attendees to the PSC and ERG meeting, provided background on the status of the SEA, and discussed the proceeding of the meeting. An induction video was also displayed prior to the commencement of the meeting.

3. Presentation 1A: Progress on the Phased Gas Pipeline Network and Expanded EGI SEA

RA provided a brief background on the project, as well as a status update and a description of the key tasks undertaken during the SEA Process. The following questions were raised and responded to.

Comments or Questions Raised	Responses
NK: Has the SEA Process considered the Renewable Energy Organisations, such as SAWEA and other wind and solar developers.	RA: Yes, we conducted an Industry Feedback Exercise in May 2018 as part of the SEA. SAWEA was invited to partake in the exercise. Post-Meeting Note: The findings of the energy generation potential from the 2016 EGI SEA were also considered in the current EGI Expansion SEA.
WM: Does the SEA also consider the exploration work offshore and gas reserves, such as those off the coastline of Richards Bay.	RA: The SEA did not consider offshore activities. It only considered onshore gas transmission pipeline activities. Offshore exploration is subjected to separate project specific Environmental Assessment processes. However the final gas pipeline corridors do cover the major anchor points for imported gas and regional gas found offshore.

Comments or Questions Raised	Responses
	FD: The Gas Pipeline SEA is based on the Operation Phakisa Phased Gas Pipeline Network of 2014, which was also centred around major anchor points and enabling offshore gas reserves.
IK: Why is there no exemption from Environmental Authorisation (EA) for Gas Pipelines, as is proposed for EGI?	<p>RA: Since the inception of the SEA Process, it was planned to streamline gas pipeline development within the corridors (once gazetted). There was initially an option to consider exemption from EA within low sensitivity areas. However during the SEA, stakeholders raised various concerns regarding exemption from EA for gas pipelines within the corridors. Therefore, it was decided to propose streamlining from a full Scoping and Environmental Impact Assessment (EIA) to a Basic Assessment (BA) for gas pipeline development in the corridors.</p> <p>Post-Meeting Note: It is important to note that EGI development within the current five gas pipelines was initially streamlined to a BA Process. Standards are only now being proposed for such development. This is based on various reasons, such as the Competent Authority having significant experience in deciding on EGI Applications, and because the issues related to EGI development are well understood. There are not many gas transmission pipelines in South Africa, hence there is room to understand potential impacts better, as well as to gain further knowledge during the decision-making stage. Therefore, the streamlining approach has been proposed for now. Exemption from EA can be considered in the future, once such impacts and risks are better understood.</p>
NK: A point to note is that there is a gas field in Southern Mozambique (i.e. Matola) that is currently being explored. South Africa might benefit from this gas via importation once the gas is realised.	PL1: Noted.

4. Presentation 1B: Progress on the Phased Gas Pipeline Network and Expanded EGI SEA Corridor Refinement Process

FD provided a presentation on the refinement process for the Gas Pipeline and EGI Expansion Corridors. The following questions were raised and responded to.

Comments or Questions Raised	Responses
<p>NK: Was the Demand Mapping done for both Gas and EGI?</p> <p>Was the demand mapped by location or quantum demand?</p> <p>Can you share the Demand Mapping information with stakeholders?</p> <p>McKinsey have also undertaken a study on gas demand.</p> <p>What is Priority Mining referring to?</p>	<p>FD: The Demand Mapping was done for both Gas and EGI. This was based on information that was provided by various stakeholders, as well as research. Most of the information was provided by location. For the EGI component specifically, generation potential in MW were specifically considered. For example, the Industry Feedback Exercise for the EGI component, identified the potential need for energy in the next 5 to 30 years. It was not possible to undertake this for the gas pipeline corridors.</p> <p>We can make the Demand Mapping information available to stakeholders, where the information used is already publically available. However, where data sharing agreements have been signed, and where such information is confidential, those cannot be shared.</p>

Comments or Questions Raised	Responses
	<p>The SEA did not consider the McKinsey report.</p> <p>Priority Mining Areas are a combination of mining information received from the Council for Geoscience and Department of Mineral Resources and Energy. Unfortunately, this information cannot be shared.</p> <p>Post-Meeting Note: The McKinsey Report was published in September 2019, after the completion of the Demand Mapping phase of the SEA, as well as after the identification of the final corridors. Nevertheless, demand will be considered on a project specific basis, and potential gas pipelines will only be constructed if there is a viable business case, a guaranteed source of gas and off-taker.</p>
WM: It is understood that the SEA is a form of long term vision planning. Based on this, as well as current opportunities for export and import of energy, is it proper planning to avoid Swaziland and other neighbouring countries and only focus this SEA within South Africa? For example, we have a long standing arrangement with Lesotho to access water, so why should neighbouring countries be omitted?	FD: This SEA and the outputs thereof can only be applicable within the boundaries of South Africa. Legislative requirements in neighbouring countries do not fall within the mandate of the DEFF, hence the SEA cannot be enforced in such countries. Therefore, Swaziland, for example, was considered as a pinch point because the corridor could not be widened any further without encroaching Swaziland, which is an administrative and legislative concern. Nonetheless, the corridors have been designed based on the energy mix of South Africa, as well as to facilitate import and export of power and gas with neighbouring countries.

5. Presentation 2: Current Gazetted Process for EGI Development in the Corridors and Gazetted Generic EMPr

RA provided a presentation on the current process for EGI development in the gazetted EGI Corridors, as well as the implementation of the gazetted Generic EGI EMPr. The following questions were raised and responded to.

Comments or Questions Raised	Responses
RM: The wording of Listed Activity 9 of Listing Notice 2 should be amended because infrastructure for the distribution of electricity is 132 kV or below. The Listed Activity should therefore not refer to “distribution” as distribution infrastructure does not have capacities above or more than 275 kV.	<p>RA: Noted, Listed Activity 9 of Listing Notice 2 as indicated in the meeting presentation was extracted verbatim from the 2014 NEMA EIA Regulations. Listed Activity 9 of Listing Notice 2 states:</p> <p><i>“The development of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is:</i></p> <ul style="list-style-type: none"> a) temporarily required to allow for maintenance of existing infrastructure; b) 2 kilometres or shorter in length; c) within an existing transmission line servitude; and d) will be removed within 18 months of the commencement of development”. <p>Any amendment needed to the EIA Regulations would be a separate legal process within the DEFF.</p>

Comments or Questions Raised	Responses
	<p>Government Notice 113, published in February 2018, allows for streamlining of Applications for EA for large scale electricity and distribution infrastructure development within the gazetted EGI corridors, which trigger Activity 9 of Listing Notice 2 (and any other listed activities for the realisation of such infrastructure) from Scoping and EIA to BA with a reduced 57 day decision-making timeframe. This was an outcome of the 2016 EGI SEA Process.</p> <p>It has come to light that if Activity 11 of Listing Notice 1 is triggered within the gazetted EGI corridors, then a BA Process would be required, but it would not be subjected to the reduced decision-making timeframe of 57 days, and would need to be subjected to the normal 107 day decision-making timeframe.</p> <p>JG: This is the case, however if Independent Power Producers (IPPs) were to develop EGI in the gazetted EGI corridors that trigger Activity 11 of Listing Notice 1, then they could apply to the PICC for their project to be considered as a Strategic Integrated Project (SIP), which could allow for the reduced decision-making timeframe.</p> <p>PL2: I would like to re-iterate that the shorted decision-making timeframe for power line infrastructure in the gazetted corridors for Activity 9 of Listing Notice 2 versus the normal BA process and 107 day decision-making timeframe in the corridors for Activities 11 of Listing Notice 1 needs to be rectified because this poses a constraint for IPPs and solar and wind energy developers.</p> <p>NK: It is noted that the SEA Process is an enabling tool towards infrastructure development.</p> <p>DF: The DEFF will look into shortening the timeframe for decision making if Listed Activity 11 of Listing Notice 1 is triggered in the gazetted EGI corridors. There is other learning that the DEFF still need to consider for future gazetted notices, such as omission of amendment applications in GN 113 and 114. Furthermore, the wording on which activities apply, and what are considered as the necessary infrastructure for the realisation of the project need to be clear. Therefore, it is important for stakeholders to comment on gazette notices when they are made available, so they can be examined to see if anything has been omitted or if anything needs to be improved.</p> <p>TB: The concern is that a 30 day comment period is given and then there is no room for further engagement afterwards to see how your comments have been addressed and to submit follow up queries. But it is understood that the commenting period cannot be open-ended.</p> <p>DF: All legislation and gazettes are vetted within the DEFF by the Legal Department. In addition, Comments and Response Reports are compiled to document each comment received, and responses are provided to confirm how the comment has been addressed. The Comments and Responses are also made available on the Department website, once finalised.</p>

Comments or Questions Raised	Responses
	PL1: It is also important to note that the Decision-Making tools are based on the SEA inputs, which the ERG and PSC have been made aware of.
PL2: Is it possible to share the shapefiles of the EGI SEA with us?	FD: Yes, we can share the shapefiles of the final corridors, and any other publically available environmental information. We will not be able to share other confidential information or information that required us to sign a data-sharing agreement.
PL2: Is it possible to include roads and municipalities on the maps in the report in order to provide context?	FD: Yes, we can add national (and potentially regional) roads and district municipalities on certain maps in the report. We cannot add them to any of the wall to wall maps, as these are quite busy already. RA: It is agreed that we will include national roads and district municipalities on the final corridor maps only.
RB: There are various alternative energy projects that have been recently proposed within the City of Ekurhuleni. Will these proposed projects benefit from the outcomes of the SEA Process?	PL1: There are various tools that have been implemented to streamline EA processes. It depends on whether these projects would fall within the provisions of these tools. RA: For this Gas Pipeline and EGI Expansion SEA, the proposed projects would need to be related to gas pipeline development or EGI development within the corridors. Such benefits would only be realised once the corridors and tools are gazetted. There is also the gazetted Wind and Solar Renewable Energy Zones, and gazetted EGI corridors that allow for a streamlined EA processes. TB: We can discuss this further with you offline, because it depends on the project.

6. Presentation 3: Proposed Draft Decision-Making Tool for EGI Development in the Corridors

PL1 provided a presentation on the proposed process for EGI development in the Expanded EGI and Gazetted EGI Corridors, through the implementation of a Standard. A draft standard was presented. The following questions were raised and responded to.

Comments or Questions Raised	Responses
RM: When the power lines are planned, are there safety zones that show where no development should take place? Are there any incompatible land uses? How far can development occur? Can these areas be used as public space? Is there a blast zone for the gas pipeline?	JG: The power line servitude is the area that is required for safe operation and is the extent of exclusion. Servitude widths vary according to the voltage of the line and various pylons. It is an open area which ideally should not be developed on due to safety risks. Eskom power lines are designed to comply with relevant standards and the Occupational Health and Safety Act, such as the height of the power line from the ground, building restriction distances etc. Post-Meeting Note: The gas pipeline will also be developed according to relevant national and international standards, which will specify safety distances and buffer zones.
PL2: Has the World Health Organisation (WHO) Study on Electromagnetic Frequency (EMF) been considered for the EGI? I am aware of a previous report done by Eskom on EMF - has this been updated?	JG: Eskom currently complies with the WHO in terms of EMF requirements. Most of the IPPs also undertake self-build options for their lines, however they sometimes transfer ownership to Eskom once operational. Therefore, the IPPs are also required to comply with Eskom design standards for power lines, and therefore take EMF into consideration.

Comments or Questions Raised	Responses
	The Standard specifies guidance for routing of the power lines, such as staying a certain distance away from piggeries and hatcheries, for example.
KT: Is the Public Participation Process a mere reference to the EIA Regulations or are there additional recommendations and requirements?	<p>RA: No, the Standard has specified that Public Participation must be undertaken in compliance with the EIA Regulations.</p> <p>PL1: It was decided not to repeat the requirements specified in the EIA Regulations regarding Public Participation, which is believed to be sufficient for the EGI development.</p>
<p>TB: I do like the product, however I would like to note:</p> <ul style="list-style-type: none"> - The Standard is based on self-regulation by the developer. How will this be handled? - With regards to the registration, how will this process be undertaken? Will the Competent Authority make a decision on whether the project can or cannot go ahead? What is the role of the Competent Authority? For example, in Waste Applications relating to Norms and Standards, the Department gives you a decision of “yes” or “no”. This needs to be clarified. - How will this influence the lender process if some developers have to apply for funding? Funders have different requirements. How will this be addressed? - In terms of the Environmental Principles, what happens if any of them cannot be met, for example, what if Critically Endangered (CR) and Endangered (EN) ecosystems cannot be avoided? Must a full Scoping and EIA then be undertaken? What process must be undertaken? 	<p>DF: The registration process will entail the submission of a registration form by the Environmental Assessment Practitioner (EAP), and the Competent Authority will then have 30 days to register the project. The Competent Authority will need to register the project so that it can be audited by Environmental Management Inspectors (EMIs) as required. It is also an offence not to comply with the Standard, therefore developers have an obligation to comply with it. In a Standard, there cannot be approval from the Competent Authority.</p> <p>With regards to the principles, these have to be met in order to comply with the standard. These principles need to be discussed with Eskom further down the line to ensure that they are practical.</p> <p>In terms of the lenders, the main processes have not changed. The only difference from a traditional Environmental Assessment process is that there is no EA being issued, and there is no moderator in the Standard. The Standard has captured the requirements for specialist input. The specialists will provide a concluding statement that will recommend if the project can go ahead or not. They will sign off on the project, and their statement will form part of the Environmental Sensitivity Report that will be released for stakeholder comment.</p> <p>RA: We also engaged with the Lender sector during the SEA. Overall, it was confirmed that many of the lending sector requirements occur post EA anyway, therefore such requirements can be considered post-registration in the case of the Standard. If the Standard is gazetted for implementation, then it will form the basis for EGI development in the corridors, which will comply with legislative requirements of the host country. This was not perceived as a concern by the lenders.</p> <p>JG: Agreed, the lenders acknowledge South African environmental legislation but have additional requirements post decision-making.</p>
RB: When will Local Authorities provide input to the EGI development in relation to the standard?	PL1: A list of Interested and Affected Parties (I&APs) and stakeholders will be generated at the beginning of the Public Participation Process and they will be engaged with via the release of the Background Information Document and the Draft Environmental Sensitivity Report. The Local Municipality will be consulted with during these stages. It is a mandatory requirement to engage with the Local Municipality as specified in the EIA Regulations.

Comments or Questions Raised	Responses
	JG: Yes, the same process will be followed in terms of current Public Participation Processes for BA and EIA Processes. For example, it is required to consult with the Ward Councillor etc.
KT: What is the output of the registration process?	DF: It could be a registration number or a letter. How is it currently undertaken in Gauteng Standard? AH: For the Gauteng Standard, the department provides a letter confirming registration, and it contains a registration number.
NK: There would be no visual impacts relating to gas pipeline development during the operational phase, as compared to EGI. What would the Appeal Process entail? Who will decide on the Appeals? Would cases need to go to court?	DF: For EGI development in the corridors, submission of a pre-negotiated route has been allowed for. Therefore, you would not really expect appeals, however anyone can appeal. Appeals on environmental grounds are handled by the Appeals Directorate of the National DEFF and decisions are made by the Minister, if the Competent Authority is the National DEFF. Post-Meeting Note: If the Competent Authority is the Provincial Environmental Department, then the Provinces would handle the appeal and it will be decided upon by the MEC of that province.
TB: It seems like the Standard is focused on avoidance and either have an “on” or “off” principle. Is there no middle ground? What about offsets?	DF: We have to discuss the non-negotiable principles with the project partners and stakeholders, such as Eskom. The Standard will only work if there is an “on” and “off” principle. We need to discuss what the hindrances to “on” and “off” are. Offsets are also not a straightforward solution, if they are proposed, they have to be “like” for “like”. FD: It must be noted that the CR and EN ecosystems only make up less than 7% of the country.

7. Presentations 4 and 5: Proposed Draft Decision-Making Tool and Generic EMPr for Gas Pipeline Development in the Corridors

RA provided a presentation on the proposed process for gas pipeline development in the Gas Pipeline Corridors (once they are gazetted), as well as feedback on the proposed draft generic EMPr. The following questions were raised and responded to.

Comments or Questions Raised	Responses
ML: Must the rehabilitation specialist be independent or can it be a specialist on the Applicant team?	TB: Usually independence relates to EAPs and Environmental Control Officers. RA and FD: We have not come across any EMPrs that recommend or specify that the rehabilitation specialist must be independent. The main recommendation is that the rehabilitation specialist must be suitably qualified.
TB: With regards to topsoil removal and backfilling, the EMPr must specify that it must be topsoil that contains its original vegetation.	PL1: Noted, we will edit this accordingly.
TB: With regards to backfilling to a height of approximately 15 cm higher than the surrounding areas, how will this be audited? Is this practical?	DF: This point is noted and agreed with. Instead of providing specifics, the EMPr should rather recommend that the trench is backfilled in a manner that allows the surface to be free draining and prevents erosion.

Comments or Questions Raised	Responses
NK: Overall I think this is a good process.	DF: This is noted with thanks. We realise the importance of the Generic EMPr.
IK: If the bunded area needs to have a volume of 110% of the product stored, this would be difficult to achieve for the actual pipeline.	<p>JG: The bunding requirement is for dangerous goods, such as petrol and diesel, which is temporarily stored on site during the construction phase.</p> <p>RA: The bunding requirement would not apply to the pipeline itself during the operational phase.</p> <p>DF: The specifications provided for the bunds would not be able to apply to all projects and it will also depend on the location of the project. The EMPr should rather mention that dangerous goods must be stored in a contained area.</p>
NK: Is the type of gas and its constituents specified in the SEA process? Would Methane Rich Gas fall within the scope of the SEA? For example, some natural gas tend to consist of methane and a high helium content.	<p>RA: Natural gas has been assessed in the SEA. LNG has not been considered in the SEA. The actual composition of natural gas was not specified in the SEA, as the constituents tend to vary in percentage.</p> <p>FN: You should consult the Gas Act to determine if there is a definition for natural gas.</p> <p>Post-Meeting Note: This will be clarified in the SEA Report.</p>

8. Discussion, Way Forward and Closing

Comments or Questions Raised	Responses
NK: Have you consulted with activist groups and NGOs during the SEA?	DF: Yes, we have consulted with them, especially in KZN, Gauteng and Cape Town.
NK: You should also engage with an independent pipeline developer, not just state owned entities. I will send you details for one such developer.	PL1: Noted, we will send you an email prompt to request these details.

DF: In terms of the way forward:

- The CSIR's work is now complete. The next step is for government to work on the gazetting of the outputs of the SEA, which entails various internal processes.
- We have a significant process ahead, and it is hoped to have the Standard finalised for gazetting by the end of 2020. DEFF will need to undertake a few iterations of the Standard. We need to meet with the IPPs and Eskom and make sure that the Standard is implementable. When the Standard is gazetted, it is expected that GN 113 will be repealed.
- We do not foresee many concerns regarding the gazetting of the Gas Pipeline and Expanded EGI Corridors.
- Gazetting of the Gas Pipeline Corridors are also not much of a concern as it will result in a streamlined EA process, i.e. a BA Process, shortened decision-making timeframe of 57 days, and the submission of a pre-negotiated route. It is expected that the corridors will be gazetted by mid-2020.
- For the Expanded EGI Corridors, GN 113 will be in force until the Standard is gazetted for implemented. It is unlikely that there will be an amendment to GN 113 at this stage to make provision for a reduced decision-making timeframe for power line developments that trigger Activity 11 of Listing Notice 1.
- We will also work on amending the Generic EGI EMPr to correct a few points, and to also align it with the Standard (once gazetted).

- We will also workshop the Gas Pipeline EMPr with relevant partners to ensure that the impact management actions are practical and workable.
- When the draft Standard for EGI and Gas Pipeline EMPr are gazetted for comment, stakeholders are encouraged to review it to ensure that it is practical. We will try to arrange a comment period before the gazette comment period for Eskom as well.
- The CSIR's input to the SEA Process is now complete and closed out.
- It is hoped that we have some positive media coverage.

DF: The notes of the meeting and the presentations will be distributed to meeting attendees once finalised.

The meeting was closed at 13.15.

*A.7.8.5 Notes of Public Outreach Roadshow – Round 1 for Stage 1 Consultation**A.7.8.5.1 Western Cape - Cape Town: 1 November 2017*

Meeting:	Cape Town Public Meeting: Meeting Notes		
Date of Meeting:	01 November 2017		
Venue of Meeting:	Cape Town Library: 60 Darling Street, Cape Town, 8000		
Duration:	17H30 to 19H30		
Attendees:	<ul style="list-style-type: none"> ▪ Annick Walsdorff (AW) ▪ Samukele Ngema (SN) ▪ Simon Moganetsi (SM) ▪ Tobile Bokwe (TB) ▪ Neville Ephraim (NE) ▪ Rohaida Abed (RA) ▪ Dumisani Mthiyane (DM) 	<ul style="list-style-type: none"> ▪ Fahiema Daniels (FD) ▪ Tsamaelo Malebu (TM) ▪ Norma Malatji (NM1) ▪ Vusimuzi Zwane (VZ) ▪ Marilyn Lilley (ML) ▪ Anschen Friedrichs (AF) ▪ Howard Maggott (HM) 	<ul style="list-style-type: none"> ▪ Jody Brown (JB) ▪ Ingrid Schofman (IS) ▪ Sipho Mkwana (SM1) ▪ Jonathan Crowther (JC) ▪ Benedicta Mahlangu (BM) ▪ Nokwanda Mkhize (NM)
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting

An initial Public Outreach Process extending from 1 November 2017 to 13 November 2017 has been scheduled at various regions across the country to present the Strategic Environmental Assessment (SEA) and the initial draft Phased Gas Pipeline Network (PGPN) and Electricity Grid Infrastructure (EGI) expansion corridors to the public, as well as to discuss information requirements and feedback that is required by the SEA Project Team. The meeting was chaired by Mrs. Annick Walsdorff (AW) from the Council for Scientific and Industrial Research (CSIR). Presentations were delivered as per meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:30 – 17:45	Welcome and Introductions	CSIR (AW)
17:45 – 18:00	Background on the Phased Gas Pipeline Network Corridors	iGas (NE)
18:00 – 18:15	Introduction to the SEA Process	DEA (SM)
18:15 – 18:45	SEA Process and Proposed Methodology	CSIR and SANBI (AW and FD)
18:45 – 19:30	Discussion, Way Forward and Closing	All

2. Comments and Responses

Comments or Questions Raised	Responses
<p>ML: Is offshore pipelines or drilling part of this SEA, who would look at that and what department would it fall under? With offshore development there are huge seismic assessments which affect the marine ecology, are there public participation processes that will be undertaken for the seismic exploration?</p>	<p>AW: We are not looking at any offshore activities in this SEA Process. We are only assessing the corridors for sensitivity for the proposed development of onshore pipelines, and the offshore work would be done separately. The offshore drilling and exploration would trigger a separate Environmental Impact Assessment (EIA) which would be reviewed and decided on by the Department of Environmental Affairs (DEA), and if there is digging, this will fall under the jurisdiction of the Department of Mineral Resources (DMR).</p> <p>NE: We are creating an environment for offshore exploration by providing an onshore pipeline network which could potentially be used to distribute the gas found offshore.</p> <p>BM: The developer who is conducting the seismic testing would have to do the public participation process as part of their EIA application.</p>
<p>ML: What type of development will occur in the corridors? What other infrastructure associated with the pipeline will be constructed in the corridors and how big will they be? Will the proposed pipelines be below or above ground? How will waterways and rivers be impacted on by the underground pipelines? Will this be similar to the Dakota Access Pipeline in the USA, and will you have compressor.</p>	<p>AW: The study corridor is 100 km wide and in terms of the scope of the SEA, only the aspect of transmission pipeline development would be assessed. However, the entire 100 km corridor will not be sterilised for pipeline development. The objective is to assess the suitability and sensitivity of the corridor and to find corridors with the most least sensitive areas and engineering constraints.</p> <p>NE: The proposed pipeline will be underground, and the visible structures will be in the form of Piggings Stations where the pipeline comes above ground. A PIG is a Pipeline Intelligence Gauge used for pipeline inspection. The Piggings Stations can be 130 km apart from each other along the proposed pipeline route. Pipeline markers will also be placed every 1 km along the proposed pipeline route. Compressor stations would be required to increase the throughput of the pipeline. In the Rompco Pipeline, for example, the compressor station is located in agricultural lands, so the impact on surrounding settlements is minimal.</p> <p>In terms of transmission power lines, the visible infrastructure will include pylons and the actual powerlines, as well as connection to the substations.</p> <p>The pipeline infrastructure can exist together with rivers and waterways and they present a limited risk of spillage to the riverine systems. The width of river will determine the type of crossing, i.e., either open cut or Horizontal Directional Drilling (HDD) and amount of HDD drilling required. At this point there is no proposal to develop any new large infrastructure such as refineries. That will be discussed later depending on the business case, and will be based on a separate assessment process.</p>
<p>ML: Has this SEA been completed or is it in progress? When will the required EIA and its associated public participation process be undertaken, as it is important for the public to get the full picture of the pipeline so they can be prepared.</p>	<p>AW: This SEA has started recently and is anticipated to be completed around mid-2018.</p> <p>NE: The Public Participation Process requirements as part of the separate EIA Processes are noted and this will be undertaken on a project specific basis, once there is a business case.</p>

Comments or Questions Raised	Responses
Will there be flaring? What impact will the proposed project have on the carbon footprint?	There will not be any flaring activity along the proposed pipeline routes. That is restricted to the existing stations at this point. The objective for the developer is to build a safe pipeline that will not incur any product losses via flaring or other means in order to reduce loss of capital. However the mechanisms for flaring will be in place should this be required for emergency situations. These issues will all be dealt with in the proposal to actually construct the pipeline on a project specific basis. At this stage, the SEA Process is only focusing on pre-planning and pre-assessment, should the proposed pipeline occur.
BM: Is there a plan to allow for off-takers along the pipeline route on the way to the expected hubs (i.e. incorporating other industrial areas along the way)? Which gas is the focus at this point?	NE: The corridors consider the major industrial areas and ports (such as Richards Bay, Saldanha and Ngqura). There are the block valves every 30 km and PIG Stations every 130 km along the pipeline route, and these can be points for off-takers to source the gas. The SEA is focused on Methane gas.
AF: How flexible are the phases which have been identified? Can the phases start in a different sequence based on demand?	NE: These are autonomous of each other, and the business case will determine which phase starts first depending on supply and demand. Therefore, the order or construction can be different from the numbering.
IS: What security measures will be implemented into the design of the proposed pipeline structure, in case of any sabotage? Is there scope for these corridors to have other infrastructure such as fibre optics and telecoms so that resources could be enhanced?	NE: When the route is finalised and construction will commence, there will be a construction right of way which is between 30 – 50 m wide, and the final operational servitude will be 10 m wide with the pipeline located in the middle of the servitude. There will be markers every 1 km along the pipeline route, but there will be no security on the pipeline itself. However, as part of the maintenance and inspection processes, the route will be driven or flown over, and more recently drones are also being used to monitor the route. It is possible to have other infrastructure located within the servitude. This is already being done with the Rompco pipeline from Mozambique to Secunda with fibre optic cables being included in certain parts of the trench. JC: There are already pipelines (from Saldanha) which are visible from the road, and the operator flies the routes every 3 months to monitor them. In terms of security, existing pipelines are mostly located on private property and there is limited access. The pipelines are made of strong material, such as thick steel. VZ: There are also inspections undertaken on behalf of the National Energy Regulator of South Africa (NERSA). There are also other infrastructure occurring within the servitude for the Transnet's National Multi-Product Pipeline.
ML: If the gas is found in South Africa, who will drill it? The ports would be important in this project. Who would be funding the process of moving the gas to and from the ports for import or export, would it be private companies, who would then sell it to a foreign a market? What costs will this have on South Africa, and who will invest in this and who will benefit? How will it affect farming areas and who will be responsible for the servitude, or will the land be expropriated? Does the pipeline affect the insurance policy of the farmers?	NE: It depends on the quantities found, we cannot comment now on who would do the explorations except that it would be the licence owners of the respective blocks. In Mozambique, ENI has a floating LNG project linked to the Rovuma Basin. All of that gas is being exported. We would want to use all of the gas in South Africa and only export if the volumes are sufficient. In terms of costing and investment associated with the proposed pipeline, there will not be any cost to the South African citizens and tax payers, as this is not a public project. iGas a government company will be involved in the development. However, the proposed pipeline

Comments or Questions Raised	Responses
	<p>development will be project financed with loans from banks that will be repaid with proceeds from the pipeline income. Each pipeline will have its own business case.</p> <p>The landowner will be made aware of the requirements and restrictions (such as not planting any deep-rooted crops or constructing any buildings and infrastructure within the servitude itself) during the servitude negotiation process.</p>
<p>JC: Based on the wall to wall environmental sensitivity map, the green or low sensitivity areas are shown to be in the Kalahari, so does it mean it is the only place to develop a pipeline? How do you set the limit of all the sensitivity criteria? If you tweak the limits and it shows that the whole country is red (high sensitivity), then the settings of the sensitivities are wrong. This visual impression of the environmental sensitivity wall to wall map is a negative one (as it is mainly high sensitivity).</p>	<p>FD: The proposed corridors that will be assessed as part of this SEA do not intersect with the Kalahari Desert, and therefore from a data perspective and environmental sensitivity, this area was not the focus. At this scale, the draft wall to wall map shows red (high-very high sensitivity) in most areas but at finer scale there are areas of lower sensitivity and therefore there are possible routes through least sensitive areas. We are still at the early stages of this process, and with the help of specialists we will be able to refine the sensitivities and allocate to them the appropriate sensitivity ratings. These will also be supported by the site specific assessment development protocols which will guide the developer in terms of what must be done on a site specific level in areas of medium, high and very high sensitivity in order to go ahead with their project, and obtain Environmental Authorisation (EA) in terms of the EIA Regulations. In areas of low sensitivity, the developer of the pipeline would be exempt from an EIA Process, whilst still following the Norms or Standards, or some level of pre-compliance assessment and site verification.</p>
<p>JC: In terms of the EIA Regulations and listed activities, a developer of a pipeline would need to do an EIA regardless of which area the pipeline will be developed, unless you are going to change the legislation through this SEA Process.</p>	<p>Note from the CSIR: If a pipeline will be developed in a low sensitive area within the corridor, the developer would be exempt from undertaking an EIA while still following a Norm or Standard. It does not mean that some level of assessment would not be required - this could be a site verification visit or a compliance statement which will all be confirmed in the Norms or Standards and Protocols.</p>
<p>VZ: Are you saying this picture of the maps may change as we go along?</p>	<p>FD: The locations of the corridors may change a little bit but the sensitivity will change over time as we get more refined data and specialist inputs. The environmental features that are being considered might probably not change.</p>
<p>IS: Is the SKA area considered?</p>	<p>FD: It is considered and marked as a very high sensitivity area. However it will not be affected by the gas pipeline as there is no electromagnetic interference and radiation created by gas pipelines.</p>
<p>AF: I suggest you contact companies which already hold EAs for gas pipelines that would be willing to share the information of the different data they generated in their application process.</p>	<p>Note from the CSIR: Comment noted. The Project Team will research companies that have existing EA approvals and will approach them for information.</p>
<p>JB: Within the corridors there are CBAs and protected areas etc. Will the SEA be proactively looking at methods for generating biodiversity offsets? Will that matrix be quantified in this SEA?</p>	<p>FD: This SEA will not be quantifying any matrix in terms of offsets as the SEA is on a landscape scale and offsets would need to be considered and quantified on a project specific basis. Along with the specialist inputs, there would be the compilation of a site specific development assessment protocol, which may have the recommendation for biodiversity offsets on an individual project basis.</p>
<p>IS: I suggest you contact the Endangered Wildlife Trust (EWT) for information and feedback.</p>	<p>AW: The EWT are aware of the project and are on the project Expert Reference Group.</p> <p>FD: The EWT has also provided data that can be used in the sensitivity analysis.</p>

Comments or Questions Raised	Responses
<p>ML: I suggest you invite the San people to partake in this SEA as it involves their areas as well. I also suggest there is an air quality assessment as part of this SEA, as the compressor stations have fugitive emissions which you cannot see and but are serious health hazards. If there is flaring, a visual study should be taken into consideration. In addition, there should be a greenhouse gas and carbon footprint report of the pipeline.</p>	<p>FD: Those studies would fall under the EIA Process and not necessarily in the SEA.</p> <p>SM: With the appeals currently going on, there is a recommendation that any development with climate change issues need a climate change specialist to consider the impact. However, this is in the process of being implemented in the EIA Process, on a project specific level.</p> <p>VZ: From NERSA's perspective, when applicants are submitting an application; they are expected to produce a climate change report.</p>
<p>IS: Is there any timeframe set aside for the SEA process to occur?</p>	<p>AW: We are tentatively planning to finalise the SEA process by mid-2018, and the gazetting by the end of 2018.</p>
<p>JC: This can cause uncertainty to the local authorities as they made need to consult you every time they want to do anything in the 100 km corridor while waiting for the pipeline to occur.</p> <p>IS: Some authorities are completely defunct and have no capacity to do anything, and based on experience there is no feedback in trying to engage with some municipalities as there are no plans currently there.</p>	<p>AW: We will look at Provincial SDFs (20 years and updated every five years) as well as district municipalities SDFs/IDPs for current plans to ensure that these are taken into consideration when identifying the best routings. It is also important for province and municipalities do take the proposed corridors into consideration in future developments.</p> <p>TB: The objective of the SEA is to identify incompatible land uses for the pipeline and not completely sterilise the whole area in the corridor. We must link the gas pipeline and the SDFs going forward.</p>
<p>ML: Looking at the 100 km wide corridors, how will all the affected parties be informed of the project and that they fall within the corridors, and how does this affect property prices in the next 20 years?</p>	<p>AW: We are looking at 100 km wide corridors so that we can identify as many low sensitivity routes as possible, so if there is an issue during landowner negotiations, a different route can be opted for. Landowner issues will not be discussed at this SEA Level, and would be undertaken on a project specific basis, along with necessary public participation required in terms of the EIA Regulations. In addition, it does not mean that some level of specialist assessment or verification would not be required.</p> <p>SM: It is important to note that streamlining the EA Process does not negate the need for some level of assessment to be undertaken if a listed activity is triggered. Note from the CSIR: Kindly refer to the responses provided above about the decision-support tools (i.e. Norms, Standards and Assessment Protocols).</p>
<p>AF: Since we do not have many gas pipelines in South Africa, it is normal to be sceptical about them, but pipelines are all over the place in Europe and the developers make sure their product has the least chance of being lost through accidents etc. and are delivered as securely as possible (i.e. they invest in the design).</p>	<p>AW: Noted. In addition, as part of the sensitivity analysis, the human settlements will be considered, as well as the proximity to gas pipelines.</p>
<p>JC: You should have information on how gas networks actually function in other parts of the world, and this should be on the project website, and you should also show the benefits of gas as opposed to coal.</p> <p>With regards to the decision making factors, this SEA supersedes the EIA through its instruments of gazetting a corridor. The concern is when legislation changes often and it is not taken into consideration properly. In the norms and standards will there be careful interaction with industry to ensure the standards are appropriate?</p>	<p>AW: In the norms or standards, recommendations of an environmental nature will be provided, not design standards. Those design standards would be implemented during design, construction and operation, and would be provided by the developer (such as iGas). It is understood that a SABS standard for pipeline designs in South Africa is being developed.</p> <p>NE: Currently we are using the American ASME B31.8-2016 standard, but each design will be specific to a pipeline.</p>

Comments or Questions Raised	Responses
<p>What design standards does South Africa use and what will occur when there are two different countries involved in the design and construction – which standard will be used to ensure that there is no differing level of work?</p> <p>IS: When will the norms or standards be developed?</p>	<p>TB: The issue would be compliance and linking it to the objective that needs to be achieved and what is acceptable to South Africans.</p> <p>Note from the CSIR: They will be developed as part of this SEA Process, and is one of the outputs.</p>
<p>ML: What monitoring will be undertaken when the actual pipeline is being developed to ensure the building designs are being adhered to?</p> <p>Will there be any public participation for the construction phase?</p>	<p>NE: During construction, an Environmental Management Programme (EMPr) would be complied with and an Environmental Control Officer would be required to monitor compliance with the EMPr. Competent Authorities are also required to keep track of progress and compliance with the EMPr.</p> <p>Note from the CSIR: The requirements of compliance monitoring are usually stipulated in an EA, and for this SEA it will be stipulated in the outputs (such as the EMPr, Norms or Standards and Protocol, as necessary).</p> <p>SM: If we become too prescriptive it becomes difficult to monitor, the goal should be to comply with certain standards and ensure overall compliance.</p> <p>TB: Another point to consider is to ensure that the engineers are aware of the conditions noted in the EA, so that overall compliance can be achieved.</p> <p>Note from the CSIR: The requirements for public participation would be stipulated at a project specific basis, depending on what level of assessment would be required. This will be guided by and specified in the outputs of the SEA.</p>
<p>ML: If it takes 20 years for the pipelines to happen, how would that influence the results of all these assessments that are currently being undertaken?</p> <p>JC: It is understood that the objective is to find the path of least resistance, and if there are large sensitivity or data gaps, these would be verified as part of a separate Environmental Assessment Process, which would have a validity period should an EA be issued.</p>	<p>NE: It is important to re-iterate that the pipeline will not be built if there is no business case.</p> <p>AW: This is not an EIA which has a validity period, so time constraints would not apply. There is not validity period on the actual SEA and its outputs, and furthermore, there will still be a need to undertake some level of assessment for pipeline development within the corridor, so the environmental features can still be verified or ground-truthed by specialists on a project specific basis. Furthermore, the corridors themselves would be gazetted and not the actual sensitivities of the features, which may evolve with time.</p> <p>FD: The protocols would stay the same, and the changes would be the data which was used to produce the final corridors and the data used by the DEA screening tool which would be up to date at that time and still apply the same protocols produced now.</p>

A.7.8.5.2 Eastern Cape – East London: 2 November 2017

Meeting:	East London Public Meeting: Meeting Notes		
Date of Meeting:	02 November 2017		
Venue of Meeting:	East London City Hall Conference Centre: Oxford Street, East London City Centre		
Duration:	17H30 to 19H30		
Attendees:	<ul style="list-style-type: none"> ▪ Annick Walsdorff (AW) ▪ Samukele Ngema (SN) ▪ Simon Moganetsi (SM) ▪ Tobile Bokwe (TB) ▪ Rohaida Abed (RA) ▪ Yamkela Gilili (YG) ▪ Xhanti Rwayi (XR) ▪ Ayanda Keka (AK) ▪ Lizalise Mngcele (LM) ▪ Simthandile Lintes (SL) ▪ Nandipha Mshumi (NM) ▪ Bev Gush (BG) ▪ Moeketse Nthabisena (MN) ▪ Nicosinathi Sifenengu (NS) ▪ Sekeleni Makeleu (SM1) ▪ Mbi Ayola (MA) ▪ Nozako Ncapayi (NN1) ▪ Lunga Khuphelwo (LK) ▪ Tsamaelo Malebu (TM) ▪ Thabani Dlamini (TD) 	<ul style="list-style-type: none"> ▪ Mosali Gigaba (MG) ▪ Nhlanhla Ndikandika (NN) ▪ S. Mlinda (SM2) ▪ Nobuhle Menziwa (NM1) ▪ Nwabisa Gili (NG) ▪ Nomeva Zimkhitha (NZ) ▪ Lwazi Rabaza (LR) ▪ Thozama Stuurman (TS) ▪ Yandisa Ntshebe (YN) ▪ Sinekhaya Godlimpi (SG) ▪ Zanele Gangala (ZG) ▪ Magwala Sinazo (MS) ▪ Zembe Nkosoxolo (ZN) ▪ Mzamo Vanisile (MV) ▪ Mtwa Vuyiswa (MV1) ▪ Maria Mtyando (MM) ▪ Ndilungelo Mbusi (NM2) ▪ Nobabalo Nyombo (NN1) ▪ Vusimuzi Zwane (VZ) ▪ Dumisani Mthiyane (DM) 	<ul style="list-style-type: none"> ▪ Andiswa Zimkhatha Ndlela (AZN) ▪ Nopasika Lady Leve (NLL) ▪ Simphiwe Williams (SW) ▪ Mandla Ndosomathathi (MN1) ▪ Luxolo Hoho (LH) ▪ Nwabisa Dyani (ND) ▪ Makungo Shumani (MS) ▪ Luvo Nonkonyana (LN) ▪ Shakir Fataar (SF) ▪ Nkosipi Yendule (NY) ▪ Asanda Kula (AK) ▪ Phelo Dondolo (PD) ▪ Andisiwe David (AD) ▪ Bongilewe Kentane (BK) ▪ Nontobeko Pokwana (NP) ▪ Vuyiseka Mtati (VM) ▪ Michele Rivarola (MR) ▪ Mr. Mfundo ▪ Councillor Vusumzi Njece (VN)
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting

An initial Public Outreach Process extending from 1 November 2017 to 13 November 2017 has been scheduled at various regions across the country to present the Strategic Environmental Assessment (SEA) and the initial draft Phased Gas Pipeline Network (PGPN) and Electricity Grid Infrastructure (EGI) expansion corridors to the public, as well as to discuss information requirements and feedback that is required by the SEA Project Team. The meeting was chaired by Mrs. Annick Walsdorff (AW) from the Council for Scientific and Industrial Research (CSIR). Presentations were delivered as per meeting agenda below

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17:45 – 18:15	SEA Process and Proposed Methodology	CSIR and SANBI (AW and TM)
18:15 – 19:00	Discussion, Way Forward and Closing	All

2. Comments and Responses

Comments or Questions Raised	Responses
MR: There is an abundance of natural gas in Angola and Mozambique. So why would South Africa want to destroy its own environment when it can actually exchange gas for other goods with these countries? We buy oil from Saudi Arabia yet our neighbours are shipping oil to the United States. Shale gas uses about 1000 kilolitres of water a day, where will this water be obtained from to support the shale gas? Shale gas exploration in the United States of America has left the community of Kentucky not able to drink water from their taps as it is polluted and contaminated as a result.	<p>TD: South Africa does get natural gas from Mozambique via the ROMPCO pipeline; however South Africa needs to also ensure security of supply of its own energy, supporting the Integrated Resources Plan (IRP) energy mix. That is why we do not want to rely solely on Mozambique, but we also want to grow the economy and create jobs. It is also important that South Africa has an energy mix, where we have alternative energy sources, with fewer emissions, supporting “Green” cleaner energy future.</p> <p>The issues of water pollution as a result of shale gas exploration has evolved a bit, where there have been developments in the technology and the water requirements have decreased at this stage. The issues related to Shale Gas are however not within the scope of this current SEA relating to the PGPN. These issues should be dealt with during the Shale Gas development if it does actually take place.</p> <p>AW: The objective of this SEA is to do a pre-assessment of a gas pipeline corridor to facilitate the occurrence of gas being used as an alternate energy source. It is not specifically assessing shale gas exploration. This SEA is undertaken to ensure that the background work has been done and an environmental permitting process is streamlined if a pipeline network is to be constructed, once gas is found and is ready to be transported via transmission lines.</p>
Mr. Mfundo: I support this project, we are aware of the crisis of water, but this project will create jobs, and we just want to know when this project will start because this is an opportunity for the Buffalo City Metropolitan. At least this Department is being proactive, and has told us about this project and its possibility in the future, and will also reveal to us what challenges we will face (in terms of impacts as a result of the project).	Note from the CSIR: Comment noted. It should be noted that any potential job creation would be during the temporary construction phase (if the construction of the proposed pipeline does materialise and the extent of such jobs would be determined per project, based on its business case).
NM: Is this development only happening inland/onshore or is it also happening in the sea/offshore?	TD: All the corridors are located onshore. This SEA will not assess any offshore activities related to gas exploration. The proposed pipeline will only be onshore as it will be easier to get to the market, and because of accessibility and maintenance issues. The costs are also lower when the pipeline is inland.
MR: The probability of load shedding being implemented may happen again in 4 to 5 years if we decide not to maintain the existing power stations, we do not have a shortage	SM: This process will consider the affected municipalities and will generally look at their capacity to deal with a proposed gas pipeline in terms of any risks and emergency events

Comments or Questions Raised	Responses
<p>of power right now. South Africa has good environmental legislation but poor enforcement. In the event of a disaster, there is no clear way forward (for example, refer to the recent plastic pellet spill on the coastline). How will this pipeline be upheld to regulatory controls, especially considering the environmental constraints and potential hazards of this gas pipeline?</p>	<p>that may occur.</p> <p>AW: These types of incidents will be dealt with when a specific route has been chosen on a project specific basis, but will also be generally considered in this SEA Process, as part of the Environmental Management Programme (EMPr).</p>
<p>MR: With the pinch point analysis, have you considered environmental offsets because sometimes the cheapest route is selected, which may result in environmental impacts?</p>	<p>TM: This is a question which has been asked frequently. The SEA aims to reveal upfront which are the high and very high sensitivity areas, so that they can be avoided, and the analysis will give the least sensitive possible paths which can be considered for development. The SEA does not look at offsets, but the protocols (that will be compiled as part of this SEA) will guide the developers in terms of the level of site specific assessment that is required, and there might be recommendations regarding offsets within the protocols.</p> <p>AW: This SEA gives guidelines as to what routes to take (i.e. least sensitive) and what steps should be taken in order to achieve the Environmental Authorisation or approval, for developments within the corridors.</p>
<p>MR: In terms of environmental auditing, the developer should make a provision in their budget for rehabilitation and environmental reparation at the decommissioning stage.</p> <p>MR: This should not be a tax payers concern. Whoever benefits from the gas pipeline should be compelled and forced to rehabilitate the affected areas, and decommission correctly when required.</p>	<p>AW: That recommendation will be included in the generic EMPr and the responsibility will be with the developer or operator (in relation to the lifetime costs of the project, including decommissioning).</p> <p>TD: As part of the licence conditions to operate, an amount is set aside by developers for decommissioning procedures.</p> <p>DM and VZ: When applying for an operator licence with the National Energy Regulator of South Africa (NERSA), timeframes and conditions will be stipulated in the licence, including any decommissioning requirements. NERSA also looks at the value of the pipeline at the time of decommissioning, and the licence conditions will also be monitored in terms of how they are enforced and funds available for decommissioning will always be considered.</p> <p>Post Meeting Note: Current Environmental Impact Assessment Processes require acquisition of an Environmental Authorisation for decommissioning activities. The costs associated with the decommissioning will have to be budgeted for by any developer, so as to ensure compliance of the Decommissioning EMPr.</p>

A.7.8.5.3 Gauteng – Johannesburg: 6 November 2017

Meeting:	Johannesburg Public Meeting: Meeting Notes		
Date of Meeting:	6 November 2017		
Venue of Meeting:	CSIR Offices, Corner Carlow and Rustenburg Roads, Johannesburg, 2001		
Duration:	17H00 to 19H00		
Attendees:	<ul style="list-style-type: none"> ▪ Dee Fischer (DF) ▪ Tobile Bokwe (TB) ▪ Thabani Dlamini (TD) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Samukele Ngema (SN) ▪ Tsamaelo Malebu (TM) ▪ Norma Malatji (NM) ▪ Gabrielle Stein (GS) 	<ul style="list-style-type: none"> ▪ Lisa Opperman (LP) ▪ Judith Taylor (JT) ▪ Margie Pretorius (MP) ▪ Megan Murison (MM) ▪ Nuala Gage (NG) ▪ Pieter Ebertsohn (PE) ▪ Roger Rudd (RR) ▪ Reece van Buren (RVB) ▪ Ilonka Haylett (IH) 	<ul style="list-style-type: none"> ▪ Basie Bouwer (BB) ▪ T. Volschenk (TV) ▪ Chris Carnegie (CC) ▪ Zozoe Radebe (ZR) ▪ Jeff Barbee (JB) ▪ Vusimuzi Zwane (VZ) ▪ Dumisane Mthiyane (DM) ▪ Busi Dlamini (BD)
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting

An initial Public Outreach Process extending from 1 November 2017 to 13 November 2017 has been scheduled at various regions across the country to present the Strategic Environmental Assessment (SEA) and the initial draft Phased Gas Pipeline Network (PGPN) and Electricity Grid Infrastructure (EGI) expansion corridors to the public, as well as to discuss information requirements and feedback that is required by the SEA Project Team. The meeting was chaired by Mrs. Dee Fisher (DEA). Presentations were delivered as per meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 - 17:15	Welcome and Introductions	DEA (DF)
17:15 - 17:30	Background on the Phased Gas Pipeline Network Corridors	iGas (TD)
17:30 - 18:00	Introduction to the SEA Process and Proposed Methodology	CSIR and SANBI (AW and TM)
18:00 - 19:00	Discussion, Way Forward and Closing	All

2. Comments Raised and Responses Provided:

Queries or Comments Raised	Responses
<p>JT: What will the carbon footprint be and what restrictions will apply for farmers and other landowners?</p>	<p>DF: At this stage, the SEA Process is only pre-assessing the environmental sensitivity of 100 km wide corridors to inform planning of potential gas pipeline infrastructure and EGI. We are not assessing a specific route and therefore not undertaking land negotiations at this stage of the project. Those negotiations will be undertaken at a project specific level once a specific route for pipeline development is proposed.</p> <p>There is no carbon footprint being assessed as this SEA is strategic in nature and is not project specific. The development of each phase of the proposed pipeline network will depend on the gas demand and will be based on a business case. This SEA Process is undertaken prior to the development of the proposed gas pipeline. Gas is not seen as a near term realisation due to prices but it does not mean that we cannot start preparing. For example, it takes about seven years for a powerline to be developed under the Environmental Impact Assessment (EIA) Regulations, where a developer needs to assess alternatives, and then undertake negotiation with landowners. If there are any issues raised by the landowners, the process needs to be started again to determine another route. Therefore, for this Gas Pipeline SEA, we aim to look more strategically at the corridors in order to streamline the authorisation process. We are not looking at any potential of gas; we are only proactively assessing the environmental sensitivity for pipeline development. There is nothing planned for gas development currently except at the Ports; however in terms of Operation Phakisa it is required to be proactive to ensure that one is able to move quickly in terms of pipeline development when the economic opportunity arises.</p>
<p>MP: Government tends to undertake tasks in a piecemeal and disingenuous manner. For example, in KZN, meetings were held regarding the potential for fracking and it was mentioned that they are only exploring and fracking would not occur. However, why explore if there is no chance of fracking? The same applies to this SEA; why assess the corridors if you are not going to explore for gas and transmit it via pipelines?</p> <p>However, you need to look at the end goal of this process and assess it comprehensively, i.e. that there is going to be a gas pipeline and exploration. This should not be undertaken on a piecemeal basis.</p>	<p>DF: It is possible that Government did not present the option of fracking in KZN; it would have been the developer applying for an exploration permit. This SEA is only pre-assessing the environmental sensitivity (in terms of biophysical, social and economic aspects) of the corridors towards the development of a potential gas pipeline and does not consider any gas exploration activities. Offshore gas exploration activities will need to undergo a separate EIA process in terms of the EIA Regulations.</p>
<p>BD: How was this project advertised to the public and why was this area chosen for a public meeting? I found out about the meeting via a colleague. Consultation should be more focused on the people affected and should be accessible to all. Another meeting in Johannesburg should be considered (such as in Soweto).</p> <p>MP: Are you happy with the public representation at this meeting i.e. only 7 people not related to the gas industry?</p>	<p>DF: We are not happy with the representation at the meeting; however we are confident that we have done enough to inform the public of these meetings. It is important to understand that this is an SEA and not an EIA which assesses a project specifically and is required to undertake a regulated Public Participation Process in terms of the EIA Regulations. One needs to understand how consultation in this SEA Process is undertaken. We have set up a Project Steering Committee (PSC) and Expert Reference Group (ERG) and we will meet with these groups quarterly during the SEA Process. We will also undertake various focus group and sector specific meetings with key stakeholders. We are currently undertaking the first of two public and authority roadshow</p>

Queries or Comments Raised	Responses
JT and MP: This project could have been advertised on the radio.	meetings across the country, from 1 to 13 November. There will be another round of public and authority outreach meetings. We have also published advertisements about one month ago in many newspapers across the country to advertise the public meetings. A dedicated project website has also been created and is updated regularly, which is available for public access.
JB: The numbers shown in the presentation for gas usage, exploration and planning are outdated and other studies done by the CSIR (two years ago) and the Nelson Mandela University (NMU) shale gas study should be considered. The shale gas area also shown on the map is different from the one identified by the NMU.	TD: The numbers in iGas presentation are estimated offshore gas resources and potential gas market, and do not represent Shale Gas resources. This SEA is not specifically related to shale gas exploration.
JT: Have you considered the impact of seismic drilling on the ocean?	DF: No. Any drilling activities related to offshore exploration will need a dedicated EIA and during that stage, there will be separate public participation meetings. This SEA is only high-level planning.
MP: South Africa should shift and advance to clean energy such as Europe.	TD: Europe, for example, has a considerable amount of gas pipelines. We are trying to look for a mix of energy, and this is what the Integrated Resource Plan (IRP) is looking at.
This process should describe the negative aspects of the pipeline, and not only the positives.	DF: We are trying to avoid areas of high and very high environmental sensitivity and therefore trying to avoid negative impacts.
CC: What is the project website?	AW: It is https://gasnetwork.csir.co.za/
CC: What parameters will be used in the Least Cost Path (LCP) Analysis and the complete engineering constraints; and what assumptions (such as diameter and trench size etc.) will be used to reduce costs and can this be shared with the public?	<p>DF: We are not looking at the base case and costs. The environmental sensitivities and engineering constraints will be rated from low to very high.</p> <p>AW: The engineering constraints associated with constructing a gas pipeline are rated from Low to Very high. We are not looking at the specifics of the pipeline itself. For example, for slope: we are dividing it into four categories ranging from 0° to 45°, and the greater the slope, the greater the constraint. These constraints will be included in the SEA report and therefore shared with the public.</p> <p>The pinch point analysis looks at the best routing within the corridor based on the least sensitive areas and areas with the least engineering constraints.</p> <p>TD: The minimum assumption is to avoid fatal flaws and look at actual constructability of the pipeline. A constructability assessment will be undertaken on a project specific level.</p>
CC: Has market analysis been completed? Is the DTI involved in this project?	<p>TD: Studies have been done by iGas, the Department of Trade and Industry (DTI) and Transnet. The DTI study is mainly based on the KZN market, and iGas looked at Gauteng. The numbers included in the presentation might not be the latest but the aim was to show what has changed since 2014.</p> <p>The DTI is not an official project partner but they do share information and are registered on the PSC and ERG.</p>
GS: In terms of the assessment of environmental sensitivity and constraints, you mentioned impacts on surface water; however will groundwater be looked at?	DF: There is not a huge amount of geohydrological information available. The pipelines are not that deep and not many towns are 100% dependent on groundwater.

Queries or Comments Raised	Responses
	AW: We do have a map on strategic groundwater and surface water source areas that we will consult with during the SEA Process.
JT: You should consult with the water caucus and SA Wetland Society.	AW: Noted
<p>IH: How will the impact assessment be done, will cumulative impacts be considered and will there be a statement of cumulative impacts per province, and how will it be stated in terms of environmental and engineering constraints? Will the specialists assess cumulative impacts during the SEA Process?</p> <p>TB: To clarify the question asked by IH and JT, it appears like they are asking how will the impact of the pipeline going to be assessed after the SEA, once a project has been identified at that point in time. Thus our response should clarify the permitting processes following the SEA.</p> <p>IH: It is important that people are aware of what the actual impact of the actual pipeline will be. What happens after the gazetting process? Will it be integrated into municipal plans? We need to avoid a fragmented approach. SANBI has the information that is available and the specialists should consider it.</p> <p>There is a concern for the actual people on the ground that will be affected by the pipeline, especially landowners. This project should have the power to say what is to be done at a strategic level.</p> <p>JT: The concern is that the public's trust has been compromised. For example, consider Lephalale and the Waterberg, where the Government has been taken to court. There will be an impact on small communities unless they can appoint an NGO to help defend them.</p>	<p>DF: At this stage cumulative impacts associated with various types of potential development within the area (e.g. shale gas, gas to power, gas pipelines) will not be assessed. The objective of this SEA Process is to highlight least sensitive environments for the development of a gas pipeline network and EGI expansion and to implement the avoidance hierarchy (i.e. route the pipeline/powerline in low sensitivity areas).</p> <p>Once a corridor has been finalised and agreed on, it will be submitted to Cabinet for consideration and thereafter it will be gazetted together with Site Specific Assessment Protocol and the Norms or Standards. South Africa has an Environmental Assessment (EA) Process that is mandatory, and all listed activities, if triggered, will require an assessment of impacts. Therefore, the impacts will be dealt with in that specific EA Process. Once gazetted, this will result in a streamlined EA Process i.e. where the pipeline will be routed along a low sensitivity area, an EIA Process would not be required and the Norms or Standards would need to be implemented. For example, with the EGI SEA, Eskom now has the option to do a Basic Assessment and not an EIA, as they can now provide a pre-negotiated route within a pre-assessed area. There will still be a need to do some level of assessment, whether it be a compliance statement or BA, provided that the route is within low sensitivity pre-assessed areas.</p> <p>We have scheduled meetings to engage with the municipalities so that they become aware of the national planning in terms of the corridors, and to ensure that they use and consider the corridors in their planning.</p> <p>AW: Consultations and negotiations with the landowners will be done at a project specific level, once a pipeline is proposed to be developed along a specific route. If there are issues, the route can be changed within the assessed corridors.</p> <p>TM: What is being presented in terms of sensitivity features are just examples, and not the whole master database, other information is being considered and we are considering SDFs and local information.</p>
BB: What will the width of the eventual corridor be?	AW: A typical operational servitude width will be 10 m and the pipeline will be routed in the middle. Additionally, a 10 m servitude does not prevent agriculture (but an engineering constraint would be deep rooted crops); however there will need to be agreement with the landowner in terms of maintenance; and this can only occur once a route has been identified.
RVB: To what extent can the corridor be used for other infrastructure?	<p>DF: The SEA will only assess sensitivities towards the construction of a gas pipeline and powerline within the proposed corridors.</p> <p>Note from the CSIR: In addition, as part of this SEA, we will also identify developments that are less favourable in proximity to a gas transmission pipeline and these will be taken into</p>

Queries or Comments Raised	Responses
	consideration when identifying the best routings for the gas pipeline. The entire 100 km wide corridor will not be sterilised, and the corridors can be used for other infrastructure.
MP: We would like to trust that this will be only done if it is beneficial. For example, the N2 Toll Road project is mainly about construction companies making money, and SANRAL has been taken to court many times. As DEA, you should be wary that this might all be about making money. As a country we should be looking at more autonomous localised energy planning and economy. I understand that your SEA is only assessing the sensitivities within the corridor and not assessing the project specific aspect of actually building the pipeline but it will be about clearing a way for the pipeline.	DF: Noted and the SEA will not consider aspects about financing the construction of a pipeline now. TD: This will only happen if there is enough business case and if there is a market. iGas will apply for funding for the construction of the gas pipeline and this will not affect tax payers.
ZR: From a social perspective, where would skills development be taken into consideration? MP: We previously did not see government providing any information about actual job creation. Also outdated systems are being used (such as the GDP).	DF: This will be considered once the project specific pipeline is being developed. TD: Through this process there has been discussion with the DTI regarding pipeline manufacturers in South Africa, and potentially looking at maximising the benefit for the country and job creation.
MP: What is the impact of our input? How will it be considered? So if you hear lots of people saying we need to assess the cumulative impact, as well as the impact of offshore drilling and shale gas, will you assess it?	Refer to the responses provided above regarding cumulative impacts. TM: We will determine the corridors based on what information we have and we will try to obtain other datasets that are required and have been recommended. DF: This should be a transparent process, and we will consider all possible recommendations. All comments and issues raised during the SEA process will be responded to and included in the SEA report. We will consider all issues raised and where possible implement them.
JB: It is obvious that there is a possibility that the pipeline will materialise, so we need to assess the carbon footprint and climate change. CSIR has done work on energy initiatives and carbon footprint and the cost of the different energies. This should be considered. You do not seem to have an accurate reflection of climate change that will occur as a result of the gas pipeline. Mapping habitat loss and destruction has already been done by SANBI on a national scale. MP: You could find the most appropriate corridors but the actual footprint of the pipeline is going to impact the environment detrimentally. JT: The SEA is an expensive and extensive project but one needs to have an idea of the carbon impact of these pipelines, which have been proven internationally as being high.	Note from the CSIR: This SEA will not quantify the carbon footprint of the proposed gas pipeline. This is understood to be addressed in the IRP. Climate change and carbon footprint issues will also be taken into consideration at project specific level, where applicable.
BD: There is an ethical responsibility in terms of what this project holds. From a consultation perspective, the meetings need to be more empowering so that you can help the public understand what this SEA Process is about so that they can spread the word, and it also needs to explain how the possible infrastructure will actually impact them.	NG: People might be more accommodating if you explain what maintenance and design will be implemented to make the pipeline safer. I personally would not mind having a gas pipeline in close proximity to my property as long as it is maintained correctly to ensure overall safety during operations. DF: Thank you for your feedback and comments. We will consider it and implement where possible, especially regarding consultation and making the presentation more accessible. There

Queries or Comments Raised	Responses
MP: The consultation needs to explain what the risks are to the people that live in close proximity to the pipeline and piggling station.	will be a second consultation at the end of Phase 2 and we will potentially look at an additional location in Gauteng, bearing in mind that the corridors occur across the country and there are budget constraints. However, with respect to the country's energy mix, it is recommended that the public get more involved in the integrated resource planning documents that are made available for comment. TD: The example of the Rompco pipeline was provided i.e. that it did not have a leak for a certain number of years.
MP: What is important is the EA Process that will follow the SEA, which overall is challenging for general citizens not familiar with environmental legislation. We need experts on the team to provide their feedback on actual environmental impacts. CC: In terms of constructive criticism, the IRP will be issued soon and the questions regarding gas versus coal will come up again during your consultation.	AW: Specialists will be contracted to assess the environmental sensitivities within the draft proposed corridors. Specialist reports will be available for public comment. During the permitting process following the SEA, appropriate specialist studies will be undertaken, where required, in line with the recommended permitting process. TD: We would appreciate everyone's inputs in this process, notifying us if we have missed something.

3. Way Forward and Closure

DF: The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. A Comments and Responses Report will also be compiled as part of the SEA Process, which will document the comments received during these consultations. Stakeholders can follow and access the website. The project team values your inputs.

A.7.8.5.4 KwaZulu-Natal – Durban: 7 November 2017

Meeting:	Durban Public Meeting: Meeting Notes		
Date of Meeting:	07 November 2017		
Venue of Meeting:	CSIR Durban: 359 King George V (5 th) Avenue, Durban, 4000		
Duration:	17H00 to 18H30		
Attendees:	<ul style="list-style-type: none"> ▪ Annick Walsdorff (AW) ▪ Samukele Ngema (SN) ▪ Dee Fischer (DF) ▪ Tobile Bokwe (TB) ▪ Thabani Dlamini (TD) ▪ Rohaida Abed (RA) ▪ Saneshan Govender (SG) 	<ul style="list-style-type: none"> ▪ Tsamaelo Malebu (TM) ▪ Nora Choveaux (NC) ▪ Laren Farquharson (LF) ▪ Ruwain Abrahams (RA1) ▪ R. Groves (RG) ▪ Marius Rossouw (MR) ▪ Warren Hale (WH) 	<ul style="list-style-type: none"> ▪ Shiven Panday (SP) ▪ Letsatsa Melato (LM) ▪ Rudzani Tshibalo (RT) ▪ Norma Malatji (NM) ▪ E. Richardson (ER) ▪ Kate MacEwan (KM) ▪ Vusimuzi Zwane (VZ)
Apologies	<ul style="list-style-type: none"> ▪ Melanie Veness 	<ul style="list-style-type: none"> ▪ Frans van der Walt 	
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting and Agenda

An initial Public Outreach Process extending from 1 November 2017 to 13 November 2017 has been scheduled at various regions across the country to present the Strategic Environmental Assessment (SEA) and the initial draft Phased Gas Pipeline Network (PGPN) and Electricity Grid Infrastructure (EGI) expansion corridors to the public, as well as to discuss information requirements and feedback that is required by the SEA Project Team. The meeting was chaired by Mrs. Dee Fischer (DF) from the National Department of Environmental Affairs (DEA). Presentations were delivered as per the meeting agenda indicated in the table below.

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 - 17:15	Welcome and Introductions Introduction to the SEA Process and Background on South Africa's Energy Planning	DEA (DF)
17:15 - 17:30	Background on the Phased Gas Pipeline Network Corridors	iGas (TD)
17:30 - 18:00	Introduction to the SEA Process and Proposed Methodology	CSIR and SANBI (AW and TM)
18:00 - 18:30	Discussion, Way Forward and Closure	All

2. Comments and Responses

Comments or Questions Raised	Responses
KM: Are we not already reaching our energy targets based on the existing energy programmes, considering renewable energy projects in place as well? As a country we should not want more than we need.	<p>DF: At this point, we are not meeting our targets based on demand and we have a long way to go. In order to grow the economy; we need this energy linked to gas. In addition, the new Integrated Resources Plan (IRP) being developed will capture the demand and energy mix potential.</p> <p>TD: These corridors will only be developed if there is a business case for the proposed pipeline and there is a viable market that needs the gas. The pipeline development will be financed on merit with no cost to tax payers.</p> <p>RT: We must keep in mind that gas may in time replace energy derived from coal, but this would depend on the country's IRP, which is about to be promulgated in the near future. This is also due to gradual decommissioning of existing coal infrastructure and increase in electricity generation from natural gas in future. Based on the exploration outputs, the gas could also possibly be exported (if outputs are sufficient), as a business case is made for a business decision.</p>
NC: What is the uncertainty with the Minerals and Petroleum Resources Development Act (MPRDA), and will the gas be exported?	TD: The MPRDA has not been finalised and that impacts on the way forward for development. South Africa does not have enough gas currently in order to export. South African is currently importing gas from Mozambique.
KM: Is this SEA only assessing the pipeline infrastructure required to transfer the gas or does it include an assessment of the sources of the gas, and all the factors surrounding this (i.e. adopting a cradle to grave approach, where the complete scenario is	DF: At this point, the SEA Process will only assess the sensitivity of the proposed corridors strictly for proposed onshore transmission gas pipeline infrastructure. There has been the Shale Gas SEA which was commissioned to assess the impact of shale gas extraction in the

Comments or Questions Raised	Responses
<p>assessed).</p> <p>Which process will consider the impacts resulting from the actual sourcing of the gas?</p> <p>As a country, we should be alert and verify everything before accepting gas from other countries to ensure that the process of sourcing the gas has been carried out in a responsible manner from an environmental, economic and social perspective.</p>	<p>Karoo, which would require a separate permit process on a project specific basis. In addition, each offshore gas extraction activity to source gas will be subjected to a separate mandatory Environmental Authorisation (EA) and permitting process. There are two Environmental Impact Assessments (EIAs) currently underway for Gas-to-Power plants in Richards Bay and Ngqura. In terms of gas extraction from neighbouring countries, these would be governed by their relevant legislation. When the projects are funded (linked to the International Finance Corporation (IFC)), the funding is generally also conditioned on socio-economic requirements.</p> <p>VZ: As an energy regulator, the National Energy Regulator of South Africa (NERSA) does check for compliance and the viability of the source.</p>
<p>WH and KM: Why does the gas and EGI have to be 5 to 10 km apart? Is there a specific standard that requires this distance or is it a preference? This is a significant distance and ideally from an environmental perspective it would be best to have them closer together, considering that they are both linear structures.</p>	<p>TD and RA1: This is a minimum requirement due to an induced current that is created within the pipelines as a result of the transmission power line, which could lead to corrosion at a later stage.</p> <p>SP: It is advisable that the two forms of infrastructure are not too close together for safety purposes and from a cathodic protection perspective in terms of pipeline corrosion. In instances where there is a need, they can be closer for a short routing distance, and the 5 – 10 km distance is mostly a recommended guideline.</p> <p>VZ: We do not recommend that the gas pipeline and EGI are close together, even for short-distances, based on our experience as a regulator.</p> <p>SG: From a gas turbine perspective, the possible risk of having a power line far from gas infrastructure could be linked to possible ignition of a gas leak, thus preventing a fire.</p> <p>DF: If this is a concern and does not lead to enough low sensitivity routes, the pinch point analysis can shift the corridors into other regions.</p> <p>Note from iGas: The minimum distance for other structures from the pipeline is 1 km from high voltage electrical transmission lines and between 300 m and 500 m for other structures, depending on the diameter of and gas pressure in the pipeline. Research also points to factors e.g., the longer the two infrastructure run in parallel (in this case specifically gas and EGI) the higher the probability of electric current leakage to pipeline and also possibly during lightning strike. Consideration must also be given to the “burning radius” which means that, in the case of a pipeline leak and gas ignition, anything within that radius will burn immediately. This is about 800m (worst case scenario at ~ 100bar). Therefore, based on the above it is recommended that a “safety margin or factor” of at least 5x is applied to the 1 km stated – therefore 5 km distance is considered to be the safest distance from other structures.</p>
<p>NC: What was the reason for extending the EGI in the north of KZN, considering how sensitive the area is?</p>	<p>DF: It could be for the reasons of importing and exporting power to neighbouring countries.</p> <p>SP: We are aware that the Mozambican government is currently constructing a road from</p>

Comments or Questions Raised	Responses
	<p>Maputo to Ponta do Ouro that will reduce the travel time from Maputo to Kosi Bay to 90 minutes. This could have economic spin offs for this region. Hence this could possibly be the reason for the extension of the EGI. As mentioned however the business case would need to be tested.</p> <p>Post meeting note from the SEA Team: The extension of the EGI is to assess the corridors to the borders of South Africa, in case there can be business cases extending to Mozambique and Botswana.</p>
KM: Powerlines is a concern for birds and to a lesser extent for bats. Pipelines are buried and are not a huge concern for bats; however the SEA needs to consider all terrestrial fauna, not just avifauna and bats.	<p>AW: The SEA Process will include a Biodiversity Assessment Study which will include terrestrial and aquatic ecology (including ecosystems, flora and fauna). The terrestrial ecology will be split into the different biomes (excluding the forest and desert biomes).</p> <p>DF: SANBI is also finalising their species list, which is important for this SEA.</p>
WH: In this mapping exercise how is the weighting of the sensitivities determined? It is important that the matrix and weightings are informed by specialists as there are some ecosystems that are very high sensitivity and protected.	<p>AW: The specialists will go through the sensitivities and verify if it is indeed correct and then refine it where required. Therefore, the wall to wall constraints map might appear to be mainly high-very high sensitivity; however it will most probably be amended based on the specialist input. The specialist reports, together with the environmental and engineering constraints map, will be made available to the public and stakeholders for review during Phase 2 of the SEA Process.</p> <p>DF: In the Phase 1 SEA for Renewable Energy Zones, the process of how the matrix or certain sensitivity level was arrived at was transparent and included in the report. A similar process will be followed for this SEA and once finalised, you will be able to comment on the sensitivities and the specialist studies.</p>

A.7.8.5.5 Northern Cape – Springbok: 8 November 2017

Meeting:	Springbok Public Meeting: Meeting Notes		
Date of Meeting:	08 November 2017		
Venue of Meeting:	Libra Hall: van Niekerk Street, Bersig, Springbok		
Duration:	18H00 to 20H00		
Attendees:	<ul style="list-style-type: none"> ▪ Annick Walsdorff (AW) ▪ Samukele Ngema (SN) ▪ Simon Moganetsi (SM) ▪ Tobile Bokwe (TB) 	<ul style="list-style-type: none"> ▪ Tsamaelo Malebu (TM) ▪ Alfred Mocheke (AM) ▪ Neville Ephraim (NE) ▪ Rohaida Abed (RA) 	<ul style="list-style-type: none"> ▪ DGP Jacobs (DJ) ▪ Fhumulani Nenzhelele (FN) ▪ PJ Jacobs (PJ) ▪ Anushela Ephraim (AE)
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting

An initial Public Outreach Process extending from 1 November 2017 to 13 November 2017 has been scheduled at various regions across the country to present the Strategic Environmental Assessment (SEA) and the initial draft Phased Gas Pipeline Network (PGPN) and Electricity Grid Infrastructure (EGI) expansion corridors to the public, as well as to discuss information requirements and feedback that is required by the SEA Project Team. The meeting was chaired by Mrs. Annick Walsdorff (AW) from the Council for Scientific and Industrial Research (CSIR). Presentations were delivered as per meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:15	Welcome and Introductions	CSIR (AW)
17:15 – 17:30	Background on the Phased Gas Pipeline Network Corridors	iGas (NE)
17:30 – 17:45	Introduction to the SEA Process	DEA (SM)
17:45 – 18:15	SEA Process and Proposed Methodology	CSIR and SANBI (AW and TM)
18:15 – 19:00	Discussion, Way Forward and Closing	All

2. Comments and Responses

Comments or Questions Raised	Responses
DJ: Where is that gas coming from, and will you pay for the land through which the pipeline will go through? Is the proposed pipeline underground? Is SPLUMA included in the applicable legislation you are applying?	<p>NE: The proposed gas would come from offshore resources. However, other possible sources of gas are from imported LNG and from Mozambique. The laying of the proposed gas pipeline would follow the normal servitude procedures and there would be negotiations with the land owners which are affected at the time. The final route selection will depend on these servitude negotiations and the obtaining of the necessary environmental approvals (which will be guided by this SEA Process).</p> <p>Most of the proposed pipeline will be underground (the top of the pipe being approximately 1 m deep), and only at the Pipeline Intelligence Gauge Stations (PIGS) will be above ground at selected locations.</p> <p>SM: SPLUMA will be addressed when we are looking at the provincial Spatial Development Framework Plans (SDFs).</p> <p>AW: In addition, zoning will also be considered on a site specific level once the route is identified. This will be addressed with the municipalities.</p>
PJ: What uses will this gas have i.e. to warm houses or domestic use (such as in Europe) or only industrial purposes?	NE: The purpose of this proposed gas pipeline is to transport large quantities of the gas to various markets, what the receiver of the gas chooses to do with it is up to them and dependent on that business case. It can be used for gas to power at Eskom power stations or reticulated for residential uses (gas has many uses).
DJ: Is there still contestation over the legislation of the shale gas extraction and the moratorium which was imposed?	SM: The Department of Environmental Affairs will be taking over the writing of that legislation because the issues raised were of an environmental nature. It will therefore be handled by the

Comments or Questions Raised	Responses
	Department of Environmental Affairs (and not the Department of Mineral Resources).
DJ: What is the Government Gazette number of the EGI corridor and can you provide a copy to us?	SM: We can provide you with a copy of the EGI corridors Government Gazette.
DJ: Why is there no gas corridor in the middle of the Northern Cape?	<p>SM: That is largely due to the presence of the Square Kilometre Array (SKA). A SEA was also undertaken and an Integrated Environmental Management Programme (EMPr) developed for the SKA in order to streamline their EA Process.</p> <p>AW: The proposed gas corridors follow the proposed phase gas pipeline network identified as part of Operation Phakisa and is mainly related to linking the points where gas can be landed to the main industrial centres. This also includes ports where LNG could be landed. We are looking at transmission pipelines for gas, not at a distribution pipeline network.</p>
DJ: What contribution is there to skills development at local municipalities?	<p>AW: There are two levels of skills development, the first being that related to the actual SEA Process, where there is an intern appointed for this project, and the second level achieved during actual development of the proposed gas pipeline, where there will be temporary jobs created during the construction phase. However the latter will be on a project specific basis once a route has been selected. As part of the SEA process, recommendations for skills development may be included in the generic EMPr for consideration by the pipeline developer.</p> <p>SM: On a project specific basis, there may potentially be opportunities for local markets and enabling local municipalities.</p>
DJ: The Namaqua National (protected) Park is located within the proposed corridor and it covers an area of approximately 180 ha, and it is routed from the coast towards the inland. How will the park be impacted?	AW: It is planned to avoid protected areas and rate them with a (very) high sensitivity, as done for the Namaqua National Park.
DJ: This process is aimed at finishing around June 2018. Once the corridors are finalised and gazetted, what will occur if a mining company wants to prospect on a farm that lies within the corridor? You should also request the Department of Mineral Resources to send you a list of the proposed prospecting areas.	<p>AW and SM: It is proposed to have the corridors finalised by mid- 2018. It would be best to locate the prospective mining before the corridors are finalised, however it does not mean that the mining cannot occur in the corridor, it just needs to be assessed in terms of its proximity to the proposed gas pipeline route. This process will only have legality once the SEA outputs and corridors are gazetted. Therefore, it is important that the municipalities consider the corridors in their future plans, and we will consider existing developments and future planning in the SEA (to ensure all potential contradictions and issues are being considered in terms of planning). We are planning to use existing data and information (such as SDFs), and using existing structures in place to engage with affected municipalities and increase awareness (such as MUNIMEC).</p> <p>TM: In terms of sensitivity mapping, current, prospective and abandoned mines will be considered.</p>
DJ: The problem is that government departments do not seem to work together, i.e. the Department of Agriculture, Forestry and Fisheries (DAFF) and the municipal Disaster Management department, as well as COGTA are not present at this meeting?	AW: The district municipality, DAFF and COGTA are part of the Project Steering Committee. They were provided with a list of data we are currently using, as well as the information required by the team. They have also been invited to the Authority Meeting scheduled for 9 November 2017. Health and safety recommendations may potentially be included in the generic EMPr, and will be detailed on a project specific level and not at this stage.

A.7.8.5.6 Western Cape - George: 13 November 2017

Meeting:	George Public Stakeholder Meeting: Meeting Notes	
Date of Meeting:	13 November 2017	
Venue of Meeting:	George City Hall: 71 York Street, George, 6530	
Duration:	17H00 to 19H00	
Attendees:	<ul style="list-style-type: none"> ▪ Annick Walsdorff (AW) ▪ Samukele Ngema (SN) ▪ Sujata Carlyle (SC) ▪ Tobile Bokwe (TB) ▪ Vincent Chauke (VC) 	<ul style="list-style-type: none"> ▪ Norma Malatji (NM) ▪ Neville Ephraim (NE) ▪ Rohaida Abed (RA) ▪ Fhumulani Nenzhelele (FN) ▪ Mike Young (MY)
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting

An initial Public Outreach Process extending from 1 November 2017 to 13 November 2017 has been scheduled at various regions across the country to present the Strategic Environmental Assessment (SEA) and the initial draft Phased Gas Pipeline Network (PGPN) and Electricity Grid Infrastructure (EGI) expansion corridors to the public and stakeholders, as well as to discuss information requirements and feedback that is required by the SEA Project Team. The meeting was chaired by Mrs. Annick Walsdorff (AW) from the Council for Scientific and Industrial Research (CSIR). Presentations were delivered as per the amended meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 - 17:15	Welcome and Introductions	DEA (SC)
17:15 - 17:30	Background on the Phased Gas Pipeline Network Corridors	iGas (NE)
17:30 - 18:00	Introduction to the SEA Process and Proposed Methodology	CSIR and SANBI (AW and NM)
18:00 - 19:00	Discussion, Way Forward and Closing	All

2. Discussion from the Presentation

Comments or Questions Raised	Responses
MY: You have left out a key component of energy supply: nuclear and nuclear fusion, which will be an integral part of energy provision in future.	SC: Noted with thanks
MY: Assuming that the proposed pipeline would be going through private land; would the land owners be given instructions of what can be done on the land above the pipeline and what to be done in terms of emergencies? A 1 m deep pipeline will not be sufficient in terms of the risk posed by veld-fires in the area, especially due to the recent fires in Knysna, where the level of destruction was vast. Another concern is digging up pipelines unknowingly, for example this occurred in Nigeria which resulted in many negative impacts. There should also be a clear instruction and notification	<p>NE: It proposed that the pipeline will go through all forms of land (not only privately owned, and may include state owned land). The owners will be clearly informed of what procedures to undertake during emergency situations, as well as other terms of the servitude agreements.</p> <p>In terms of the impact of veld and forest fires, this will need to be considered in terms of the depth of the proposed pipeline however, the standards so far have stated 1 m. In terms of unknowingly digging up pipelines, markers will be placed every 1 km along the proposed</p>

Comments or Questions Raised	Responses
<p>to potential buyers, during any sale of land on which the proposed pipeline would be constructed, as well as specifying the location of the pipeline and its conditions.</p>	<p>pipeline route.</p> <p>Note from iGas: A subsequent conversation with CapeNature Fire Protection personnel confirmed that the temperature below a veld fire drops significantly as you go deeper into the ground. A pipeline 1 m below ground level will not be affected, unless there are ground fires, i.e., when the tree roots start burning. However, the avoidance of deep rooted vegetation eliminates this problem. This will still need to be confirmed through proper academic research and referencing.</p> <p>In the case of a land sale, the conditions will form part of the servitude agreement and potential buyers must be informed by the owner selling the land.</p>
<p>MY: There was a negative reaction on the fracking off the Southern Coast due to the environmental impacts of the project, and local environmental groups were not consulted with sufficiently. Considering the SEA will assess corridors for the potential construction of a gas pipeline network, it is important that environmental impacts are assessed and that local environmental forums are kept well informed about the project, as there are some well-informed groups in this part of South Africa that will react. It is important to have better consultation regarding this project in order to avoid the same result occurring. I will send you contact details of these forums that should be consulted (such as the Garden Route Group and Water Forums).</p>	<p>NE: The objective of this SEA Process is to pre-assess the sensitivity of the corridors from an environmental, social and economic perspective, together with engineering constraints to identify the most suitable routes within the corridors. The SEA Process will not include an assessment of any offshore pipelines or exploration, and will only look at the onshore gas pipeline network.</p> <p>AW: The contact details of the various local environmental forums would be appreciated. The engagement process will be re-looked at in terms of what needs to be done to improve it.</p>
<p>MY: When you say the EGI corridors have been gazetted, does that mean they are now accepted in legal terms? There could be a huge impact of these corridors and there has not been enough public engagement, as we have generally not seen the information about these projects previously. The proposed gas pipeline could also have a large impact on the tourism of the Garden Route. The need for this type of project is understood (as it could possibly see the reduction in need for long haul transmission lines), however it is very important that more people become aware of the project and become involved.</p>	<p>AW: The EGI corridors were gazetted last year and it does streamline the decision-making and application process, but it does not negate the need for Eskom to obtain an Environmental Authorisation or some level of approval from the Competent Authority.</p> <p>VC and TB: This Gas Pipeline and EGI expansion SEA will be undertaken using a similar methodology to that of the EGI SEA. The gazetted EGI corridors allow Eskom to streamline their EA Process and to submit to the Competent Authority a pre-determined and pre-assessed route within the corridors that has already been negotiated with the landowner (thereby reducing the possibility of changes based on landowner negotiations after an EA has been issued). This shortens the timeframe associated with the assessment phase, and provides an avenue for a quicker roll-out of the project.</p> <p>AW: Perhaps the EGI SEA did not focus on the George region because the corridor does not intersect with the area; however your concerns regarding consultation are noted. In terms of impacts to tourism in the area, it should be noted that the proposed pipeline would be underground, and there would be a very short term visual impact during the construction phase, therefore it is expected that tourism impacts would be less significant.</p> <p>VC: It is important to note that consultation during this SEA Process is ongoing and a comprehensive process and we will consider engaging with other groups in the area in order to make more people aware of the project. We have had meetings with other government stakeholders and we are attempting to get as many people involved and we are still in the</p>

Comments or Questions Raised	Responses
MY: I have a concern that the municipalities may have a substantial input on the success of these projects; however you should be aware that municipalities tend to be governed by political parties and have differing agendas. For example, you should also be aware of the political issues which previously arose in the drawing of municipal boundaries in the Knysna area. Therefore, you should also listen to the affected citizens that would most definitely be involved in this project going forward. The presentations provided at the meeting today are good, and it makes one aware of the strategic level assessments and their relevance. I will definitely use your presentation to feedback to various local environmental forums (such as the Water Group) and spread awareness and get other people involved.	process. AW: Thank you, your comment is noted and we thank you for presenting this project at other local environmental forum meetings.

A.7.8.6 Notes of Public Outreach Roadshow – Round 2 for Stage 2 Consultation

A.7.8.6.1 Western Cape - George: 8 October 2018

Meeting:	George Public Meeting: Meeting Notes	
Date of Meeting:	08 October 2018	
Venue of Meeting:	George Civic Centre: Banqueting Hall, 71 York Street, George	
Duration:	17H30 – 20H00	
Attendees:	<ul style="list-style-type: none"> ▪ Neville Ephraim (NE) ▪ Koketso Maditsi (KM) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Babalwa Mqokeli (BM) ▪ Fahima Daniels (FD) ▪ Tsamaelo Malebu (TM) 	<ul style="list-style-type: none"> ▪ Professor Alan Fowler (PAF) ▪ Wendy Crane (WC) ▪ Advocate Thys Giliomee (TG) ▪ Lester Jansen (LJ) ▪ Alan Cave (AC) ▪ Luami Zondagh (LZ)
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting and Agenda

The second Public Outreach Process extending from 8 October 2018 to 22 October 2008 was scheduled at various regions across the country to present progress on the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) expansion Strategic Environmental Assessment (SEA) Process, the draft findings of the Specialist Assessment studies, as well as the corridor refinement process. The meeting was chaired by Mrs. Annick Walsdorff. Presentations were delivered as per the meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:30 – 17:35	Welcome and Introductions	CSIR
17:35 – 17:45	Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA	CSIR
17:45 – 18:00	Pinch Point Analysis	SANBI
18:00 – 18:45	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR and SANBI
18:45 – 19:15	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:15 – 19:45	Demand Mapping	SANBI
19:45 – 20:00	Discussion, Way Forward and Closing	All

2. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

AW provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
LJ: Is there a Socio-Economic Assessment being undertaken as part of this SEA?	AW: Yes, a Socio-Economic Assessment has been undertaken for the EGI component of this SEA, and a Social, Settlement Planning and Disaster Management Assessment has been undertaken for the Gas Pipeline component. We will present the findings of these studies during this meeting.
WC: Are there known potential landing points for gas coming from the offshore points?	<p>NE: The initial corridors of this SEA were based on the original Phased Gas Pipeline Network identified by the Operation Phakisa A1 working group in 2014. The Namibian Government and Minister of Energy just released a press statement explaining that Kudu gas was considered for about 20 years and it is no longer deemed to be viable. However, there is a potential landing point at Oranjemund (on the Namibian side), for Kudu Gas to come onshore, and if that gas were to come to South Africa, then this would be Phase 6 of this SEA (i.e. from Abrahamvilliers Baai to Oranjemund). Abrahamvilliers Baai is the potential landing point for the Ibhuesi Gas project, although they have re-done their Environmental Impact Assessment (EIA), which now looks at a sub-sea pipeline that lands potentially at Saldanha or directly at Grotto Bay, which is required to supply gas to Ankerlig. This would involve about a 10 km pipeline to Grotto Bay.</p> <p>In addition, Phase 1a is routed from Saldanha to Ankerlig, and was conceptualised if Ibhuesi gas were to come onshore at Saldanha or if LNG were to be imported to Saldanha, or if there is potential gas on the West Coast to come onshore at Saldanha, which would be transported to Ankerlig and then along to Cape Town.</p> <p>The geology offshore indicates that there is potentially about 25 trillion cubic feet (TCF) of gas on the West Coast, a similar amount on the South Coast, and about 9 TCF on the East Coast.</p>

Queries or Comments Raised	Responses
	<p>Furthermore, Phase 1b is routed from Ankerlig to Mossel Bay. Mossel Bay is also a potential landing point for gas which will come from the offshore platform.</p> <p>Phase 2 is routed from Mossel Bay to Coega, which is also a potential landing point for offshore gas, and also a point for import of LNG.</p> <p>Further up the coast, around Richards Bay, Sasol and ENI are currently undertaking an EIA for offshore exploration along the coast of KZN. They are planning to commence with drilling sometime next year for gas off the East Coast, which will potentially land at Richards Bay. Phase 3 is routed from Richards Bay to Secunda and Gauteng. Phase 4 is also routed from the southern border of Mozambique to Richards Bay, to account for potential gas coming from the north of Mozambique via an onshore pipeline to Richards Bay.</p> <p>Phase 7 is a long term future option between Richards Bay and Coega and it would be considered if there is sufficient gas to satisfy those markets at either of the points.</p> <p>The Rompco Pipeline corridor, from Komatiepoort to Secunda via Gauteng and Mpumalanga, is also included in the SEA, to ensure that potential expansion of the existing Rompco pipeline is included (i.e. to include an additional pipeline within the same servitude).</p> <p>There is also potential Shale Gas from the Karoo, which was added to the SEA scope of work later to become more inclusive. It includes a small section extending from Beaufort West in the Karoo (Sweet Spot) to Mossel Bay.</p> <p>The SEA also includes an inland corridor between Saldanha and Coega, which was motivated by the Western Cape Department of Environmental Affairs and Development Planning (DEADP) to serve as an alternative to the coastal Phases 1 and 2 due to the high land use along the coast.</p>

3. Presentation 2: Pinch Point Analysis

TM provided a presentation on the Pinch Point Analysis.

4. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

FD provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology). The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>AC: I did not see anything about climate in the presentation. Climate can play a great part in setting a biome, whereby there are many high drier areas and many storms and high rainfall at certain times. Will the climate be considered later in detail and would it work at a macro-scale? I am not referring to climate change, as that would come later. I am referring to existing climate. The climate has determined the land form and vegetation and when it comes to construction, climate would have an important role in terms of cost (as well as stability concerns etc.).</p>	<p>FD: The biomes rely on the geology and existing climate. This is how biomes are currently defined. In terms of cost, we considered a number of engineering constraints. For example, we obtained information from Eskom that indicates areas of high incidence of rainfall, snow, fire and lightning, and used this information to assess where the design of the infrastructure will need to be strengthened or reinforced.</p> <p><u>Post-Meeting Note by KM:</u> Heat liberated from an underground gas pipeline is usually insignificant especially considering the gas temperature and pressure as well as the pipe specification (heat transfer coefficient, wall thickness and diameter). Therefore, temperature fluctuations in the soil due to that effect especially during freezing and drought periods over a certain area may have both positive and negative responses to the re-development of some vegetation over the trenched area. Potential positive vegetation responses to increased soil temperatures may include accelerated seedling emergence and increased production over the trench line. Potential negative vegetation responses to increased soil temperature may include decreased water availability and decreased production over the trench line which has the potential to permanently suppress the development of some vegetation.</p> <p>AC: If you are mapping high rainfall areas of a certain range, you need to get another series of maps showing you additional information over what you currently have, and this needs to be extrapolated in terms of the effect it will have on the construction and rehabilitation phases (especially in terms of flooding and erosion).</p> <p>AW: The Fynbos Assessment took into consideration the need to have efficient and effective rehabilitation in more wet areas than dry areas for example. This has been captured in the Risk Assessment of the Fynbos Assessment as well, whereby areas of higher risk were identified in terms of rainfall.</p> <p>FD: We also have information on areas that have high rainfall and high water yields, as well as areas prone to fire risk and snow, and these have been taken into consideration from an engineering constraints perspective (not necessarily from an environmental perspective, however it would be interesting to determine this).</p>
<p>LZ: From a biodiversity data perspective at this scale, it seems that there would be overlap of corridor areas that would not be suitable due to higher sensitivity for pipeline development. Taking into consideration all the different biodiversity factors, there seems to be some areas that are potentially sensitive on all fronts. What would the way forward be in that case (i.e. where the corridor has been defined but the entire area is deemed as high sensitivity)?</p> <p>LZ: Would local stakeholders be involved at that level in terms of consultation, once the corridors are approved? For example, once the corridors are approved at the national scale, will it mean that the entire corridor area can be used for development or will there be local consultation</p>	<p>AW: This is the reason for studying 125 km wide corridors. As part of the assessment, the location of the corridors will be optimised by ensuring that at least 75 % of the corridor does not include Very High sensitivity areas (i.e. a partial pinch point is defined as one that consists of about 65 % to 75 % of the corridor). If this is not the case, then the corridors will be realigned, if possible, to include some additional areas of lower sensitivities.</p> <p>AW: There will be further consultation by way of public review of the specialist studies once they have been finalised. Some of the specialist studies are still being subjected to peer review, whilst the majority of the studies have been finalised. The public review will form part of the consultation process of the SEA Process. Once the public review of the specialist studies is completed, the comments and inputs from stakeholders, as well as various other inputs (such as comments from specialists and</p>

Queries or Comments Raised	Responses
in terms of various biodiversity assessments?	demand mapping findings) will be used to re-align the corridors to optimise their location. The final corridors will then be determined and released for comment via a gazette process that will be handled by the National Department of Environmental Affairs (DEA). Only 100 km wide corridors will be gazetted. The additional 25 km wide buffer areas are only assessed to ensure there is enough room to shift the corridors should pinch points be identified. Once the corridors are gazetted, it is predicted that only one potential route will be selected if there is a viable business case. At that stage, there will be consultation on a project specific basis.
PAF: Settlements have not been addressed yet in the presentations. Will it be discussed, because I assume areas of settlement will be avoided for the gas pipeline development?	AW: Yes, a Social, Settlement Planning and Disaster Management study has been undertaken and we will go through the draft findings during this meeting.

5. Presentation 4: Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment.

6. Presentation 5: Demand Mapping:

TM provided a presentation on the draft findings of the Demand Mapping.

7. Way Forward and Closure

Queries or Comments Raised	Responses
WC: Will the fine scale sensitivity maps be available on the website, and if so, when will they be available?	AW: Yes, it will be made available but not at this stage as the specialist studies and the mapping are still being finalised. It will be made available once the studies are finalised and once the corridors are gazetted. It will also be made available on the DEA National Screening Tool, which was recently launched to assist Environmental Assessment Practitioners and Developers screen proposed development areas in terms of sensitivities. It will include all sensitivity maps and features based on the latest data. At this stage, it is planned to use the Screening Tool for the Renewable Energy Development Zones and original five EGI Corridors to identify sensitivities and to confirm the protocols that need to be followed per development project. At the end of the screening process, a report will be generated that will be sent to the Competent Authority for consideration at the inception of the Environmental Assessment Process. It is understood that the Screening Tool will become a legal requirement.
WC: So to confirm, the fine scale maps are not publically available yet and would only be made available at the gazetting process.	AW: Yes, this is correct. In addition, the fine scale maps are still in draft stage and need to be updated and finalised, and will thus not be very useful at this stage due to the corridor realignment process. It will be released when the final corridors are gazetted. In terms of the biodiversity assessment maps, most of the data is currently available and has been sourced from existing sources. No new data has been generated, however in some instances the data has been modified whereby the sensitivity levels

Queries or Comments Raised	Responses
	have been verified by the specialists in terms of current land use. This is the case of the Indian Ocean Coastal Belt Biome Assessment, whereby the current data specified an area as a Critical Biodiversity Area (CBA) whilst the actual current land use is agriculture, and the current data has not been updated yet. However, this is not an official map yet, and would only be updated by the Provincial Government once a site verification is done. These fine scale specialist maps are used in the SEA to assist with the corridor realignment process, and to guide the Developer on where to route the line.

AW: The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. The presentations will also be loaded onto the project website. Stakeholders can follow and access the project website for project updates.

The meeting closed at 20H00.

A.7.8.6.2 Eastern Cape – Port Elizabeth: 9 October 2018

Meeting:	Port Elizabeth Public Meeting: Meeting Notes	
Date of Meeting:	09 October 2018	
Venue of Meeting:	BPO (Business Process Outsourcing) Park: Discovery Building, Zone 4, Coega IDZ, Port Elizabeth	
Duration:	17H00 – 20H00	
Attendees:	<ul style="list-style-type: none"> ▪ Simon Moganetsi (SM) ▪ Neville Ephraim (NE) ▪ Koketso Maditsi (KM) ▪ Tobile Bokwe (TB) ▪ Annick Walsdorff (AW) ▪ Luanita Snyman-Van der Walt (LSVDW) ▪ Rohaida Abed (RA) 	<ul style="list-style-type: none"> ▪ Babalwa Mqokeli (BM) ▪ Tsamaelo Malebu (TM1) ▪ Khuthala Somdaka (KS) ▪ Thembinkosi Maduna (TM2) ▪ Vusimuzi Zwane (VZ) ▪ Letsatsi Melato (LM)
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting and Agenda

The second Public Outreach Process extending from 8 October 2018 to 22 October 2008 was scheduled at various regions across the country to present progress on the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) expansion Strategic Environmental Assessment (SEA) Process, the draft findings of the Specialist Assessment studies, as well as the corridor refinement process. The meeting was chaired by Mr. Simon Moganetsi. Presentations were delivered as per the meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:05	Welcome and Introductions	DEA
17:05 – 17:15	Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA	CSIR
17:15 – 17:30	Pinch Point Analysis	SANBI
17:30 – 18:00	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR and SANBI
18:00 – 18:10	Break	All
18:10 – 18:30	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR and SANBI
18:30 – 19:00	Discussion	All
19:00 – 19:30	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:30 – 20:00	Discussion, Way Forward and Closing	All

2. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

AW provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
KS: What do the diagonal lines represent on the map?	AW: These are three additional EGI corridors that could potentially form part of the SEA. They are currently outside of the scope of work.
TM2: What are the timelines for the construction of the infrastructure?	<p>AW: Construction would ultimately depend on developing a viable business case for each phase, i.e., finding a source of gas at one end with a confirmed offtaker at the other end.</p> <p>NE: There is an estimated timeframe of five years, including land owner negotiation in terms of servitude requirements. For the Rompco Pipeline in Mozambique, it took 15 months for the construction of a 130 km long section of the pipeline, considering that the Mozambican government owns all the land. For a 300 km line, we can estimate two to three years if there is a single construction front but less if there are multiple construction fronts. If construction needs to speed up, there is an option to establish more construction fronts or possibly start at both ends of the line and work towards the middle. In some cases, two contractors are appointed and incentives are provided to the one that completes the work faster.</p> <p>TB: An important point to consider is that the negotiation timeline should not be stated as one that is fixed. Negotiation can vary in terms of timeframes.</p>
KS: Does the proposed gas pipelines add value or impact on Integrated Resource Plan (IRP) targets?	NE: It depends on where the power station will be located. Typically, the LNG to Power Programme works hand in hand with the IRP. That means that one would need to import LNG and build a power station. Logically the power station would need to be located closest to the point where the gas would be imported from, so that a long pipeline would not be needed from the receiving terminal to the power

Queries or Comments Raised	Responses
	station. When one wants to build markets beyond that; is when one would need the gas pipeline network. For example, at Coega the location of the power station and LNG terminal is already determined.

3. Presentation 2: Pinch Point Analysis

TM1 provided a presentation on the Pinch Point Analysis. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
TM2: It seems that the wall to wall mapping was undertaken at a high level.	TM1: Yes, the wall to wall (negative) mapping for environmental and engineering constraints was undertaken for the entire country at a broad and high level. As an example, the environmental constraints wall to wall map included the identification of various environmental features on a natural, social and economic basis. The features were then ranked a preliminary sensitivity rating ranging from low to very high. The same process was followed for the engineering wall to wall map. A draft pinch point analysis was then undertaken to determine if the corridors needed to be shifted. The draft corridors and draft corridor environmental constraints map was then identified and used as input to the specialist studies. The specialists are currently going through the original sensitivity analysis and are refining the sensitivity ratings (i.e. either increasing or decreasing the sensitivity rating for various features).
KS: We understand the environmental constraints; however is there knowledge of engineering constraints within the corridors?	AW: We have compiled a draft engineering constraints map, which considers the impact that the environment will have on the infrastructure. It looks at environmental features that will serve as a barrier for the pipeline or result in a higher cost for the pipeline design and construction. For example, forested areas are considered an engineering constraint and have been allocated a very high sensitivity as a result of the impact deep rooted trees has on the pipeline.
LM: Was any consideration given to buildings and roads in the engineering constraints mapping?	AW: Yes, roads and buildings have been considered in the engineering constraints mapping. In terms of buildings, settlements have also been considered in the Social, Planning and Disaster Management Assessment, whereby they have been excluded with a buffer. In terms of roads, these have been considered as a pull factor for the gas transmission pipeline, where it would be preferred to build the pipeline as close as possible to the road, but outside of the road servitude, taking into consideration the requirements of the road authorities (such as SANRAL and Provincial and Municipal Departments). However, the final Pinch Point Analysis will still need to be undertaken to refine the corridors, which will take into consideration all findings of the specialists, as well as inputs from stakeholders and specialists.
VZ/KS: What is the difference between the 100 km and 125 km wide corridors? Why do we not simply specify 125 km wide corridor?	TM1: The final refined corridors that will be gazetted will be 100 km wide. However, the 25 km has been included to allow a wider area for assessment and to manoeuvre around very high and high sensitivity areas.

4. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

LSVDW provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology). The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>LM: Is the risk assessment the same as the environmental sensitivity assessment?</p>	<p>LSVDW: The risk assessment is structured to consider the consequence of an impact and the likelihood of occurrence. We assume that consequence is higher in a Very High sensitivity area. For example, if a gas pipeline is constructed within Addo Elephant National Park, the consequence would be severe, but the likelihood of impact would be low or unlikely, resulting in a low to medium risk. In the Risk Assessment, risks are ranked both before and after the implementation of mitigation measures. The sensitivity analysis entails ranking environmental features from low to very high sensitivity.</p> <p>AW: If the gas pipeline were to cross a high sensitivity area, the management actions need to be detailed enough to ensure that the risk is acceptable. The example of routing a gas pipeline through a National Park is understood to be a controversial one due to many reasons. However, in some cases, it would be better to route the pipeline through a National Park, provided that stringent management actions are implemented. It would not be the first option or a pull factor; however the SEA Project Team needs to discuss this with SANParks.</p> <p>LSVDW: Yes, agreed. One would rather go through 50 km of National Park rather than routing the pipeline over 200 km to avoid the National Park and impacting on various other environments and ecosystems.</p> <p>TB: It acts as a deterrent. Sometimes, it might be cheaper to route the pipeline over a longer route as opposed to routing it over a shorter route. However all this will be determined in the Least Cost Path Analysis.</p>
<p>LM: For the construction of the Rompco Pipeline, was a similar Environmental Assessment done, and if so, has the study been taken into account in this SEA?</p> <p>LM: Cross border projects have different requirements. Can the tools of the SEA be used in Mozambique, for example?</p>	<p>NE: Yes, an Environmental Impact Assessment (EIA) was done for the part of the pipeline in South Africa in terms of South African environmental legislation. An Environmental Impact Study was also done for the section of the pipeline that runs in Mozambique in line with their legislation.</p> <p>AW: The SEA Process and outcomes will only apply to the corridors within the borders of South Africa.</p> <p>TB: If a developer were to develop a gas pipeline or EGI project within the corridors on their bottom line, a streamlined Environmental Authorisation process is anticipated for such development in South Africa. However, in Mozambique, for example, a normal Environmental and Social Impact Assessment would be required. This would have an implication when developers are applying for funding. In terms of the South African Power Pool, it is a legal requirement to meet World Bank and International Finance Corporation Standards. Therefore, there is a likelihood that the lenders and funders would not be comfortable with a streamlined process, which might delay the process. Therefore, there needs to be discussions with this sector in terms of the standardisation of requirements for assessment tools relating to funding requirements.</p>

5. Presentation 4: Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
TB: The municipalities will expect the developers to contribute to ensure that their Disaster Management Plan is up to standard to deal with a gas transmission pipeline running through their municipality. What needs to be clear is the developer's responsibility in terms of a disaster.	AW: Noted.
TB: In addition, dry runs or emergency drills need to be done in towns to ensure that municipalities and the public are aware of the processes to follow should there be any incidents linked to the gas transmission pipeline. There will be a significant benefit in this, as opposed to simply informing the public of the Disaster Management Plan. SM: In consideration of the wide scope and 125 km wide corridor, this could assist other municipalities in development screening and understanding of the area.	AW: Noted.
TM2: The designation of Special Economic Zones (SEZs) could help with gaps in knowledge. SEZs have various zones of demarcation of industry.	AW: Noted. In the case of the Coega Industrial Development Zone (IDZ), we have considered the entire IDZ area in terms of industrial development. We have border of the IDZ area. If you have knowledge of a specific area within the IDZ and amount of gas required, you could send it to us for consideration. <u>Post-Meeting Note from the CSIR:</u> We have received the Industry Feedback exercise from the Coega Development Corporation.
LM: In terms of the Social, Planning and Disaster Management Assessment, there is an issue of management of land use and encroachment of existing pipeline servitudes by settlements. This is currently problematic. The lack of standards and management thereof from Authorities poses a greater risk to those pipelines. For example, settlements form illegally within the servitude with the expectation that alternative accommodation will be sourced for them. TM2: The pipeline should be reinforced when it is routed in proximity to settlements.	AW: Standards are being compiled as part of the SEA Process to guide developers in terms of the level of environmental assessment needs to be undertaken. There are international standards in place in terms of development of such infrastructure close to settlements. However, the issue of illegal encroachment is an important one for consideration. In terms of the Social and Planning Assessment, the problem of considering future informal settlements is the uncertainty of where they will occur. <u>Post-Meeting Note from the Project Team:</u> Following feedback and inputs gathered from this roadshow, the project team is currently looking at compiling standards for the development of gas transmission pipelines and EGI inside the gazetted energy corridors. Should this approach be successful, the development of the above linear infrastructure inside the corridors would be exempt from Environmental Authorisation providing compliance with the standards, These standards would first be gazetted for comments. AW: Noted, these design options will be considered by the developer.
TB: For example, with climate change, if the effects have not occurred or are unknown, the pipeline cannot be designed to address such issues. However,	AW: Noted. It might be possible to undertake a complete walk through and survey of the route and document the condition in terms of settlement prior to construction and clearing.

Queries or Comments Raised	Responses
<p>land grabs and illegal encroachment cannot be ignored as they are real concerns with financial implications. It should be considered in the design now rather than retrofitting.</p>	<p>NE: In terms of the design, there are various standards and classifications (i.e. Class 1, 2 and 3) that provide recommendations for the design depending on the closeness and density of the settlement. The pipeline wall could be made thicker to cater for failure. If the pipeline is designed in terms of the highest class, to address the concern of land grabs, it might not be feasible.</p> <p>VZ: Implementing standards is fine; however we cannot predict the future, so we should follow the norms in terms of construction. Note that NERSA pays for the actual infrastructure that will be laid underground, and if the design becomes more stringent, then the cost of the gas will increase.</p> <p>TB: Noted, however the standard should be based on safety.</p> <p>SM: It is difficult to manage encroachment and it will require multi stakeholder alignment.</p> <p>TB: One needs to determine measures that will prevent people from encroaching in order to seek alternative accommodation or remuneration.</p>
<p>VZ and LM: At the end of the project, as you trim down the corridors from 125 km to 100 km wide, there might not be areas available in the future.</p> <p>VZ: Are existing developments taken into consideration in the 125 km wide corridor?</p>	<p>AW: It is important to note that the entire 100 km wide corridor will not be sterilised in terms of future development. The pipeline servitude will only be 10 m wide. Once the specific route is determined, this will be taken into consideration by the municipalities in terms of their planning.</p> <p>TB: Variables can change over the years, and issues might vary due to social changes.</p> <p><u>Post-Meeting Note from the Project Team:</u> Existing developments within the corridor are considered in the SEA Process.</p>

6. Way Forward and Closure

AW: The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. The presentations will also be loaded onto the project website. Stakeholders can follow and access the project website for project updates.

The meeting closed at 20H00.

A.7.8.6.3 Eastern Cape – East London: 10 October 2018

Meeting:	East London Public Meeting: Meeting Notes	
Date of Meeting:	10 October 2018	
Venue of Meeting:	Premier Hotel Regent, Marine Park Complex, 22 Esplanade, Beachfront, Quigney, East London	
Duration:	17H00 – 20H00	
Attendees:	<ul style="list-style-type: none"> ▪ Simon Moganetsi (SM) ▪ Neville Ephraim (NE) ▪ Koketso Maditsi (KM1) ▪ Tobile Bokwe (TB) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Babalwa Mqokeli (BM) 	<ul style="list-style-type: none"> ▪ Luanita Snyman-Van der Walt (LSvdW) ▪ Tsamaelo Malebu (TM) ▪ Shané Gertze (SG) ▪ Mike Rivarola (MR) ▪ Mandlenkosi E. Matolo (MEM) ▪ Briant Noncembu (BN) ▪ Kagiso Mangwale (KM2)
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting and Agenda

The second Public Outreach Process extending from 8 October 2018 to 22 October 2008 was scheduled at various regions across the country to present progress on the Strategic Environmental Assessment (SEA) Process, the draft findings of the Specialist Assessment studies, and to discuss the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) expansion corridor refinement process. The meeting was chaired by Simon Moganetsi of the National Department of Environmental Affairs (DEA). Presentations were delivered as per the meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:10	Welcome and Introductions	DEA
17:10 – 17:20	Background on the Phased Gas Pipeline Network Corridors	CSIR
17: 20 - 17:50	Pinch Point Analysis	SANBI
17:50 – 18:50	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR
18:50 - 19:40	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:40 – 20:00	Discussion, Way Forward and Closing	All

2. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

AW provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
MR: Will the gas pipelines transfer pure methane?	<u>Post-Meeting Note from the Project Team:</u> The gas transmission pipelines will transfer natural gas from one point to major users. Initially offshore gas was proposed as a source, and later additional potential sources were included. Overall the sources of gas include indigenous gas (i.e. both offshore gas and onshore shale gas), imported LNG (via Coega, Richards Bay and potentially Saldanha), and regional gas from Mozambique (Rovuma Basin) and Namibia (Kudu Gas). The quickest form is imported LNG. In terms of offshore exploration, this is not included in this SEA. This SEA only focuses on the onshore development of EGI and gas pipeline infrastructure.
MR: The presentation states that an area of 40 ha is required for substation construction, however this is too big.	AW: The size of the area needed for construction would have to be confirmed and updated. <u>Post-Meeting Note from the Project Team:</u> Transmission and distribution substations are required by Eskom and are being considered in this SEA. These may be long distances apart but can generate a relatively large local impact as they may be up to 70 ha in extent and usually also require borrow pits, construction camps, temporary lay down areas etc. during construction.
MR: How will the condensable material (condensate) from the pipeline and pigging stations, such as pigging waste, be disposed of in terms of the procedure and determination of risks associated with removing and transporting these products? MR: There would always be some condensates, which is why cleaning is undertaken.	AW: The understanding is that pigging is undertaken every five years, with removal, transportation and disposal done in an appropriate manner. However the concern is noted and will be included in the Generic Environmental Management Programme (EMPr), to ensure proper disposal. NE: The gas in the pipeline is dry and therefore no condensate material results. All the liquid from the gas is cleaned out at the central processing facility prior to the gas entering the pipeline. Wet gas is unwanted as a result of explosion problems. The pigging is not necessarily undertaken solely to clean the pipeline, it actually serves as an inspection. It is generally dry products that come out of the pipeline, and if it is wet then it is minimal. The development, however, will include Waste Management measures as part of the EMPr to ensure correct disposal of any material emanating from the pipeline.

3. Presentation 2: Pinch Point Analysis

TM provided a presentation on the Pinch Point Analysis. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
MR: Some of the Gazetted EGI Corridor routes are a bit odd as they traverse areas such as Port Elizabeth and Umtata, which are areas without an industrial significance or presence and yet they bypass East London which has a much bigger industrial focus and base. The understanding is that Eskom has been creating a ring feed from Durban, and also constructing a 120/130 kV line down to East London and Port Elizabeth, however there is nothing indicated in this regard in terms of the routes. I believe that this line could be referred to as Neptune or Eros. From an industrial perspective, East London should have been considered in the gazetted corridors.	TB: The line development mentioned was possibly undertaken through an Environmental Impact Assessment (EIA) process prior to the promulgation of the corridors, as these were only gazetted in 2018 and would explain why the route selection did not necessarily follow the corridor route. The gazetted corridors are intended for future development, and existing lines are not depicted in these corridors and were subjected to a different permitting process. <u>Post-Meeting Note from the Project Team:</u> According to the Eskom Transmission Development Plan (2018 – 2027 (TDP, 2017)), one of the major transmission projects commissioned in the last five years by Eskom is East London Strengthening of the Eros –Vuyani –Neptune existing line from KZN to East London. The EGI SEA that was commissioned in 2014, completed in 2016 and gazetted in 2018 was based on the latest TDP at the time i.e. 2014. Therefore, it is likely that the link to East London was not captured at the time.

Queries or Comments Raised	Responses
KM2: How will this (i.e. disposal of waste products from the pipeline) be done as environmental conditions vary in different areas?	<p>NE: It is not necessarily the environmental conditions that would influence the amount of waste; it is the gas acidification in the pipeline that determines the specification. If it is dry gas then there is not much to be disposed of.</p> <p>TB: This level of detail would be required at the project specific level (if there is a business case). Waste disposal facilities would not necessarily be determined at this stage of the project, but at the stage determining the functionality of the project. This stage seeks to determine suitable corridors for the pipeline.</p>

4. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

LSVDW provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology). The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>KM2: Please expand on the outsourcing of the specialists that undertook the various studies? How were they selected in terms of criteria and was there an element in place to account for transformation?</p> <p>KM2: Has there never been a concern regarding the perception of specialists appointed?</p>	<p>LSvdW: Specialists were appointed through an open Procurement and Tender Process under the Public Finance Management Act (PFMA), to which the CSIR subscribes to. This included the requirement to obtain three quotes from consultants, which were evaluated by the CSIR Strategic Procurement Unit and the Project Team through an 80/20 Framework Criteria (i.e. 80 % Price and 20 % BBB-EE).</p> <p>LSVDW: This is the first time that this point has been raised and it is noted, however a fair process was followed in appointing these specialists. In addition to specialists studies, this project, as well as other SEAs commissioned by the DEA, includes the participation of multiple stakeholders ranging from Community members to Authorities, to ensure it is as inclusive as possible.</p>
MR: There is a concern in that a specialist might undertake a study in an area outside of their region, instead of the study being undertaken by a local specialist. When considering national studies, it would be a good idea to include local experts or compel partnerships of specialists with local organisations to prevent concerns that might arise regarding local understanding. This is a suggestion.	<p>LSvdW: The comment is appreciated and has been noted. Specialists that are credible with expert knowledge of their respective fields were appointed for these studies. These studies are also being peer-reviewed and will also undergo a public review to ensure robustness and transparency. It is a participatory process to reduce any biasness.</p> <p>TB: It should be noted that the specialists were also contracted at the respective geographic location.</p> <p>AW: For the Biodiversity Assessment, the studies were separated according to Biomes and the Specialists undertaking the studies are those knowledgeable in the respective Biomes. The SEA also includes a number of institutions forming part of the Expert Reference Group, which play a key role in this SEA, therefore adding to the overall robustness of the process.</p>
KM2: There are a few specialists that are part of the team that are mostly associated with a different biome than the one they are assessing in this SEA. However, the work has already been undertaken and not much can be done about it at this stage.	<p>LSvdW: There is still opportunity to participate in the Review Process of the studies.</p> <p>TB: The message being communicated is that specialists within the Eastern Cape, for example, should undertake the relevant work pertaining to the Eastern Cape.</p>

Queries or Comments Raised	Responses
	AW: Quotes were received from Specialists in Eastern Cape, however the CSIR has to follow a Procurement process and it came down to the cheapest quotation being selected.
<p>BN: The key issue is around the skills and understanding that some people are experts in their fields. The fact that the studies were undertaken according to relevant biome expert knowledge is critical. Further added that a stranger remains a stranger and breeds discomfort in terms of local work being undertaken by non-locals, however the point that certain processes in procurement have to be followed is understandable.</p> <p>KM2: These questions are being asked as a result of the understanding of the dynamics on the ground, and the meeting would have taken a different direction if it was attended by a different category of stakeholders. Although the responses being provided are credible, it would not have been suitable for other stakeholders. It is therefore very important that these kinds of queries are noted and possibly attended to in terms of putting them forward to address a variety of stakeholder groups.</p>	<p><u>Post-Meeting Note from the Project Team:</u> This comment is noted and appreciated. The CSIR was appointed by the DEA to undertake this SEA. The CSIR Project Team, as well as the Specialist Team, make it their priority to undertake this work in an independent, fair manner and with the highest level of integrity, to ensure that the objectives of this SEA are fulfilled in a responsible, efficient and effective manner.</p>
SG: Were strategic water source areas included in the assessment?	LSvdW: Strategic water source areas have been included in the assessment. The chance of those areas being impacted is not high as these are mountainous areas that the pipeline development will aim to avoid.
MR: What is defined as Modified Landscape?	LSvdW: These are landscapes that have been transformed from their natural state. An example is a wheat field, where interestingly might not be of much value to a Fynbos biome but is important for blue crane birds, and the study therefore had to be cognisant of those trade-offs. Clear definitions are included in the Specialist Assessments.
BN: Are the sensitivity features based on the latest Eastern Cape Biodiversity Conservation Plan (ECBCP)?	LSvdW: Yes the latest ECBCP has been considered in this SEA. The latest draft 2017 version that is currently under review was provided to the Project Team by Dr. Greer Hawley.
KM2: Was a multi-criteria scoring system used in the sensitivity analysis?	<p>TM: The multi-criteria decision analysis will be undertaken during the final integration of all the sensitivities.</p> <p>LSvdW: There was no weight assigned in the assessment, the weighting will be undertaken in the final routing stage.</p> <p>AW: The highest level of sensitivities is shown on the maps. For example, if it is a protected area, this is what is seen as Very High sensitivities. The Indian Ocean Coast Belt Biome specialists revised the pre-determined and estimated sensitivities to match what is currently happening on the ground in terms of habitat transformation and settlement encroachment.</p> <p><u>Post Meeting Note from the Project Team:</u> These sensitivity levels will need to be verified by the data custodians before they are integrated onto the National DEA Screening Tool.</p>
MR: What is the consequence of these studies, and will it impact on the licencing processes? Would there be a restriction for development outside the corridor?	SM: Development outside of the corridors is not restricted would follow the normal EIA legislation procedure at the time. The process does not determine No-Go areas. Once the corridors are gazetted, it would allow guidance in terms of identified areas for development and potential streamlining of the Authorisation process.

Queries or Comments Raised	Responses
	<p>CG: The understanding is that an Application for Environmental Authorisation is still required outside the corridors.</p> <p><u>Post-Meeting Note from the Project Team:</u> Following feedback and inputs gathered from this roadshow, the project team is currently looking at compiling standards for the development of gas transmission pipelines and EGI inside the gazetted energy corridors. Should this approach be successful, the development of the above linear infrastructure inside the corridors would be exempt from Environmental Authorisation providing compliance with the standards, These standards would first be gazetted for comments.</p>
<p>KM2: The analysis is very high level, and although an area may be regarded as highly sensitive, the findings might be different at a local level. It is also risky to grant exemption within the corridor, as sensitivity findings might differ at ground level.</p>	<p>LSvdW: The project team shares the same concern and therefore intends to develop either Standards or Protocols to guide the level of assessment required in these areas. There will always be a need to undertake field verification prior to development taking place.</p>
<p>KM2: The point in the presentation indicating that the Savanna is “difficult to establish after complete clearance” should be re-phrased. Savanna is second to grasses in terms of the ability to re-establish i.e. it is more resilient as opposed to other biomes such as the Thicket biomes. The statement is not 100% true and it needs to be re-worded.</p>	<p>LSvdW: The comment was noted and will be passed on to the specialist for consideration.</p>
<p>KM2: There is a concern regarding the scoring system not being used within a theme as it becomes difficult to rate the sensitivity. For example consider a rare endangered plant occurring on a slope with an erodible topsoil layer and one occurring on a low lying area with a more rigid top soil layer. This does not provide sensitivity per se and only indicates occurrence. There is a need to use a scoring system in terms of sensitivity within the biodiversity theme itself, which will indicate a sensitivity scoring for the theme that can be comparable to other themes when undertaking the overall scoring system.</p>	<p>TM: I understand the point raised. The depicted sensitivities relate to biodiversity assessments made up of different specialists with possible preferences in terms species and their sensitivities. Therefore a scoring system in terms of species or per ecosystem will result in challenges. A multi-criteria decision analysis will take place at a later stage, once the sensitivities have been stabilised per theme.</p>
<p>MR: With regards to the Freshwater Assessment, is the Eastern Cape dominated by green-coded sensitivity possibly because there is no water in the area?</p>	<p>LSvdW: The green could indicate the lack of water pressures in the Province or possibly the lack of data.</p>
<p>MR: Regarding threatened aquatic species, is it in reference to fish in general or indigenous fish?</p>	<p>LSvdW: The assessment used the SANBI data that defines/classifies threatened aquatic species.</p>
<p>KM2: Do the Estuarine and Freshwater Specialists differ? There is merit in fostering communication between the Estuarine and Freshwater Specialists in terms of the process issue that needs to be considered, in terms of what happens from the river all the way to the estuary, especially considering the upstream impacts and its effect on the estuaries. The estuarine assessment could guide the freshwater assessment, and the communication would allow connectivity regarding the two themes with regards to sensitivity analysis. This would allow defensible impacts and mitigation measures.</p>	<p>LSvdW: The assessment is cognisant of the connection between the estuarine and freshwater environment. The two specialists have been in consultation throughout the assessment, and thus worked closely together in considering multiple aspects in each other's reports. Writing workshops were also as part of the assessment to allow identification of cross-cutting issues between the Terrestrial Ecology, Aquatic Ecology, Birds and Bats Studies.</p> <p>TB: Is this possibly a function of fitness for purpose of the riverine system? As the results should be a reflection of what is happening on the ground, and therefore if estuarine water is of a certain quality and organisms are still surviving, would that indicate an issue? As the presumption would be to aim to maintain the status quo.</p>

Queries or Comments Raised	Responses
<p>KM2: The reason for the statement is based on the two maps provided for freshwater and estuarine sensitivities, where there were more sensitivities in the estuarine part for the Eastern Cape than the freshwater, which gives an indication of a process issue.</p> <p>KM2: The reasoning behind the statement is based on problems with linear infrastructure development in the Eastern Cape, where the EIA only looks at impacts within the road system and does not focus on upstream and downstream impacts of nearby river systems (for example) and it is only after a while that there is a realisation that the rivers and estuaries are under pressure. The point is raised to provide awareness in terms of linear infrastructure developments and impacts.</p> <p>KM2: Would it then be correct to assume that the corridors which connect to some of the estuaries were considered in terms of the scoring system. That is, it rated each of the sensitivities of the corridors that connect to each of the sensitive estuaries?</p>	<p>MR: This statement should be made with cautioned because it implies that things are never going to improve because what is fed into the estuary by the upstream river determines whether the estuary is sensitive or not.</p> <p>TB: I am in agreement with the statement, and concur that the estuarine environment is an indicator of what is happening upstream. As soon as there is a risk of compromising estuarine function means that the management process upstream is no longer efficient.</p> <p>TM: The freshwater assessments were done at a Quinary level and the estuary assessments were done at the Estuarine Functional Zone level, where the one is undertaken at a coarse scale and the other at a finer scale, respectively.</p> <p>LSvdW: The point being made is valid and would need to be checked with the Freshwater and Estuarine Specialists. We also need to consider the number of Quinaries used in the Eastern Cape.</p>
<p>MR: Is there potential to use the studies that were conducted to assess the impact of Wind Farms on Bats, as most of the wind farms are located in the sensitive, red areas of the corridors? This should provide knowledge of the number of bat deaths as a result of wind farms.</p> <p>MR: Wind turbines have a huge impact on radar, within 5 km distance, and impact on bats in terms of the Doppler Effect.</p>	<p>LSvdW: The understanding is that there is not much evidence on Wind Farms and bat strikes, however this would need to be confirmed as it does not necessarily mean that bat strikes do not occur but that there is not much evidence in this regard.</p> <p>TM: The major concern for Wind Farms is for large birds. A webpage has been developed to monitor bird and bat strikes, to provide information on occurrence etc.</p> <p>AW: It is agreed that the main issue in terms of bats is the interference.</p>
<p>BN: Have studies been done relating to light pollution impact on nocturnal species? This is an important consideration as it relates to a change of the receiving environment.</p>	<p>LSvdW: Light pollution is considered as part of the Visual Impact Assessment.</p>
<p>KM2: Is there any feedback from Vulture Experts in terms of the powerlines?</p>	<p>LSvdW: The EGI areas only include the Northern Cape and KZN and do not necessarily affect the Eastern Cape vultures. In terms of the gas pipeline, it would mainly be an issue of habitat destruction (and not impacts relating to flight) and the assumption is that most of the vultures nest on cliffs and the gas pipeline development would avoid these areas for development. However the development would need to be cognisant of feeding grounds etc. for vultures.</p> <p>SM: The resolution for the Phase 1 Renewable Energy Development Zones (REDZ) SEA issues in terms of vultures was that the developer should make use of the Birdlife Guidelines, in order to determine mitigation actions. The indication was that there was a 12 month study undertaken in the Eastern Cape, and that monitoring would occur to update information and determine breeding sites for vultures. Ultimately the buffer around the roosts and colonies would be expanded to 50 km.</p>
<p>KM2: Is fire within the various vegetation types a function of sensitivity or constraint in terms of the gas pipeline? When the temperature of the ground increases due to the fire, will the pipeline pressure not increase?</p>	<p>AW and NE: It is not regarded as a constraint in terms of the gas pipeline, as the pipeline is approximately 1 to 2 m deep underground. Consultation with the Cape Nature Disaster Management teams indicated that within 10 cm below ground the temperatures return to normal for normal</p>

Queries or Comments Raised	Responses
MR: A depth of 1 m is not that deep and there might be an issue of ploughing directly above the pipeline thus resulting in issues.	vegetation fires. Root fires would be different; however this development will not allow deep rooted vegetation above the pipeline within the servitude.
KM2: It must be noted that the ground level changes, particularly in the Eastern Cape, as a result of erosion.	NE: For example, Transnet usually keep their pipelines about 1.5 m or deeper below cultivated fields. However, 1 m is the norm.

5. Presentation 4: Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
KM2 on behalf of SG: Were Spatial Development Frameworks (SDFs) and future Conservation Plans taking into consideration in this SEA?	AW: Yes these were considered as part of the Demand Mapping, Environmental Sensitivity Analysis and specialist studies, as applicable and where the documents were available.
KM2 on behalf of SG: When will the specialist studies be released for stakeholder review and when will the SEA Report be completed? Will the specialist studies be placed on the project website?	AW: The plan is to have the SEA Report finalised around March – April 2019. However, the outputs of the SEA, such as the EMPr, Protocols and Standards will need a bit more time to finalise. We are currently awaiting a few specialist studies to be finalised and peer-reviewed and will therefore hopefully be available for stakeholder review by end 2018 or early 2019. Communication in this regard will be sent to all the attendees. The specialist studies will be uploaded onto the project website.

6. Way Forward and Closure

AW: Once specialist studies have been finalised and peer reviewed, they will be sent to stakeholders for comments and inputs. The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. The presentations will also be available on the gas network website.

A.7.8.6.4 Gauteng – Johannesburg: 15 October 2018

Meeting:	Johannesburg Public Meeting: Meeting Notes	
Date of Meeting:	15 October 2018	
Venue of Meeting:	CSIR: Corner of Carlow Road & Rustenburg Road, Auckland Park, Johannesburg	
Duration:	17H00 – 20H00	
Attendees:	<ul style="list-style-type: none"> ▪ Dee Fischer (DF) ▪ Sipho Mokwana (SM) ▪ Neville Ephraim (NE) ▪ Koketso Maditsi (KM1) ▪ Tobile Bokwe (TB) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Babalwa Mqokeli (BM) ▪ Fahiem Daniels (FD) 	<ul style="list-style-type: none"> ▪ Tsamaelo Malebu (TM) ▪ Gideon Rooth (GR) ▪ Judith Taylor (JT) ▪ Valmak Mathebula (VM) ▪ Nuveshan Naidoo (NN) ▪ Matt Pretorius (MP) ▪ Nicolene Venter (NV) ▪ Mavisha Nariansamy (MN) ▪ Kambala Majiza (KM2)
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting and Agenda

The second Public Outreach Process extending from 8 October 2018 to 22 October 2018 was scheduled at various regions across the country to present progress on the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) expansion Strategic Environmental Assessment (SEA) Process, the draft findings of the Specialist Assessment studies, as well as the corridor refinement process. The meeting was chaired by Mrs. Dee Fischer. Presentations were delivered as per the meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:05	Welcome and Introductions	DEA
17:05 – 17:15	Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA	CSIR
17:15 – 17:45	Pinch Point Analysis	SANBI
17:45 – 19:00	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR and SANBI
19:00 – 19:10	Break	All
19:10 – 19:45	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:45 – 20:15	Discussion, Way Forward and Closing	All

2. Opening of the Meeting

DF opened the meeting and provided a background on the purpose of the meeting. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
JT: Does this SEA discuss increased CO ₂ emissions, because South Africa is a world leader in this regard.	DF: This will be discussed later during the meeting.
NN: What are the timelines in terms of the schedule for construction and progress for the pipelines?	<p>DF: This is a forward planning process to identify environmentally sensitive areas should the proposed gas pipeline and EGI be developed. This SEA does not equal to or guarantee construction. This is not an Environmental Impact Assessment (EIA), which is based on a specific project. This is an SEA which is undertaken at a large strategic level and does not include ground truthing in all areas. The SEA itself will not be gazetted for implementation as it is an information gathering process that will result in Decision Support Tools. The Decision Support Tools, such as the Protocols, Environmental Management Programme (EMPr) and Norms or Standards will be gazetted for comment and implementation. The gazetting process is a long process and will be handled by the Department of Environmental Affairs (DEA).</p> <p><u>Post-Meeting Note from the Project Team:</u> Construction would ultimately depend on developing a viable business case for each phase, i.e., finding a source of gas at one end with a confirmed offtaker at the other end. There is an estimated timeframe of five years, including land owner negotiation in terms of servitude requirements. For the Rompco Pipeline in Mozambique, it took 15 months for the construction of a 130 km long section of the pipeline, considering that the Mozambican government owns all the land. For a 300 km line, we can estimate two to three years if there is a single construction front but less if there are multiple construction fronts.</p>
<p>JT: Have you included the pipeline burst incidents that took place in British Columbia and California? South Africa is a dry country and if the gas pipeline explodes it will take out a large area. There are many recent gas pipeline events that took place globally that have resulted in large fires.</p> <p>JT: It should be noted that a disaster will happen when the Acid Mine Drainage comes into contact with the oil pipeline that is routed into Johannesburg. A disaster is really close to happening and nobody is taking any action.</p>	<p>DF: This is briefly addressed in the Social, Planning and Disaster Management Assessment, which will be discussed during this meeting.</p> <p>The Public Outreach meetings that are being undertaken as part of this SEA are aiming at gathering feedback from stakeholders and Interested and Affected Parties (I&APs). These comments will mould the process. As mentioned previously, this is only a forward planning process for potential gas pipeline infrastructure and EGI, and it does not mean that construction will happen tomorrow.</p> <p>AW: As part of the Major Hazard Installation (MHI) Regulations, a Quantitative Risk Assessment will be required. This can only be done once a specific project has been determined to go ahead (i.e. based on a viable business case) and once a pipeline route and technical design specifications have been determined. The Quantitative Risk Assessment will include modelling of the risk for various scenarios to determine the risk to surrounding land uses.</p> <p>AW: The Acid Mine Drainage is something that could possibly be taken into consideration in the engineering constraints.</p>

3. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

AW provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
NV: How wide are the corridors?	AW: The corridors are 100 km wide.
NV: Are the EGI corridors designated for transmission and distribution power lines, and not just for the main transmission line?	AW and DF: It is planned to include both transmission and distribution electrical infrastructure within the Expanded EGI corridors.
JT: I am very concerned that the pipelines may be placed underneath or above rivers and estuaries, as this goes against the National Environmental Management Act (NEMA). South Africa is a water scarce country and we cannot afford pollution of our water resources. In the USA, there are a number of examples of events where there are cracks in the pipeline causing leaks and pollution of rivers.	<p>AW: Are you referring to gas or oil pipelines?</p> <p>JT: I am referring to both. Methane gas pollution can cause a chemical reaction within the rivers. We cannot break the environmental requirements, which state that such pipelines cannot go near rivers and estuaries.</p> <p>AW: For crossing of rivers, wetlands and estuaries, where trenching is not possible, the pipeline construction method used will most likely be pipe jacking or Horizontal Directional Drilling (HDD). This is an alternative to trenching.</p> <p>NE: HDD would involve constructing the pipeline within a pipeline. The gas pipeline would be pulled through an already installed sleeve that would either be composed of steel or concrete. This will act as a protection measure against spills.</p> <p><u>Post-Meeting Note from the Project Team:</u> HDD only uses steel as the sleeve. Apologies for the misinformation in the meeting.</p> <p>JT: Concrete does not work because it cracks.</p> <p>DF: Noted, this is one of the reasons that we are undertaking this SEA. We are noting down your concerns, and as part of the SEA, a Pinch Point Analysis will be undertaken that will aim to find at least five best routes for the pipeline and to target areas of least environmental risk.</p> <p>JT: The entire South African environment is at risk.</p> <p>DF: Noted, however suitable mitigation measures will be identified and recommended by the specialists to mitigate the risk.</p> <p>JT: Based on results that I have seen, mitigation does not work.</p>
KM2: Will the pipelines transfer natural gas? How would a person link or plug into the pipeline?	NE: Yes, these are natural gas high pressure transmission pipelines that will be routed from the source to industrial areas, such as a Gas to Power Station. The demand areas have been identified and used in the conceptualisation of the initial Phased Gas Pipeline Network. Smaller scale distribution and reticulation gas pipelines are not considered within the scope of this SEA. Therefore the option for distribution to individual customers is

Queries or Comments Raised	Responses
	<p>not considered here.</p> <p>However, if the distribution and reticulation pipelines were to be included in a later stage should there be development, Pressure Reduction Stations (PPS) will be constructed so as to reduce pressure from the main transmission line and a separate EIA for that construction will be required and is not covered in this SEA. However, it is possibly worth considering including at least the Distribution pipeline in the SEA as the environmental work has already been done. It is not advisable to include the Reticulation pipelines as well as these will go into densely populated areas, which the SEA is attempting to avoid.</p>

4. Presentation 2: Pinch Point Analysis

TM provided a presentation on the Pinch Point Analysis. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
NV: If a proposed power line cannot be routed within the Expanded EGI corridors, can it be routed outside of the gazetted corridors?	<p>DF: Yes, it would still be allowed outside the corridors, it would just mean that the normal EIA Regulations would apply and an Application for Environmental Authorisation would need to be made, followed by a decision that would be issued by the Competent Authority.</p> <p>In addition, the Draft Pinch Point Analysis has determined that there is opportunity for routing the EGI within the corridors.</p>
GR: In the environmental and engineering constraints, was landownership included as part of the sensitivity analysis? I am not sure how you would go about this but I know that this project may upset people in certain areas.	DF: Landowner negotiation has not and will not be undertaken as part of this SEA Process. Landowner negotiation can only be done once a project has been determined to proceed, which will be based on a viable business case, and once a potential route has been identified. The aim of this SEA Process is to allow the developers to put forward a pre-negotiated route and do the necessary discussions upfront, which is not allowed for in the current EIA Regulations. Once the corridors are gazetted, if the developer identifies a route within the pre-assessed corridors and begins negotiations, and if the negotiations are stalled or no longer viable, then the developer would need to find an alternative route within the pre-assessed corridors. The SEA Process will allow discussions with the landowners to avoid any issues and blockages.
NN: What is the source of data for the threatened species used in the environmental wall to wall mapping?	<p>TM: The Threatened Ecosystems layer was used.</p> <p>FD: Threatened species has a range of different data sources. We have obtained this information via the SANBI Threatened Species Programme, which is a foundation that consists of a network of partners. We have also obtained information on mammals from the Endangered Wildlife Trust (EWT). The information is not protected, and one does not have to pay to access it. It is available upon request and one would need to enter into a data sharing agreement as some of the information is sensitive.</p>
JT: Eskom is not maintaining its current grid. This is a concern, and is very evident in Gauteng. The pylons are rusting and in high danger of falling. How will Eskom fund this	DF: Decisions, recommendations or predictions for gas are not being made as part of this SEA Process. Gas is in the Integrated Resources Plan (IRP) and we are only looking at the

Queries or Comments Raised	Responses
<p>additional EGI Expansion?</p> <p>JT: The town of Beaufort West has been without water for over a year. Why is a link to the Shale Gas area included in the SEA?</p>	<p>corridors to facilitate the process if the gas is found. We are in no way influencing if shale gas goes ahead or not. We are only undertaking this study to identify environmental and engineering constraints to assist with the planning of potential gas pipeline infrastructure and EGI should it materialise. This SEA is only undertaking forward planning.</p> <p>In terms of Eskom's grid, Eskom will only build the EGI within the corridors if there is a need to. This SEA is only undertaking the planning and pre-assessment work to facilitate the process down the line. The outcome of this SEA does not mean that if the corridors are gazetted, there will be new power lines; it just means that if the power lines are required, these are the areas that it would most likely be constructed in.</p> <p>JT: Then why would you do this SEA anyway?</p> <p>DF: It is important to point out that this planning is being undertaken with the environment in mind. One of the key points that the DEA has realised over time is that unless developers plan with environment in mind, it is not really considered. Therefore, as part of this SEA, environment is brought to the forefront as a priority in planning. This SEA is being done as there is a chance that gas might be found, and there might be a need for EGI in the future. Once these needs and gas finds materialise, there will be a demand for such linear infrastructure being assessed as part of this SEA. One of the outcomes of this SEA would be to ensure that environmental approvals for such infrastructure within the corridors are not a cause for delay towards development, whilst still maintaining environmental rigour.</p> <p>NE: The inland corridor, linking to the Shale Gas region, was included in this SEA based on feedback from the Western Cape Department of Environmental Affairs and Development Planning (DEADP), who mentioned that the coastal route between Cape Town and Coega is constrained due to the high land use along the coast, and therefore requested the inland route to be considered. As an add-on to this, the inland route happens to link to the shale gas region.</p>
<p>MP: It seems like one benefit of this SEA is that power lines below a certain voltage do not actually require an EIA and if some of these smaller distribution lines are planned within the EGI corridors then at least there is an advantage in the form of an environmental sensitivity assessment that has been undertaken as part of the SEA. This will inform the power line routing, which could be useful.</p>	<p>DF: Noted.</p>
<p>MP: There is one corridor proposed from Richards Bay to Mozambique, and another corridor planned from Gauteng to Mozambique going past Komatipoort. It looks like these corridors are essentially servicing the same part of Mozambique. Why are two access points to Mozambique required, especially if you can potentially avoid the pinch point in Northern KZN, which is a very highly sensitive environmental area?</p>	<p>NE: Thank you for this good point. At this point in time, there are significant amounts of gas that has been found in Northern Mozambique, specifically at the Rovuma Basin. There is also a proposed pipeline that is planned from Palma to tie into the Rompco Pipeline at the Central Processing Facility and then routed into South Africa at Komatipoort. The Mozambicans also want to continue that line down to Maputo, and if that takes place, there is an option to continue the line into Richards Bay via Phase 4. However, if Phase 4 is no longer viable due to various constraints, then it certainly will be an option to import</p>

Queries or Comments Raised	Responses
<p>MP: However costs have not been mentioned yet?</p>	<p>Mozambican gas via the Rompco corridor and then bring it down to Richards Bay via Phase 3. At this stage, only the planning is being undertaken. Phase 4 might not go ahead due to the reasons mentioned, however if we manage to find a suitable route within Phase 4 it would certainly be a cheaper option for the customer.</p> <p><u>Post-Meeting Note from the Project Team:</u> The corridor routed from the border of Mozambique to Secunda and Gauteng via Mpumalanga is required should there be a need to supplement the existing Rompco pipeline. Phase 4 is routed from the southern border of Mozambique to Richards Bay, to account for potential gas coming from the north of Mozambique via an onshore pipeline to Richards Bay.</p> <p>NN: It is important to note that if you want to make maximum use of the asset (i.e. the pipeline), then you would want to have maximum compression. The best way to achieve this is to allow gas to be fed in from many parts. If you just have one long pipeline that is only receiving gas from one end, there will be reduction in pressure all along the pipeline. Whereas if you could feed gas from both sides of the pipeline then you could get maximum usage of that asset.</p> <p>MP: So in other words, in this case, the pinch point is not the issue, the maximum use of gas is?</p> <p>NN: This is only one issue. That is why gas engineers like to have loops and interconnections in the pipelines. Currently, in my opinion, the pipeline coming in to Secunda cannot be called a network. This is only a one way line, and if everyone needs to benefit from the gas economy then we will need gas going in at all directions.</p> <p>AW: The cost is considered in the engineering constraints mapping exercise at this stage.</p> <p>MP: So the pinch point in Northern KZN in Phase 4 would include cost and environmental constraints?</p> <p>AW: Yes, it did consider both environmental and engineering constraints.</p>
<p>MN: We should be careful of trade-offs as we are only at the planning stage now. I note your explanations about having a network and feeding in from multiple sections however, this is an SEA that is planning with the environment in mind. If we have the environment in mind, some of the issues will not apply. When the pinch point analysis was discussed some of the challenges mentioned were development based and driven economically. The motive of this SEA should be remembered. I am personally not against development and I am completely for planning for development sustainably and holistically. However, if there is an option to limit impact, then this option should be selected. The option of feeding gas in one direction should be selected if it has a limiting impact.</p>	<p>TM: It is important to note that the specialists are playing a role in refining the corridors. The wall to wall environmental constraints formed the initial rating of environmental sensitivities. The specialists are currently revising these sensitivity ratings by increasing or decreasing the sensitivity ratings that were initially assigned. For example, in the initial wall to wall environmental sensitivity mapping, a single sensitivity rating was provided to all wetland types. However, the specialists will refine this accordingly. The specialist refinements will be considered during the second pinch point analysis, which will also include the findings of the demand mapping and comments from the stakeholders. You will see some of the initial specialist refinements in the following presentation.</p>

Queries or Comments Raised	Responses
<p>KM2: Who will own the pipeline and who will invest in it? If a person raises the required amount of money, will they be allowed to branch into the gas pipeline, and serve as a potential customer? Does this SEA cover smaller customers? Does this SEA only cover piped gas or does it include processing of the gas into other by-products?</p>	<p>NE: Anyone that wants to build a phase of the gas pipeline network can go ahead using the tools and outcomes of the SEA. There, however, needs to be a viable business case, a guaranteed source of gas and a demand. Since these are transmission pipelines, one would need an anchor customer, which is generally a large customer that uses gas (such as large industrial and energy sectors, for example, in Secunda there is Sasol) and from there it goes to the smaller customers. Whatever the source of the new gas is, whether it be imported gas from Mozambique or imported LNG, it will go to a large baseload customer first, and from there it will go to heavy industrial users, light industrial users, commercial users and then into reticulation, and even applications such as transport (e.g. Compressed Natural Gas (CNG) and LNG in vehicles). So overall, the use of the gas is not limited but this SEA is only considering high pressure transmission gas pipeline infrastructure. If anyone wants to process gas, then a separate EIA would need to be undertaken for that specific process (which is outside of the scope of this SEA).</p> <p>The developer will own the pipeline and invest in it (not government and hence the taxpayer). If iGas as a government company (SOC) is the developer, iGas will fund the project via equity (iGas' money) and project finance (bank loans). Each phase of the pipeline will only be constructed based on a viable business case (a guaranteed supply of gas and a guaranteed customer for the gas). iGas will then finance the specific phase of the pipeline and recover its investment by charging a tariff for the transportation of the gas. The tariff is regulated by NERSA (National Energy Regulator of South Africa).</p> <p>DF: The SEA only looks at transmission of gas via a transmission pipeline, and excludes processing and beneficiation. The SEA also does not cover compressor stations as these are not required during the initial stages of establishing a pipeline network. It would only be required when the capacity of the pipeline needs to increase, and at that stage a separate Environmental Assessment Process would be required. In addition, the outcomes of this SEA, such as the standards and potential exclusion from an Environmental Assessment process within the corridors, will not only be for the benefit of iGas. Everyone is eligible for these benefits within the corridors.</p>
<p>KM2: Will the public have access to these presentations?</p>	<p>DF: Yes, the presentations delivered at the meeting will be uploaded to the project website and will be emailed to the meeting attendees. The website does not require any registration; it is an open site. One of the key aspects of this SEA is its transparency. Obviously some of the sensitive species information cannot be made available. In addition, the specialist studies will also be uploaded to the project website for public review, once they have been finalised.</p> <p>AW: The mapping KMZ files of the draft refined corridors are available on the project website as well.</p> <p>DF: The National DEA has developed, in a parallel process, a web-based environmental</p>

Queries or Comments Raised	Responses
	<p>Screening Tool that has been launched for optional usage; however it will become compulsory in the future. The Screening Tool has all of the necessary environmental information available for mapping and most of the information can be downloaded. One of the aims of the Screening Tool is that all parties in the sector use the same and most updated information. Some of the information might be data heavy, and you might have to contact the DEA to source such data. The intention is to make the environmental data freely available so that all users are aware of the environmental sensitivities.</p> <p><u>Post-Meeting Note from the Project Team:</u> The Screening Tool is a mapping platform that assists developers and Environmental Assessment Practitioners with mapping proposed project layouts in order to determine and avoid high sensitivity areas, as well as fatal flaws.</p>

5. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

FD provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology). The following comments and responses thereto were made.

Queries or Comments Raised	Responses
NV: Did the specialists consider medicinal plants that only grow in specific areas (such as the West Coast up to the Namibian border) and cannot necessarily be translocated?	FD: The SEA has considered endemics and since medicinal plants are endemic, the assumption is that they were considered.
MP: What do the grey areas in some of the maps indicate?	FD: These indicate other biomes, and can be seen clearly in the maps for the Albany Thicket Assessment. In the Aquatic Assessment maps, the grey areas indicate “no data”.
MP: How do you handle the data gaps, especially in cases where you know a specific species occurs in an area but there is no data for that particular species and there is data for other species that are not really of concern and are of low sensitivity? One of the key problem areas is that you then do not know the locations of some sensitive species, so some of the areas would be assumed to be of low sensitivity until the information becomes available. Is it not worth it to identify some of these species and commission the necessary projects as part of the project within the timeframes of this SEA in order to address the data deficiencies and establish a more complete dataset?	<p>FD: These grey areas are for the specialist assessments and it shows where the specialists themselves do not have the data. At this scale, it does not appear to be large areas of missing data. There might be tiny sections where there are data gaps but largely data is available.</p> <p>DF: There were two other SEAs which were undertaken that did include data collection because the areas were not very well studied. However, for this SEA, the wall to wall analysis has been undertaken and no large data gaps were established, and thus data collection was not required.</p>
MP: So if the areas of no data are so small that you cannot see it at this scale for that specific biome, for example, would it not be worth assessing this information and raising a small project within the timeframes of a few months to undertake an expedition to source this information for the mapping as part of this SEA? Is there scope to collect more data or is it not possible at this stage of the project?	FD: For many of the specialist assessments, they did note where many of the threatened species are located. If the specialists go back to all the sites, they are not going to find the information in one day. It takes a long time to get the data and in some areas it might take five years. These can be part of the recommendations coming out of this SEA. In addition, where there was Provincial information available for Critical Biodiversity Areas it was also considered in the SEA, as well as SANBI Threatened Species data. We have also enlisted the specialists to supplement some of the information as well.

Queries or Comments Raised	Responses
	<p>MP: I agree that it takes a long time to get the data. I was just looking at the map in particular and could not see any grey areas and it would be a shame if there was one small sub-quaternary that did not have data.</p> <p>FD: It might have been the case for this individual phase, but when the specialists pull together the data they might have had some of the data for the different phases and might not have had, for example, amphibian data for every single sub-quaternary.</p> <p>AW: It is important to note that one of the outcomes of the SEA Process is that it will be non-negotiable to undertake site verification prior to construction to ensure that the sensitivity levels assigned as part of the SEA are still valid on site. This can only be done once there is a specific pipeline route planned. Therefore, data gaps could be addressed at that stage of the process (i.e. subsequent to the gazetting process but prior to construction).</p> <p>MP: Will the map then be updated according to the site verification that will be done? DF: It is still being discussed. In the Screening Tool, we wanted to create a “grey layer”. So for example, if a specialist goes out to site and establishes that the condition of the environment on the ground is not as it appears on the Screening Tool, then the specialist would be able to upload their findings on the grey layer and the custodian of such data would then be able to look at it and verify it. This is still under discussion within the DEA. It is important that qualified experts and specialists undertake the site verification and upload this information so that the information has a high level of certainty.</p> <p>FD: Specialists currently identify different features in the landscape and assign sensitivities. So if something is not a Critical Biodiversity Area now but it becomes one in the future, the sensitivity would still hold. If something is sensitive because of the location of the sensitive species and you only find it in 10 years’ time, for example, it gets the sensitivity level that was assigned by the specialists, until verified.</p> <p>MP: I am just considering the field validation of the sensitivity maps. Obviously field validation cannot be done now for the whole country but if you have opportunities to do site verifications for certain projects, why not collate all of the information and look retrospectively at the maps to see how accurate the original maps were?</p> <p>FD: Some of the input used in the specialist assessments, such as for the Rivers, Wetlands, and the National Vegetation Maps, have their own accuracy assessments. In addition, the routes have not been selected yet, so it is not possible to do effective field verification at this stage, as there is a risk of focussing on certain areas where the pipeline may not eventually traverse. Field verification is something that can only be done at a later stage.</p>

6. Presentation 4: Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>JT: Are you aware that not one single municipality in South Africa has an operational Disaster Management Plan in place? The City of Johannesburg and Tshwane do not have Disaster Management Plans, and none of the small municipalities have one either, which is a huge problem. Even NECSA at Pelindaba does not have a Disaster Management Plan. There was a major incident in Pretoria a few months ago.</p>	<p>AW: The information gathered by the specialists on Disaster Management Plans portrays a different status quo; however capacity constraints have definitely been highlighted in the specialist assessment. The Disaster Management study considered firefighting capabilities of the affected municipalities falling within the corridors. This was used as a proxy for current Disaster Management capabilities and it was based on available information at the time of undertaking the study. The study highlights a wide range of capability and capacity levels, and various gaps. This will definitely be considered if and when a pipeline route has been identified. However, it is important to note that the developer would need to support the municipalities to ensure that they have adequate capacities and capabilities in terms of Disaster Management.</p>
<p>KM2: You mentioned other municipal services and activities that might unintentionally clash with the gas pipeline. Would this gas pipeline not be installed with similar sensors that have been installed on the Transnet National Multi Product Pipeline (NMPP)? For example, on the NMPP, there was an incident whereby these sensors allegedly triggered when a contractor undertaking trenching for laying of fibre was getting too close to the NMPP. As a result, the SANDF arrived on site. This is for the section of the NMPP that is routed via Langlaagte and has housing in the surrounding area, and it has Transnet pipeline markers. Would such sensors not be necessary for the gas pipeline?</p>	<p>NE: Pipeline markers will be installed every 1 km aboveground to indicate the presence of the pipeline so that future developers and adjacent land users are aware of its location. We could probably install local seismic sensors to indicate seismic activities. Sensors were not installed for the Rompco pipeline; however pipeline markers were installed aboveground. There will be a need for such sensors when the pipeline crosses other utilities such as water and sewer pipelines, however the first option would be to go under such utilities. Sensors have not been planned for but could be considered if required. For the Rompco Loop Lines 1 and 2, fibre optic cables were installed in the same trench of the pipeline to meet all the project communication requirements, and to serve as a social responsibly campaign by providing internet services to nearby communities.</p> <p>AW: Could sensors potentially be installed in regions where the transmission line would be routed close to settlements?</p> <p><u>Post-Meeting Note from KM1:</u> In the case of vandalism and/or excavations it is quite difficult to manage especially when the pipeline is situated near settlements as pipe markers alone cannot fully mitigate the predicament but the following measures <u>may</u> limit and/or reduce the potential for those activities taking place:</p> <ul style="list-style-type: none"> ▪ Installing a detection system (motion and vibration sensors along block valve stations and Scraper Trap Stations (STS)); ▪ An intervention system (feedback device or staff intervention); and ▪ Legal system (in the case of vandalism to prosecute people involved). <p>KM2: I think sensors would be important in areas where you have a likelihood of</p>

Queries or Comments Raised	Responses
	excavations. Perhaps the project team should follow up with Transnet in this regard. DF and NE: Transnet is a partner on the project and we could engage with them in this regard.
NE: It should also be noted that the Peak Ground Acceleration indicated on the map becomes orange towards Mozambique. For the Rompco pipeline, there was a Magnitude 2 seismic event on the other side of the border in Mozambique and it did not have an impact on the pipeline.	AW: Noted

7. Way Forward and Closure

Queries or Comments Raised	Responses
<p>DF: In terms of the Decision Support Tools, we are also working on a Generic EMPr for the power lines and substations that was compiled as part of the original EGI SEA (2016). This EMPr was gazetted for comment earlier this year, and is currently being finalised for gazetting for implementation. We will also develop a generic EMPr for the Gas Pipeline. One of the aims for the Generic EMPr is that developers would not need to compile a specific EMPr for the construction of such linear infrastructure within the corridors provided that no site specific requirements exist.</p> <p>In terms of the protocols, these have been integrated into the Screening Tool. It will guide developers in terms of the level of assessment that needs to be undertaken. It assists with providing the relevant information to the Competent Authority to assist with the decision-making. It also provides for a Compliance Statement, whereby verification is required on site.</p> <p>In addition, as part of the SEA, one of the proposed outcomes is to compile standards which will allow any development of gas pipeline infrastructure and EGI in the corridors to potentially be exempt from an Environmental Authorisation process provided that compliance with the standards and EMPr is achieved. However, we do understand that this is a controversial aspect. This approach has not been confirmed yet, it is still under consideration. This will mean that no decision or Environmental Authorisation will be issued at the end of the process; however some form of assessment will be undertaken, such as site verification. The standards will be gazetted for comment, so stakeholders can raise their concerns. We would also like to seek your initial feedback now, so that we can consider it in the compilation of the standards.</p> <p>AW: With regards to timeframes, we aim to finalise the corridors by March 2019. However the Decision Support Outputs, such as the EMPr, Protocols and Norms or Standards will need a few additional months to finalise.</p>	<p>GR: With regards to the Decision Support Output, would it include sharing of specialist data, in the form of KMZ or shapefiles, to assist other Environmental Assessment Practitioners that are undertaking work in the corridors? What level of access would one have?</p> <p>AW: Are you referring to the sensitivity layers?</p> <p>GR: Yes, as well as the refined base data that lead to the conclusion of the final corridors.</p> <p>DF: The national wall to wall mapping will be available via the National Screening Tool. The data that will be refined by the specialists within the corridors might also be available, however we are still discussing this internally because there is a problem with the process of updating the data, and there are uncertainties around how this will be done. We are not sure if the refined data will be used on the Screening Tool because it means that there will be a need for it to be updated especially if the base layer changes. This is still being discussed and has not been concluded yet. This is not intended to be a work driver, and it could become a work driver. Overall, the principle is that nothing will be off limits, and everything on the Screening Tool will be downloadable, except for sensitive biodiversity species data and heritage features. The heritage layer will still be able to be viewed on the Screening Tool.</p> <p>AW: There was also a concern about uploading the location of bat colonies.</p> <p>FD: Bats are covered by the species data.</p>
KM2: What type of standards are you referring to? Are you referring to SABS standards?	DF: No, we are referring to environmental standards. For example, if the pipeline was to be

Queries or Comments Raised	Responses
	<p>constructed in a low sensitivity environment in the corridors, then a site verification would only be required. However, if for example, the pipeline would be routed through 1 km of Albany Thicket, an engineering solution would need to be developed to avoid the impact. In the standards, there will be a number of questions to determine if the area can be avoided. The standards are still under discussion, and implementation thereof, together with site screening, would be up to the developer of the pipeline. Public consultation can be integrated as a requirement in the standards. Currently in the EIA Process, the Competent Authority would grant or refuse Environmental Authorisation. The standards will not include a decision-making phase by a Competent Authority.</p>
<p>KM2: For example, by 2019, if a person secures investors and wants to build a pipeline and identifies an area, will it be possible to tap into the transmission line and divert the gas to where it is required within the corridor?</p>	<p>NE: It is something we need to think about. From an environmental perspective, we are assessing, as part of this SEA, the impacts of constructing a gas pipeline within the corridors (whether it be a transmission or distribution pipeline). We might need to look at the Gas Act, which provides differentiation of the various gas pipelines.</p> <p>DF: We have assessed it, but we will need to think about it further.</p> <p>AW: If you are diverting from or connecting one transmission line to another, that would be covered by this SEA Process as long as it is within the corridors. If you want to build a transmission pipeline from the main transmission pipeline to a facility that will use the gas, this should be covered by this SEA and the Decision Support Outputs. However, the actual facility using the gas would not be covered by the SEA Process, only the transmission line would be covered. In terms of distribution, as far as the gas pipeline is concerned, we have assessed the impact, however the only concern would be if the distribution pipeline would be routed through densely populated areas (because as part of the SEA, we have excluded highly populated areas from potential routing options for the transmission pipeline).</p> <p>DF: It would also depend on the quality pipe, which might differ according to the pressures.</p>

AW: The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. The presentations will also be loaded onto the project website. Stakeholders can follow and access the project website for project updates. The meeting closed at 20H15.

A.7.8.6.5 Northern Cape – Springbok: 17 October 2018

Meeting:	Springbok Public Meeting: Meeting Notes	
Date of Meeting:	17 October 2018	
Venue of Meeting:	Kokerboom Motel: Next to N7, Droëdap Road, Springbok	
Duration:	17H00 – 20H00	
Attendees:	<ul style="list-style-type: none"> ▪ Dee Fischer (DF) ▪ Neville Ephraim (NE) ▪ Koketso Maditsi (KM) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) 	<ul style="list-style-type: none"> ▪ Babalwa Mqokeli (BM) ▪ Fahima Daniels (FD) ▪ Tsamaleo Malebu (TM) ▪ Fhumulani Nenzhelele (FN) ▪ Stephen Marthinus (SM)
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting and Agenda

The second Public Outreach Process extending from 8 October 2018 to 22 October 2008 was scheduled at various regions across the country to present progress on the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) expansion Strategic Environmental Assessment (SEA) Process, the draft findings of the Specialist Assessment studies, as well as the corridor refinement process. The meeting was chaired by Mrs. Dee Fischer. Presentations were delivered as per the meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:05	Welcome and Introductions	DEA
17:05 – 17:15	Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA	CSIR
17:15 – 17:30	Pinch Point Analysis	SANBI
17:30 – 18:30	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR and SANBI
18:30 – 19:00	Discussion	All
19:00 – 19:30	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:30 – 20:00	Discussion, Way Forward and Closing	All

2. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

AW provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA.

3. Presentation 2: Pinch Point Analysis

TM provided a presentation on the Pinch Point Analysis. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
FN: Did the Phase 1b gas pipeline corridor move during the initial pinch point analysis?	TM: As part of the draft pinch point analysis, the Phase 1b corridor was not shifted however; the Inland corridor was created to serve as an alternative route to Coega to avoid the highly populated coastal route, which also includes other constraints as pointed out by the Western Cape Department of Environmental Affairs and Development Planning.

4. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

FD provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology).

5. Presentation 4: Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment.

6. Way Forward and Closure

Queries or Comments Raised	Responses
FN: Once the SEA is completed, what is the next step and timeframes? How long will it take for the whole corridor to be implemented, will it be once off?	DF: At this stage, the specialist studies have been completed. The specialists have provided input to the sensitivity maps and input to the Environmental Management Programme (EMPr). As part of the SEA, we are planning to compile standards which will allow any development of gas pipeline infrastructure and EGI in the corridors to be exempt from an Environmental Authorisation process. However, we do understand that this is a controversial aspect, and some concerns were raised at other public and authority meetings that were undertaken as part of this roadshow. We must state that this has not been confirmed yet, it is still under consideration. However, if the standards become complicated to a point that it makes the assessment requirements more stringent and difficult for the developer, in comparison to an actual Environmental Impact Assessment (EIA) or Basic Assessment (BA), then we will not go forward with the Standards. If this is the case, we might streamline the Environmental Assessment requirements within the corridors by requiring a BA rather than an EIA based on pre-assessment undertaken, and allow for the submission of a pre-negotiated route. This has currently been achieved for the 2016 EGI corridors, whereby developers now, as at February 2018, require a BA Process instead of an EIA Process for construction of EGI within the gazetted corridors. The decision-making timeframes have been reduced from 107 days to 57 days. Should this option be followed for this SEA, this will be a major time saver and reduction in resources required. Currently, we are still considering if the standards approach will be effective or not.

Queries or Comments Raised	Responses
	<p>Another consideration is that the lending sector currently uses an Environmental Authorisation as a pre-requisite for providing lending. However, if the standards are followed, an Environmental Authorisation would not be required. This is a concern and still needs to be discussed with the lending sector.</p> <p>Overall, the approach selected will apply for the whole corridor. The aim would be that site verification will be required for any of the approaches selected.</p> <p>Another aspect is that the DEA has recently launched the National Screening Tool that will become mandatory for developers and Environmental Assessment Practitioners. The Screening Tool serves as a flag, which can be used by developers to plot or draw their project footprint and to manoeuvre it so that it avoids any High or Very High Sensitivity areas. If the sensitive areas cannot be avoided, then the developer needs to undertake a site verification, and then apply an engineering solution if required.</p> <p>Another important consideration is that a generic EMPr will be compiled as part of the SEA, which includes mitigation measures for construction of gas pipeline infrastructure and EGI. This would mean that developers do not need to compile a new EMPr for gas pipeline and EGI within the corridors. This will decrease time and cost to the developer and time for the Competent Authority. The principle is that all the issues will be the same as previous linear infrastructure development, so new scoping of issues will not be required, and it would not need to be reviewed by the Competent Authority due to its generic nature, unless site specific requirements become evident.</p>
<p>FN: This will assist NERSA because when developers apply for a licence, in general the Environmental Authorisation is not looked at specifically or in detail. However, in this case, the maps that will be generated on the National Screening Tool will assist NERSA to visualise the development footprint and associated sensitivities.</p>	<p>DF: Noted, all the decision making outputs and tools developed as part of this SEA, such as the EMPr, Standards, and Protocols will fit together. The aim is to make development easier without compromising the environment. This is also the type of forward planning that can be considered by municipalities for their Spatial Development Frameworks.</p>
<p>FN: There is currently a real concern about informal settlements and illegal encroachment of settlements on current pipeline routes.</p>	<p>DF: Informal settlements are a bit difficult to consider because we do not know the full extent and location of these. However, current developments and formal settlements are considered in this SEA Process. The outputs of the SEA will assist the planning of future development.</p>

AW: In terms of timeframes, the SEA final corridors are expected to be completed by March to April 2019. The specialist studies will hopefully be made available for public and stakeholder review by mid- to end-November 2018. If the review period extends over the December holidays, then it will be extended into January 2019. In terms of the tools of the SEA (i.e. Standards, EMPr and Standards), these will take a bit longer to finalise and we are aiming to have drafts ready by March or April 2019. The tools need to go through Working Groups and further consultation processes.

AW: The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. The presentations will also be loaded onto the project website. Stakeholders can follow and access the project website for project updates.

DF: In closing, we hope to conclude the majority of the outputs of the SEA next year; however the gazetting process takes a considerable amount of time. However in the end, this process will make a significant difference for the developer and Competent Authority in terms of efficiency while still ensuring environmental compliance.

The meeting closed at 19H25.

A.7.8.6.6 Western Cape – Cape Town: 22 October 2018

Meeting:	Cape Town Public Meeting: Meeting Notes	
Date of Meeting:	22 October 2018	
Venue of Meeting:	CSIR: Lower Hope Road, Rosebank, Cape Town	
Duration:	17H00 – 21H15	
Attendees:	<ul style="list-style-type: none"> ▪ Dee Fischer (DF) ▪ Koketso Maditsi (KM) ▪ Annick Walsdorff (AW) ▪ Kelly Stroebel (KS) ▪ Rohaida Abed (RA) – Via Skype ▪ Fahiem Daniels (FD) ▪ Tsamaelo Malebu (TM) ▪ Melanie Veness (MV) ▪ Russel Sabor (RS) ▪ Marilyn Lilley (ML) ▪ Amelia Genis (AG) 	<ul style="list-style-type: none"> ▪ Letsatsi Melato (LM) ▪ Fhumulani Nenzhelele (FN) ▪ Charl de Villiers (CdV) ▪ Karel Lewy-Phillips (KLP) ▪ Glen Tyler (GT) ▪ Peter Kantor (PK) ▪ Kate Davies (KD) ▪ Sue Lane (SL) ▪ Dan Schneider (DS) <p><i><u>Post-Meeting Note from the CSIR: There are a few stakeholders that attended the meeting but did not sign the register. Where such stakeholders raised queries during the meeting, they are reflected as "Attendees" in the meeting notes.</u></i></p>
Signed Attendance Register	Included as Appendix A	

1. Purpose of Meeting and Agenda

The second Public Outreach Process extending from 8 October 2018 to 22 October 2018 was scheduled at various regions across the country to present progress on the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) expansion Strategic Environmental Assessment (SEA) Process, the draft findings of the Specialist Assessment studies, as well as the corridor refinement process. The meeting was chaired by Mrs. Dee Fischer. Presentations were delivered as per the meeting agenda below:

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:05	Welcome and Introductions	DEA
17:05 – 17:15	Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA	CSIR
17:15 – 17:45	Pinch Point Analysis	SANBI
17:45 – 19:00	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	CSIR and SANBI
19:00 – 19:45	Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment	CSIR
19:45 – 21:05	Discussion, Way Forward and Closing	All

2. Opening of the Meeting

DF opened the meeting and provided a background on the purpose of the meeting. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
ML: During the last public outreach meeting in Cape Town on 1 November 2017, the questions raised and corresponding responses provided were not captured verbatim in the meeting notes that were compiled and distributed by the Project Team. The responses were also grouped together. I recommend that for this meeting the voice recording is made available as this is a public meeting and it is understood that the recording will be made available.	<p>AW: It must be noted that we are not capturing the <u>minutes</u> of the meetings that take place. We are instead capturing <u>notes</u> that summarise the key issues and comments raised, with summarised responses, whilst still capturing the essence of what is said at the meetings. This has been the approach adopted since the beginning of the SEA Process.</p> <p>DF: We need to discuss this further and see if it is possible to share the recording of the meeting with the meeting attendees.</p> <p>KS: We are definitely recording the meeting. We could upload the recording via Dropbox, Google Drive or similar and share the link with the attendees after the meeting.</p>

3. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

AW provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
AG: What is a pigging station and PIGs? What is the pipeline composed of?	<p>KM, DF and AW: PIGS are Pipeline Intelligence Gauges. They are the machinery that is used to clean the pipeline and to undertake maintenance. Pigging will take place once every five years. The actual PIG is run inside the pipeline.</p> <p>LM: Pigging does not only clean the pipeline, it also picks up on pipeline degradation and</p>

Queries or Comments Raised	Responses
	<p>provides data and the location of where the pipeline is degraded. The pipeline is made of stainless steel and is welded. The actual pipe is delivered to site in batches and these are then lined up and welded on site. The actual pipeline may span for many kilometres but at certain set distances along the route, the pipeline will be diverted to link to pigging stations to allow the PIG to access to the pipeline for cleaning and inspection purposes. The PIG will enter one side of the pipeline and then exit at the other side (at the other pigging station).</p> <p>DF: It is important to note that pigging stations are not large above ground structures like compressor stations (which are not part of the scope of work).</p> <p>LM: Pigging stations are not large structures; they are just to allow the diversion of the pipeline for inspection.</p> <p><u>Post-Meeting Note from the Project Team:</u> The pigging is not necessarily undertaken solely to clean the pipeline, it actually serves as an inspection mechanism as well. Pigging aims to improve the operational capacity of the pipeline by ensuring that defects are noted and unwanted waste is detected and removed from the pipeline (in compliance with the Environmental Management Programme (EMPr). The actual pigging mechanism requires a Pigging Station, which will be above ground approximately every 130 km but possibly as far apart as 250-500 km (based on new technology options). Pigging stations are generally 30 x 80 m in size.</p>
<p>ML: How many kilometres long is the entire Phased Gas Pipeline Network including all proposed phases?</p> <p>ML: If the gas pipeline is only checked once every five years, this is a concern as it is not often. I have been following gas pipeline developments, and there have been major gas pipeline explosions in communities where things go wrong. Another important point is that the public need to know up front what the entire development is about, and they need to know what their responsibilities and restrictions are. In this regard, it is not just a matter of what you are allowed to plant within the servitude or not. There is more important</p>	<p>KM: The entire network, inclusive of all phases, extends approximately 5000 km in length.</p> <p>DF: However, it is important to note that even though all the phases are shown on the map and are being assessed in this SEA, it does not mean that the entire pipeline network will materialize or will be built.</p> <p><u>Post-Meeting Note from the Project Team:</u> It must be noted that, although these phases have been sequentially numbered, they will not necessarily be developed in this order. Rather, they will be developed according to economic viability, i.e. a guaranteed source of supply and a guaranteed offtake comprising a viable business case for each phase of the Phased Gas Pipeline Network. These are only proposed corridors that are being assessed to identify environmental sensitivities and engineering constraints in order to inform potential pipeline routings should there be a need for such infrastructure in the future.</p> <p>AW: A compressor station will not be located every 130 km. <u>Pigging stations</u> will be routed every 130 km (but possibly 250 km to 500 km apart depending on whether newer technology will be used).</p> <p>KM: I concur that the pigging stations would be spaced at 130 km and not the compressor stations.</p>

Queries or Comments Raised	Responses
<p>information that the public needs to be made aware of with regards to the development of gas pipeline infrastructure. In addition, you mentioned that compressor stations are not being considered in this SEA. However, ultimately the development will require and include compressor stations, and these are large industrial type structures. Therefore, the public need to know what compressor stations entail, especially if it is routed along their properties i.e. what is their function, what do they look like, how big they are, will there be any flaring, and what to expect in general etc. At the last meeting iGas mentioned that compressor stations would be placed every 130 km along the route, and the public needs to be aware of the risks considering this spacing. The public need to be aware of the impacts associated with the entire development in a holistic manner. At the last meeting, it was mentioned that the EMPr would be compiled per section. However, the whole project needs to be considered in its entirety.</p>	<p><u>Post-Meeting Note from the Project Team:</u> It must be noted that the following information was reported at the last public meeting in Cape Town on 1 November 2017, which concur that compressor stations were <u>not reported as being 130 km apart along the pipeline route</u>:</p> <ul style="list-style-type: none"> There are the block valves every 30 km and PIG Stations every 130 km along the pipeline route, and these can be points for off-takers to source the gas. The proposed pipeline will be underground, and the visible structures will be in the form of Pigging Stations where the pipeline comes above ground. A PIG is a Pipeline Intelligence Gauge used for pipeline inspection. The Pigging Stations can be 130 km apart from each other along the proposed pipeline route. Pipeline markers will also be placed every 1 km along the proposed pipeline route. Compressor stations would be required to increase the throughput of the pipeline. In the Rompco Pipeline, for example, the compressor station is located in agricultural lands, so the impact on surrounding settlements is minimal. There will not be any flaring activity along the proposed pipeline routes. That is restricted to the existing stations at this point. The objective for the developer is to build a safe pipeline that will not incur any product losses via flaring or other means in order to reduce loss of capital. However the mechanisms for flaring will be in place should this be required for emergency situations. These issues will all be dealt with in the proposal to actually construct the pipeline on a project specific basis. At this stage, the SEA Process is only focusing on pre-planning and pre-assessment, should the proposed pipeline occur. <p><u>Post-Meeting Note from the Project Team:</u> A generic EMPr will be compiled for the construction and operational phases of the development to ensure that all generic impacts are addressed and mitigated.</p> <p><u>Post-Meeting Note from the Project Team:</u> Reservoir gas is generally at a high pressure or compressed at the production facility to transport the gas to onshore locations. An inlet pressure of between 100 bar and 125 bar is generally sufficient to transport gas up to 500 km. After that, compression becomes necessary to increase throughput. As an example, the first expansion project for the Rompco MSP was a compressor station installed at Komatipoort, approximately 500 km from the Central Processing Facility (CPF). Compression will be required if the network has a single source input transporting gas over long distances. However, if there are multiple inputs 500 km apart, then compression will generally not be required, unless an increase in throughput is required. The installation of compressor stations will be considered during the engineering studies for each phase of the pipeline network. As a design principle, compression along the pipeline route should be avoided in the initial construction and should be left for capacity increase during later stages of the pipeline operation when market demand increases, requiring increased throughput. Therefore, compressor stations have not been considered as part of this SEA Process, and should be considered on a project specific basis.</p>

Queries or Comments Raised	Responses
<p>ML: Have the Greenhouse Gas (GHG) emissions for the pipeline been calculated? Methane is a far worse GHG than CO₂ (8 times more than CO₂). We have to take this into account up front. We need to decide if this gas pipeline project is viable considering these emissions? We, as a country, cannot be seen on an international stage signing agreements to pledge to reduce our emissions but in South Africa, we do the exact opposite because we know Methane is a far worse GHG than CO₂.</p> <p>ML: GHG from compressor stations is another concern due to the emissions.</p> <p>ML: Then to my understanding, you do not have to work out the total GHG emissions from compressor stations as these will be subjected to separate EIA Processes. This will have an implication in terms of cumulative impacts.</p>	<p>AW: In terms of the GHG emissions, when pigging is done once every five years, iGas calculated that there will be about 5 kg of methane released, and this is equivalent to 25 kg of CO₂ equivalent for each pigging station (i.e. 5 times CO₂ eq. and not 8 times). Your concern about the total length of all the phases of the Gas Pipeline Network (i.e. 5000 km) is noted; however ultimately it is so unlikely that all of the phases will be constructed. If you want to have an idea of the total amount of GHG for the entire network, then you can assume one pigging station every 250 km with 5 kg of methane released.</p> <p>DF: However, we need to re-iterate that this SEA does not consider compressor stations because these stations are not required to actually build the initial network and will only be required later on if there is a need to boost capacity. If compressor stations are required in the future, these will be subjected to separate Environmental Authorisation processes and will be assessed on a project specific level, which is outside the scope of this SEA. This SEA is only looking broadly at the corridors to inform site specific assessments when required. If more than one compressor station is required, then each station will have its own Environmental Impact Assessment (EIA) Process.</p> <p>DF: The EIA Process would look at cumulative effects associated with potential GHG emissions of compressor stations.</p> <p>AW: There is no sufficient information available at this stage in terms of potential users of the gas, quantity of gas transported etc. to enable us to assess the cumulative impact in terms of GHG emissions.</p> <p>DF: Yes, GHG assessments would need to be done at the EIA stage when compressor stations are required to be built.</p> <p><u>Post-Meeting Note from the Project Team</u>: Please also refer to response to previous issue in terms of the need for compressor stations.</p> <p>ML: Is that when the pipeline will be built?</p> <p>DF: No, the pipeline will possibly be built based on the outcomes of this SEA, however it does not necessarily mean that the developers would be allowed to build compressor stations without undertaking the necessary Environmental Assessment and required specialist studies, one of which may be a GHG assessment.</p> <p>ML: So when will GHG be considered in the SEA?</p> <p>DF: As mentioned previously, GHG emissions cannot be considered as part of this SEA, which focusses on the assessment of the suitability of the corridors for potential gas transmission pipeline development. The information required for such an assessment can</p>

Queries or Comments Raised	Responses
	only be finalised at the project specific level. However, in the latest Draft Integrated Resources Plan (IRP) released for comment by the Department of Energy (DoE), it is clear that the provision for natural gas has been increased considerably in terms of allocations, and it is understood that GHG have been discussed to a certain extent in the IRP. The comment period on the Draft IRP closes in a few days. Interested and Affected Parties (I&APs) are encouraged to review the Draft IRP and submit comments.
<p>KLP: Related to the point of GHG emissions let us assume the land is cleared (i.e. 5000 km is cleared), which means that the biomass is removed. Therefore, there has to be carbon offsetting.</p> <p>KLP: In addition, if a developer is installing a pipeline, adaptation to climate change also needs to be considered. For example, flooding in the catchment areas would have an impact on the pipeline, therefore it would need to be buffered in places and remediation would be needed so that it does not get damaged. Overall, this is going to have knock-on effects. It should be considered and would basically be a question of where the GHG is coming from. In my opinion the pipeline itself and land use change will result in losing the carbon sinks which will result in significant cumulative impacts due to the vast area covered. In my opinion this should be considered in the SEA.</p> <p>KLP: Will there be consideration for funds to be put into wetland rehabilitation or offsets? If not, there will be no win for biodiversity.</p> <p>KLP: These are valuable carbon sinks to make up for potentially millions of cubic tons (cumulatively) of biomass that will be lost.</p>	<p>DF: The pipeline will be constructed below ground. In some areas you may not be able to rehabilitate completely, such as in some areas in the Northern Cape for example. Therefore in those areas there would not be much of a carbon sink anyway but there will be a long period of time for rehabilitation to happen. However, in other areas, there will be an opportunity for the vegetation to regrow so it will be unlikely to have major net losses of carbon sinks. In addition, carbon sinks have been calculated and mapped for the country. The pipeline would try to avoid running through areas designated as carbon sinks. In addition, it is unlikely that the pipeline would be routed through densely vegetated areas.</p> <p>FD: The Biodiversity Specialists have identified highly sensitivity areas. In addition, specific Critical Biodiversity Area (CBA) features such as major slopes and coastal dunes have been considered. CBAs have been mapped and considered in the SEA as well. In the datasets currently available, there are broader climate change models that exist, however these are too broad to consider at this level. Instead, we are looking at existing climate change models where the biome shifts will occur, however this is on too broad of a scale to specify what will happen in certain areas of the biomes. Overall these recommendations are taken into account but on a broad level, however we are looking at features that will help for climate change and adaption considerations.</p> <p>FD: As far as possible, the pipeline will be routed away from watercourses, wetlands and rivers, and if these areas need to be crossed, then trenching would be limited as far as possible and other construction methods to go under these features will be considered (e.g. pipe jacking or horizontal drilling).</p>
<p>DF: You mentioned that there are many requirements on the landowner and pipeline operator. Please can you elaborate on this?</p>	<p>ML: Overall, there are many considerations that the owner needs to take into account. Can this information be compiled in a document and shared with us upfront? iGas must have documentation that we can look at to give us an idea of what it actually means. What will the responsibilities of the landowner be? For example, there are certain restrictions that the land owner has to abide by, such as growing certain vegetation within the servitude etc. In addition, there are certain structures that the gas pipeline cannot cross or that cannot go over the gas pipeline etc. The developer should put up signs to inform surrounding landowners and land users of the pipeline.</p> <p>DF: Based on the discussions held to date, one can drive over a gas pipeline, as it will be about 1 – 2 m below ground. The main condition is that deep rooted plants cannot be grown within the pipeline servitude. However all of these requirements will be discussed with the affected landowners and negotiated via a servitude agreement. The agreement</p>

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	<p>will specify what is and what is not permitted in the servitude. It does not mean that the pipeline cannot be routed within agricultural areas; it just means that the design of the line might have to change, such as potentially constructing it deeper below ground. In addition, pipeline markers will be installed every 1 km within the servitude as an indicator of the pipeline route. Overall, the biggest restriction is the deep rooted plants.</p> <p>FD: It is important to re-iterate that all the requirements of the landowner will be negotiated in a negotiation agreement with the pipeline developer. The land will not be expropriated. The pipeline developer will enter into a servitude agreement with the affected landowner, and the landowner will be aware of the pipeline and the operational procedures and restrictions.</p> <p>DF: For example, the servitude agreement will specify the restrictions on what vegetation can be grown within the servitude (i.e. prohibit deep rooted plants). The agreement may also provide recommendations on ploughing i.e. making sure that ploughing does not exceed 1 m depths within the servitude and that suitable machinery is used etc.</p> <p>KM: We could upload generic photographs of the infrastructure and construction process on the website or I could email it to ML. This will provide visualisation of the construction effects are on environment and type of infrastructure.</p> <p>In terms of emissions, if we <u>assume</u> that 5000 km of pipelines will be constructed, then there would be pigging stations every 250 km along the route, which would equate to 20 pigging stations along the entire route. Since pigging is done once every five years, and it was calculated that there will be about 5 kg of methane released, which is equivalent to 25 kg of CO₂ equivalent for each pigging station. <i>If we assume 6 pig runs per pigging station</i>, this would equate to 150 kg of CO₂ equivalent for each pigging station. If this is multiplied by 20 pigging stations it would equate to 3 tons of CO₂ every five years for the entire network. In comparison, an average car emits about 4 – 5 tons of CO₂ per year. There are 12 million vehicles registered with the Department of Transport including heavy vehicles. The release of CO₂ from motor vehicles in South Africa is 48 – 60 million tons per year. Target customers for the gas will be CNG and LNG vehicles, which potentially reduce their CO₂ emissions by 30% compared to petrol and diesel. When calculations are done, the emissions are put in perspective and actually minimal as pigging is done every five years.</p> <p>DF: In terms of a way forward, we will upload pictures of pigging stations and pipelines to the project website, and work on a document with information upfront (such as typical requirements of the landowner), as well as do a calculation showing the methane emitted during pigging as calculated at the meeting.</p>
KLP: A Life Cycle Assessment is a good consideration and should have been included in the project. It will give a full picture of the project such as equipment and machinery, as	DF: It was never the intention to undertake a Life Cycle Assessment (LCA). It is not needed in an SEA. The question was raised to determine how much of emissions are released

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<p>well as construction and operation. The reflection on pigging emissions is interesting but not the equivalent of a LCA.</p>	<p>during pigging.</p> <p>KLP: It is unfortunate that it is not included. GHG emissions from pigging are only one component. GHG emissions from the pipeline should be considered, which is linked to the question raised by ML in terms of where we stand as a country in terms of international agreements and where this pipeline is going and there is no LCA for it.</p> <p>DF: Surely the emissions from the coal based energy generation are much higher?</p> <p>KLP: You will need to have the information and quantities relating to coal so it can be compared.</p> <p>DF: Usually LCAs are not done in South Africa for EIAs and SEAs.</p> <p>KLP: They are done in some countries like Holland and they have various criteria and requirements. I hear your reasoning, and do not disagree; it would however be good to include it in any part of this process to avoid the situation we are in now in terms of GHG.</p> <p>ML: I think an LCA is important as it will consider all the phases of the pipeline development over the lifetime of the project, including the decommissioning.</p> <p>DF: As mentioned previously, a LCA is not generally undertaken in South Africa as part of SEAs or EIAs, and it is not part of the scope of work.</p> <p>KLP: But can it be requested to be included?</p> <p>DF: We are not saying that pipelines will definitely be constructed. We are only forward planning as part of this SEA. There is no guarantee that the pipelines will be constructed, as it will be based on demand, a viable business case and establishing a guaranteed supply of gas and a customer. Maybe a LCA can be undertaken at the time when compressor stations are required. Perhaps that is something to consider, as we have made a note that cumulative impacts need to be considered at the compressor station stage on a project specific level. We could possibly look at the coal equivalent, but again this is not planned as we are not comparing different technologies as part of this SEA.</p> <p>KLP: If you had the data on the gas, we could compare it to the coal data and assess different energy scenarios for the country. We had the Shale Gas SEA that was recently undertaken and there was no climate change assessment done for it. There is no climate change assessment being done for the Gas Pipeline SEA. When all the gas fields and Operation Phakisa developments come on line together it would be without climate impact assessments, and therefore without management of cumulative emissions or actual data to compare it to the coal power stations now. These assessments should be taken quite</p>

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	<p>seriously, but I do understand your reasoning.</p> <p>DF: As mentioned previously, the current Draft IRP, dated 2018, has covered carbon considerations. One of key aspects of IRP was to meet the requirements of reducing carbon emissions from a national perspective. Carbon emissions were also considered in first IRP and feedback was provided on different energy technologies. The current Draft IRP is available on the DoE website.</p> <p>KLP: I will look at the Draft IRP. If one takes into account that there will, hypothetically, be pipelines and gas fields, including LNG and LPG facilities in the different harbours such as Saldanha, then there will be emissions as a result of the fuel coming in, compression and de-compression of CNGs, fugitive emissions, and the pipeline itself. This is a very important consideration and there is no margin for error. I am not sure if this assessment of the cumulative emissions from gas has been ring-fenced. This weighs heavily on decisions. For example, in the Shale Gas SEA, there was no consideration of fugitive emissions from exploration. There is a similar scenario for this Gas Pipeline SEA, where there are gaps, whereby emissions from the procedure and the LCA of the pipelines are excluded. If this is not done at each stage, then it is going to become very problematic in future.</p> <p>AW: To do a full LCA, one needs to have all the details, such as quantity of gas transported, usage of gas, location of take offs, and location of compressor stations (if any), etc., and this is not known at this stage.</p> <p>KLP: Could you not look at certain scenarios? You could model it. This would be valuable information for the pipeline LCA.</p> <p>DF: It needs to be reiterated that this SEA is not looking at scenarios of GHG emissions from different technologies, including the gas pipeline and does not look at LCAs.</p>
<p>DF: In response to the last question raised by ML in terms of pigging being undertaken at long intervals i.e. every 5 years. There are ways to detect if gas is being lost from the pipeline (for example, a mass balance is done to identify if losses occur). Block valves will be constructed above ground to close sections of the pipeline should a leak be identified. It is considered that undertaking pigging once every five years is sufficient as the developers would be able to detect issues if any. The pigging interval is also done in terms of best practice. However, inspections can also be done if there are specific issues.</p>	<p>FN: It should be noted that there is also yearly compliance monitoring that is done by the National Energy Regulator of South Africa (NERSA) to ensure that there is compliance with the Operator Licence etc.</p> <p>DF: In addition, a generic EMPr will be compiled and will include monitoring for compliance on a regular basis.</p>
<p>RS: It seems like you are anticipating leaks. What is the impact of product being lost i.e. accidents? How much of product will be lost?</p>	<p>DF: Leaks are not being anticipated. The developer does not want to lose product. The developers will undertake a mass balance, and if they identify that the product is being lost, then they will be able to act on that.</p> <p>AW: The gas in the transmission pipeline is at a very high pressure. If there is a small leak, then some gas will be released below ground. If there is a major leak or rupture, there</p>

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	<p>could be a burst of gas that could create a crater or a fire if there is an ignition source above ground. It is important to note that if the pipeline is constructed (based on a viable business case); a Quantitative Risk Assessment (QRA) will need to be undertaken in terms of the Major Hazard Installation Regulations prior to construction. The QRA would identify safety distances around the pipeline, which is generally taken as 1 km in this SEA. Block valves will also be placed every 30 km along the pipeline route. So essentially, if there was a full rupture and the valves are closed on time, the maximum amount of gas that could be lost would be between a 30 km long section of the 600 mm pipeline.</p> <p>LM: The pipeline system will also be monitored on a daily basis. Pipeline operators have a system in place to monitor the pipeline to ensure that if there is a drop in pressure, it will be directly detected and pin pointed. From experience on transmission pipelines such as the Transnet and Sasol, most of the leaks are caused by third party interference. In areas where there is an absence of pipeline markers, this interference is more evident by work done by external contractors. For example, in many areas the gas pipeline usually runs parallel with a water pipeline and issues generally occur when contractors do repairs on the nearby water pipeline. The leaks are normally small, unless there are larger ruptures.</p> <p>AW: Noted, unintended striking and human area have been identified as a concern and have been identified in the Social and Settlement Planning Assessment.</p> <p>DF: We will compile a write up of a few paragraphs on existing pipelines and where there have been problems in terms of leaks etc. The information will be supplemented with the Disaster Management Study.</p>
<p>CdV: How vulnerable is the above ground infrastructure in comparison to the below ground pipeline infrastructure to tampering and theft?</p> <p>CdV: I was involved when Engen considered putting in a gas pipeline from Saldanha to Mossel Bay, and it was required to route the pipeline above ground in certain areas, particularly in mountainous areas. Will the pipeline be buried for the entire distance?</p>	<p>DF: The pipeline will be below ground. The covers for the block valves (which lead to an inspection chamber) will be above ground.</p> <p>RS: There are many ways that block valves could be built. It could be submerged with an access confined space or it could be a valve underground with a 2 m actuator on the surface. I agree that the more the infrastructure is hidden the better, which will also prevent accidental damage. We must bear in mind that this is a 600 mm diameter pipeline, and if design pressures go up 200 or 250 bar, the wall thickness will be extremely thick (composed of steel).</p> <p>DF: This has been considered in the engineering constraints mapping. Sensitive areas and areas where it would be difficult to construct a pipeline will be avoided as best as possible. The pipeline will be constructed below ground.</p> <p><u>Post-Meeting Note from the Project Team:</u> Routing of the gas pipeline above ground will not be considered due to safety concerns and risk of tampering.</p>

4. Presentation 2: Pinch Point Analysis

TM provided a presentation on the Pinch Point Analysis. The following comments and responses thereto were made.

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<p>CdV: It seems that you are working from mapped features and values assigned by specialists. At what point do you test public acceptance or resistance in terms of the corridor locations? I am attending on behalf of Agri-Western Cape and they have considerable experience with Eskom powerlines and the interactions with affected landowners, which has not been unproblematic. I am aware that this is a strategic project, however when will the social waters be tested? The Pinch Point Analysis might move the corridors away from areas of environmental and engineering constraints; however the corridors might end up in areas that have resistance and have not been mapped.</p>	<p>DF: For the gazetted EGI corridors (which were gazetted in February 2018), the DEA has allowed for a pre-negotiated route to be determined before applying for an Environmental Authorisation (EA). This allows the developers to “test the waters” in terms of public and landowner resistance. For example, if a landowner rejects the developer’s proposal to route a powerline on their property, then the developer would need to look for an alternative route and undertake negotiations with the landowners.</p> <p>CdV: Would this negotiation be undertaken with the actual property owners?</p> <p>DF: Yes, at the time when the infrastructure has been designed and a route has been selected, this will be negotiated with the affected landowners. This is allowed for with the EGI SEA (2016), whereas previously, pre-negotiation was not catered for in terms of the EIA Process and if there were any issues with landowners, it would usually require an amendment to the EA. It used to take eight years for Eskom to seek approval and develop grid infrastructure and it is anticipated that the streamlined process would save time by ensuring that landowner negotiations are done upfront before an application is lodged.</p>
<p>Attendee: First point: It seems that high risk areas are identified but infrastructure still gets placed in these areas, because the low risk areas are no longer possible. This approach seems to happen frequently, so what is the point of all this research? It seems like a foolish exercise.</p> <p>The second point is that given that 14% of the South African population lives in informal settlements, why were these not taken into account when looking at risks?</p> <p>The last point is that water resources were listed; however you did not mention underground aquifers. Do these gas pipelines severally damage underground aquifers in event of explosions etc.? There is a massive aquifer below one of the areas that have been potentially identified for fracking.</p>	<p><u>Response to Point 1:</u></p> <p>TM: When the corridors were designed, we looked at environmental and engineering constraints, as well as existing developments and future planned developments. The initial environmental sensitivity analysis informed the draft pinch point analysis. However as part of the specialist assessments these sensitivities are being re-looked at by the specialists based on their level of expertise. The specialists will refine the landscape features and sensitivities and this will inform the final pinch point analysis.</p> <p>FD: It is also important to note that those very high sensitivity areas are both engineering and environmental constraints and most of them are related to engineering constraints, such as mining areas and slopes. If the proposed pipeline route avoids the high sensitivity environmental features, then it is likely that it will intersect with high sensitivity engineering constraints, and this would require an engineering solution.</p> <p>DF: It also needs to be re-iterated that this is a large scale exercise and a site verification will be required before construction in all cases, as it might be that what has been mapped does not correlate with what is on the ground. For example, some areas might have been allocated high sensitivities by the specialists, however when site verification is done, it shows that the area has been transformed. The same can apply for low sensitivity areas that were mapped and changed to high sensitivity areas after verification. Overall,</p>

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	<p>this SEA will focus on desktop mapping as best as we can, however further site work will be needed once a pipeline route has been confirmed.</p> <p>AW: A final pinch point analysis will be done based on the specialist studies; this may lead to potential re-alignment of the proposed corridors.</p> <p><u>Response to Point 2:</u></p> <p>TM: Informal settlements are fluid and cannot be easily represented spatially as their locations are not well known and most of them are not captured in municipal plans. Informal settlements are therefore difficult to consider, however we did consider formal settlements.</p> <p>DF: A presentation will be provided on the Social and Settlement Planning Assessment that has been undertaken as part of the SEA. Towns and settlements were buffered in the assessment, so the proposed pipeline routings will stay away from these areas as best as possible. This SEA is only focused on gas transmission pipelines at high pressure which will serve large industrial areas and power stations; therefore it is unlikely that the transmission pipeline will be routed close to towns.</p> <p><u>Response to Point 3:</u></p> <p>AW: The SEA has taken into consideration Strategic Water Source Areas (SWSAs) – which includes both surface and groundwater in the Environmental Sensitivity Analysis. Due to the minimal pipeline depth (i.e. top of the pipeline will be about 1 m below ground) it is unlikely that the pipeline will impact on deep aquifers.</p> <p>DF: A 1 - 2 m depth below ground will not really impact the aquifer. However, at this stage, the impact of pollution to groundwater has not been looked at in this SEA.</p> <p><u>Post-Meeting Note from the Project Team:</u> Recommendations for management of potential groundwater impacts will be included in the Generic EMPr.</p>
<p>ML: One public meeting in each province is not sufficient at all. How many municipalities will the corridors go through? People in those municipalities need to have public meetings and need to be aware of the project. All the affected municipalities cannot travel to one area in the province. These representatives need to be involved and included in the process because those are the people that actually know their own areas. How many municipalities are affected and are you going to have more local meetings in each municipality?</p>	<p>DF: The SEA consists of a Project Steering Committee (PSC) and Expert Reference Group (ERG) which consists of various representatives, including those from the affected District Municipalities. We have been to all the major regions and have arranged public meetings in seven towns (i.e. George, Port Elizabeth, East London, Durban, Johannesburg, Springbok and Cape Town) and authority meetings in eight towns (i.e. George, Port Elizabeth, East London, Durban, Johannesburg, Upington, Springbok and Cape Town). At this strategic level, it is not possible to engage with and hold meetings with everyone. For the authorities meetings, the affected District and Local municipalities have been invited and we had good attendance in Cape Town last year and this year. We will also advertise</p>

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<p>ML: Is there any way of including Local Municipalities in the process and given this information provided at the authority and public meetings as the pipeline will ultimately affect local government.</p> <p>CdV: It should be noted that Local Municipalities are not forced to attend these meetings. They need to be invited and they need to be made aware of what the consequences are if they do not participate at this stage of the process.</p>	<p>the final corridors in the newspaper before gazetting, so people will have a chance to comment on this.</p> <p>DF: There is a limit in terms of National Government telling Local Government what to do. They are autonomous sector of government and it is not possible for us to demand or enforce their attendance to such meetings. We can, and we have invited them to meetings, especially via provinces and District Municipalities.</p> <p><u>Post-Meeting Note from the Project Team:</u> In terms of municipalities, the SEA focuses on representation at a provincial and district level from an ERG and PSC perspective. However, two local Municipalities, namely the City of UMhlathuze and Saldanha Bay Local Municipality have been added to the project database as they play a key role in terms of providing infrastructure for the importation of LNG, as the Ports of Richards Bay and Saldanha are located within them. However, this does not necessarily mean that Local Municipalities are not involved in the SEA Process. Representatives from the Local Municipalities have been captured on the project database, and we have relied on the District Municipalities to engage with and send correspondence regarding the project to Local Municipalities. A list of the affected municipalities is available on the project website.</p>
<p>CdV: I note that the scales that you work on are large and in terms of project governance it is difficult to engage with all. However, is organised agriculture on your ERG and are they attending? Can I find a list of ERG and PSC members on your website, so that I can follow up internally because I should not be attending on their behalf?</p>	<p>DF: Yes, they are on our ERG database and have attended the ERG Meetings. We will put up a list of ERG and PSC members on the project website and if stakeholders find any gaps, they are encouraged to inform the Project Team. We spent months getting the PSC and ERG convened and writing to organisations.</p> <p>AW: Dr. Garry Paterson from the Agricultural Research Council has been involved in the project and attended the last ERG Meeting in July 2018. Agri-SA is not formally registered on the ERG but they are registered on the project general stakeholder database.</p> <p><u>Post-Meeting Note from the Project Team:</u> In addition, a list of the ERG and PSC organisations currently on the database has been uploaded to the project website.</p> <p>In terms of Agriculture, the following organisations are included on the project database:</p> <ul style="list-style-type: none"> ▪ ERG and PSC: National Department of Agriculture, Forestry and Fisheries (DAFF) and the Agricultural Research Council (ARC); and ▪ Stakeholder database: Agri SA, Agri Northern Cape, Agri Namakwaland, Agri Western Cape and Agri Eastern Cape.
<p>ML: How far must the pipeline be from a dwelling or settlement?</p>	<p>DF: Urban areas and settlements have been buffered, and it is planned that the pipeline route will be well away from urban areas.</p> <p>AW: Generally there is a 1 km distance that needs to be maintained from dwellings but this distance can only be confirmed once the exact pipeline details (diameter, thickness, pressure etc.) are finalised, and when the QRA is done so that risks are determined. The</p>

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	<p>QRA will inform the design and distance requirements. Usually, gas pipelines are built up to international standards, which specify specific design requirements depending on how far you are from settlements and other areas of concern. These standards will be considered in the SEA.</p>
<p>ML: In terms of rivers, how will they be crossed to lay the pipeline? Will the rivers be partially diverted? If so, this is really destructive.</p>	<p>AW: The construction method that will be used for crossing rivers will depend on a number of factors such as the river width, flowrate (i.e. perennial or not) etc. If trenching is being done, then yes partial river diversion would potentially be needed, unless it is a very small or narrow river. However, diversion can be done in the dry season. There is no single construction methodology that will be suitable for all rivers. If there is an unacceptable risk, then pipe jacking or do Horizontal Directional Drilling (HDD) will be done.</p> <p>ML: This is justification as to why the local people on the ground need to be aware of the project and these details.</p> <p>DF: Noted however, any form of river diversion would need engagement with the local Water Department Authorities, hence they will definitely be aware of it when it happens and at the stage when the pipeline is ready for construction.</p>
<p>CdV: The government is working hard to use strategic planning instruments to reduce the regulatory burden on certain project developments. Will the strategic pipeline corridor assessment, besides being strategic planning exercise that has very clear benefits, will it have any implications in terms of the EIA and Water Use Licence requirements i.e. if a developer wishes to develop gas pipeline infrastructure in the approved corridors, will there be any short cuts i.e. exemption from Water Use Licence Applications, application of norms and standards, or application for integrated decision-making processes in terms of the permits required. Is this a dimension of this SEA?</p>	<p>DF: Yes, this is one of the dimensions of this SEA. As mentioned previously, one of the key outcomes of the EGI SEA (2016) and the gazetted EGI corridors is that it allows the submission and consideration of a pre-negotiated route before the application for EA is lodged. It allows any landowner concerns and issues to be sorted out before the application for EA is submitted. If any landowner negotiation concerns occur, then the developer will try to find an alternative route and this can take place many times until a pre-negotiated route is identified. This is also one of the planned outcomes for this SEA. We are not undertaking any short cuts as part of this SEA. We are only trying to ensure that there is more consultation with the affected landowners upfront so that the risks are identified and reduced upfront and ensure that there is more certainty.</p> <p>Another aspect is that a Generic EMPr has been compiled for the Gazetted EGI corridors for EGI development. The Generic EMPr was recently gazetted for comment and will be gazetted for implementation soon. The reason a Generic EMPr has been compiled is to ensure that developers do not need to compile new EMPrs for every EGI development (which is the same) within the gazetted corridors. The Generic EMPr is based on the lessons learnt on the numerous EMPrs that have been reviewed and approved by the DEA. It has been designed to consider the issues that were scoped out during previous applications approved by the DEA. The Generic EMPr can be adopted by the developer without seeking DEA approval. However, if there are specific site considerations, then a site specific EMPr would need to be compiled and submitted to the DEA for approval. The same approach is being adopted for this Gas Pipeline and expanded EGI SEA.</p> <p>In addition, this SEA Process aims to take the streamlining mechanism one step further by compiling standards which will allow exemption from an EA for gas pipeline or EGI</p>

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	development within the corridors being assessed as part of this SEA. This means that developers do not need to follow an EIA or Basic Assessment Process within the corridors for such development. However, this approach has not been finalised, it is still under discussion and will be discussed further at the end of this meeting. We note that it is important to engage further with stakeholders on this process so that we can identify the concerns upfront. If these concerns can be addressed, then we will move forward with the standards, however if they concerns cannot be addressed, then the standards will not be adopted.
GT: The complexities of this process are apparent. Once you are done with this strategic work on the corridors and the high level planning is undertaken, if people have objections on the routes, are the alternatives at that stage only applicable within the corridor or will there be a possibility to shift the corridor and revert back to strategic planning process of the corridors at that stage?	DF: For the Renewable Energy Development Zones (REDZ) that have been gazetted, the inside and outside approach was followed. We would want developers to try and develop inside the corridors as it makes strategic sense for them to do so. The same applies to this SEA, a significant effort has been gone into identifying and assessing the corridors (especially in terms of identifying the most least sensitive environmental route) and therefore we would prefer developers to go through them. In addition, development within the corridors is incentivised by a streamlined EA Process in the gazetted EGI corridors and possible EA exemption as part of the current SEA outcomes. Development outside the corridor is allowed and would need to take place in compliance with the relevant EIA Regulations. It must be noted that all the outputs of the SEA achieved through the pre-assessment and gazetting process would not apply outside the corridor. Therefore, developers would be encouraged to develop within the corridors to add to the purpose of the corridors.
GT: Is there re-zoning for the corridor? CdV: There are provisions in NEMA and the National Water Act (NWA) for co-ordinated integrated permits and authorisations. For these strategic corridors of national significance, surely activating the existing provisions would be something to do. An archaic, reactive, “silo” based mentality and decision making does not accelerate sustainable development. Why is this integration not happening?	DF: Re-zoning applications will still need to be done where necessary. The DEA cannot enforce exemptions or streamlining on legislation that is outside of their mandate, such as Water Use Licences for example. The DEA will continue to engage with other departments to see where other permits can be streamlined, however the DEA cannot enforce these departments to take action. The law currently does not allow integrative permitting between different sectors, such as between the Department of Water and Sanitation and DEA. Within the DEA, however, we can undertake an integrated application system such as between the EIA, Waste and Biodiversity Directorates.
ML: When the pipelines go ahead, some farms could be affected, and these farms have been designated for agriculture. How will the landowner cope with this change? The landowner needs to be aware of the potential re-zoning in advance. Will the landowner get compensation for use of their property for the gas pipeline routing?	DF: From re-zoning point of view, the affected landowners will definitely be made aware of it as the developer will carry out detailed negotiations with the affected landowners for servitude registration. There is no way that re-zoning will happen without the consent of the affected landowners. The affected landowners will be compensated by the developer for servitude construction over their properties. The details of this will be discussed between the affected parties. FN: It should also be noted that before a licence is granted to the pipeline operator by NERSA, the application would need to be advertised by the operator and a copy of the application would need to be made available to affected parties for review for a set period of time. All comments raised by the affected parties would need to be addressed by the pipeline operator before the licence is issued by NERSA. The application includes conditions that people need to be aware of.

Queries or Comments Raised	Responses
<p>KLP: What is driving the development in the Northern and Eastern regions of South Africa? Is it a Gas Terminal in Richards Bay that is powering electricity to industrial areas or is it renewable energy. Also what is the driver in the Northern Cape?</p>	<p>DF: The Northern Cape is definitely driven by Renewable Energy. There is a REDZ in the Northern Cape. The pipeline has been considered in terms of the demand of large energy intensive users as a pull factor.</p> <p>TM: We are not only looking sensitivity. We also mapped demand to show where the gas would potentially be needed. We covered both generation and demand and considered the planned infrastructure included in Provincial and Municipal Spatial Development Frameworks (SDFs) (where available). The final pinch point analysis will be based on the findings of specialists, stakeholder comments and the outputs of the demand mapping.</p> <p>AW: The SEA has also considered a number of push and pull factors. For example, a road is considered as a pull factor as it would be favourable to place the gas pipeline adjacent to the servitude of a road as it is linear infrastructure, whilst still abiding by the requirements of the Road Authorities. In terms of push factors for the gas pipeline, this would be existing power lines and railway lines. The gas pipeline and power lines (including railway lines) need to be about 5 km – 10 km apart from each other due to corrosion issues created in the pipeline as a result of an induced current. There are a number of other factors that will be taken into consideration in the final corridor alignment. It is a complex exercise to put all of the information together to create the final corridor alignment.</p>

5. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

FD provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology). The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>ML: How wide will the servitude be? Will they actually clear a 50 m wide area along the entire pipeline length? If so, this is a visually huge area resulting in swathes of land being cleared.</p> <p>ML: Would the 10 m wide servitude be kept clear of vegetation? Will the landowners be allowed to plant within it?</p> <p>KLP: Cumulatively that is a lot of land that is cleared and it would be an ecological disaster if you consider the amount of square meters that will be cleared. There needs to be biodiversity offsetting, whether it is creating nurseries etc.</p>	<p>DF: During construction, a right of way of about 30 – 50 m will be created and during operations, this will be reduced to a 10 m registered servitude.</p> <p>A maximum width of 50 m (but closer to 30 m) might be cleared for construction. In addition, grasses and short rooted vegetation would be allowed to develop within the servitude. It is not the intention to keep the servitude completely clear of vegetation. Only deep rooted vegetation within the servitude will be removed in accordance the EMPr. We have discussed with the DAFF how to return the soil profile back to its original land capability. They have provided us with recommendations in this regard, which will be captured in the report</p> <p><u>Post-Meeting Note from the Project Team:</u> Lesser than 50 m of land could be cleared (between 30 – 50 m wide), and it will be rehabilitated.</p>

Queries or Comments Raised	Responses
<p>CdV: The north-western parts of the country are extraordinarily vulnerable to disturbance, have very low resilience and have a very low rate of recovery. It is surprising that corridors are being considered through Namakwaland for gas pipelines and powerlines. The impacts involved with these two types of infrastructure are entirely different, and there is very little flexibility with the gas pipeline in comparison to the power line. Even Eskom has trouble with this and placing their pylons in the drier areas.</p> <p>It also depends on how natural the receiving environment is and to what level you want to restore to. It might be easier if it is grazed dry grassland of the North-Western Cape in comparison to areas in the Succulent Karoo. You will not be able to restore to the pre-disturbed condition in these areas. That is why offsets are so important.</p> <p>KLP: Instead of taking species out and taking them to areas that are degraded that can be rehabilitated at this scale, you should consider offsets, otherwise it will not really be tenable.</p> <p>CdV: At this strategic level, can you not identify it as a situation where offsets might come lightly because you are faced with such constraints in terms of the infrastructure alignment that the corridors have to go through these areas.</p>	<p>DF: The areas within the corridors that have been identified are areas that could potentially be rehabilitated. Granted that in some areas it might be more difficult than others.</p> <p>We were in the Northern Cape for the Authority and Public Meetings recently, and the authorities made us aware of a water pipeline project that was undertaken, where rehabilitation was successful. We will engage with the water pipeline project team in this regard and obtain the relevant the studies undertaken.</p> <p>FD: Surely the biodiversity offsets would be the very sensitive areas?</p> <p>CdV: You should use this exercise to pre-emptively identify areas where offsets would be more likely due to the nature of the receiving environment.</p>
<p>KLP: Can the transmission powerlines and cables be placed underground, specifically in areas where birds would be impacted on, such as where raptors are gliding along? For example, in Scotland they were arguing about an above ground powerline through the country and the corresponding visual and tourism impact. Two options were considered and the latter was about 30 % more, and eventually they went for the bigger option via the mainland up North in order to bring in renewables from Highlands down to the central area but obviously in areas where bird collisions rates occur, that would be unacceptable.</p>	<p>FD: Transmission lines cannot be placed underground.</p> <p>DF: In terms of birds, we are working with EWT, who has many years of data on power line collisions, as well as a Risk Model. It is planned that the Risk Model will be run in the corridors; however this is still under discussion with EWT. The aim is to supplement this SEA with this information.</p> <p><u>Post-Meeting Note from the Project Team:</u> Generally higher voltage power lines are placed above ground. Smaller cables could be placed underground.</p> <p>DF: They have largely mitigated electrocution risk due to the correct distance between the lines so electrocution should not be a risk on the new lines. However, bustards have a specific problem as they cannot see the flappers, so there is no suitable mitigation in this regard. EWT is looking at more research on bustards. There has been a high level of success of flappers with other birds and there has also been some work done on using LEDs for birds that are taking off and landing in evenings in order to reduce collision risks. Overall, in terms of electrocution risk, the only concern is bustards, and they occur all over the country, so it is not like you can just avoid certain areas.</p>
<p>KLP: What mitigation measures will be adopted to manage sediments in riparian areas? Will specific best practice measures be recommended, such as growing vegetation to trap the sediment, installing geofabric textiles, and use of organic sprays to catch the sediment etc.? At what level does the State stipulate what is acceptable or is that left up to the</p>	<p>DF: Mitigation measures for the management of sediments in riparian habitats will form part of the EMPr. However, the outcome needed will be stipulated and the method of achieving the outcome will not be specified in great detail as we still need to leave room for innovation and technology development.</p>

Queries or Comments Raised	Responses
developer to decide?	
ML: Considering the amount of land that will be cleared for the servitude over the pipeline length, what will be done with the biomass removal waste?	AW: The one constraint, as mentioned previously, is deep rooted plants, which will be removed from the pipeline servitude. In addition, the corridors are being designed to stay away from forests and areas of deep rooted plants. Small trees will be allowed to grow within the servitude. Waste management measures will be included in the EMPr.

6. Presentation 4: Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment, Seismicity Assessment and Visual Impact Assessment. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>CdV: In terms of social sensitivities, the fact that an area is dominated by extensive agriculture does not mean that the people who live there would be more amenable to large industrial scale infrastructure. We know that very well for example on the Eskom Gamma – Kappa power line route from Victoria West to Kuils River, where there is huge resistance to new power lines. Farmers feel like they are bearing the brunt of the power line, and feel like they have been alienated. They believe that they have not been heard by Eskom and insist that alternative routes be found.</p> <p>In addition, there is huge pressure on and damage to the public rural road network as a result of these types of power line projects. In general, Eskom does not repair the roads post construction, and the farming community is left to pay for these repairs, which is major cause for concern.</p> <p>In addition, farm damage is also a concern especially during the construction phase. For example, damage can result when equipment and plant material fall. There is also stock theft that needs to be considered.</p> <p>It is also important to explain to the affected landowners and surrounding people what it entails to build a large gas transmission pipeline i.e. it may be constructed more slowly than typical EGI and there will be more workers on site for considerable periods of time. I am not saying this is problematic, however the affected landowners need to be made aware of this. Farmers are also citizens of this country and their concerns need to be heard. The map needs to be refined and completed carefully with more accurate detail (as it is currently a representation of the past).</p> <p>I do not see sensitivities in this map, with areas of red in the rural areas. The difficulty is there are large concentrations of populations and it is easy to assign significance to their presence in terms of values of sensitivity. The difficulty is in thinly populated rural areas. It</p>	<p>Noted with thanks.</p>

Queries or Comments Raised	Responses
does not mean though that the sensitivities are not there and they are not acute. Obviously you cannot measure opinions from everyone in the Platteland and pin point it on a map. I am just saying that it creates an impression that the only problematic areas from a social perspective are urban areas, and they are not.	

7. Way Forward and Closure

Queries or Comments Raised	Responses
AG: Who will build these pipelines? Who will monitor the process to ensure that impacts are mitigated? Will the DEA monitor to see what happens to the biodiversity and plants as a result of the pipeline.	<p>DF: As with all infrastructure development in our country, it will probably be a tendered or IPP process. It will still need to be confirmed. It is not a foregone conclusion that iGas will be the proponent. The country is moving towards a regulated tender process for these types of projects.</p> <p>FN: From NERSA's perspective, anyone that wants to submit an application for the pipeline operation can submit their application and NERSA will consider it based on merit. NERSA does not have a bidding system in place for the consideration of pipeline operator licences. The DoE IPP Gas to Power Programme is subjected to a different process, for example, a decision needs to be made in terms of the whether the plants will be built at Coega or Richards Bay.</p> <p>DF: In terms of monitoring, we need to make sure we are not going into areas where there will be a high impact, because once the high sensitivity feature has been destroyed then there is no point in "monitoring the destruction". A State of the Environment Report is done every 5 years by the DEA which looks at cumulative biodiversity impacts and losses. We are also party to the United Nation assessments on biodiversity targets. We also have to look at biodiversity targets, such as the STEPs. Therefore, in this way, government is monitoring loss or gain.</p> <p>At a project level, there are EMPs and usually these are monitored by Environmental Management Inspectors (EMIs). The DEA has a large EMI database and they are quite active. DEA EMIs do undertake voluntary monitoring and targets are set every year for such visits. Some SOC projects are monitored on a regular basis.</p>
CdV: Should one not already start thinking now of what form and what purpose stakeholder based project governance would have particularly during the implementation of the project to ensure that people are kept informed. The problem is that people generally feel ambushed and they react to projects in certain ways which translate to delays for projects for various reasons. For project of this nature one needs to make sure that its governance is legitimate and the responsible parties are responsive to the concerns of stakeholders. I think that it is a weakness to the project if does not look at how implementation would be governed in a participatory manner.	Noted with thanks.

Queries or Comments Raised	Responses
<p>ML: There are massive protests and a lot of resistance to pipeline development around the world which is why it is important to make sure that somehow the Municipalities are kept informed and they regularly keep in touch with NGOs and stakeholders. This will be a fair Public Participation Process. Many of the people directly affected by the development are missing out on the process. You need to make sure that the public are given their constitutional right of being informed.</p>	
<p>ML: Is iGas an international or South African company? Who will the pipelines belong to?</p>	<p>DF: iGas is a South African State Owned Entity (SOE). The pipeline will belong to the developer and the gas belongs to whoever is going to use it.</p> <p>LM: Currently we have gas transmission pipelines in four provinces i.e. Gauteng, Mpumalanga, Free State and KwaZulu-Natal. Transnet owns one of these pipelines (i.e. Lilly Pipeline running from Secunda to Richards Bay and Durban). Sasol also owns gas pipelines in Gauteng and surrounding areas, including a portion of the Rompco Pipeline from Mozambique to Secunda. iGas also owns a certain percentage of the Rompco Pipeline together with the Government of Mozambique and Sasol. There are other smaller gas pipelines in Gauteng that are operated by private entities.</p> <p><u>Post-Meeting Note from the Project Team:</u> The developer will own the pipeline and invest in it neither government nor the taxpayer). If iGas as a government company (SOC) is the developer, iGas will fund the project via equity (iGas' money) and project finance (bank loans). Each phase of the pipeline will only be constructed based on a viable business case (a guaranteed supply of gas and a guaranteed customer for the gas). iGas will then finance the specific phase of the pipeline and recover its investment by charging a tariff for the transportation of the gas. The tariff is regulated by NERSA.</p>
<p>ML: Who does the gas belong to? Basically, a company is constructing a pipeline to transport gas that does not belong to South Africa?</p>	<p>LM: In terms of LNG, it really depends on who is going to get a license to import the gas; they will be the "owner" of the gas.</p> <p>DF and LM: It will be South African companies that will use the gas. Mozambique has its own gas. Gauteng has many companies and industries that need gas. South Africa will be using the gas not selling it.</p> <p><u>Post-Meeting Note from the Project Team:</u> Initially offshore gas was proposed as a source, and later additional potential sources were included. Overall the sources of gas include indigenous gas (i.e. both offshore gas and onshore shale gas), imported LNG (via Coega, Richards Bay and potentially Saldanha), and regional gas from Mozambique (Rovuma Basin) and Namibia (Kudu Gas). The quickest form is imported LNG. Offshore gas exploration is not included in this SEA.</p>
<p>KLP: Is it a foregone conclusion that pipelines are most likely to go ahead in South Africa because there are the reserves and resource estimates. Operation Phakisa has many licence blocks and 2 out of 10 for exploration to see if there are actually viable reserves. The amount of shale gas that exists is currently unknown and it seems as the gas that is most likely to be exploited is methane in KZN. There are many uncertainties. However,</p>	<p>DF: It must be re-iterated that we are not guaranteeing that the pipelines will be built. This SEA is only forward planning to assist with the best location for gas pipelines should the gas be found. Gas reserves have not yet been proven, which is why we are doing the planning at this stage.</p>

Queries or Comments Raised	Responses
<p>there is one project that has come on line on the West Coast and I can see the need for the pipeline there (going to Atlantis). This SEA assesses an entire gas pipeline network; will there be enough gas to motivate for it? What will happen to the gas coming from Mozambique, will it be viable to transport around the country? How many of the other exploration licences (arguably two-thirds of the offshore waters and the onshore) are actually proven reserves? Where are we with finding out how much gas there is? Currently, I do not see big reserves of gas being exploited. I might not have all the insight, where is this bounty of gas going to come from because they have not proved that it is there yet.</p> <p>ML: So we are locking ourselves into this now even though we are not sure if the gas will be found or imported. As I understand, internationally, they exploit and extract the gas and then export it out of the county and sell it to highest bidder. So in this case, communities and farmlands will be affected by this development, which private companies benefit from for their own gain.</p> <p>ML: In any case, the driller extracts and owns the gas and can sell it to anyone that requires it.</p>	<p>Attendee: Starting from Saldanha, there is Ankerlig down the line, which has nine Open Cycle Gas turbines and they are currently adding another three in January. Move across to Gourikwa at Mossel Bay, which has five turbines. From this point to Coega and Durban, there are also turbines. They are planning for Oranjemund as well. They are not running on gas now, they are running on diesel.</p> <p>DF: We cannot say that because we do not have any confirmation about where the gas will be used.</p> <p>LM: This project is in line with the objectives of the IRP and Operation Phakisa. The main focus for gas is for power generation, and other than that it will be for smaller gas users. In terms of the scenarios for exploration, for instance, the Kudu reserves have less than 1 TCF of gas there and it has not been confirmed yet. There are the Karoo reserves and we are all aware of the situation there. The last option would be to import gas. These corridors are all located along the coast meaning that gas import via the ports can be undertaken and linked to the transmission pipeline. The targeted anchor company would be the export of power generation. The aim is to support the objectives of the IRP; therefore it is likely that the developer would be based on a public and private partnership.</p> <p>AW: It must be reiterated that the gas pipeline will only be developed if there is a viable business case. At this stage a viable business case is one that has a high demand and it is mainly a Gas-to-Power plant, or a large industrial area with a high gas demand. It is not planned to build the pipeline to transport gas outside the country.</p> <p>KLP: It would be an incentive to exploit all the hydrocarbons that are available in the vicinity that is not economically viable to get that gas to the pipeline and this would be shifted as a priority as the pipeline will be there.</p> <p>DF: Again, the pipeline will not be built unless there is a viable business case, and a guaranteed source of gas and off taker. It will not be the case where the pipeline will be built before an actual source of gas is found. This would be planning in the wrong order.</p> <p>DF: Remember that even if drilling goes to a third party, there will be tax incentives, and it will add to the economy.</p> <p><u>Post-Meeting Note from the Project Team:</u> When the development considered offshore gas potential, it was based on the P50 resource estimate, i.e. what the geology indicates could be there.</p>
<p>ML: There was one slide in the presentation where leaks and fires were discussed; however, explosions must also be added to the list of hazards. Explosions cannot be excluded as they are reality.</p>	<p>Noted with thanks</p>

Queries or Comments Raised	Responses
<p>In addition, during explosions, in some cases, the gas cannot be switched off and this causes the gas to collect 3 – 5 km further away.</p> <p>You mentioned that world class standards are followed, however based on research, sometimes inferior pipelines are bought, which may lead to issues such as corrosion.</p> <p>Another point is seismic testing, which needs to be done for the gas pipeline development.</p>	
<p>ML: In addition, some replies from the CSIR in previous meetings have been that “virtual pipelines are being used in the Free State at the moment”. Please can you elaborate on this? It is highly compressed gas in the pipelines and this is transported via big trucks to wherever they offload it. This is a concern because this is highly explosive and there have been accidents. Are the communities where the pipelines run through aware of these explosion risks?</p>	<p>AW: I cannot recall in what context that previous comment was made, however transportation of the gas via trucks will not assessed as part of this project. Explosions of that magnitude are unlikely and risk assessments will be done at the project specific level</p>
<p>Attendee: At what point do the corridors appear on the Integrated Development Plan (IDP) or SDF of the Municipality? Municipalities do not have capacity to consult widely on these matters unless they are already consulting on their IDPs. This would be a logical way to bring the corridors to Municipality.</p>	<p>DF: One of our key concerns is how to get the lines accepted into the planning process. We are engaging with municipalities to get the corridors into their SDFs and it is an ongoing process. We are also trying to get the corridors into the National SDF.</p>
<p>KLP: The gas infrastructure is obviously incentivising gas exploitation. We are aware that the offshore area has not been fully exploited yet. However, when you get onshore, people are banking on shale gas being there, as well as methane gas. When does it start to become exploited? Studies have shown that 20 - 30 % of additional CO₂ emissions are attributed to fugitive emissions of methane. When all projects come on line, there will be scenario where emissions will be worse than coal.</p>	
<p>Attendee: Who will be responsible for offloading the gas? Currently in Saldanha, there is a situation with the one supplier, Sunrise Energy, who has a pipeline running into the sea, the boat comes and offloads, and other boat goes into the harbour and trucks go across the road to the neighbours across. Who will control this? This will be for imported gas.</p>	<p>LM: This process is driven by the government and any other entity that has a licence to take gas from the ports inland. The situation in Saldanha is similar to when two companies have been issued a licence and they operate in the same harbour, which will result in a competition for gas. The aim is to avoid this competition and have one customer that will have a terminal to take the gas inland and then there would be one anchor customer.</p> <p>DF: This would be something that we cannot control and manage.</p>
<p>Attendee: Has the impact of climate change on the pipeline been considered?</p>	<p>FD: We have looked at the broad climate change models. They generally show shifts in biomes and indicate at a broad scale where biomes would change, and what to expect in terms of features.</p> <p><u>Post-Meeting Note from the Project Team:</u> Climate change is considered in the environmental sensitivity analysis and specialist studies. The study has not used Climate Change Models as part of the assessment. Some of the Specialist studies do factor in climate change in terms of impact and spatial relation to climate change. CBAs factor in climate resilience and adaptability to changes as a result of climate change. Climate change prediction models will for example show a shift in the range of a particular biome, but not at a finer scale than that. Therefore the sensitivity assigned to that specific biome will apply, regardless of where the shifts have occurred. These changes also happen slowly, over time and the prediction models have changed drastically over the last 10</p>

Queries or Comments Raised	Responses
	years, and therefore may change again in the next 10 years.
KLP: The omission in the last IPCC report was on the interpretation of the GHG equivalent impact of methane. It was not included in the previous report, which is when oil and gas got a head start in society. Then there was a promotion for cleaner gas. However, when you do the actual calculations, you see that gas is actually not cleaner than coal. The emissions in this case would be facilitated by the pipeline, and if the pipeline is there, then gas will be exploited. It could be a carbon intensive project. This consideration and assessment was also excluded in the Shale Gas SEA, and now in this SEA.	<p>DF: There will be a section on climate change in the SEA Report. We will not do a Climate Impact Assessment and LCA. The material today could be different in five years' time.</p> <p>KLP: It would be to provide recommendations and at some point it needs to be covered to address the implications for climate change.</p> <p>DF: The place it needs to be included in is the IRP.</p> <p>KLP: Arguably, this is driven by the Oil and Gas Industry. The SEA Process and IRP both have a place for such recommendations.</p>
ML: Gas is not the way to go forward.	DF: The IRP is where you need to make your input. The IRP comment closes on 25 October 2018, and comment was open for 30 days.
DF: In terms of the way forward, the specialist studies will be made available for public comment towards the end of this year. The specialist studies will be sent to the meeting attendees, and all registered stakeholders, as well as uploaded on the project website. The tools of the SEA, such as the EMP, Standards and Protocols, will also be made available for public comment before gazetting. These tools are the practical aspect of the SEA and will be finalised in 2019.	KLP: You have done your best as a team.
AW: In terms of your earlier request for details on the gas pipeline and information being made available upfront, several documents were uploaded to the project website in February 2018. This includes a document on the Operational Safety Aspects of the Pipeline, which includes feedback on the pigging and compressor stations. An email was sent to all registered stakeholders in February 2018 to inform them of the uploads made. The information has been there for a while.	<p>ML: Noted, there is a lot of information on the website and I will consult it. Do you need to sign in to access any of the information?</p> <p>AW: No, all the information is freely available. Please inform us if you have a problem accessing the files.</p>

Post-Meeting Note from the Project Team: The notes of the meeting will be finalised and distributed to the attendees along with the presentations given at the meeting. The presentations will also be loaded onto the project website. Stakeholders can follow and access the project website for project updates.

The meeting closed at 21H10.

*A.7.8.7 Notes of Public Outreach Roadshow – Round 3 for Stage 2 Consultation**A.7.8.7.1 KwaZulu-Natal – Durban: 13 June 2019*

Meeting:	Durban Public Information Sharing Session: Meeting Notes		
Date of Meeting:	13 June 2019		
Venue of Meeting:	CSIR: 359 King George V (5 th) Avenue, Durban		
Duration:	17H00 – 21H15		
Attendees:	<ul style="list-style-type: none"> ▪ Ishaam Abader (IA) ▪ Dee Fischer (DF) ▪ Stella Mamogale (SM1) ▪ Sipho Mkwana (SM2) ▪ Koketso Maditsi (KM) ▪ Amit Nandkuar (AN) ▪ Bongzi Shinga (BS) ▪ Amanda Shabalala (AS) ▪ Annick Walsdorff (AW) ▪ Rohaida Abed (RA) ▪ Babalwa Mqokeli (BM) ▪ Abulele Adams (AA) ▪ Fahiemah Daniels (FD) 	<ul style="list-style-type: none"> ▪ Tsamaelo Malebu (TM) ▪ R. P. Naidu (RPN) ▪ K. Subben (KS) ▪ Udiv Budhal (UB) ▪ Londeka Ngcobo (LN) ▪ Wisdom Mpofu (WM) ▪ Sagie Chetty (SC) ▪ Kiran Parthab (KP) ▪ Samora Madikizela (SM3) ▪ Mohamed Khan (MK) ▪ Emmanuel January (EJ) ▪ Desmond D'sa (DD) ▪ Sherelee Odayar (SO) 	<ul style="list-style-type: none"> ▪ Samkelo Ntombela (SN1) ▪ Naledi Nene (NN) ▪ Slindile Msani (SM4) ▪ Andile Mbhele (AM1) ▪ Asanda Mbatha (AM2) ▪ Msoh Ntombela (MN1) ▪ Smangele Ngcobo (SN2) ▪ Mvuzo Ntombela (MN2) ▪ Gumede Collen (GC) ▪ Senzesihle Sithole (SS) ▪ Slungile Makhanya (SM5) ▪ Nombulelo Myeza (NM) ▪ Mandisa Ngcobo (MN3)
Apologies	<ul style="list-style-type: none"> ▪ Neville Ephraim ▪ Shiven Panday ▪ Thabang Modise ▪ Vincent Chauke ▪ Koogendran Govender ▪ Andretta Tsebe 	<ul style="list-style-type: none"> ▪ Mapaseka Lukhele ▪ Khathutshelo Tshipala ▪ Sarah Allan ▪ Paddy Norman ▪ Bobby Peak ▪ Adrienne Edgson 	<ul style="list-style-type: none"> ▪ Sue George ▪ Nora Choveaux ▪ Peter Hlabisa ▪ Vijay Pramjee ▪ Mr MP Bukhosini
Signed Attendance Register	Included as Appendix A		

1. Purpose of Meeting and Agenda

Based on the discussions held and recommendations made by stakeholders at the meeting on 11 October 2018, the Department of Environmental Affairs (DEA) arranged an additional Public Information Sharing Session at the CSIR Offices in Durban on 13 June 2019 in order to allow stakeholders the opportunity to discuss the Phased Gas Pipeline and Electricity Grid Infrastructure (EGI) Expansion Strategic Environmental Assessment (SEA), raise queries and receive responses, and to be updated on the progress made and the findings of the specialist assessments. The meeting was chaired by Mr. Ishaam Abader (IA) of the DEA and co-chaired by Ms. Bongzi Shinga (BS) of Wakhiwe Stakeholder Engagement Specialists. Presentations were delivered as per the meeting agenda below. BS provided a summary of each presentation in Zulu, as required, upon completion of the English presentation.

TIME	ACTIVITY/PRESENTATION	PRESENTER
17:00 – 17:10	Welcome and Introductions	DEA
17:10 – 17:20	Background on the Phased Gas Pipeline Network Corridors	CSIR
17:20 – 17:30	Discussion	All
17:30 – 18:00	Pinch Point Analysis	SANBI
18:00 – 18:20	Discussion	All
18:20 – 19:00	Biodiversity Assessment (Terrestrial and Aquatic Ecology)	SANBI
19:00 – 19:20	Discussion	All
19:20 – 19:30	Break	All
19:30 – 20:15	Social, Planning and Disaster Management Assessment and Visual Impact Assessment	CSIR
20:15 – 20:30	Discussion	All
20:30 – 21:15	Way Forward and Closing	All

2. Opening of the Meeting

IA and BS opened the meeting. BS provided a list of ground rules for the meeting. The following discussions were held.

Queries or Comments Raised	Responses
DD: Requested detailed information on the methods used to advertise and invite the public to the Public Information Sharing Session.	<p>RA: Advertisements were placed in the following newspapers:</p> <ul style="list-style-type: none"> ▪ Tongaat and Verulam Tabloid (English); ▪ Southern Star (English); ▪ Highway Mail (English); ▪ Springfield Weekly Gazette (English); ▪ Eyethu Umlazi (Zulu); and ▪ Isolezwe (Zulu). <p>In addition, all registered stakeholders who attended the October 2018 meeting were notified of the re-scheduled meeting via email on 24 May 2019. Personalised invite letters were also distributed via email to all affected District Municipalities in KwaZulu-Natal on 24 May 2019, and copied to Local Municipalities, where details were present on the database. District Municipalities were requested to forward the notification to the affected Local Municipalities.</p> <p>Post-Meeting Note: A personalised invite letter was also sent to Mr. Desmond D'Sa of the South Durban Community Environmental Alliance (SDCEA) by the Department of Environmental Affairs (DEA) on 23 May 2019 via email. The SDCEA confirmed receipt of the letter on 23 May 2019. The SDCEA was also</p>

Queries or Comments Raised	Responses
	kindly requested to forward the invitation to the session to relevant parties and any other stakeholders on their database.
DD: Does the range of advertisements that were placed sufficiently cover all the affected areas? I believe that the CSIR has omitted some areas that are affected. How will this omission be rectified?	<p>DF: It is important to remember that the SEA does not mean that a gas pipeline or EGI will definitely be developed. The SEA is focussing on a strategic assessment of the 100 km wide corridors that could be used for the development of infrastructure when a development has been identified. The corridor has many options within which a specific development could occur. The entire 100 km wide corridor will not be developed.</p> <p>IA: It is requested that you assist the SEA Team by identifying the areas believed to have been omitted.</p>
<p>DD: I do not agree with the use of the CSIR as a venue for the Public Information Sharing Session due to its inaccessibility to communities of uMlazi, Tongaat, Durban South, etc. Public transport is also an issue for most communities as the public transport does not cover the area in the evenings.</p> <p>It is advised that the Public Information Sharing Session should not be used as a tick box exercise but a platform for meaningful engagement for the public.</p> <p>The number of participants present at the meeting are less compared to the 8 million citizens who will be potentially affected by the proposed corridors.</p> <p>It also seems that there is an absence of officials from eThekwin Metropolitan Municipality.</p>	<p>IA: This is a Strategic Environmental Assessment which is identifying suitable areas within the corridors where development could potentially happen. In the presentation, the CSIR has referred to a 125 km wide corridor, and it has not been decided where the actual pipeline will be located, when it will be developed and if the development will go ahead. In addition, there may be factors mitigating against the development.</p> <p>This is a strategic high-level assessment. One needs to understand that in terms of process, this is the strategic level and once a development has been confirmed and proposed, then the process will proceed to the specific project level assessment. This will be done per region affected. If there is a requirement for a site-specific assessment for a section of that corridor, we are obliged in terms of the law to consult with the people affected. If we do not, then you have excellent grounds to challenge that decision.</p> <p>DD is encouraged to not only attend the meetings to criticise the process but to be constructive in engagements. As an example, when you refer to people that have not been identified and consulted with during the SEA, then you also have a duty as a South African citizen to indicate to the team who has been omitted and also suggest how best to get the message to those that did not receive the information.</p> <p>DD is also encouraged to provide a list of newspapers, radio stations or public libraries where the CSIR team can place information for public review.</p> <p>The purpose of the SEA is to identify corridors for gas pipeline and EGI development. The purpose for the gas is to provide power to the people. It is therefore to ensure the economic growth of South Africa and for the benefit of our communities.</p>
<p>SO: Is there only one Public Information Sharing Session scheduled in KwaZulu-Natal?</p> <p>As previously informed, one meeting in Durban does not represent the totality of KwaZulu-Natal.</p>	<p>DF and AW: This is the only scheduled Public Information Sharing Session in KZN.</p> <p>It is important to note that if there is going to be any gas pipeline or EGI development within the corridors, there would be a standard Environmental Authorisation process and it would be specific to each area affected. The SEA is therefore a policy process and it is not a requirement to visit all communities that are within the 125 km corridors (which will be reduced to 100 km wide for gazetting).</p>

3. Presentation 1: Background on the Phased Gas Pipeline Network and Expanded EGI Corridors SEA

RA provided a presentation on the background of the Phased Gas Pipeline Network and Expanded EGI Corridors SEA. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>SO: Will the presentation delivered at the meeting be made available to the public?</p>	<p>RA: Yes, the presentations delivered at the Public and Authority Roadshows undertaken in November 2017 and October 2018 have been placed on the project website for stakeholders to access (https://gasnetwork.csir.co.za/). The presentation delivered at this Public Information Sharing Session is very similar to that delivered at the previous roadshows.</p> <p>Post-Meeting Note: Towards the end of the meeting, the presentation was also circulated via email to all participants who were in attendance at the meeting (based on the signed attendance register and legibility). The presentation has been translated to Zulu and will be emailed to all attendees once it has been finalised.</p>
<p>DD: The presentation mentions that pipeline routes are not being assessed. What is the difference between a route and a corridor?</p> <p>It is understood that the CSIR is trying to make the Environmental Impact Assessment (EIA) process easier. The presentation also refers to the baseline study which means that you are not going to go through the full EIA. By implication, the developer will not assess the risk because you would have done the assessment as part of the SEA.</p>	<p>RA: A 125 km wide corridor is currently being assessed, and this will be reduced to 100 km wide following the corridor refinement process. During the operational phase, only a 10 m wide servitude will be required for the Gas Pipeline. The 10 m wide servitude is basically the route of the pipeline, and is the extent of the area where the pipeline will be physically located and it will fall within the 100 km wide corridor. The specific pipeline routes cannot be identified as part of the SEA Process and it will only be identified on a project specific basis as it will be based on finding a source of gas, as well as if there is a business case or demand for the gas.</p> <p>AW: The objective of the SEA is to find the best 100 km wide corridors with as many low sensitivity areas as possible so that if there a business case to develop a pipeline route, then within that 100 km wide corridor the best possible 10 m route for the gas pipeline can be identified, and that would then be subject to an Environmental Authorisation process.</p> <p>IA: It is important to remember the important factors, i.e. that there must be a demand for gas (if there is no demand, then it is not a viable business option to develop a gas pipeline); and that there must be a source for gas. The corridor is therefore a broad area, and the process is about enabling developers to find the best route based on the pre-assessment carried out in the SEA. Once the best route has been located and there is a source and demand for the gas, there will be a full public participation process that needs to be undertaken for the affected area.</p> <p>DF: The corridors being assessed are 125 km wide. When the corridors are finalised (at the end of SEA), it will be 100 km wide and the pipeline route will be 10 m wide.</p> <p>KM: The corridors will be 100 km wide once finalised. The gas pipelines will not cover the entire 100 km wide corridor. The difference should be noted. The pipeline will only occupy a 10 m wide servitude within the corridors.</p>

4. Presentation 2: Pinch Point Analysis

TM provided a presentation on the Pinch Point Analysis. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>DD: Will the presentations be delivered in Zulu? This request was put forward during the meeting held in October 2018. Most areas that might be affected are rural, and stakeholders mainly speak Zulu in KwaZulu-Natal.</p> <p>Will the affected communities receive Zulu versions of the presentation or background information? The comment period should be extended to accommodate Zulu speaking stakeholders.</p>	<p>BS: The presentation will be provided in Zulu at the meeting.</p> <p>IA: Translations of project documentation to Zulu is under discussion. A document that can be understood in terms of the implications of the SEA Process can be translated to Zulu. In terms of the comment period extension, this can be extended by a reasonable period i.e. 30 calendar days. SDCEA should identify the additional community members that need to be consulted with after the meeting.</p> <p>BS: A date of release of the translated documentation cannot be specified at the meeting, as the SEA Project Team needs to factor in time needed for translation. DD will be notified once the documents have been translated and are available for circulation.</p> <p>Post-Meeting Note: Refer to Section 7 of these Meeting Notes for the way forward on the additional comment period and translations.</p>
<p>MN2: Is it correct that the SEA Reports will be written in English and the Zulu version will be summarised?</p>	<p>BS: The SEA Reports and Specialist Reports will not be translated to Zulu. A summary of what is contained in the reports is captured in the presentation that is being delivered at the Public Information Sharing Session. In order to facilitate better understanding of the presentation, translations in Zulu have been provided at the meeting.</p> <p>Post-Meeting Note: Refer to Section 7 of these Meeting Notes for the way forward on the translations.</p>

5. Presentation 3: Biodiversity Assessment (Terrestrial and Aquatic Ecology)

FD provided a presentation on the draft findings of the Biodiversity Assessment (Terrestrial and Aquatic Ecology). The following comments and responses thereto were made.

Queries or Comments Raised	Responses
<p>MN2: What is a Fynbos Biome?</p>	<p>BS: It is a biome of specific vegetation types within the Western Cape.</p> <p>Post-Meeting Note: A Fynbos Assessment has been undertaken as part of the SEA Process. The Fynbos Assessment notes that “<i>The Fynbos Biome is globally recognised for its high diversity of plant species with about 7 500 species, 69% of which are endemic and 1 889 are listed as threatened. The biome is centred in the south-western part of the Western Cape with areas extending north-westwards for about 650 km, almost to the Orange River, and eastwards for 720 km to the Kap River mountains east of Grahamstown.</i>”.</p>
<p>MN2: Please clarify that only the green areas are acceptable for the pipeline to go through and the red areas are environmentally sensitive, and therefore</p>	<p>DF: The green areas indicated on the maps are less sensitive. However, in the eventuality that the red areas cannot be avoided, the developer will need to consider alternative engineering solutions in order</p>

Queries or Comments Raised	Responses
not conducive for the pipeline corridor? Therefore, the target areas would mostly be the green areas as opposed to the red.	to minimise the impact. Avoidance of sensitive areas may not always be an option. However, mitigation is always required where it is not possible to avoid a sensitive area.
DD: Pipeline developments are generally moved from areas such as Westville to KwaMakhutha i.e. areas where the impact is going to be felt the most.	FD: The green areas shown on these biodiversity slides are areas with low sensitivity from a biodiversity point of view only.
SM5: Please explain the slide labelled “Aquatic Ecology – Estuaries”.	FD and BS: During the high rainfall seasons there is more fluvial flow entering the estuary, whilst during the low rainfall seasons, the fluvial flow into the estuary is reduced. The slide is therefore emphasising the importance for specialists to take into consideration both conditions when undertaking an assessment in order to fully consider the impacts that could arise from a pipeline development.

6. Presentation 4: Social, Planning and Disaster Management Assessment and Visual Impact Assessment

AW provided a presentation on the draft findings of the Social, Planning and Disaster Management Assessment and Visual Impact Assessment. The following comments and responses thereto were made.

Queries or Comments Raised	Responses
SO: In the Pinch Point Analysis, it was mentioned that the corridor will be moved from the sensitive areas but not too far from the source. What does this mean?	IA: If there is a sensitive area, and there is a need to move the pipeline, the pipeline cannot be moved too far away from the actual source of electricity or gas. The pipeline route could be moved out of the sensitive areas but the best mitigated route for the pipeline needs to be determined. It also depends on where the area is and how sensitive it is because there are ways of mitigating. For example, if you have a water body you can use an engineering design to bypass that sensitive area. It therefore depends on the nature of the sensitivity.
If the source is a determining factor, it means the potential to affect the sensitive area remains.	
MN2: There are communities in KwaMakhutha that live near a pipeline. In some instances, the pipeline markers are next to houses.	IA: Pipeline markers will be placed aboveground every 1 km along the pipeline route. Block valves will be placed every 30 km along the pipeline route. In the eventuality that there is a leak, the 30 km section will be immediately shut off. It is important to note that from the developer's perspective, a leak implies that money is being lost. As such it is in their interest to ensure that all gas is flowing and not lost during the process. The developer will maintain the pipeline on a regular basis to keep it in working order. In terms of the proximity of pipeline in relation to households, the design specification of the pipeline will be amended to accommodate for this. Where the pipeline will be closer to communities, the developers will use a thicker pipe, and in sparsely populated areas (for example, farmlands), a thinner pipe will be used. Where it is closer to communities, the developers will need to work with municipalities (local and district) to ensure that a Disaster Management Plan is in place to deal with a gas pipeline and if there is a leak or disaster. However, the risk of a leak turning into a disaster is very minimal as there are engineering procedures in place that will assist in avoiding such incidences. This is assuming international and national best practices are implemented.
When one looks at the map, it appears that the targeted areas in the south of Durban will be the KwaMakhutha communities.	
In a situation where the pipeline is not maintained, the pipeline will possibly cause damage to the immediately adjacent communities. There are also economic activities in these areas which might be affected.	KM: In some instances, people move towards developments and then find themselves living in proximity to infrastructure. It is important to query if these settlements were founded before or after the pipeline was installed. Servitude requirements are different based on whether the pipeline is for transmission, distribution or reticulation. Transmission pipelines are for high-pressure gas, and safety distances from settlements will need to be calculated once a proposed route has been identified (quantified risk assessment). Distribution and reticulation pipelines are of a medium and lower

Queries or Comments Raised	Responses
	<p>pressure, and reticulation pipelines could be placed closer to settlements. The safety requirements are different for different types of pipelines.</p> <p>Post-Meeting Note: A safe distance from a gas transmission pipeline would be 1 km in terms of households, schools, small commercial buildings and dense population areas. However, from an industrial perspective, where gas needs to be supplied to industries then the pipeline would have to be in close proximity to an industrial area. The gas supply to households and small commercial buildings would be through distribution and reticulation of the pipeline (which is not part of the scope of this SEA).</p> <p>The maintenance operation called “pigging” will be carried out after every 5 years usually for cleaning and inspecting the inside of the gas pipelines without stopping the flow. Gauging pigs will be launched to check if there are any obstructions or diameter reduction within the pipeline followed by the cleaning pig. A number of intelligent pigs (magnetic and ultrasonic data collecting devices) will launch after this for varying purposes (i.e. leak detection, corrosion detection, metal loss inspection and geometry inspection).</p> <p>The data collected from this operation should be sufficient to guide the focus on potential sections that are critical until the next pigging operation. In addition to the maintenance operation, there are other preventative maintenance such as cathodic protection to protect the pipeline against the surrounding induced currents and pipeline coatings to prevent further corrosion, which has the potential to damage the pipeline. It is the responsibility of the pipeline owners to ensure that their assets (transmission pipelines) are maintained effectively.</p>
<p>WM: I am aware of a process that was done for an oil pipeline between Maputo and Mpumalanga, whereby the pipeline was used to transport various products. Will the gas pipeline be transporting one gas or multiple gases?</p> <p>What are the servitude requirements when there are two pipelines in the same corridor?</p>	<p>AW: Generally, if two gas pipelines need to run parallel, they need to be at least 5 - 10 m away from each other.</p> <p>DF: The pipeline will only transport natural gas. It is not possible to transport different products through the pipe or to mix substances. The SEA is assessing the pipeline for high pressure transmission gas and not distribution or reticulation gas.</p> <p>KM: Mixing of contra-distinct substances is prohibited as it can induce an explosion.</p> <p>Post-Meeting Note: Multiple hydrocarbon liquid products such as diesel, kerosene, and gasoline, are often transported in a single pipeline in batches as this is usually more cost effective compared to using separate pipelines for each product. Since the products transported in the pipelines are potentially hazardous to the environment and people in areas surrounding the pipeline, sound engineering standards and practices should be followed. These design standards and considerations are crucial when designing, installing, and operating a multi-product pipeline. Refer to the American Society of Mechanical Engineers (ASME B31.4). It is important to note that hydrocarbons are organic molecules of the same family so the products should be interchangeable or not far off in terms of specifications otherwise, considerably different products may induce a negative chemical reaction, which may cause an explosion. The transmission pipeline corridors assessed in this SEA are for natural</p>

Queries or Comments Raised	Responses
	gas and not for liquid fuels.
SM5: How long will it take for leaks to be detected?	IA: The time needed to detect a leak is immediate. If there is a leak, the pressure drops and the valves will be shut down automatically for that specific portion of the pipeline.
SM5: In terms of work opportunities, it is common knowledge that people who are unemployed will be happy for the short-term contract work that will be available. However, it should be noted that due to the technology and skills required, opportunities will be mostly for people who are outside of the affected areas.	IA: There will be short-term employment opportunities available but looking at the future we need to ask ourselves why we are installing the Gas Network and EGI. This is all being done to make ensure that we give power to stakeholders. Providing gas for industry means economic growth and longer-term jobs. Provision of electricity to rural communities enables small businesses to grow.
SO: Responses on the detection of leaks have been noted. However, I want to establish if the size of a leak matters. Will a pinhole leak be detected as it can add to climate change?	<p>IA: No matter the size of the leak, it will be detected.</p> <p>DF: Due to the pipeline being under high pressure, pinhole leaks cannot be allowed because pinholes may become ruptures. There is no level of acceptability of leakage irrespective of the size.</p> <p>KM: A maintenance and inspection plan will be implemented during the Operational Phase. Pigging will be undertaken to monitor the pressure inside the pipe. Once the data is received, the operators check if the pipe is compromised in any way.</p> <p>Post-Meeting Note: The leak detection period is immediate depending on the technologies employed in the pipeline but the main parameter to be cognisant of is the potential root cause of pinhole leaks. Pipeline corrosion plays a significant role in any form of leaks. Internal bacteria from the product inside the pipeline and external bacteria from the soil conditions bring forth the formation of corrosion, which results in damage to the pipeline. As noted above, cathodic protection is a measure to combat current induced corrosion, as well as pipeline coating for internal and external corrosion protection. Microbial-induced corrosion may be mitigated in one or a combination of technological measures described below.</p> <p>Pigging results play a significant role in data analysis on the individual pipeline sections. This data can be used to pinpoint areas that require additional monitoring, maintenance or immediate action to prevent an incident. Some technologies may be adopted on those critical sections after data analysis such as specialized cameras (which detect evaporated hydrocarbons), fibre optic cables installed alongside a new pipeline (which detect tiny leaks using thermal and acoustic sensors); and/or sophisticated flow and pressure monitoring.</p>

7. Discussion, Way Forward and Closure

Queries or Comments Raised	Responses
DD made the following remarks:	The following responses are provided:
a) I am requesting copies of the Terms of Reference (ToR) that were given to the specialists that were appointed for the SEA.	a) Post-Meeting Note: The Scope of Work section of each specialist chapter that was released for public review from 25 April 2019 to 24 June 2019 contains background on the scope of the assessments. A copy of the Terms of Reference will be emailed to DD following the meeting.

Queries or Comments Raised	Responses
<p>b) The eThekweni Metropolitan Municipality Planning Department should have been participating in these discussions. Industrialisation in the Durban South was initiated since 1938 and that was long after the settlement of people.</p> <p>c) In terms of the Constitution of South Africa, the Department of Environmental Affairs (DEA) is the guardian of the environment. DEA is now playing both referee and player. DEA is now going to be part of the development, and we must submit our comments to them as well. This appears to be a conflict of interest for the DEA. The DEA is undermining their constitutional obligation.</p> <p>d) It is a major concern that some officials do not actively participate, and some do not stay until the end of the Public Information Sharing Session. I am concerned about the time the CSIR has scheduled for such an important strategic meeting. The first SEA undertaken for the City of Durban in 1998 took three years. The ToR for specialists were rigorously scrutinized and discussed. The current SEA appears to be a rushed job. In October 2018, only three hours were allocated to provide feedback on the SEA and it did not even cover all that needed to be discussed. The time is not enough to holistically deal with the SEA.</p> <p>The CSIR should provide an additional 30 days to the stakeholders to comment on the SEA Process and to consider specialist reports that were done previously to compare. We need to see who the specialists are and how their plans are being developed. Talking from experience, we have observed that specialist reports do not benefit people but benefit the developer.</p> <p>It should therefore be recorded that allocating two hours in October 2018 and two hours in June 2019 is not enough to rigorously discuss the SEA. The slides were also rushed through.</p> <p>e) There was no research done by the CSIR with regards to previous gas pipeline incidents. Two years ago in the Durban harbour people lost their lives as a result a pipeline rupture. There is a gas pipeline in Tongaat that runs nearby a school, which ruptured causing an explosion. Luckily it was school holidays or else children would have lost their lives. To play it down and say there is no risk associated with a gas pipeline is a lie.</p> <p>f) The presentation noted that the SEA was linked to Operation Phakisa and the Strategic Infrastructure Projects (SIPS). However, in the slides we did not see anything about job creation. Operation Phakisa is about</p>	<p>b) Post-Meeting Note: The eThekweni Municipality are well aware of the SEA Process. A representative from the Environmental Planning and Climate Protection Department of the Development Planning, Environment and Management Unit of the eThekweni Municipality serves on the Project Steering Committee (PSC) and Expert Reference Group (ERG) for the SEA. They are therefore part of the ERG and PSC discussions and correspondence. In addition, the municipality has attended all Authority Outreach meetings held for the SEA in November 2017 and October 2018. In addition, all affected municipalities within KwaZulu-Natal, including the eThekweni Municipality, were invited to attend the Public Information Sharing Session on 13 June 2019. It should be noted that the content presented at the 13 June 2019 Public Information Sharing Session is the same as that presented at the 12 October 2018 Authority Meeting in Durban, which was attended by the eThekweni Municipality. They are therefore well aware of the findings of the specialist assessments etc.</p> <p>c) IA: There is no conflict of interest. The Department of Environmental Affairs has a mandate which is to protect the environment to ensure that the ecology is maintained, and that people benefit from a clean environment. The presentation has outlined the suite of specialist studies that were undertaken as part of the assessment. The SEA is identifying areas where there are environmental pressure points. This is done upfront so that the pipeline can move away from sensitive areas, as best as possible.</p> <p>Post-Meeting Note: At the previous meeting held on 11 October 2018, DD mentioned that the CSIR, being the appointed consultants to undertake the SEA Process, cannot be both referee and player by facilitating the meeting as well as presenting feedback on the SEA Process. It was requested by DD that an independent facilitator be appointed to facilitate the meeting, which will then allow the CSIR to present the feedback and findings of the SEA. An independent facilitator was then appointed to facilitate and co-chair the meeting, provide translations as required, as well as to mediate where required. This was accepted by DD at the meeting on 13 June 2019. With regards to the comment made referring to the DEA playing referee and player, it should be re-iterated that the CSIR was appointed by the DEA, Department of Energy, Department of Public Enterprises, Eskom, Transnet and iGas to undertake this SEA Process. The CSIR is also undertaking the SEA in collaboration with SANBI. The CSIR is undertaking the SEA in line with SEA best practice and does not subscribe to the EIA Regulations, as this is not an EIA Process. The developers would, however, need to subscribe to the EIA Regulations and Decision-Making Tools that will be compiled as part of the SEA Process (i.e. Environmental Management Programme, Protocols, and Minimum Information Requirements) once a specific project is ready to be implemented. The DEA is not going to be a part of the proposed gas or EGI developments. The DEA will serve as the Competent Authority for such developments within the corridors, once they are gazetted. This is standard practice as per the National Environmental Management Act (Act 107 of 1998, as amended). As part of the SEA Process, comments need to be submitted to the SEA Project Team (i.e. the CSIR), who will then take them into consideration and provide responses, which may be informed by the Project Partners.</p> <p>d) IA: Regarding the time allocation for the meeting, the team is prepared to go through the presentations again, if required. You are requested to kindly indicate which slides you need the team to go through again. The team is not intending to rush through information but to ensure that you are given the time to understand the contents of the presentation.</p>

Queries or Comments Raised	Responses
<p>creating jobs, and this is not going to create jobs. This is the same thing that the Oil industry wants to do, that is to pollute the marine environment and minimise jobs.</p> <p>g) I am pleased that there has been an acknowledgement that this was a desktop study. Things have changed on the ground. The contents of the presentation on biodiversity is not accurate and does not talk to the biodiversity of the KwaZulu-Natal Province.</p> <p>h) There is no mention of climate change in the study presented. Everyone is aware that Methane Rich Gas is not the solution to climate change. Durban has experienced massive floods over the past year, 70 people have lost their lives, and homes were destroyed. The National DEA is aware of that. The proposed pipeline corridor is going through an area that is sloping, which is a concern.</p> <p>i) The sensitivity analysis is incorrect. People in the rural areas are sensitive to several things and the presentation did not touch on that. The CSIR has its own focus. The Western Cape is all red (i.e. high sensitivity), whilst KZN is all green. KZN appears to be the sacrificial zone.</p> <p>j) Soil erosion was not discussed. Durban beaches have all been destroyed due to soil erosion.</p> <p>k) Mines have been abandoned and not rehabilitated, and harmful substances are being exposed to the poor communities.</p> <p>l) The SDCEA would like a peer review of the SEA, they will appoint the people that will peer review the documentation and CSIR should pay the costs for peer review.</p> <p>m) There was no mention of Alien Invasion in the presentations delivered.</p> <p>n) The Health Risk Assessment was not sufficiently covered in the presentation.</p> <p>o) Organisations such as Birdlife SA should be consulted with during the SEA.</p> <p>p) The documents must be translated in Zulu in order to give fair opportunity to all potentially affected communities. SDCEA will send the</p>	<p>Post-Meeting Note: The SEA Process was commissioned in April 2017. The Inception Phase concluded in June 2017, during which a dedicated Project Website and Project Email Account were created for stakeholders to register their interest, download project information, and submit queries or comments. During the Inception Phase, the PSC and ERG was also commissioned. The ERG and PSC database is continually updated throughout the SEA Process. The PSC includes representatives from national and provincial government departments, and the affected district and metropolitan municipalities. The ERG includes representatives from various organisations, NGOs, and research organisations. A list of the ERG and PSC members are available on the project website (https://gasnetwork.csir.co.za/project-summary/); however for ease of reference these have been captured in Appendix B of these meeting notes. Four PSC and ERG meetings have been planned as part of the SEA. The first meeting was held on 13 September 2017 at the CSIR Pretoria in order to inform ERG and PSC members of the SEA Process, as well as to seek feedback on the draft initial corridors. The second meeting took place on 31 July 2018 at the CSIR Pretoria in order to present the draft findings of the specialist studies and to seek corresponding feedback from the PSC and ERG. In addition, a third ERG and PSC meeting took place on 4 July 2019 at the CSIR Pretoria to discuss the final corridor alignment with ERG and PSC members.</p> <p>Furthermore, as noted in the SEA Reports, two rounds of Authority Meetings and Public Information Sharing Sessions were undertaken as part of the SEA in November 2017 and October 2018 at various key locations throughout the country. The first round took place from 1 - 13 November 2017, in Springbok, Cape Town, George, East London, Durban and Johannesburg. During this round, the SEA Process and Draft Initial Corridors were introduced, along with the findings of the negative mapping. The second round took place from 8 - 22 October 2018, in George, Port Elizabeth, East London, Durban, Johannesburg, Upington, Springbok and Cape Town. In addition, the DEA arranged an additional Public Information Sharing Session in Durban on 13 June 2019 in order to allow stakeholders to discuss the project, raise queries and receive responses, and to be updated on the progress made and the findings of the specialist assessments. The Public Information Sharing Sessions were held from 17H00 to 20H00 after hours to allow those stakeholders that work during the day to still attend the sessions. This is in line with current best practice and based on previous experience. The concern about timing or duration of the sessions were not raised at the previous 12 Public Information Sharing Sessions. It should be pointed out that the Public Information Sharing Sessions were held for three hours, and not two hours.</p> <p>The level of participation of other stakeholders that attended the Public Information Sharing Session on 13 June 2019 cannot be commented on as this is based on each individual's understanding of the project and their likelihood to raise queries. Nevertheless, the session was run in a transparent, all-inclusive and fair manner that enabled everyone present to participate as they desired.</p> <p>As noted above, the SEA Process was commissioned in 2017 and is still underway. It is expected the outputs of the SEA Process will be completed by the end of 2019, following which they will be submitted for gazetting by the DEA. The SEA Process has not been rushed in any way and due diligence has been undertaken throughout the SEA Process by the project team. As indicated above, consultation is considered an important component of the SEA Process. It should be noted that the Specialist Assessment chapters, and Parts 1 and 2 of the SEA Report, were initially released for stakeholder comment from 25 April 2019 to 10 June 2019. On 6</p>

Queries or Comments Raised	Responses
<p>Project Team a list of stakeholders that need to be communicated with and sent the documents in Zulu. A list of libraries will also be provided so that copies of the translated documents can be placed therein.</p> <p>q) I will send my comments in writing. It is important to note that since 1998 we have been waiting for a Disaster Management Plan for Durban and South Durban. We do not have an emergency plan. The South Durban safety zone has now been developed into a logistics park. These are all concerns.</p>	<p>June 2019, stakeholders were informed that the comment period will be extended by an additional two weeks, and will conclude on 24 June 2019. It was also confirmed at the Public Information Sharing Session on 13 June 2019 that once the Presentation delivered at the session is translated into Zulu and provided to the additional stakeholders identified by DD, an additional 30 days will be provided for the comment period. It is important to point out that this request was made on 13 June 2019 (and the comment period was initiated on 25 April 2019).</p> <p>Therefore, based on the above, it is not believed that the SEA Process has been rushed in any way.</p> <p>From the specialists perspective, the details of the specialists appointed to undertake the studies are captured in Part 3 of SEA Reports that have been made available to stakeholders for review. Specialists were appointed through an open Procurement and Tender Process under the Public Finance Management Act (PFMA), to which the CSIR subscribes to. The following specialists were appointed in November 2017 as part of the SEA:</p> <ul style="list-style-type: none"> ▪ Biodiversity Assessment Studies: <ul style="list-style-type: none"> ○ Integrating Author: Luanita Snyman-van der Walt (CSIR); ○ Fynbos: Dr. David Le Maitre (CSIR); ○ Savanna and Grassland: Dr. Graham von Maltitz (CSIR); ○ Indian Ocean Coastal Belt: Simon Bundy and Alex Whitehead (SDP Ecological and Environmental Services); ○ Nama and Succulent Karoo and Desert: Simon Todd (3Foxes Consulting) and Lizande Kellerman (CSIR); ○ Albany Thicket (Gas Pipeline SEA only): Dr. Derek Berliner (Eco-logic Consulting); ○ Estuaries: Dr. Lara van Niekerk and Steven Weerts (CSIR); ○ Wetlands and Rivers: Gary de Winnaar and Dr. Vere Ross Gillespie (GroundTruth); ○ Avifauna: Chris van Rooyen and Albert Froneman (Chris van Rooyen Consulting); and ○ Bats: Kate MacEwan (Inkululeko Wildlife Services). ▪ Seismicity Assessment: Professor Raymond Durrheim (University of the Witwatersrand) and Brassnavy Manzunzu (Council for Geoscience); ▪ Settlement Planning, Disaster Management and related Social Impacts (Gas Pipeline SEA only): <ul style="list-style-type: none"> ○ Integrating Author: Surina Laurie (CSIR); ○ Settlement and Development Planning: Elsona van Huyssteen; Cheri Green; Dave McKelly; and Zukisa Sogoni (CSIR); and ○ Disaster Management: Professor Doreen Atkinson (Nelson Mandela University). ▪ Socio-Economics Assessment (EGI Expansion SEA only): Surina Laurie (CSIR); ▪ Visual Assessment (EGI Expansion SEA only): Quinton Lawson and Bernard Oberholzer (Quinton Lawson Architect); ▪ Gas Opportunities Analysis (Gas Pipeline SEA only): Rae Wolpe (Impact Economix); and ▪ Agriculture: Johann Lanz (Independent Consultant).

Queries or Comments Raised	Responses
	<p>The specialist expertise is also included in Part 3 of the SEA Reports. As noted above, the actual Specialist Assessment chapters have been released for public review. Hence, stakeholders can have a look at the findings of their reports, as well as the methodologies adopted. Independent specialists were appointed and each specialist was required to complete a declaration of independence (Appendix A of Part 3 of the SEA Reports), which serves as assurance that the findings of these studies are not swayed to benefit the developer.</p> <p>e) IA: The DEA does not downplay the environmental affects that have taken place in Durban recently. The new administration took over in 1994 almost 60 years after the first pipelines were put in place. The new government administration is doing things differently because they do not want the same impacts that we have experienced in the past to recur. As an example, previously, the mitigation for an asbestos mine was to put a fence around the mine, although the particles are still in the air and affecting the nearby communities. The past practices are now being rectified to ensure that the environmental impacts are considered for all new developments.</p> <p>Post-Meeting Note: Parts 1 and 2 of the Gas Pipeline SEA Report discuss potential leaks and emissions from the Gas Pipeline. Part 2 of the Gas Pipeline SEA Report also discusses previous incidents that have occurred on other gas pipelines in South Africa. In addition, the specialist assessments have assessed the risk of the gas pipeline on the surrounding environment. The Settlement Planning, Disaster Management and related Social Impacts chapter considers key social, settlement planning and development considerations relevant to the development of the gas pipeline corridors, and outlines the various parties that need to be involved in disaster management as part of the proposed gas transmission pipeline operations. This chapter also assesses Health and Safety impacts associated with the operation of a gas transmission pipeline, as well as Health Risks associated with a gas transmission pipeline leak or fire. Adequate mitigation measures have been provided for these impacts, such as ensuring that a metre by metre risk assessment is undertaken over the entire length of the pipeline, ensuring that all threats are eliminated or at least minimised such that risk of leak/rupture of the pipeline is avoided or at least reduced to As Low as Reasonably Practicable (ALARP). Therefore, it is not stated in the SEA Reports that there is no risk associated with a gas pipeline, nor is the risk down-played.</p> <p>f) IA: Operation Phakisa and the SIPs are big developments that have been identified through the National Development Plan (NDP). The NDP was developed for the people of South Africa and has been extensively consulted.</p> <p>Post-Meeting Note: As part of the SEA Process, the potential employment opportunities during the construction phase, the exact transshipment/distribution points or employment likely at these points and relative quantity and cost of gas cannot be specified. This level of information can only be specified on a project specific basis. Therefore, the Settlement Planning, Disaster Management and related Social Impacts chapter considered the following assumptions in this regard:</p> <ul style="list-style-type: none"> ▪ Limited short term local employment opportunities will be created, mainly during construction; ▪ Limited long term maintenance employment will be created, mainly with a level of skill required; and

Queries or Comments Raised	Responses
	<ul style="list-style-type: none"> ▪ Some long term employment at main distribution points will be created. <p>Therefore, any potential job creation would be during the temporary construction phase (if the construction of the proposed pipeline does materialise and the extent of such jobs would be determined per project, based on its business case).</p> <p>g) IA: It must be noted that the maps and information presented at the session is representative of the big picture. The corridors have been identified and will be refined at the end of the SEA Process. Once the corridors are gazetted, the developer must then eventually select the best routing for the pipeline within the corridors based on the pre-assessment undertaken as part of the SEA. However, all pipeline or EGI routes identified per project will need to be ground-truthed. If the desktop study indicates that there are protected frogs in a particular area, the developer would need to appoint a specialist to physically observe if that is the case.</p> <p>Post-Meeting Note: The Specialist Assessments undertaken are largely desktop based (with the exception of the Albany Thicket Biodiversity Assessment which included a fieldwork component to verify sensitive areas). There are many factors that contribute to the desktop nature of the assessment, the main factor being that this is a Strategic Environmental Assessment which entails an assessment of several 125 km corridors that span a great extent of South Africa (note that the entire corridor will not be developed with gas pipelines or EGI). Therefore, the assessments rely heavily on existing data as well as experience gained by specialists on field work undertaken across South Africa on other projects. Once a specific project has been identified and the route of the infrastructure has been identified, the findings of the SEA would need to be verified on site any way.</p> <p>h) IA: What is the solution to climate change? Coal is not, methane is not, and so are we only supposed to source energy from renewable sources? The Integrated Resource Plan (IRP) looks at the amount of power (electricity) that is needed by the country and how this is going to be supplied (i.e. coal, solar, methane and nuclear). Greenhouse gas (GHG) emissions from the proposed pipelines will be considered on a project specific basis, as part of the Environmental Authorisation Process.</p> <p>Post-Meeting Note: Based on feedback received during the Authority and Public outreaches regarding climate change and GHG emissions, detail regarding leaks and GHG emissions were provided in Part 2 of the Gas Pipeline SEA Report that was released for public comment. The SEA has not undertaken Climate Change Models. However, some of the Specialist Studies do factor in climate change in terms of impact and spatial relation to climate change. Critical Biodiversity Areas factor in adaptability to biodiversity changes as a result of climate change. Climate change will for example result in a shift of a particular biome and therefore the sensitivity and measures for that type of biome will apply in that shift.</p> <p>i) IA: When the site specific Environmental Authorisation processes are undertaken, there is a requirement to engage with the affected communities, which will enable the assessment practitioner or specialist to determine what is sensitive for these communities and what is not. As an example, heritage impacts and impacts on graveyards can be investigated in detail, etc. These specifics are dealt with at a project</p>

Queries or Comments Raised	Responses
	<p>specific Environmental Authorisation level.</p> <p>j) IA: The issues of soil erosion are very pertinent to a gas pipeline. The studies have looked at sensitive areas and several factors including soil erosion.</p> <p>Post-Meeting Note: Furthermore, a geotechnical assessment will be undertaken on a project specific basis, which will assist with identifying areas prone to soil erosion.</p> <p>k) IA: The government has measures that deal with the rehabilitation of mines separately.</p> <p>Post-Meeting Note: Rehabilitation of mining areas does not fall within the scope of this SEA.</p> <p>l) IA: On the issue of peer review, DEA is willing to get the documents peer reviewed. However, the SDCEA would have to seek funds to pay for the review.</p> <p>Post-Meeting Note: <u>It should be noted that the Specialist Assessments undertaken as part of the SEA Process have already been subjected to Peer Review in 2018. The details of the experts that undertook the Peer Review process are provided in Part 3 of the SEA Reports, which were made available for public review on 25 April 2019. Academic peer review of the specialist chapters promotes overall robustness of the process and ensures that scientific credibility is upheld. The expert peer reviewers were identified from existing scientific publications collected throughout the process and through nominations from the SEA Project Team, general stakeholders, ERG and the Specialists. A total of 12 peer reviewers for the EGI Expansion SEA and 13 peer reviewers for the Gas Pipeline SEA, from NGOs, academia and research institutions; and the private sector provided peer review comment. It should be reiterated that apart from peer review, the reports were also made available to stakeholders for comment, including the ERG and PSC.</u></p> <p>m) Post-Meeting Note: The impact of the establishment and spread of Alien Invasive Plants have been assessed in the Biodiversity Assessment Specialist Chapters, which were made available for public review in April 2019. Adequate mitigation measures have been captured in these reports. In addition, the presentation delivered at the Public Information Sharing Session on 13 June 2019 did note the introduction and establishment of alien species as a key impact in terms of terrestrial and aquatic ecology, with mitigation measures discussed. Alien invasion was also discussed in the presentation in terms of environmental attributes (i.e. prickly pear being dominant in the Nama Karoo biome, and the Fynbos biome being highly susceptible to alien invasion).</p> <p>n) IA: The impact of the infrastructure on specific affected communities will be considered during the project specific Environmental Assessment phase, once there is a need and demand for the project, as well as an identified source of gas. The aim is to protect the environment for the benefit of the communities. We are content with the scientific integrity of the studies undertaken as part of the SEA, and anybody is welcome to challenge the findings should they deem it necessary.</p> <p>o) Post-Meeting Note: Refer to Appendix B of these meeting notes for a copy of the departments, municipalities and organisations that serve on the PSC and ERG that provide valuable input into this SEA</p>

Queries or Comments Raised	Responses
	<p>Process. BirdLife South Africa does serve on the ERG. A list of the ERG and PSC members are also available on the project website (https://gasnetwork.csir.co.za/project-summary/). In addition, BirdLife South Africa was the official expert peer reviewer of the Avifauna Assessment. Overall, BirdLife South Africa were happy with the Avifauna Assessments. A copy of all peer review reports and responses from the specialists are provided in Appendix B of Part 3 of the SEA Reports.</p> <p>p) IA: In closing, SDCEA will send the Project Team a list of additional community members to consult with, as well as a list of libraries that the hard copies need to be placed at. A high level summary of the slides presented at the Public Information Sharing Session will be translated to Zulu and provided to the recommended additional community members and libraries. An additional 30 day period will be provided to allow for comment, commencing from the day that the documentation is received by the libraries and additional community members. The Project Team will also send a copy of the Specialist ToR to DD.</p> <p>Post-Meeting Note: BS has been requested to translate the Background Information Document and presentation delivered at the meeting to Zulu. Once it has been translated, the CSIR will send it to the meeting attendees. In addition, on 18 June 2019, the SDCEA provided the CSIR with a list of additional stakeholders that need to be consulted with. It should be noted that the advertisement placed in May 2019 in the Isolezwe newspaper covered the areas identified by SDCEA. In addition, the SDCEA provided a list of libraries where hard copies of the Background Information Document and presentation need to be placed. The Background Information Document and presentation were emailed to the additional stakeholders and hard copies were couriered to the identified libraries on 8 July 2019.</p> <p>q) FD: A basic search online has confirmed that the eThekweni Municipality does have a Disaster Management Plan in place.</p> <p>AW: It is important to note that the outcome of the Specialist Assessment was that a Disaster Management Plan would need to be compiled specifically to deal with the proposed gas pipeline.</p> <p>Post-Meeting Note: The Settlement Planning, Disaster Management and related Social Impacts Assessment has rated the eThekweni Municipality to have a <i>Good</i> Disaster Management capacity.</p>

The meeting closed at 21:15

A.7.9 Formal Submissions and Comments from I&APs during the Review of the Draft SEA Report Chapters and Specialist Assessments

The SEA team has received numerous inputs from a range of stakeholders throughout the SEA Process. Although all inputs received and discussions at meetings were taken into consideration during the process, only the formal submissions received during the review period (25 April 2019 – 24 June 2019) are included in this Appendix.

Comment from City of Cape Town, Energy & Climate Change Directorate, 23 May 2019				
Page 1				
Shaazia Bhailal	General	General		Has the EGI expansion in the north considered severe weather and cyclonic events exposure?

Comment from City of Cape Town, Community Services and Health Directorate, Specialised Health Services, 23 May 2019

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CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

COMMUNITY SERVICES AND HEALTH
DIRECTORATE

Werner Geldenhuys
Senior Technician

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E: werner.geldenhuys@capetown.gov.za

Ref. no.:
Date: 23 May 2019

MEMORANDUM

Re: Comment: SEA for the Development of a Gas pipeline Network and EGI expansion.

**To: Stephanie Coetzee
Assistant Environmental Professional:
Environmental and Heritage Management Branch**

1. Assessment of application:

This office has scrutinised the mentioned draft SEA report and can comment as follow:

The application was assessed in light of *The Western Cape Noise Control Regulations PN 200 of 2003* and *SANS 10103:2008 – The measurement and rating of environmental noise with respect to annoyance and to speech communication*.

The following descriptions i.t.o the above mentioned legislation is applicable to this application.

“Disturbing noise” means a noise, excluding the unamplified human voice, which –

- a) *Exceeds the rating level by 7dB(A);*
- b) *Exceeds the residual noise level where the residual noise level is higher than the rating level;*
- c) *Exceeds the residual noise level by 3dB(A) where the residual noise level is lower than the rating level; or*
- d) *In the case of a low frequency noise, exceeds the level specified in Annex B of SANS 10103.*

“Rating level” means the applicable outdoor equivalent continuous rating level indicated in Table 2 of SANS 10103.

“Residual noise” means the all-encompassing sound in a given situation at a given time, measured as the reading on an integrated impulse sound level meter for a total period of at least 10 minutes, excluding noise alleged to be causing a noise nuisance or disturbing noise.

“Noise nuisance” means any sound which impairs or may impair the convenience or peace of a reasonable person.

“Property projection plane” means a vertical or horizontal plane, whichever is applicable, on a boundary line of premises defining a boundary of the premises in space.

“Day-time”: 06h00 – 22h00

“Night time”: 22h00 – 06h00

Regulation 4: Land Use states:

4 (1). The local authority, or any other authority **responsible for considering an application for a building plan approval, business licence approval, planning approval or environmental authorisation**, may instruct the applicant to conduct and submit, as part of the application—

(a) **a noise impact assessment in accordance with SANS 10328 to establish whether the noise impact rating of the proposed land use or activity exceeds the appropriate rating level for a particular district as indicated in SANS 10103; or**

(b) **where the noise level measurements cannot be determined, an assessment, to the satisfaction of the local authority, of the noise level of the proposed land use or activity.**

2. Discussion:

The City of Cape Town Noise Unit acknowledges that the SEA is a high level assessment to investigate the probability and, risks and impacts this project may pose to the South African community in close proximity to the indicated corridors for the gas pipeline and the EGL.

Although the transport and conveyance of gas through a pipeline, on this magnitude, will be new to South African community, there are other parts of the world where this has been the norm for many years.

In preparing this response, reports on the environmental noise impact of gas pipelines in several other countries were considered.

According to an article presented to the International Pipeline Conference in 1996 (David C. DeGagne (1996). *Managing Environmental Noise Associated with Pipeline Facilities in Canada. International Pipeline Conference – Volume 1, Alberta*) DeGagne states: **“pipeline operators must treat environmental noise control as an integral part of project concept and design and not as an after-thought or additional non-core responsibility”**.

The statement is further supported with a discussion on the components and equipment relevant to a gas-pipelines, which cause environmental noise nuisance.

This unit acknowledges the indication that this will be a sub-surface pipeline installation. The installation project is at this point accepted to have a construction phase and operational phase, both of which will have environmental noise impacts unique to the relevant activity or component.

More detailed applications would have to be presented to this unit, in order to make specific requirements.

It must be noted that the existing SEA do not cover engineering reports pertaining to the specifics of the pipeline installation an ancillary equipment.

The location and magnitude of transmission substations for the upgrade to the EGL is also a point of interest to this unit. This unit will comment there-on as the detailed EA applications are submitted to the City of Cape Town.

3. Comment:

In terms of the *Western Cape Noise Control Regulations, PN 200 of 2013, Regulation 4* the City of Cape Town Specialised Environmental Health: Noise Unit therefore would require:

- 3.1 A **formal noise impact assessment** in terms of **Regulation 4(1)(a)**, must be conducted in terms of the SANS 10328:2008 Methods for environmental noise impact assessments for the project phases falling within the boundary of the City of Cape Town. The NIA must address the construction phase of the actual pipeline, as well as the installation and operation of supporting equipment to the gas pipeline.
- 3.2 The above requirement will also be applicable to the detailed project level environmental authorizations for transmission substations and related EGI infrastructure.
- 3.3 A **noise management plan**, detailing measures of continuous control (for the entire lifespan of project) applicable to all phases and components (pipeline equipment) of the pipeline project and transmission substations and related EGI infrastructure should be developed and submitted to this unit for consideration.
- 3.4 The proposed activity **must remain compliant with the provisions of the Western Cape Noise Control Regulations, PN 200 of 2013**
- 3.5 All detailed project level environmental authorizations applications for the pipeline and EGI equipment installations, within the boundaries of the City of Cape Town must be submitted to this unit for comment.

This comment is based on information available at the time, and is as complete as possible. Should new information become available or should conditions change the report and comment on this application may be reconsidered by this office.

Regards
Werner Geldenhuys
Senior Technician – Specialised Health Services

Comment from Angila Joubert, Bergrivier Municipality, 6 June 2019

Page 1

Stakeholder Reviewer Name	Draft SEA Report (EGI Expansion SEA)	Chapter	Page Range	Line/s	Reviewer Comment
Angila Joubert	EGI Expansion SEA	Freshwater Ecosystems	55	23	How will this be ensured: Placement of the EGI within already disturbed/degraded areas?
Angila Joubert	EGI Expansion SEA	Fynbos Biome	32	9	Will Bergrivier Municipality be informed of the contractor and ECO representing the contractor; when activities commence within this municipal area?
Angila Joubert	General on both	Affected Municipalities_2_Final document			Piketberg to reflect at Bergrivier Municipality as this is the head office location for the municipality.

Charles Geldenhuys, Drakenstein Municipality: Electro Technical Services, 7 June 2019

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Civic Centre, Berg River Boulevard, Paarl 7646

Enquiries: C Geldenhuys
Contact number: 021 807 4663
Reference: 16/2
Date: 07 June 2019

CSIR – Environmental Management Services
PO Box 17001
Congella
DURBAN
4013

Dear Sir / Madam

GAS PIPELINE AND EGI EXPANSION SEA

With reference to your mail dated 25 April 2019.

There will be no direct impact or influence to Drakenstein Municipality regarding these extension of corridors and therefore no comments at this stage, although it will be very interesting to monitor the rollout of this energy plan.

Regards

C. Geldenhuys
SENIOR MANAGER: ELECTRO TECHNICAL SERVICES
I:\Depthoof\Hooftdeft\Sekretaresse\Geldenhuys\CG07

A city of **excellence**

Comment from Rhett Smart, CapeNature, 10 June 2019

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date 10 June 2019

CSIR Environmental Management Services
P. O. Box 17001
Congella
Durban
4013

By email: gasnetwork@csir.co.za

To whom it may concern

Strategic Environmental Assessment for the Development of a Gas Pipeline Network and Expansion of Electricity Grid Infrastructure (EGI) For South Africa: Draft Specialist Assessment Report Chapters

CapeNature would like to thank you for the opportunity to comment on the project and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts of the project.

Due to current constraints, CapeNature will not provide detailed in-depth comment on the reports provided for comment, but will instead provide brief comment on the overall process and methodology and therefore have chosen to not comment in the forms provided.

The approach undertaken is the same as for the previous strategic environmental assessments (SEAs) at a national level for wind and solar photovoltaic (PV) energy and electricity grid infrastructure (EGI). CapeNature provided detailed comments on these processes and therefore the same would apply in this case. The process is most similar to that of the EGI whereby broad corridors have been identified within which the linear infrastructure can be aligned, with both environmental and technical constraints identified within the corridors.

The corridors for the Gas Pipeline Network SEA encompass the majority of the Western Cape with only minor exclusions. With such broad corridors, there should be sufficient options to ensure that the very high and high sensitivity areas are avoided. The extension of the EGI SEA corridors however only encroach into the northernmost parts of the Western Cape in the West Coast District Municipality.

In terms of the broad categories which have been selected in identifying the biodiversity sensitivities, these are supported, with the Western Cape Biodiversity Spatial Plan utilised as the broad overarching biodiversity informant for the Western Cape Province. We do wish to note with regards to the protected area data that there are discrepancies between the various databases and we recommend that there should be engagement with the provincial conservation agencies to ensure the accuracy of this data. Apart from the sensitivities related

The Western Cape Nature Conservation Board trading as CapeNature

Board Members: Prof Denver Hendricks (Chairperson), Prof Gavin Maneveldt (Vice Chairperson), Ms Marguerite Bond-Smith, Mr Mervyn Burton, Dr Colin Johnson, Prof Aubrey Redlinghuis, Mr Paul Slack

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to protected areas, it must be ensured that the National Environmental Management: Protected Areas Act (NEM:PAA, Act 57 of 2003) is adhered to. Protected areas should be avoided as far as possible, however if this cannot be achieved it must be ensured that any infrastructure is reflected in the protected area management plan (PAMP) and that there is approval from the management authority. We would also recommend that other non-NEM:PAA conservation areas are included, such as Biodiversity Agreements as high sensitivity.

We do wish to query the specialist studies that were undertaken as it appears that this is a replication of the SEAs for wind and solar PV and EGI, without particular reference to the impacts related to the subject activity, namely gas pipelines. For the aforementioned SEAs there are specific impacts related to flight, both for fauna and aircraft, however gas pipelines do not pose this same particular risk. The impacts on birds and bats would be encompassed in the impacts related to habitat loss which would be relevant to all fauna.

The impacts related to habitat loss are encompassed in the sections related to the biomes traversed, and there is reference to both fauna and flora. In this regard we do wish to note that the loss of habitat is the most significant cause of the loss of biodiversity by a considerable margin. If any fauna could be considered to have a specific impact as a result of gas pipelines that is not encompassed by the biome chapters, it would be subterranean fauna as a result of excavation. Impacts on avifauna would of course still be relevant for the EGI Expansion SEA.

CapeNature recommends that a Generic Environmental Management Programme (EMPr) is compiled for the construction phase for the gas pipelines as was compiled for the EGI SEA. Implementation of appropriate mitigation measures can significantly reduce the impacts related to this activity. The EMPr must include measures related to each of the different methodologies for laying of the pipeline, which would include trenching, pipe-jacking and horizontal directional drilling. The selection of the most appropriate methodology must also be included and should take both engineering and environmental considerations into account.

Rehabilitation/restoration must be a key consideration in the EMPr, where the objective must be that the pipeline servitude must be returned to the same condition or as close to this as possible prior to the laying of the pipeline. The action required along the spectrum of rehabilitation to restoration would depend on the condition of the site prior to laying the pipeline, where restoration would be necessary for intact natural vegetation whereas rehabilitation to a cover crop would be adequate on cultivated lands. It is recommended that specialists with expertise in restoration ecology assist with this section of the EMPr and it should be separated into the different biomes in the same manner as the specialist reports currently under review. In this regard we wish to query if the very high sensitivity rating for Albany Thicket is again more relevant for power lines rather than gas pipelines.

CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.

Yours sincerely



Rhett Smart
For: Manager (Scientific Services)

cc. CapeNature Land Use
Adri La Meyer, WC Department of Environmental Affairs and Development Planning

Comment from City of Cape Town, Energy & Climate Change Directorate, 19 June 2019

Page 1



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

ENERGY AND CLIMATE CHANGE DIRECTORATE

Anton Venter
SCP East

MEMORANDUM

T: 021 444 8364
E: Anton.Venter@capetown.gov.za
Ref: Eng19-2744\$CPav Your Ref: Gas & Electricity Infrastructure

DATE	2019-05-23
TO	Environmental Management Department
ATTENTION	Coetzee S

GAS PIPELINE AND EGI EXPANSION SEA: RELEASE OF SPECIALIST ASSESSMENT

With reference to your e-mail dated 2019-04-30, this department has no objection to this proposal subject to the following conditions:

1. All excavations and underground installations shall be undertaken with approved wayleaves from Telkom and our Civil and Electrical Engineering Directorates. A permit must also be obtained from our Power Distribution Department before any excavation commences and this must be conveyed to the successful contractor upon appointment.
2. Final route approval and any additional condition will be given with wayleave application.
3. Vitally important electrical infrastructure exists in the vicinity of the land in question. A wayleave shall be obtained from the Electricity Services Department before any excavation work may commence on site.

Yours faithfully

DIRECTOR: ELECTRICITY GENERATION & DISTRIBUTION

HEAD OFFICE, BLOEMHOF COMPLEX I-OFISI ENGUNDLUNKULU, E-BLOEMHOF COMPLEX HOOFKANTOOR, BLOEMHOF-KOMPLEKS
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Making progress possible. Together.

Dr. Marco A. G. Andreoli, Independent Geological Consultant and Research Associate, School of Geosciences, Wits University, 21 June 2019				
STAKEHOLDER REVIEW: 3. KEY SEISMIC-RELATED ATTRIBUTES AND SENSITIVITIES OF THE STUDY 7 AREAS				
Stakeholder Reviewer Name	Page Range	Line/s	Table/Fig/Box/Map	Reviewer Comment
Dr. Marco A G Andreoli	14	18-25	Fig. 1 of Appendix B	The map published by Manzunzu et al. (2019) and here referred [see Fig. 1, Appendix B] derives its information from the Seismotectonic Map of Africa by Meghraoui et al (2016) that is quoted in the caption. In this earlier paper and map the faults were indicated as: <i>Active faults</i> (<150 ka). A forensic analysis of the quoted publications (Meghraoui et., 2016; Manzunzu et al., 2019) and of available peer-reviewed literature (cf. Steenkamp et al., 2018, S.Afr. J. Geol. 121, 421-430) leads to conclude that the last movement along such faults has been shifted arbitrarily from <150 ka to ≤ 2.6 Ma.
Dr. Marco A G Andreoli	15	lines 8-12	Fig. 3	In page 17 of the Document its authors maintain the superiority of the Probabilistic Seismic Hazard Assessment (PSHA) method over the parametric-historic (P-H) procedure by Kijko & Grantham (1998, 1999) toward the assessment of the hazard posed by tectonic seismicity. Seismotectonic data in the public domain (as peer review full length articles, University dissertations, open file Necsa Reports and conference proceedings) indicate that PSHA method, though theoretically correct, is intrinsically flawed, especially in respect of PGPN corridors 1, 4 and 7 (Richards Bay area) for the reason expressed in the space below.
Dr. Marco A G Andreoli	15	lines 12-23		The elevated seismicity of certain parts of South Africa, namely the Northern Cape, appears to be a recent phenomenon of increasing strain rate, becoming quite apparent in 1996, as shown by Necsa's Vaalputs seismic monitoring records (Andreoli et al., 2009, SAGA Biennial Technical Meeting and Exhibition, Swailand, 4 pp; Malephane et al., 2013, 13th SAGA Biennial Technical Meeting and Exhibition, Kruger Park, 4 pp.). It is arguable that this episode of enhanced strain rate in the Northern Cape over the past 23 years is a repeat of earlier "swarms" such as those previously experienced at Koffiefontein and Ceres-Tulbach in the 20th century, among others.
Dr. Marco A G Andreoli	21		Table 4	Expanded Eastern EGI Corridor - The Tugela Fault is not the only source of potential problems. The author of this section ignores the prominent N-S striking neotectonic faults (of the East African Rift system) that displace Quaternary deposits, including the 70 ka lignite of the Port Durnford Formation in the Richards Bay - St Lucia area (Andreoli et al., 1996, and references therein; Jackson and Hobday, 1980, Amer. J. Sci. 280, 333-362).
Dr. Marco A G Andreoli	25	39-40		The comments expressed above, in addition to the comments expressed for the Gas pipelines network show that there is no sufficient information to guide decisions on EGI development in South Africa, just rehashing of views that have been outdated since 1996.
Dr. Marco A G Andreoli	Appendix A, 32	lines 5 -13		Neotectonic studies: The only paper quoted in this paragraph is that by Andreoli et al. of 1996. Since this widely referenced paper (and even before) independent researchers and the Necsa-lead team have produced an extensive set of peer-reviewed papers, dissertations and public domain Conference abstracts. It is arguable that the authors of this section should have been taken into consideration at least some of these more recent works to avoid the misinterpretations considered below.
Dr. Marco A G Andreoli	Appendix A, 32	lines 22-24		The statement is indeed quoted almost <i>verbatim</i> from Bird et al., 1996. However, the problem rests on that word "primarily" (line 22) that was inserted to account for those areas of southern Africa where the orientation of Shmax, and Sigma 1 differ significantly from the outputs of the finite elements computer programme. A more careful reading of the cited references (Andreoli et al., 1996; Bird et al., 2006) and additional publications on the neotectonics of South Africa in the public domain (cf. Viola et al., 2005, EPSL 231, 147-160; Viola et al., 2012, Tectonophysics 514-517, 93-114) would have alerted the authors that the Wegener stress Anomaly as expressed in the western part of South Africa (e. g. the Northern Cape; also: Western Namibia) is unreconcilable with the models tested in the paper by Bird et al. (2006). As clearly expressed in those articles the Wegener stress Anomaly represents a region of the southern African plate where Sigma 1 is horizontal (and striking NW to NNW) where all the published geodynamic computer models make it vertical (and Shmax striking NW to NNW).
Dr. Marco A G Andreoli	Appendix A, 32	35-50		Once again an important article, in this case the one by Malservisi et al., 2013, is quoted selectively. Indeed these authors state that "the South African region behaves rigidly, with deformation" of the order of 1 nanostrain yr ⁻¹ or less." However, the next sentence reads that " <i>The analysis shows some higher strain rates in the eastern region, and the presence of spatially correlated residuals in the Cape Town region and the region east of Johannesburg. Although not statistically significant, the spatial coherence of those residuals could indicate tectonic activity.</i> ". According to the data presented by Malservisi et al 2013 (cf. Fig. 4) the stations between Hermanus and the Saldana Bay area show a residual velocity vector oriented NW to NNW relative to the stations further to the north and east. In northern KN the stations at Richards Bay and Ulundi show weak velocity vectors oriented toward Durban, Pietermaritzburg and Ladysmith.

Comment from April Gehle, Private, 22 June 2019				
Stakeholder Reviewer Name	Page Range	Line/s	Table/Fig Box/Map	Reviewer Comment
April Gehle	Excel Sheet: Stakeholder Review Comments.	Attached to email from CSIR dated 25-4-19	Excel Spread Sheet	When trying to open this document Microsoft Office warns that a problem has been detected and it may be unsafe to open the document. Therefore I have created my own spread sheet.
April Gehle	Part 3 Page 2	88 -93		Particularly because of the ongoing Zondo Commission of Enquiry into state capture and other investigations into all state owned enterprises. Information coming to light in these enquiries makes it difficult to believe that proper, legal and ethical decisions will be made in relation to the proposed EGI development. https://www.sastatecapture.org.za/
April Gehle	Part 2 Identification Of Power Corridors. Page 8-11	7-11	Table 5	Table 5: Features and datasets used to prepare a high level Environmental Sensitivities/Constraints Map. There are 138 Features given in this table and out of these 54 are rated as very high on the mapping sensitivity environmental constraint. Almost 40% of the proposed area for development. I find this totally unacceptable that so many highly sensitive areas are threatened by this development. Particularly in the light of my comment above and my following comment.
April Gehle	Part 2 Page 19	51-63 92-110		It would appear from these comments that the environmental constraints are not given priority over financial and structural constraints.
				Page numbers used on the above are the page numbers given on the documents referred to.

**Comment from Gerhard Gerber, Western Cape Department of Environmental Affairs & Development
Planning, Development Facilitation, 24 June 2019**

Page 1

**WESTERN CAPE GOVERNMENT: DEPARTMENT OF ENVIRONMENTAL AFFAIRS AND
DEVELOPMENT PLANNING**

**COMMENT ON THE DRAFT SPECIALIST ASSESSMENTS FOR THE ELECTRICITY GRID
INFRASTRUCTURE EXPANSION STRATEGIC ENVIRONMENTAL ASSESSMENT: WESTERN
AREA**

DUE DATE FOR SUBMISSION: 24 JUNE 2019

Page 2

STAKEHOLDER REVIEW: Part 1 - Background to the Electricity Grid Infrastructure Expansion SEA

Page Range	Line/s	Table/Fig/Box/Map	Reviewer Comment
3 5	57 - 66 71 - 76	N/A	<p>Page 3, Line 57 - 66: "Furthermore, it should be noted that the SEA Process is undertaken at a strategic level and cannot replace the requirements for project level Environmental Assessment. The high-level environmental, social and economic data utilised to identify the 100 km wide corridors and undertake environmental pre-assessment of the corridors, is not sufficient for project-level decision making. The SEA should therefore be considered as a scoping level exercise used to identify key potential impacts. Additional assessment will be necessary at a project level to determine the significance of impacts and inform required management actions."</p> <p>Page 5, Lines 71 - 78: "Feedback on the above suggested approach for the development of EGI within the proposed expanded EGI corridors is sought from the stakeholders, and a final informed decision will be taken as to whether the exemption from Environmental Authorisation with compliance with the EMPr and Standards will be adopted. Overall, this EGI Expansion SEA is taking the post-SEA Application Process one-step further as compared to the 2016 EGI SEA, which resulted in streamlining of the Environmental Authorisation Process."</p> <p>This Department supports a streamlined Environmental Authorisation process where a pre-negotiated route can be submitted to the competent authority AND where a shortened Basic Assessment process must be followed in compliance with the 2014 EIA Regulations (as amended). The Background Documents indicates that the "DEA has previously considered and issued Environmental Authorisation for numerous applications in this regard. Therefore, the type of issues and impacts linked to a proposed EGI development is well understood and would apply across many EGI development applications." The biophysical environment in the Western Cape is however more diverse than other areas/environments and a "one-size-fits-all" solution cannot be uniformly applied across the country. Since the final route alternatives with the corridors are unknown, it is not possible to comment on the route alternatives before or when the SEA and Standards are gazetted. This eliminates the opportunity that potential interested and affected parties should have to participate and comment on the final route alignment. Again it is reiterated that a fast-tracked EIA process (with concurrent water use, land use planning and mining use approvals) be undertaken to ensure that the general objectives of integrated environmental management are achieved.</p>

Page 3

STAKEHOLDER REVIEW: Biodiversity and Ecological Impacts: Terrestrial ecosystems and species - Fynbos Biome

Page Range	Line/s	Table/Fig/Box/Map	Reviewer Comment
1	4	Across all the specialist studies	Page 1 of all the specialist studies refer to "Draft v3 Specialist Assessment Report for Stakeholder Review". The dates of the specialist assessment reports should be provided.
32	9 - 10	N/A	Where it is impossible to avoid very high or high sensitivity areas, Critical Biodiversity Areas and/or buffers, biodiversity offsets may be required. Further information pertaining to the strategic overview of how biodiversity offsets will be applied should be included in Section 9 (Best Practice Guidelines and Monitoring Requirements) of this specialist study.

Page 4

STAKEHOLDER REVIEW: Visual Assessment Report

Page Range	Line/s	Table/Fig/Box/Map	Reviewer Comment
33	8	Table 8	The assessment does consider most of the applicable and most likely-to-be affected environmental, heritage and human receptors with applicable/ reasonable buffer distance (as indicated/discussed on page 24).

35 - 36	Section 10.1	N/A	<p>The planning phase best-practice measures to avoid/minimise visual impacts appear to be applicable to the content of the proposed corridor.</p> <p>It is acknowledged that it is not an easy task to find the optimal balance between choosing the shortest practical route and have little to no impact on economically valuable agricultural land in positioning essential power lines, and mitigating the visual impacts by choosing a route with the least obtrusive visual impact from strategic viewpoints such as residential areas and main roads. It is also understood that that power lines cannot be too remote, as they will need to be easily accessible.</p> <p>Possible mitigation measures to consider include:</p> <ul style="list-style-type: none"> - The reflective nature of the pylons (e.g. galvanised vs coated with less reflective paint, etc.). - Visible markers such as buoys, balls or other visual aids that alert aeroplanes, hand gliders, birds or other creatures at risk of colliding with the power lines. - The distance between pylons e.g. very high pylons with greater distances between the pylons or shorter pylons spaced closer together. <p>The specialist study concluded with a proposed area within the corridor to be pursued to place the EGI through considering the factors listed on pages 32 to 35, and especially considering the best practice guideline. This Department reiterates that a Basic Assessment process is imperative to inform a more specific EGI placement route within the Western corridor.</p>
General comments			

South African Heritage Resources Agency (SAHRA), 24 June 2019

Page 1

Electricity Grid Infrastructure (EGI) Expansion SEA

Our Ref: 13820



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CaseID: 13820

Date: Monday June 24, 2019
Page No: 1

Interim Comment

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Department of Environmental Affairs

Private Bag X447
Pretoria
0001
South Africa

In order to support the National Development Plan, the Department of Environmental Affairs (DEA), Department of Energy (DoE) and Department of Public Enterprises (DPE), together with iGas, Eskom and Transnet, have commissioned a Strategic Environmental Assessment (SEA) Process to pre-assess two expanded Electricity Grid Infrastructure (EGI) corridors to facilitate a streamlined Environmental Assessment Process for the development of energy infrastructure related to electricity, while ensuring the highest level of environmental protection. It is proposed that the final corridors be embedded and integrated into Provincial and Local planning mechanisms to secure long term energy planning. The Council for Scientific and Industrial Research (CSIR) was appointed in April 2017 to undertake the SEA Process, in collaboration with the South African National Biodiversity Institute (SANBI).

The CSIR has been appointed by the Department of Environmental Affairs (DEA) to undertake a Strategic Environmental Assessment (SEA) for the expansion of the Electricity Grid Infrastructure (EGI) corridors in terms of section 24(2)b of the National Environmental Management Act (Act no. 107 of 1998) (NEMA). This SEA undertook scoping level assessments of a 100 km wide corridor and generated sensitivity and constraints maps using available data to identify preliminary power line corridors in the least environmentally sensitive areas. The SEA aims to streamline the Environmental Authorisation application processes when the final routes have been identified.

The gazetted Eastern and Western EGI corridors will be expanded from Durban to the Mozambique border and from Western Cape provincial border to the Namibian Border respectively. The servitude for the transmission lines will be 80 m wide within a construction envelope of 180 m including access roads. Each pylon footing will have a 1 ha impact zone and excavations for the pylon will be 3.5m deep. Substations will have a 70 ha impact zone including borrow pits, construction camps and laydown area.

Page 2

Electricity Grid Infrastructure (EGI) Expansion SEA

Our Ref: 13820



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CaseID: 13820

Date: Monday June 24, 2019
Page No: 2

The identified heritage site buffer zones provided to CSIR in 2018 have been used in the SEA as part of the Environmental Constraints mapping. In addition, the SEA used data from the heritage scoping report undertaken as part of the 2016 EGI SEA to inform on the heritage section in chapter 3.8 as well as the heritage sensitivity mapping in the visual impact assessment in chapter 3.5. Detailed comments on SEA report are provided in the prescribed commenting excel spreadsheet.

Interim Comment

The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit notes that the EGI expansion SEA does not exempt the requirement of an HIA once Eskom proceeds to the project implementation phase. A field based study by specialists will be required for each EA application. Although the use of the 2016 EGI SEA Heritage Scoping report is sufficient for the heritage sensitivity study, the overlaps in the study areas covered in the 2016 EGI SEA Heritage Scoping report and current expansion corridors are small.

Therefore, the results of the Visual Impact Assessment must be included in the heritage section of chapter 3.8 as it uses up to date SAHRIS site data. Furthermore, the results and proposed mitigation measures identified in the 2016 Heritage Scoping Study must be incorporated into the heritage section under section 2.4 of chapter 3.8.

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Nokukhanya Khumalo
Heritage Officer
South African Heritage Resources Agency

Page 3

Electricity Grid Infrastructure (EGI) Expansion SEA

Our Ref: 13820



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Date: Monday June 24, 2019
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Phillip Hine
Acting Manager: Archaeology, Palaeontology and Meteorites Unit
South African Heritage Resources Agency

ADMIN:

Direct URL to case: <http://www.sahra.org.za/node/523721>

Page 1, 2, 3 + 4				
STAKEHOLDER REVIEW: EGI Part 1				
Stakeholder Reviewer Name	Page Range	Line/s	Table/Fig/Box/Map	Reviewer Comment
Nokukhanya Khumalo	4	114		It should be mentioned why these fields did not under go specialist studies.
STAKEHOLDER REVIEW: Part 2				
Nokukhanya Khumalo	9		table 5	Palaeontological Heritage: SAHRA has six sensitivity levels for palaeontology, the differences between the two sensitivity criteria must be explained in a footnote.
Natasha Higgitt	10 and 11		Table 5	Please explain why two different datasets were used for the mapping of Palaeontological resources i.e. Palaeontological substrate, CSIR 2013 and the Geology Layer 2014
STAKEHOLDER REVIEW: Part 3				
Nokukhanya Khumalo	3	8		The first sentence says that the level of impact is limited for heritage, does this refer to spatial limits? It would be best if heritage were removed from the first sentence in Note 4, instead state that a HIA with a field based survey is required for all EGI developments.
STAKEHOLDER REVIEW: Part 3.8/section 2.4 Heritage				
Natasha Higgitt	17		Table 7	Please note that World Heritage Sites are not managed by SAHRA but the Department of Environment, Forestry and Fisheries, except, when a National Heritage Site has been declared a WHS i.e. National Sites within the Cradle of Humankind WHS. Then both entities are responsible for the co-ordination of the management of these sites
Natasha Higgitt	17		Table 7	The SAHRA Palaeo Technical Reports are available on the SAHRIS website which should have informed the sensitivity analysis of the geological formations with regards to palaeo-sensitivity.
Nokukhanya Khumalo	17		Table 9	There is a new KZN Heritage Act it's the "KwaZulu-Natal Amafa and Research Institute Act, Act No. 05 of 2018
Nokukhanya Khumalo	18	15		There may be a gap in data for the KZN province as it is its own functioning PHRA
Natasha Higgitt	18	36-40		While Heritage Western Cape (HWC), Eastern Cape Provincial Heritage Resources Authority (ECPHRA) and AMAFA KZN have been assessed as competent to perform functions in terms of section 8, 26, 27-30, 34-37, the remaining six provinces are not fully competent and therefore the responsibility lies with SAHRA. The Northern Cape, North West Province, Gauteng Province, Limpopo Province, Mpumalanga Province and the Free State Province Heritage Resources Authorities are only competent to provide permits for heritage resources as per section 34, or under section 27 (only for sites defined as structures as per section 34). For sites managed under section 27, if the site is defined as an archaeological or palaeontological site, or a meteorite (section 35) or as a burial ground and grave (section 36), these sites are managed and permitted by SAHRA.
Natasha Higgitt	18	63		There is also the 2012 Minimum Standards: Palaeontological Components of Heritage Impact Assessments
Natasha Higgitt	18	71		It is important to note that SAHRA is updating the current 2007 Minimum Standards and the requirements of the HIA may change.
Natasha Higgitt	18	77-78		It must be noted that the impacts of the Electrical Grid and the Gas Network are very different and this must be highlighted in the report. Also, it must be noted that the areas assessed for the EGI SEA differ from the areas assessed as part of the Gas SEA.
Natasha Higgitt	18	116		It must be noted that an HIA previously conducted within an area, may not have identified all heritage resources present. Over time, erosion may uncover subsurface heritage resources that were not present during the previous HIA, additionally, more burials may have occurred in an area etc. There is also an additional bias on the part of the specialist that conducted the previous HIA. Some specialists are specialised in very specific fields and do not recognise the significance of the various types of heritage resources (Please see Van Der Venter-Radford, 2017. Response to Discussion: Heritage vs Development. SA Archaeological Bulletin 72(205):91-95 for a discussion regarding this topic.)
Nokukhanya Khumalo	19		Table 10	It is not clear whether the palaeontological substrate sensitivity areas mention the various formations recognised in the Palaeo-technical reports found on SAHRIS. This needs to be clear. Furthermore, if the list provided for the palaeontological substrate is listing formations then please also align it to the sensitivity protocols that the SAHRIS Palaeosensitivity map provides for each formation ie Very High; High; Moderate; Low and Insignificant.
Nokukhanya Khumalo	21	2	Map 6	The data source used for the map must be referenced. Also not all WHS sites are included in this map (The Barberton Mkonkwa Mountains). The heritage sensitivity map has not been updated since the Phase 1 of this SEA.

Nokukhanya Khumalo	22	2 and 3		This sentence : "It should be noted that a HIA is required when it is anticipated that there will be impacts on significant heritage resources for a particular development proposal." must be amended to state that all EGI applications for 132kV power lines and power lines larger than 132kV will require a HIA and depending on the findings of the assessment, further monitoring of the ground clearance and pylon excavations (by a specialist) will be required. Smaller power lines will be assessed on a case by case bases.
Nokukhanya Khumalo	22	3 and 4		This sentence : "This differs from a heritage survey which identifies, records and grades heritage resources with no particular development proposal in mind." should be left out as it is confusing within the context of the report. Or rephrase the sentence to "This differs from a heritage survey which is conducted by the authority or for academic purposes to identify, record and assign significance to identified heritage resources.". Grading is a formal process undertaken by a committee upon a submission of a nomination dossier.
Nokukhanya Khumalo	22	4		All HIA's must have a field based survey as per the requirement of section 38(3). A report named a Heritage Desktop Assessment/Heritage Scoping Assessment may or may not contain a field survey.
Nokukhanya Khumalo	22		Table 11	High sensitivity: Areas of High sensitivity require a PIA inclusive of a field assessment. Permit requirements must also include section 36 and 34 of the NHRA depending on the heritage resources that require mitigation.
Nokukhanya Khumalo	24	10 to 15		Sentence should be amended to say: "Where significant heritage resources are known to occur or have been identified in a HIA, the ECO will have to be trained by an archaeologist or palaeontologist, depending on the nature of the finds, to identify any subsurface heritage resources during construction. In addition to monitoring undertaken by the respective specialist. This will prevent loss of highly significant palaeontological, archaeological and palaeoanthropological resources."
Nokukhanya Khumalo	24	29 to 31		All archaeological sites are visually sensitive as development changes the characteristics of the historical landscape in their surrounding. Therefore this statement must be changed.
Nokukhanya Khumalo	24	36		sentence should be "Structures older than 60 years and not located in formal towns like farmsteads and the trees surrounding the farm house, and the surrounding homesteads are an intergral part of the South Africa's colonial rural landscape. These historical landscapes will also require assessment and buffered.
Nokukhanya Khumalo	24	50		Preliminary consultation of the community regarding any heritage must be done and included in the HIA and not in the construction phase. Further consultation for the management of graves can be done after authorisation is granted.
Nokukhanya Khumalo	17 to 24			The sensitivity and pinch point analysis for heritage resources and scenic routes undertaken in the visual impact assessment (section 3.5) should be included within the heritage chapter.
Nokukhanya Khumalo	17 to 24			The palaeontological heritage should be expanded upon once the data from the palaeo-sensitivity map is available for use.
Nokukhanya Khumalo	17 to 24			The 2016 Heritage Scoping Study conducted for the 2016 EGI SEA should be discussed in detail here, the results of the study must be included in this chapter along with the sensitivity mapping results. Any gaps in the current expansion area and the 2016 Heritage Scoping Report should be discussed.
Nokukhanya Khumalo	17 to 24			It should be noted that an impact assessment for underwater cultural heritage will be required for any development related to the gas pipe line in harbours all along the coast of South Africa or any landing points below the high water mark.

A.7.10 Comments and Responses Report

As noted above, the SEA team has received numerous inputs from a range of stakeholders throughout the SEA Process. The comments documented in this Appendix includes the comments submitted via the online stakeholder registration portal on the project website, as well as the comments received during the review of the Draft SEA Report Chapters and Specialist Assessments (i.e. 25 April 2019 – 24 June 2019).

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1. COMMENTS RECEIVED VIA THE PROJECT WEBSITE PRIOR TO THE RELEASE OF THE SEA REPORT

No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
1	Vanessa Maclou	KZN EDTEA: eThekweni District	My interest lies in the Durban project and I work for KZN Provincial Department of Environmental Affairs.	Response from the CSIR: Noted, Ms. Maclou was added to the project database and was involved in the SEA. Many representatives from the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (KZN DEDTEA) were involved in Authority Meetings held during the SEA Process.
2	Sinethemba Madondo	Gauteng Department of Agriculture and Rural Development	Competent authority for environmental management in the Gauteng Province	Response from the CSIR: Ms. Madondo was added to the project database and commented on the SEA Process. Many representatives of the Gauteng Department of Agriculture and Rural Development (GDARD) were involved in the SEA Process.
3	Mattheuns Pretorius	Endangered Wildlife Trust	Interest is power lines and wildlife	Response from the CSIR: Noted, this stakeholder has been actively involved in the SEA Process and also attended various focus group meetings. The impact of power lines on fauna has been assessed in the various Biodiversity Assessment studies undertaken as part of this SEA. Refer to Part 4.2.1 and Appendix C.1 of the Electricity Grid Infrastructure (EGI) Expansion SEA Report for a respective summary of and the complete Integrated Biodiversity Assessment. The complete Avifauna Assessment is included in Appendix C.1.8 of the EGI Expansion SEA Report.
4	Leonie Fouche	Dr Beyers Naudé Local Municipality	We are currently busy with the review of our Integrated Development Plan and this development needs to find expression in our IDP, more specifically the potential impacts it may have on our environment, infrastructure, spatial-, social- and economic development.	<p>Response from the CSIR: Noted. For the Gas Pipeline SEA, Integrated Development Plans and Spatial Development Frameworks were considered for Provinces and District Municipalities in order to inform the preliminary mapping that was undertaken as part of the Province and Municipal Feedback Exercise. During this exercise, Provinces and Municipalities were requested to assist the Project Team with identifying areas designated for future energy intensive activities, such as industrial development or potential mining operations, as well as areas where major road/railway infrastructure is planned. Therefore, Spatial Development Frameworks and Integrated Development Plans for Local Municipalities were not considered. This also owes to the scale of the gas pipeline corridors, and the understanding that feedback from the District Municipalities would be sufficient in terms of Local Municipality plans. Nevertheless, these frameworks and plans will need to be considered at the project specific stage once specific routes for the infrastructure have been identified.</p> <p>However, Local Municipalities that fall within the EGI Expansion Corridors were consulted with as part of the Demand Mapping Process for the EGI Expansion SEA. It should be noted that the Dr Beyers Naudé Local Municipality does not fall within the Expanded EGI Corridors.</p>
5	Danita Hohne	Department of Water and Sanitation - Upington	As I am managing the groundwater in the Karoo in the Northern Cape it is of interest to me to know about these developments.	Response from the CSIR: Noted. The impact of the proposed EGI on groundwater is discussed in the Integrated Biodiversity Assessment (Part 4.2.1 and Appendix C.1 of the EGI Expansion SEA Report).
6	Raoul Goosen	Industrial Development	Project developer and financial investor	Response from the CSIR: Noted. This stakeholder was added to the project database.

No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
		Corporation		
7	Charl de Villiers	Agri-Western Cape	I shall be participating in this process in an advisory capacity to Agri Western Cape.	Response from the CSIR: Noted, this stakeholder has been actively involved in the SEA Process and also attended various public meetings.
8	Christo Venter	Agri-Eastern Cape	Agri Eastern Cape would like to register as an interested and affected party on behalf of our members.	Response from the CSIR: Noted. This stakeholder was added to the project database.
9	Mushfiqah Abrahams	Mossel Bay Municipality	Providing relevant input as a municipality within the Western Cape as well as learning from the processes involved and environmental strategies that are carried out within this development.	Response from the CSIR: Noted. This stakeholder was added to the project database.
10	Ansie Smit	University of Pretoria	Following the research on environmental, social and economic considerations. Interested in any hazard and risk assessments.	Response from the CSIR: Noted, a range of specialist assessments were undertaken as part of the SEA Process. Specifically, a Seismicity Assessment was undertaken for the EGI Expansion SEA. Professor Andrzej Kijko of the University of Pretoria peer reviewed the Seismicity Assessment for the Gas Pipeline SEA. The Seismicity Assessment is included in Appendix C.3 of the EGI Expansion SEA Report.
11	Johannes Wessels	The Enterprise Observatory of SA	<p>We concentrate on how entrepreneurial space manifests in towns and cities and a national development initiative like the Gas Pipeline Network and expanded electricity grid will definitely impact on all urban settlements in the proposed corridors.</p> <p>It would be important to assess the status quo of enterprises in the towns and cities in the envisaged corridors prior to the development. There are certain regularities that manifest in how enterprises from 19 different enterprise sectors settle in towns and cities. The correlation between the majority of these sectors are such that one can forecast the potential expansion or contraction of entrepreneurial opportunities that may develop.</p> <p>EOSA already possesses a data base in excess of 83 000 enterprises in 430 SA cities and towns covering all formal enterprises in those localities. We are convinced that our methodology and approach could assist in establishing an enterprise baseline for the respective corridors and provide a basis to determine up front the entrepreneurial space that may open in the process. It could also serve to indicate where enterprise vulnerability would emerge by the changing nature of sub-regions (e.g. tourism opportunities that</p>	<p>Response from the Settlement Planning, Disaster Management and related Social Impacts Integrating Author: Noted with thanks.</p> <p>A Socio-Economic Assessment was also commissioned for the EGI Expansion SEA to provide an understanding of the socio-economic impacts that are likely to arise as a result of the declaration of transmission corridors and the associated EGI elements. This report is included in Appendix C.4 of the EGI Expansion SEA Report.</p> <p>The economic benefits stemming from enterprise development and growth are key considerations when undertaking site-specific socio-economic studies, following the identification of the final routing of EGI.</p> <p>Consultation with relevant organisations, authorities and departments, such as the Enterprise Observatory of South Africa (EOSA) at the Project Specific stage will play a valuable part in providing the necessary enterprise baseline information that could inform project or site specific management measures to promote economic benefits.</p>

No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
			may be negatively affected if there is large scale construction and development taking place).	
12	Kisa Mfalila	World Bank	An interested stakeholder to contribute technical ideas into the discussions that would influence thoughts and concepts.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
13	Sarah Watson	Savannah Environmental (Pty) Ltd	To keep up to date with the project and SEA process.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
14	Errol Finkelstein	Garden Route Biosphere Reserve NPC	As a UNESCO Biosphere Reserve we are continuously interested in reconciling the development needs of man, with those of the environment in which they take place.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
15	Karen Claxton	Moquini Coastal Estate Homeowners Association	The Homeowners Association is interested in all projects which may have an environmental impact on our local area.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
16	George Sabbagha	Stilbaai Conservation Trust	We as an NGO we would like to register as an I&AP because we concerned with conservation and would like to stay informed about the projects that could have an influence on our immediate environment.	Response from the CSIR: The Stilbaai Conservation Trust was added to the project database and kept informed of the SEA Progress.
17	Reece van Buren	AAM Group	<ul style="list-style-type: none"> I represent AAM Group within the EAME region. AAM Group is a spatial information company working with many of the large infrastructure and mining projects, as well as providing various property and maintenance-related services. We provide a wide range of spatial services, not only in the form of data, but extending as far as business process management. Much of contemporary business processes / transactions are natively integrating and dependent upon spatial information – which is where our tacit expertise lies. <p>Better understanding reality is the starting point of better management of costs and risks. High definition surveys facilitating Visual Asset Management offer improved and remote asset management, integration into streamlined workflows, centralized visual asset registers, improved efficiency and collaboration. We are interested in providing more niche services into the transport sector (roads, rail and pipelines), which may involve hardware & software systems development.</p>	Response from the CSIR: Noted with thanks. This stakeholder was added to the project database.

No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
			<p>Attached, our services brochure for further reference, along with a digital business card.</p> <p>Please provide the slides presented and the details of the presenters at last night's event, along with information collected from the audience if available?</p> <ul style="list-style-type: none"> AAM is a Geospatial Services company specialising in the collection, analysis, presentation and delivery of geospatial information. We digitise the real world for business and government. From vast expanses of landscape down to individual pieces of machinery, we capture it all. Whatever the scope of your geospatial information technology needs, AAM has the expertise and the experience to meet it. We believe that we can add valuable information to assist with decision making and visualization of this assessment. 	
18	Jason De Beer	Exxaro Resources	Exxaro Business of Tomorrow is developing opportunities in the renewable energy, gas and microgrid business.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
19	Keir Lynch	Overberg Renosterveld Conservation Trust	My interest is in the siting and planning regarding the development of corridors.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates. The corridors have been located taking into consideration environmental sensitivities, engineering constraints, push and pull factors, findings of specialists and stakeholders, and inputs from municipalities and industries. Part 5 of the EGI Expansion SEA Report includes a description of the process undertaken to identify the final Expanded EGI Corridors.
20	Gareth Orritt	Private	We are a contractors accommodation site situated 14km's outside of Saldanha. We offer various types of accommodation at Kleinberg primarily for contract workers. In addition we have a Training Centre for the upskill and development of labor along the West Coast. Kindly let me know if there would be any need for the use of our facility and offerings.	Response from the CSIR: Noted with thanks. This stakeholder was added to the project database.
21	Kevin Morafo	Private	To understand how this will impact positively the livelihood of the communities, and how I could volunteer my time to assist where possible.	Response from the CSIR: Noted. A Socio-Economic Assessment was undertaken as part of the EGI Expansion SEA (Part 4.2.4 and Appendix C.4 of the EGI Expansion SEA Report) to consider the impacts to communities, as well as associated benefits. As noted above, once a specific project has been determined, an Environmental registration process will be undertaken (provided that there is compliance with the Standard (once gazetted)) and project specific benefits to affected and surrounding

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No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
				communities will be considered at that level.
22	Fey Fand		We are an online environmental group of 535 members mainly from South Africa but also from other countries around the world. We want to be informed about this process and to participate in decision making in terms of the public review process.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates. A range of Specialist Assessment studies were undertaken as part of the SEA Process to assess the risk of the proposed infrastructure on terrestrial and aquatic ecosystems and species, sensitive receptors (from a landscape/visual perspective), seismicity, and settlements and towns. These studies and are captured in Part 4 and Appendix C of the EGI Expansion SEA Report.
23	Lwando Runeyi	Earth Free Environmental Consultancy (Pty) Ltd	In response to your newspaper advertisement on the City Press Newspaper (23 September 2018) regarding the matter on the subject line, I would like to register Earth Free Environmental Consultancy (Pty) Ltd as an Interested and Affected Party. Furthermore I would like to request a project Background Information Document (BID) if available.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates. As requested, the Background Information Document was also sent to the stakeholder via email in October 2018.
24	Amelia Genis	Private	I am a concerned citizen, a property owner and a journalist.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
25	Janet Solomon	Vanishing Present Productions	The environmental impacts of this project are potentially significant and equally important are the social costs and I would appreciate being part of the dialogue on this.	Response from the CSIR: Noted, this stakeholder was added to the project database, received relevant project updates and has been actively involved in the SEA Process and also attended the Durban Public Meeting.
26	Russell Sabor	GVJ Electrical & Instrumentation Contractors (Pty) Ltd	GVJ Electrical & Instrumentation Contractors (Pty) Ltd is a registered Electrical Contractor with its Head Office in Cape Town and branches in Vredenburg and Vredendal. We would like to register as an Interested and Affected Party and be informed of developments of the Gas Transmission Pipeline and EGI Expansion SEA.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
28	Nicolene Venter	Savannah Environmental	Proposed corridor locations	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates. Feedback on the proposed final corridor locations is provided in Part 5 of EGI Expansion SEA Report.
29	Mavisha Nariansamy	Knight Piesold Consulting	My interest in the project is particularly concerned with the EGI corridors. I am also interested in SEA process to evaluate the processes and outcomes of specialist findings and the determination of the corridors. I am registering as an environmental professional in my personal capacity to follow the SEA process conducted by CSIR.	Response from the CSIR: Noted. This stakeholder was added to the project database, and thus received relevant project updates.
30	Paddy Norman	WESSA - Southern KwaZulu-Natal / Coastwatch / UGU Coastal Management	1. "People Caring for the Earth": Concern for conservation issues; 2. Public Health and Safety; 3. Tax-payer!	Response from the CSIR: This stakeholder registered his interest on the project website in September 2018. An email response acknowledging his registration and confirming incorporation onto the project database was sent to the stakeholder on 20 September 2018. The stakeholder was also sent a copy of the Background Information Document,

No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
		Committee		<p>a link to the project website, and a schedule of Round 2 of the Public Meetings that took place from 8 October 2018 to 22 October 2018 at various key locations across South Africa.</p> <p>Biodiversity and Ecological Assessments (focusing on Terrestrial and Aquatic Ecosystems, and species) as well as a Socio-Economic Assessment were undertaken as part of the SEA Process. These studies are included in Appendix C.1 and Appendix C.4 of the EGI Expansion SEA Report.</p> <p>With regards to public health and safety, any EGI development will be designed according to best practice measures, as well as national and international standards, to manage risks to both the public and to the operations.</p>
31	Paddy Norman	WESSA - Southern KwaZulu-Natal / Coastwatch / UGU CMC	Why no public consultation meeting nearer my location? As a pensioner the cost of getting to the nearest venue, Durban, is too high. This must affect many other people, especially the very poor in rural areas, who will be directly impacted by construction and when there are problems. If I cannot get to the venue, then my response may not be adequately informed, which denies me my constitutional right in regard to all social and environmental issues.	<p>Response from the CSIR: This comment and concern is noted. It is important to re-iterate that this Strategic Environmental Assessment (SEA) is a policy process and a high level assessment that included the assessment of two expanded EGI corridors that extend along the coast from the border of Namibia to the just before Lutzville (Expanded Western EGI corridor), and from the border of Mozambique to Durban South (Expanded Eastern EGI corridor).</p> <p>Kindly refer to Part 3 and Appendix A of the EGI Expansion SEA Report for details on the public meetings held throughout the SEA Process (i.e. Round 1 (1 November 2017 – 8 November 2017); Round 2 (8 October 2018 – 22 October 2018); and additional round in Durban on 13 June 2019).</p> <p>Based on the size of the study areas, it is not possible or feasible, at this strategic level, to localise meetings. It is important to note that for those members of the public that could not attend the above-mentioned public meetings, various newspaper advertisements were published throughout the SEA Process (as noted in Appendix A of the SEA Report) to inform stakeholders of the project and relevant updates. Furthermore, information, presentations, notes of meetings, reports etc. were made available on the project website throughout the SEA Process. Stakeholders were not required to register or sign-up on the website in order to download project related information as information was freely available. Furthermore, if any stakeholder was finding it difficult to access any of the project related documents on the website, the project team assisted by either emailing through documents or discussing methods of alternatively providing the information to such stakeholders. Therefore, requests made by stakeholders were considered by the Project Team.</p> <p>However, it is worthy to note that if any EGI development is scheduled to take place within the corridors (once gazetted); an environmental registration process would be undertaken prior to such development in compliance with the Decision-Making Tools</p>

No	Stakeholder Reviewer Name	Organisation	Reviewer Comment	Response
				(Standard) compiled as part of the SEA Process. Therefore, once a specific EGI route has been determined during the project specific stage, consultation with the affected landowners and stakeholders will be undertaken. Therefore, there will still be an opportunity for stakeholders to be involved during the project specific stage.
32	Kobus Reichert	Gamtkwa Khoisan Council	Our interest in the matter is in terms of section 38 of the National Heritage Resources Act, no. 25 of 1999 as a community that needs to be consulted as part of a heritage impact assessment.	Response from the CSIR: This comment is noted. A section on Heritage Impacts is included in Part 4.2.8 of the EGI Expansion SEA Report. Consideration of heritage resources will be required prior to any EGI development within the corridors. Consultation with communities affected by the proposed development will be undertaken as part of the project specific phase, where required.

2. COMMENTS RECEIVED SUBSEQUENT TO THE RELEASE OF THE DRAFT SEA REPORTS

Note from the CSIR: It should be noted that following the release of the Draft SEA Reports, the structure of the report was amended. The responses provided to the comments received have referred, where applicable, to the revised report structure.

2.1. General and Administrative Comments

Note from the CSIR: It should be noted that general comments such as request for shapefiles, queries on accessing and downloading of information from the project website, and acknowledgement of receipt of documents have not been included in this section, as they are not related to the SEA Process itself.

Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
General				
Ronel Uys	City of Johannesburg	25 April 2019, Email	Who should this e-mail be forwarded to?	Response from the CSIR: The email notification informing stakeholders of the release of the SEA Report and Specialist Assessment Chapters was sent to all registered stakeholders on the project database. The email was therefore sent to several representatives from the City of Johannesburg, including Ms. Nozipho Maduse, who is the nominated representative on the project Expert Reference Group and Project Steering Committee.
Jan Smit	Western Cape Department of Agriculture	9 May 2019, Email	Please include representatives from our Landuse Management team also in the communication.	Response from the CSIR: Representatives of the Western Cape Department of Agriculture were added to the database, as requested.
Mapule Malaza	Alfred Duma Local Municipality	16 May 2019, Email	Kindly assist with clarity of what exactly is required from the Alfred Duma Local Municipality, Electricity Department concerning the above.	Response from the CSIR: The municipality was requested to provide comment on the Draft Specialist Assessment Chapters and SEA Report Chapters, which were made available on the project website for comment from 25 April 2019 to 24 June 2019. It was anticipated that the municipality would assist in aligning the proposed corridors

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Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
				with its developmental objectives.
Angila Joubert	Bergrivier Municipality	6 June 2019, Email	Reference: Affected Municipalities_2_Final Document Piketberg to reflect at Bergrivier Municipality as this is the head office location for the municipality.	Response from the CSIR: The Affected Municipalities List uploaded to the website in October 2018 was updated to reflect Piketberg.
Charles Geldenhuys	Drakenstein Municipality: Electro Technical Services	7 June 2019, Email	There will be no direct impact or influence to Drakenstein Municipality regarding these extension of corridors and therefore no comments at this stage, although it would be very interesting to monitor the rollout of this energy plan.	Response from the CSIR: Noted, the Drakenstein Local Municipality does not fall within the two Expanded EGI Corridors that have been assessed as part of the SEA. However, the municipality does fall within Phase 1 of the Gas Pipeline Corridors, which has been assessed as part of the Gas Pipeline SEA.
Rhett Smart	CapeNature, Scientific Services	10 June 2019, Email	CapeNature would like to thank you for the opportunity to comment on the project and would like to make the following comments. Please note that our comments only pertain to the biodiversity related impacts of the project. Due to current constraints, CapeNature will not provide detailed in-depth comment on the reports provided for comment, but will instead provide brief comment on the overall process and methodology and therefore have chosen to not comment in the forms provided.	Response from the CSIR: Noted, the comments submitted by CapeNature have been captured in this Comments and Responses Chapter and responded to accordingly by the SEA Project Team.
Rhett Smart	CapeNature, Scientific Services	10 June 2019, Email	The approach undertaken is the same as for the previous strategic environmental assessments (SEAs) at a national level for wind and solar photovoltaic (PV) energy and electricity grid infrastructure (EGI). CapeNature provided detailed comments on these processes and therefore the same would apply in this case. The process is most similar to that of the EGI whereby broad corridors have been identified within which the linear infrastructure can be aligned, with both environmental and technical constraints identified within the corridors.	Response from SANBI and the CSIR: Noted, the methodology adopted for the Gas Pipeline and EGI Expansion SEA is very similar to that of the 2016 EGI SEA that was completed by the CSIR. SANBI was also involved in the 2016 EGI SEA as is the case in this current Gas Pipeline and EGI Expansion SEA. Therefore, there is continuity in terms of the project teams that have worked on previous SEAs. Furthermore, the 2016 EGI Final SEA Report was used as a template, and updated where required for the current Gas Pipeline and EGI Expansion SEA. One of these updates includes a Risk Assessment section that was completed for the Gas Pipeline SEA. Therefore, any relevant comments made by CapeNature on the previous SEA have been considered in the current SEA. In addition, it should be noted that while similar datasets were used for the SEAs, the Gas Pipeline SEA had additional data sets that were identified as sensitive features that would not have been applicable to the other SEAs. The impact of the Gas Pipeline infrastructure is

Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
				not the same as EGI, and consequently the sensitivity ratings are different within the SEA, which has an impact on how the corridors are designed.
Rhett Smart	CapeNature, Scientific Services	10 June 2019, Email	The extension of the EGI SEA corridors however only encroach into the northernmost parts of the Western Cape in the West Coast District Municipality.	<p>Response from the CSIR: Noted, the Western Expanded EGI Corridor falls within the Northern Cape and Western Cape (specifically within the Matzikama Local Municipality, which forms part of the West Coast District Municipality).</p> <p>As noted in Part 3 of the SEA Report, 125 km wide corridors were assessed as part of the SEA and refined to 100 km wide. During the negative mapping task of the SEA, the SEA Team considered various environmental sensitivities (such as wetlands, estuaries, protected areas, nature reserves etc.) and engineering constraints (such as soil erosion, existing power lines, mining areas, and forestry areas etc.), to consider the respective impact that the infrastructure will have on the environment and vice versa. The various features were ranked with sensitivity levels ranging from Very High to Low. The negative mapping informed the Draft Pinch Point Analysis, which led to the identification of the Draft Refined Corridors that were assessed by the specialists. The specialists also verified the initial ratings allocated during the negative mapping. The findings of the specialist assessments, comments raised by stakeholders, and findings of the demand mapping (including push and pull factors), were taken into consideration to inform the final pinch point analysis. The final corridors were reduced to 100 km wide and during the final pinch point analysis, the aim was to find the best 100 km wide corridors within the assessed area that has the most “low sensitivity” areas, where reasonably possible. Therefore, it is expected that there will be sufficient options to ensure that the very high and high sensitivity areas are avoided. However, where the very high and high areas cannot be avoided, mitigation measures and engineering solutions will be adopted to ensure that the impact on these areas are minimised as best as possible.</p>
Rhett Smart	CapeNature, Scientific Services	10 June 2019, Email	CapeNature reserves the right to revise initial comments and request further information based on any additional information that may be received.	Response from the CSIR: This comment is noted. However, it is important to note that any revised comments may be considered within reason and based on the timeframes for completion of the SEA Process.
April Gehle	Private	22 June 2019, Email	Particularly because of the ongoing Zondo Commission of Enquiry into state capture and other	Response from the CSIR: The outcomes of this SEA policy process will result in the gazetting of the final corridors for comment and

Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
		Part 3 Page 2 Line 88 - 93	investigations into all state owned enterprise, information coming to light in these enquiries makes it difficult to believe that proper, legal and ethical decisions will be made in relation to the proposed EGI development. https://www.sastatecapture.org.za/	then implementation, once approved. The CSIR was appointed by the National Departments of Environmental Affairs, Energy and Public Enterprises as an independent party to undertake the SEA Process in an independent manner. The SEA Process is not linked to or influenced by the Zondo Commission of Enquiry. The CSIR is undertaking this SEA in an independent, legal and ethical manner with the highest level integrity. It is also important to note that any specific projects linked to EGI within the corridors will be subjected to separate project level environmental registration process in line with the Decision-Support Tools compiled as part of this SEA (such as the Protocols and Standards). Therefore, the projects stemming from this SEA Process will follow a legal process enhanced by ethical decision-making fulfilled by the Competent Authority.
Desmond D'Sa	South Durban Environmental Community Alliance	24 June 2019, Email	<p>Terms of Reference</p> <p>The terms of reference for the appointment of the specialists and CSIR need to be made available to the public. It is crucial for us to know if these specialists and consultants are people of repute and credibility. We need to understand what process was in place in procurement to appoint these experts and consultants. How was this advertised! How many groups tendered for this project and short listed as communities are concerned with biasness and unfairness when no one follows due process and desk top studies are given as facts?</p>	<p>Response from the CSIR: The terms of reference for the EGI Expansion SEA is clearly outlined in Section 1.1 of Part 1 of the EGI Expansion SEA Report, which were made available for public review from 25 April 2019 to 24 June 2019.</p> <p>The Scope of Work section of each specialist chapter that was released for public review contains background on the scope of the assessments. In addition, as requested by the SDCEA at the 13 June 2019 Public Information Sharing Session, a copy of the Specialist Terms of Reference was emailed to all attendees of the session on 8 July 2019.</p> <p>The details and expertise of the specialists appointed to undertake the studies were captured in Part 3 of EGI Expansion SEA Report that was made available to stakeholders for review (Note that this chapter is currently referred to as Part 4.1 following the finalisation of the report). Specialists were appointed through an open Procurement and Tender Process under the CSIR Procurement Policy, which subscribes to the Preferential Procurement Policy Framework Act (Act 5 of 2000) (PPFPA) and its associated Regulations, and the Public Finance Management Act (Act 1 of 1999, as amended) (PFMA). One of the objectives of the CSIR Procurement Policy is to ensure that there is fairness, transparency, accountability and ethical conduct. The SDCEA are welcome to contact the CSIR Strategic Procurement Unit to obtain more information on the CSIR Procurement Policy. Where the estimated value of the study exceeded a certain threshold, a minimum of three</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
				<p>written quotations were obtained from a range of specialists, based on previous assessments, recommendations from the Expert Reference Group and a pre-qualified database of specialists (which was also subjected to its own procurement process). Where the estimated value of the study fell below this certain threshold, one written quotation was sourced from recommended specialists.</p> <p>These independent specialists were required to complete a declaration of independence (Appendix B of the EGI Expansion SEA Report), which serves as assurance that the findings of these studies are not influenced to benefit the developer.</p>
Ndivhudza Nengovhela	Gauteng DARD, Environmental Policy, Planning & Coordination	19 June 2019, Email Part 1 Page 2 Line 1	It is suggested that there be a table of acronyms at the beginning of the document so that the reviewer knows the meanings before reading the document. Acronyms were to be defined at first use in each section of the report, as well as in the headings of tables.	Response from the CSIR: The EGI Expansion SEA Report has been amended to include a list of acronyms used in the various chapters.
Ndivhudza Nengovhela	Gauteng DARD, Environmental Policy, Planning & Coordination	19 June 2019, Email Part 3 Page 1	Traffic Impact Study - impacts on traffic on affected corridors and how are they going to mitigate this.	<p>Response from the CSIR: It should be re-iterated that the entire 100 km wide corridors will not be developed with EGI. During the operational phase, servitude widths vary from 15 – 80 m depending on the size of line. Vegetation clearance will only take place within certain areas of the servitude. Access to the servitude will be required for maintenance purposes, thus only requiring an access road of 4 m wide. Furthermore, EGI will only be constructed if there is a viable and approved business case and if there is a demand for such infrastructure.</p> <p>Traffic related impacts would mainly occur during the construction phase and would be of a temporary nature as a result of traffic volumes generated by the transportation of:</p> <ul style="list-style-type: none"> ▪ construction personnel to and from site; and ▪ construction material and equipment to and from site. <p>During the operational phase, traffic related impacts would be of low significance due to low traffic volumes generated as a result of maintenance activities. If the expected traffic volumes are expected to trigger the need for a Traffic Impact Statement or Traffic Impact Assessment in terms of the National Land Transport Act (Act 5 of 2009) then such an assessment will be undertaken during the</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
				<p>project specific stage. These studies cannot be undertaken at the SEA level, as details would be required that can only be identified at the project specific stage, such as (but not limited to):</p> <ul style="list-style-type: none"> ▪ where the power line route/substation will be constructed; ▪ what road network will be affected by the development; and ▪ what the estimated trip values will be.

2.2. Location of the Corridors, Environmental Sensitivities, Engineering Constraints, and Pinch Point Analysis (Corridor Refinement)

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
April Gehle	Private	<p>22 June 2019, Email</p> <p>Part 2 Page 7-11 Table 5</p>	<p>Table 5: Features and datasets used to prepare a high level Environmental Sensitivities/Constraints Map.</p> <p>There are 138 Features given in this table and out of these 54 are rated as very high on the mapping sensitivity environmental constraint. Almost 40% of the proposed area for development. I find this totally unacceptable that so many highly sensitive areas are threatened by this development. Particularly in the light of my comment above and my following comment.</p>	<p>Response from SANBI and CSIR: The data sets listed and its associated sensitivities (Tables 2 and 3 of Part 3 of the EGI Expansion SEA Report) are a broad brush indication of sensitivity to the development type, and is a conservative assessment of sensitivity before the data were interrogated in the specialist phase. In some cases, the features may be classed as being of Very High sensitivity but the actual residual impact or risk of the impact on the features can be low or can be minimised or avoided. This was assessed and refined in the Specialist Assessment phase. Furthermore, every theme ranked data from Low to Very High sensitivity. It should be noted that Very High sensitivity for some features are not equitable in terms of sensitivity to the impact of the development type for all the data sets, e.g. a Very High sensitivity for Protected Areas is more sensitive to impact than a Very High sensitivity area for soil erodibility (which is broad scale data). Thus all of the data sets were used as an indication to refine and design the corridors for Specialist Assessment. In addition, during the pinch point analyses, it was attempted to ensure that there is no wall to wall coverage of Very High sensitivity features. Refer to Part 3 of the EGI Expansion SEA Report for further details on the SEA Process.</p> <p>Furthermore, the entire 100 km wide corridor will not be developed with EGI, only the area needed for the servitude of the power line will be maintained (the width of the servitude and vegetation clearance will depend on the voltage of the transmission line). In addition, a power line will only be constructed if there is a need and demand for such infrastructure. Consequently, while it may appear as though so many threatened areas will be impacted by the development, the actual footprint of the impact is small and most of the Very High sensitivity features will not be impacted irreversibly by</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
				<p>the development. There are a few features such as threatened ecosystems and confirmed locations of threatened species that would be sensitive; in these cases the appropriate mitigation avoidance will be recommended.</p> <p>It should be re-iterated that once the corridors are gazetted, and once a specific project has been identified, an environmental registration process in compliance with the Standard (once gazetted) will be required prior to commencement of construction. Site verification is required to verify and ground-truth the findings of the SEA.</p>
April Gehle	Private	22 June 2019, Email Part 2 Page 19 Line 51-63 Line 92 - 110	It would appear from these comments that the environmental constraints are not given priority over financial and structural constraints.	<p>Response from SANBI and CSIR: The sections referred to in this comment refer to the Draft Pinch Point Analysis undertaken for the Expanded EGI Corridors. During the Draft Pinch Point Analysis for the Expanded EGI Corridors, there was not much relief that that could be obtained i.e. the corridors contained a number of high sensitive areas, and shifting the corridors were not possible due to several valid reasons that were not only related to financial and structural constraints.</p> <p>Both environmental and engineering constraints have been taken into consideration in the design of the power corridors. The Very High engineering and environmental constraints were taken into account to make sure that the corridors are not covered in Very High sensitivity from wall to wall (Refer to Sections 3.4 and 3.5 of Part 3 of the EGI Expansion SEA Report for details). It is important to note that this is only for the design of the corridors. All other datasets and sensitivities are still to be considered and taken into account in the actual routing of the power line during the project specific stage. The financial or engineering costs are not automatically given preference over environmental features. During the project specific stage, routes will be evaluated to ensure that the Very High environmental sensitivities are avoided as far as possible.</p> <p>Furthermore, the Specialist Assessments have provided additional recommendations in terms of opportunities and constraints within the corridors, which have been taken into consideration in the Final Pinch Point Analysis.</p>

2.3. Noise Impacts

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Werner Geldenhuys	City of Cape Town, Community Services and Health Directorate, Specialised Health Services	23 May 2019, Email	<p>1. Assessment of application:</p> <p>This office has scrutinised the mentioned draft SEA report and can comment as follows:</p> <p>The application was assessed in light of <i>The Western Cape Noise Control Regulations PN 200 of 2003 and SANS 10103:2008 – The measurement and rating of environmental noise with respect to annoyance and to speech communication</i>.</p> <p>The following descriptions i.t.o the above mentioned legislation is applicable to this application.</p> <p>“Disturbing noise” means a noise, excluding the unamplified human voice, which –</p> <p>a) Exceeds the rating level by 7dB(A);</p> <p>b) Exceeds the residual noise level where the residual noise level is higher than the rating level;</p> <p>c) Exceeds the residual noise level by 3dB(A) where the residual noise level is lower than the rating level; or</p> <p>d) In the case of a low frequency noise, exceeds the level specified in Annex B of SANS 10103.</p> <p>“Rating level” means the applicable outdoor equivalent continuous rating level indicated in Table 2 of SANS 10103.</p> <p>“Residual noise” means the all-encompassing sound in a given situation at a given time, measured as the reading on an integrated impulse sound level meter for a total period of at least 10 minutes, excluding noise alleged to be causing a noise nuisance or disturbing noise.</p> <p>“Noise nuisance” means any sound which impairs or may impair the convenience or peace of a reasonable person.</p> <p>“Property projection plane” means a vertical or horizontal</p>	<p>Response from the CSIR: It should be re-iterated that the entire 100 km wide corridors will not be developed with EGI. During the operational phase, a servitude will be maintained for EGI (the width of the servitude and vegetation clearance will depend on the voltage of the transmission line). Furthermore, EGI will only be constructed if there is a viable business case and if there is a demand for such infrastructure. Part 2 of the SEA Report provides detail on the specifications of EGI development from a construction and operational perspective, within the scope of the SEA. Additional details will be available once a specific project has been identified.</p> <p>Noise related impacts would mainly occur during the construction phase and would be of a temporary nature as a result of construction activities undertaken on site and transportation of equipment and construction personnel to and from site.</p> <p>During the operational phase, activities will be limited to maintenance activities, which leads to the expectation that noise related impacts will be of low significance. Maintenance will include repair as needed and vegetation trimming within the power line servitude, where it is likely to intrude on the minimum vegetation clearance distance (MVCD) or where it will intrude on this distance before the next scheduled clearance. Eskom has detailed maintenance standards and strategies for vegetation clearance.</p> <p>If the expected noise levels are expected to trigger the need for a Noise Impact Assessment, then such an assessment will be undertaken during the project specific stage. A Noise Impact Assessment cannot be undertaken at this SEA level, as project specific details would be required, which can only be determined at the project specific stage. At this point, a Noise Impact Assessment cannot be undertaken for the 100 km wide corridors as this would result in an overwhelming number of sensitive receptors, and this cannot be narrowed down because there is no definite idea of the route that will be chosen by the</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
			<p>plane, whichever is applicable, on a boundary line of premises defining a boundary of the premises in space.</p> <p>“Day-time”: 06h00 – 22h00 “Night time”: 22h00 – 06h00</p> <p>Regulation 4: Land Use states:</p> <p>4 (1). The local authority, or any other authority responsible for considering an application for a building plan approval, business licence approval, planning approval or environmental authorisation, may instruct the applicant to conduct and submit, as part of the application –</p> <p>(a) a noise impact assessment in accordance with SANS 10328 to establish whether the noise impact rating of the proposed land use or activity exceeds the appropriate rating level for a particular district as indicated in SANS 10103; or</p> <p>(b) where the noise level measurements cannot be determined, an assessment, to the satisfaction of the local authority, of the noise level of the proposed land use or activity.</p> <p>2. Discussion:</p> <p>The City of Cape Town Noise Unit acknowledges that the SEA is a high level assessment to investigate the probability and, risks and impacts this project may pose to the South African community in close proximity to the indicated corridors for the gas pipeline and the EGI.</p> <p>Although the transport and conveyance of gas through a pipeline, on this magnitude, will be new to South African community, there are other parts of the world where this has been the norm for many years. In preparing this response, reports on the environmental noise impact of gas pipelines in several other countries were considered.</p> <p>According to an article presented to the International</p>	<p>developer during the project specific stage.</p> <p>Once a specific project has been identified, and if it is proposed take place within the Western Cape, and if a formal Noise Impact Assessment is required, it will be undertaken in terms of the Western Cape Noise Control Regulations (PN 200 of 2013), SANS 10328:2008 and SANS 10103:2008, and it will focus on the construction and operational phases, as well as the ancillary infrastructure.</p> <p>Furthermore, it is important to note that the EGI will be designed and constructed in line with relevant national and international standards and best practice measures. Therefore, the developers will definitely consider environmental noise control as an integral part of project design.</p> <p>Details supplementary to that provided in Part 2 of the SEA Report would be indicated at the project specific stage.</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
			<p>Pipeline Conference in 1996 (<i>David C. DeGagne (1996). Managing Environmental Noise Associated with Pipeline Facilities in Canada. International Pipeline Conference – Volume 1, Alberta</i>). DeGagne states: “pipeline operators must treat environmental noise control as an integral part of project concept and design and not as an after-thought or additional non-core responsibility”.</p> <p>The statement is further supported with a discussion on the components and equipment relevant to a gas-pipelines, which cause environmental noise nuisance. This unit acknowledges the indication that this will be a sub-surface pipeline installation. The installation project is at this point accepted to have a construction phase and operational phase, both of which will have environmental noise impacts unique to the relevant activity or component.</p> <p>More detailed applications would have to be presented to this unit, in order to make specific requirements. It must be noted that the existing SEA do not cover engineering reports pertaining to the specifics of the pipeline installation an ancillary equipment.</p> <p>The location and magnitude of transmission substations for the upgrade to the EGI is also a point of interest to this unit. This unit will comment there-on as the detailed EA applications are submitted to the City of Cape Town.</p> <p>3. Comment:</p> <p>In terms of the Western Cape Noise Control Regulations, PN 200 of 2013, Regulation 4 the City of Cape Town Specialised Environmental Health: Noise Unit therefore would require:</p> <p>3.1 A formal noise impact assessment in terms of Regulation 4(1)(a), must be conducted in terms of the SANS 10328:2008 Methods for environmental noise impact assessments for the project phases falling within the boundary of the City of Cape Town. The NIA must</p>	

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
			<p>address the construction phase of the actual pipeline, as well as the installation and operation of supporting equipment to the gas pipeline.</p> <p>3.2 The above requirement will also be applicable to the detailed project level environmental authorizations for transmission substations and related EGI infrastructure.</p> <p>3.3 A noise management plan, detailing measures of continuous control (for the entire lifespan of project) applicable to all phases and components (pipeline equipment) of the pipeline project and transmission substations and related EGI infrastructure should be developed and submitted to this unit for consideration.</p> <p>3.4 The proposed activity must remain compliant with the provisions of the Western Cape Noise Control Regulations, PN 200 of 2013</p> <p>3.5 All detailed project level environmental authorizations applications for the pipeline and EGI equipment installations, within the boundaries of the City of Cape Town must be submitted to this unit for comment.</p> <p>This comment is based on information available at the time, and is as complete as possible. Should new information become available or should conditions change the report and comment on this application may be reconsidered by this office.</p>	

2.4. Requirements Prior to Excavations

Stakeholder Reviewer Name	Organisation	Date, Method of Submission, and Specific Chapter	Reviewer Comment	Response
Anton Venter	City of Cape Town, Energy and Climate Change Directorate	23 May 2019, Email General	<p>With reference to your e-mail dated 2019-04-30, this department has no objection to this proposal subject to the following conditions:</p> <ol style="list-style-type: none"> 1. All excavations and underground installations shall be undertaken with approved wayleaves from Telkom and our Civil and Electrical Engineering Directorates. A permit must also be obtained from our Power Distribution Department before any excavation commences and this must be conveyed to the successful contractor upon appointment. 2. Final route approval and any additional condition will be given with wayleave application. 3. Vitally important electrical infrastructure exists in the vicinity of the land in question. A wayleave shall be obtained from the Electricity Services Department before any excavation work may commence on site. 	Response from the CSIR: A Generic EMPr was compiled as part of the 2016 EGI SEA, which was gazetted for comment in March 2018 and for implementation March 2019. The EMPr includes recommendations for excavations and underground installations. It is important to note that the final route of the EGI will only be determined during the project specific stage, which will include a registration process in compliance with the Standard (which will include specialist input).

2.5. Waste Management Impacts

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
Gerhard Gerber	Western Cape DEADP, Development Facilitation	24 June 2019, Email Part 2 General	The proposed development will generate a range of atmospheric emissions, wastewater discharges and solid and semi-liquid wastes. Most of the solid and steam liquid will require disposal offsite. It is important to determine whether the existing infrastructure and services available in the region has capacity to handle the increased levels of solid and semi-liquid waste anticipated from the project. It is therefore the opinion of Directorate that this must be assessed and the information obtained prior to any implementation commencing.	Response from the CSIR: These recommendations for waste management are included in the Generic EMPr for EGI development that was gazetted in March 2019. It is important to note that the final route of the EGI will only be determined during the project specific stage, which will include a registration process in compliance with the Standard. Confirmation on whether the landfill sites have adequate capacity will be ascertained during the project specific stage.

2.6. Streamlining of the Environmental Authorisation Process, Standards and Minimum Information Requirements

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
Gerhard Gerber	Western Cape DEADP, Development Facilitation	24 June 2019, Email Part 1 Page 3 Line 57 – 66 Page 5 Line 71 - 76	<p>Page 3, Line 57 - 66: <i>"Furthermore, it should be noted that the SEA Process is undertaken at a strategic level and cannot replace the requirements for project level Environmental Assessment. The high-level environmental, social and economic data utilised to identify the 100 km wide corridors and undertake environmental pre-assessment of the corridors, is not sufficient for project-level decision making. The SEA should therefore be considered as a scoping level exercise used to identify key potential impacts. Additional assessment will be necessary at a project level to determine the significance of impacts and inform required management actions."</i></p> <p>Page 5, Lines 71 - 78: <i>"Feedback on the above suggested approach for the development of EGI within the proposed expanded EGI corridors is sought from the stakeholders, and a final informed decision will be taken as to whether the exemption from Environmental Authorisation with compliance with the EMPr and Standards will be adopted. Overall, this EGI Expansion SEA is taking the post-SEA Application Process one-step further as compared to the 2016 EGI SEA, which resulted in streamlining of the Environmental Authorisation Process."</i></p> <p>This Department supports a streamlined Environmental Authorisation process where a pre-negotiated route can be submitted to the competent authority AND where a shortened Basic Assessment process must be followed in compliance with the 2014 EIA Regulations (as amended). The Background Documents indicates that the "DEA has previously considered and issued Environmental Authorisation for numerous applications in this regard. Therefore, the type of issues and impacts</p>	<p>Response from the CSIR: This comment and concern is noted. As noted in the SEA Report, one of the outcomes of this SEA is to streamline the Environmental Authorisation process for EGI development within the Expanded EGI corridors, once they are gazetted. The rationale for this is to ensure that when EGI is needed, the Environmental Authorisation process is not a cause for delay towards development, whilst still maintaining and ensuring the highest levels of environmental rigour.</p> <p>Since the current process for EGI development within any of the five gazetted EGI corridors (February 2018, GN 113 in Government Gazette 41445) is a Basic Assessment instead of an Environmental Impact Assessment (EIA), together with compliance with the gazetted Generic Environmental Management Programme (EMPr) (22 March 2019, GN 435 in Government Gazette 42323), it was decided to consider taking the post-SEA Application Process one-step further as compared to the 2016 EGI SEA. To this end, the options that have been considered during the SEA Process to achieve streamlining are indicated below:</p> <ul style="list-style-type: none"> Option 1: Allow for exemption of the need to obtain Environmental Authorisation in terms of the National Environmental Management Act (Act 107 of 1998, as amended) (NEMA) provided that there is compliance with a Norm or Standard; or Option 2: Follow status quo for EGI development within the five gazetted EGI corridors by undertaking a Basic Assessment instead of an EIA with compliance with the gazetted Generic EMPr, but also ensure that there is compliance with Minimum Information Requirements. <p>In the first option, complete exemption from the Environmental Authorisation process can only be achieved if there is compliance with prescribed Norms or Standards. This is allowed for in terms of Section 24(2)(d) of the NEMA, which allows the Minister to exclude an activity from the requirements to obtain and Environmental Authorisation from the Competent Authority, but that must comply with prescribed norms or standards. Although no environmental authorisation would be issued, the Standard would, as a fundamental minimum, require site</p>

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
			<p><i>linked to a proposed EGI development is well understood and would apply across many EGI development applications.</i>" The biophysical environment in the Western Cape is however more diverse than other areas/environments and a "one-size-fits-all" solution cannot be uniformly applied across the country. Since the final route alternatives with the corridors are unknown, it is not possible to comment on the route alternatives before or when the SEA and Standards are gazetted. This eliminates the opportunity that potential interested and affected parties should have to participate and comment on the final route alignment. Again it is reiterated that a fast-tracked EIA process (with concurrent water use, land use planning and mining use approvals) be undertaken to ensure that the general objectives of integrated environmental management are achieved.</p>	<p>verification to be conducted prior to development, followed by a Concluding Statement confirming that, where applicable, impacts have been avoided/engineered out or as a minimum, that the proposed mitigation results in acceptable residual impacts.</p> <p>In the second option, streamlining would be achieved by undertaking a Basic Assessment instead of an EIA with adherence to Minimum Information Requirements. This is allowed for in terms of Regulation 19 (3) of the 2014 NEMA EIA Regulations (as amended). The Minimum Information Requirements revert to the 2014 NEMA EIA Regulations (as amended), with additional detail in terms of providing a clear and structured process and regulatory framework for environmental monitoring, assessment and decision-making related to EGI development. The Minimum Information Requirements will enable the Competent Authority to make decisions on the applications in a streamlined and responsible manner.</p> <p>As indicated in the SEA Report chapters that were released for Stakeholder Review, the options for streamlining the Environmental Authorisation process were under discussion, and only one of these approaches may be recommended and put forward at the end of this SEA Process. It is not believed that either of the above options lacks integrity as pre-assessment work has been undertaken as part of this SEA and mandatory compliance would be required with either the Standards or Minimum Information Requirements. These instruments would ensure that potential negative impacts are avoided or mitigated and that best practice measures are adopted. Option 1, to allow exemption from Environmental Authorisation for EGI development within the Expanded EGI Corridors (once gazetted), as well as the five gazetted EGI Corridors, has been recommended and will be taken into Phase 5 of the SEA Process, which is the Decision-Support Outputs and Gazetting.</p> <p>In addition, it is important to re-iterate that these decision-support tools will be tailored to a specific development and it would not apply to other sectors.</p> <p>One of the key requirements is the need for ground-truthing in order to verify the findings of the SEA and actual on-site conditions at the time. This will also address any change in the environment between the</p>

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
				<p>publication of the SEA outputs and the actual commencement of development. Site visits will also assist with the micro-siting of infrastructure required during the construction and operational phases (i.e. specific location and impacts of access routes, site camps, laydown and storage areas, waste disposal and borrow pits).</p> <p>It is acknowledged that there are certain gaps that cannot be addressed at this SEA level, however it is important to note that these gaps do not detract from the relevance and importance of the findings of the SEA. The proposed project specific process, will be undertaken in compliance with and informed by the various outputs of the SEA and is expected to address these gaps.</p>

2.7. Climate Change

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
Shaazia Bhailall	City of Cape Town, Energy & Climate Change Directorate	19 June 2019, Email Part 1 General	Has the EGI expansion in the north considered severe weather and cyclonic events exposure?	Response from the CSIR and SANBI: During the negative mapping for the two EGI expansion corridors, data on areas that are prone to heavy rain (flooding), ice, snow and strong winds were considered based on modelled data. These data sets were considered during the engineering constraints analysis. It is understood, based on feedback from Eskom, that in these areas the power lines and/or the pylons need to be reinforced to make sure that they can withstand the extreme conditions, which has cost implications.

2.8. Defence

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
Lt Col Etienne van Blerk	South African Air Force (SAAF)	3 May 2019, Email	<p>I have received your specialist assessment chapters and will prepare response for 10 June.</p> <p>In the process of preparing such, I will be in touch noting at first glance that some of the hazard areas furnished earlier may have been omitted, e.g. Overberg Test Range (Denel).</p>	Response from the CSIR and SANBI: All of the sites that were indicated by the Department of Defence were included in the Additional Impacts Chapter (now changed to Part 4.2.6 of the EGI Expansion SEA Report), where shapefiles were provided. Shapefiles were not provided for certain sites, and as such, they were not included in the Additional Impacts Chapter that was released to stakeholders for comment. However, additional

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
				communication with the Department of Defence was undertaken in July 2019 and shapefiles have been used where they were provided for these outstanding areas. Where shapefiles were not provided, the co-ordinates provided by the Department of Defence were used and the areas were linked to the ERF.

2.9. Heritage Impacts

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	7 May 2019, Email General	Thank you for informing SAHRA APM Unit of the availability of the specialist studies for commenting on the Gas Network SEA. SAHRA would like that a case for the SEA is created on SAHRIS and we will provide our comments in the requested format.	Response from the CSIR: Cases were created on the South African Heritage Resource Information System (SAHRIS) on 16 May 2019 for the EGI Expansion SEA (case number: 13820). An email was sent to SAHRA on 16 May 2019 to inform them that the cases were created and the project documents uploaded for comment. This email was acknowledged by SAHRA.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email General	<p>The servitude for the transmission lines will be 80 m wide within a construction envelope of 180 m including access roads. Each pylon footing will have a 1 ha impact zone and excavations for the pylon will be 3.5m deep. Substations will have a 70 ha impact zone including borrow pits, construction camps and laydown area.</p> <p>The identified heritage site buffer zones provided to CSIR in 2018 have been used in the SEA as part of the Environmental Constraints mapping. In addition, the SEA used data from the heritage scoping report undertaken as part of the 2016 EGI SEA to inform on the heritage section in chapter 3.8 as well as the heritage sensitivity mapping in the visual impact assessment in chapter 3.5. Detailed comments on SEA report are provided in the prescribed commenting excel spreadsheet.</p> <p>Interim Comment The SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit notes that the EGI expansion SEA does not exempt the requirement of an HIA once Eskom proceeds to the project implementation phase. A field based study</p>	<p>Response from the CSIR: It should be re-iterated that the entire development envelope would not be cleared of vegetation. Vegetation will only be cleared in line with relevant specifications in terms of maximum horizontal and vertical clearances according to the voltage of the power line. For example, for a 220 kV to 765 kV transmission line, a servitude building restriction width of 22 m to 40 m will be maintained, and in terms of maximum vegetation clearance, this will be cleared from the centre of the power line up to the outer conductor, plus an additional 10 m on either side. Furthermore, it should be noted that Eskom might not be the only developer to develop EGI within the corridors.</p> <p>Part 4.2.8 of the EGI Expansion SEA Report notes that a specific Heritage Impact Assessment (HIA) will be required prior to development of the EGI on a project specific basis. Based on this reasoning, a dedicated high level Heritage Assessment was not undertaken at this SEA level (i.e. regardless of the sensitivity of the site, the developer will be required to carry out, at least, a Phase 1 HIA). Instead, a review of existing literature captured for the previous SEAs, as well as a general sensitivity analysis based on available spatial data has been undertaken for the EGI</p>

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
			<p>by specialists will be required for each EA application. Although the use of the 2016 EGI SEA Heritage Scoping report is sufficient for the heritage sensitivity study, the overlaps in the study areas covered in the 2016 EGI SEA Heritage Scoping report and current expansion corridors are small.</p> <p>Therefore, the results of the Visual Impact Assessment must be included in the heritage section of chapter 3.8 as it uses up to date SAHRIS site data. Furthermore, the results and proposed mitigation measures identified in the 2016 Heritage Scoping Study must be incorporated into the heritage section under section 2.4 of chapter 3.8.</p> <p>Should you have any further queries, please contact the designated official using the case number quoted above in the case header.</p>	<p>Expansion SEA. The sensitivity analysis is based on the following information:</p> <ul style="list-style-type: none"> ▪ Mapped heritage features dated December 2018 curated by the South African Heritage Resources Agency (SAHRA); ▪ World Heritage Sites and related buffers dated Q4, 2017, sourced from the South African Protected Areas Database (SAPAD); and ▪ Geological Features and Substrates of Palaeontological Importance, Geology layer dated 2014, sourced from the Council for Geosciences. <p>The datasets for the Palaeosensitivity Map available on SAHRIS could not be provided by SAHRA to the SEA Project Team, hence it was excluded from the generic Sensitivity Analysis.</p> <p>Linked to this, it is believed that the information included in Part 4.2.8 of the EGI Expansion SEA Report is adequate in terms of the identification of sensitivities, impacts and mitigation measures. The impacts and mitigation measures noted in the 2016 EGI SEA Heritage Assessment were originally captured in Section 2.4.3 and Section 2.4.6 of Part 3.8 of the EGI Expansion SEA Report (Note that this is currently Sections 4.2.8.3 and 4.2.8.6 of Part 4.2.8 of the EGI Expansion SEA Report), respectively. Therefore, these sections have not been amended in this regard.</p> <p>With regards to the Visual Impact Assessment, a summary of the results has been included in Part 4.2.8 of the EGI Expansion SEA Report. However, it is important to note that the Visual Impact Assessment used mapped heritage features dated December 2017 provided by the SAHRA at the time of the specialist assessment. Therefore, Part 4.2.8 of the EGI Expansion SEA Report uses more recent heritage features data.</p> <p>Site specific impacts will also be captured in the project specific HIA. In addition, a protocol will also be compiled for the assessment and reporting of environmental impacts on archaeological resources and palaeontological resources.</p>

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
				<p>In addition, once the corridors are gazetted, project developers will use the National Web-based Environmental Screening Tool and SAHRIS as the first point of reference to identify potential sensitivities on site when identifying the best route. At this point, it is likely that updated information regarding heritage features will be provided on these platforms, which will enable better planning. The outcomes of the SEA and recommendations contained within will also be considered by the project developers.</p> <p>It must also be noted that the EGI Expansion SEA, and its approach towards Heritage Impacts, was also discussed on 27 May 2019 in a meeting with SAHRA, CSIR and National Department of Environmental Affairs.</p>
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 1 Page 4 Line 114	It should be mentioned why these fields did not undergo specialist studies.	Response from the CSIR: Part 4.2.8 of the EGI Expansion SEA Report notes that a specific HIA will be required prior to development of the EGI on a project specific basis. Based on this reasoning, a dedicated high level Heritage Assessment was not undertaken at this SEA level. Instead, a review of existing literature captured for the previous SEAs, as well as a general sensitivity analysis has been undertaken for the EGI Expansion SEA.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 2 Page 9 Table 5	Palaeontological Heritage: SAHRA has six sensitivity levels for palaeontology, the differences between the two sensitivity criterions must be explained in a footnote.	Response from the CSIR: The spatial datasets for the Palaeosensitivity Map available on SAHRIS could not be provided by SAHRA to the SEA Project Team at the time of the assessment, hence it was excluded from the generic Sensitivity Analysis captured in Part 4.2.8 of the EGI Expansion SEA Report and the Environmental Wall to Wall Analysis included in Part 3 of the EGI Expansion SEA Report. As a result, the following data was used to capture Palaeontological features:
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 2 Page 10 and 11 Table 5	Please explain why two different datasets were used for the mapping of Palaeontological resources i.e. Palaeontological substrate, CSIR 2013 and the Geology Layer 2014.	<ul style="list-style-type: none"> Geological Features and Substrates of Palaeontological Importance, Geology layer dated 2014, sourced from the Council for Geosciences.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 19 Table 10	It is not clear whether the palaeontological substrate sensitivity areas mention the various formations recognised in the Palaeo-technical reports found on SAHRIS. This needs to be clear. Furthermore, if the list provided for the palaeontological substrate is listing formations then please also align it to the sensitivity protocols that the SAHRIS Palaeosensitivity map provides for each formation i.e. Very High; High; Moderate; Low	<p>The correct reference is the Council for Geosciences, 2014 and this has been merged and corrected in the SEA Report.</p> <p>The above has been clarified in Parts 3, 5 and Part 4.2.8 of the EGI Expansion SEA Report.</p>

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
			and Insignificant.	
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 21 Line 2 Map 6	The data source used for the map must be referenced. Also not all WHS sites are included in this map (The Barberton Mkonkwa Mountains). The heritage sensitivity map has not been updated since the Phase 1 of this SEA.	This contains high and medium sensitivity areas based on previous heritage studies undertaken for a range of projects (refer to Table 4 of Part 4.2.8 for a list of those areas). Following discussions with SAHRA (email from Natasha Higgitt dated 23 January 2019), it was agreed that the following sensitivities would be used for the screening tool:
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 22	High sensitivity: Areas of High sensitivity require a PIA inclusive of a field assessment. Permit requirements must also include section 36 and 34 of the NHRA depending on the heritage resources that require mitigation.	<ul style="list-style-type: none"> SAHRA red: Very High sensitivity. A Phase 1 PIA is required at design phase and a focused field assessment of these areas on the preferred route. SAHRA orange/yellow: High sensitivity. Desktop study required during design phase. Walk through the orange areas of the selected route and report before excavation activities (by respective specialist). SAHRA green/white: Medium sensitivity. Desktop study required during design phase. SAHRA blue: Low sensitivity. A Fossil Finds Procedure needs to be included in the EMP. SAHRA grey: Nothing required.
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 Table 7	The SAHRA Palaeo Technical Reports are available on the SAHRIS website which should have informed the sensitivity analysis of the geological formations with regards to palaeo-sensitivity.	<p>If an alternative route is chosen, the areas of red and orange must be walked down prior to construction. Further recommendations such as monitoring during construction phase etc. will be based on the recommendations of the specialist. In general, the SAHRA PIA Minimum Standards must be adhered to.</p> <p>The above requirements will be included in the Heritage protocol.</p> <p>The spatial footprint boundary of the Barberton Mkonkwa Mountains WHS has been obtained by SANBI and added to the wall to wall sensitivity maps.</p>
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3 Page 3 Line 8	The first sentence says that the level of impact is limited for heritage, does this refer to spatial limits? It would be best if heritage were removed from the first sentence in Note 4, instead state that a HIA with a field based survey is required for all EGI developments.	Response from the CSIR: This comment is noted. The statement referred to i.e. "The impact of EGI development on Agriculture, Defence, Civil Aviation and Heritage features is anticipated to be of limited significance", refers to spatial limits due to the small size of the pylon bases. However, as requested, this sentence

Stakeholder Reviewer Name	Organisation	Date, and Method of Submission, and Specific Chapter	Reviewer Comment	Response
				has been amended in Part 4.1 of the EGI Expansion SEA Report to remove any room for misinterpretation.
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 Table 7	Please note that World Heritage Sites are not managed by SAHRA but the Department of Environment, Forestry and Fisheries, except, when a National Heritage Site has been declared a WHS i.e. National Sites within the Cradle of Humankind WHS. Then both entities are responsible for the co-ordination of the management of these sites	Response from the CSIR: This comment is noted. However, Table 4 of the Heritage Impacts chapter (Part 4.2.8 of the EGI Expansion SEA Report) does not state that World Heritage Sites are managed by the South African Heritage Resources Agency (SAHRA). Table 4 provides a list of Heritage Datasets used in the chapter, and explains that the World Heritage Sites and related buffers data was sourced from the South African Protected Areas Database (SAPAD).
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 Table 9	There is a new KZN Heritage Act it's the "KwaZulu-Natal Amafa and Research Institute Act, Act No. 05 of 2018	Response from the CSIR: This comment is noted with thanks. Table 3 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been amended accordingly.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 18 Line 15	There may be a gap in data for the KZN province as it is its own functioning PHRA.	Response from the CSIR: This comment is noted with thanks. Since a HIA, with a field based survey, will be required during the project specific state for all power line developments exceeding a length of 300 m, then the Heritage Specialists appointed at the time will consult with the most up to date datasets, including those held by Amafa AKwaZulu-Natali (as applicable).
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 18 Line 36-40	While Heritage Western Cape (HWC), Eastern Cape Provincial Heritage Resources Authority (ECPHRA) and AMAFA KZN have been assessed as competent to perform functions in terms of section 8, 26, 27-30, 34-37, the remaining six provinces are not fully competent and therefore the responsibility lies with SAHRA. The Northern Cape, North West Province, Gauteng Province, Limpopo Province, Mpumalanga Province and the Free State Province Heritage Resources Authorities are only competent to provide permits for heritage resources as per section 34, or under section 27 (only for sites defined as structures as per section 34). For sites managed under section 27, if the site is defined as an archaeological or palaeontological site, or a meteorite (section 35) or as a burial ground and grave (section 36), these sites are managed and permitted by SAHRA.	Response from the CSIR: This comment is noted with thanks. Section 4.2.8.2 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly.
Natasha Higgitt	South African Heritage Resources	24 June 2019, Email Part 3.8	There is also the 2012 Minimum Standards: Palaeontological Components of Heritage Impact Assessments	Response from the CSIR: This comment is noted with thanks. Section 4.2.8.2 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated

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	Agency (SAHRA)	Page 18 Line 63		accordingly.
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 18 Line 71	It is important to note that SAHRA is updating the current 2007 Minimum Standards and the requirements of the HIA may change.	Response from the CSIR: This comment is noted with thanks. An explanatory note regarding this has been included in Section 4.2.8.2 of the Heritage Impacts chapter (Part 4.2.8 of the EGI Expansion SEA Report).
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 18 Line 77-78	It must be noted that the impacts of the Electrical Grid and the Gas Network are very different and this must be highlighted in the report. Also, it must be noted that the areas assessed for the EGI SEA differ from the areas assessed as part of the Gas SEA.	Response from the CSIR: It is acknowledged that the activities relating to gas pipeline and EGI construction may differ, however both gas pipelines and power lines are linear infrastructure. Both infrastructural components require surface clearing, as well as trenching and infilling for the pipeline installation and pylon bases. These specific activities may impact on heritage features in a similar way. Gas pipelines and power lines however may impact the greater landscape in a different way. Additional clarification regarding this has been included in the Heritage Impacts Chapter (Part 4.2.8 of the EGI Expansion SEA Report). Refer to the responses provided above in this section regarding the areas assessed in the 2016 EGI SEA Heritage Assessment and the current EGI Expansion SEA.
Natasha Higgitt	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 18 Line 116	It must be noted that an HIA previously conducted within an area, may not have identified all heritage resources present. Over time, erosion may uncover subsurface heritage resources that were not present during the previous HIA, additionally, more burials may have occurred in an area etc. There is also an additional bias on the part of the specialist that conducted the previous HIA. Some specialists are specialised in very specific fields and do not recognise the significance of the various types of heritage resources (Please see Van Der Venter-Radford, 2017. Response to Discussion: Heritage vs Development. <i>SA Archaeological Bulletin</i> 72(205):91-95 for a discussion regarding this topic.)	Response from the CSIR: This comment is noted with thanks. An explanatory note regarding this has been included in Section 4.2.8.2 of the Heritage Impacts chapter (Part 4.2.8 of the EGI Expansion SEA Report). It should also be noted that all specialists involved in the EGI Expansion SEA were required to complete a declaration of independence.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 22 Line 2 and 3	This sentence: "It should be noted that a HIA is required when it is anticipated that there will be impacts on significant heritage resources for a particular development proposal." must be amended to state that all EGI applications for 132kV power lines and power lines larger than 132kV will require a HIA and depending	Response from the CSIR: Section 4.2.8.5 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly.

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			on the findings of the assessment, further monitoring of the ground clearance and pylon excavations (by a specialist) will be required. Smaller power lines will be assessed on a case by case bases.	
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 22 Line 3 and 4	This sentence: "This differs from a heritage survey which identifies, records and grades heritage resources with no particular development proposal in mind." should be left out as it is confusing within the context of the report. Or rephrase the sentence to "This differs from a heritage survey which is conducted by the authority or for academic purposes to identify, record and assign significance to identified heritage resources.". Grading is a formal process undertaken by a committee upon a submission of a nomination dossier.	Response from the CSIR: This comment is noted with thanks. Section 4.2.8.5 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly (i.e. the sentence has been removed).
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 22 Line 4	All HIA's must have a field based survey as per the requirement of section 38(3). A report named a Heritage Desktop Assessment/Heritage Scoping Assessment may or may not contain a field survey.	Response from the CSIR: Section 4.2.8.5 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 24 Line 10 and 15	Sentence should be amended to say: "Where significant heritage resources are known to occur or have been identified in a HIA, the ECO will have to be trained by an archaeologist or palaeontologist, depending on the nature of the finds, to identify any subsurface heritage resources during construction. In addition to monitoring undertaken by the respective specialist. This will prevent loss of highly significant palaeontological, archaeological and palaeoanthropological resources."	Response from the CSIR: This comment is noted. Section 4.2.8.6 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 24 Line 29 and 31	All archaeological sites are visually sensitive as development changes the characteristics of the historical landscape in their surroundings. Therefore this statement must be changed.	Response from the CSIR: Section 4.2.8.6 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly. It is acknowledged that all archaeological sites are visually sensitive as development changes the characteristics of the historical landscape in their surroundings; however this applies to the local site scale.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 24 Line 36	Sentence should be "Structures older than 60 years and not located in formal towns like farmsteads and the trees surrounding the farm house, and the surrounding homesteads are an integral part of the South Africa's colonial rural landscape. These historical landscapes will also require assessment and buffered.	Response from the CSIR: Section 4.2.8.6 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly.

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Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 24 Line 50	Preliminary consultation of the community regarding any heritage must be done and included in the HIA and not in the construction phase. Further consultation for the management of graves can be done after authorisation is granted.	Response from the CSIR: Section 4.2.8.6 of the Heritage Impacts chapter included in Part 4.2.8 of the EGI Expansion SEA Report has been updated accordingly. This section of the report does already state that it is also important to consult with affected communities during the planning stage to identify the location of any informal burial grounds.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 to 24	The sensitivity and pinch point analysis for heritage resources and scenic routes undertaken in the visual impact assessment (section 3.5) should be included within the heritage chapter.	Response from the CSIR: With regards to the Visual Impact Assessment, a summary of the results have been included in Part 4.2.8 of the EGI Expansion SEA Report. However, it is important to note that the Visual Impact Assessment used mapped heritage features dated December 2017 provided by the SAHRA. Therefore, Part 4.2.8 of the EGI Expansion SEA Report uses more recent heritage features data.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 to 24	The palaeontological heritage should be expanded upon once the data from the palaeo-sensitivity map is available for use.	Response from the CSIR: Once obtained, the palaeo-sensitivity datasets will be included in the DEA Screening Tool.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 to 24	The 2016 Heritage Scoping Study conducted for the 2016 EGI SEA should be discussed in detail here, the results of the study must be included in this chapter along with the sensitivity mapping results. Any gaps in the current expansion area and the 2016 Heritage Scoping Report should be discussed.	Response from the CSIR: Refer to the responses provided above in this section regarding the areas assessed in the 2016 EGI SEA Heritage Assessment and the current EGI Expansion SEA. A detailed sensitivity analysis and scoping level assessment was not undertaken as part of this current SEA given that, regardless of the sensitivity of the site, the developer will be required to carry out, at least, a Phase 1 HIA. In addition, the impacts and mitigation measures noted in the 2016 EGI SEA Heritage Assessment are captured in Section 4.2.8.3 and Section 4.2.8.6 of Part 4.2.8 of the EGI Expansion SEA Report, respectively.
Nokukhanya Khumalo	South African Heritage Resources Agency (SAHRA)	24 June 2019, Email Part 3.8 Page 17 to 24	It should be noted that an impact assessment for underwater cultural heritage will be required for any development related to the gas pipe line in harbours all along the coast of South Africa or any landing points below the high water mark.	Response from the CSIR: The EGI Expansion SEA only includes an assessment of onshore infrastructure. Offshore activities or any underwater activities are excluded from the scope of this SEA. Note that this comment refers to gas pipeline infrastructure; however Part 4.2.8 of the EGI Expansion SEA deals with Heritage Impacts relating to EGI .

2.10. Seismicity

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Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	21 June 2019, Email General	My comments to the report on the expansion of the electricity network is attached. I look forward to your consideration of my recent project proposal, as once again the reports highlights that in our country there is a potentially dangerous lack of institutional knowledge in issues of neotectonics, despite the free availability of publications, dissertations and open file reports in the public domain.	<p>Response from the CSIR and Seismicity Specialist: This comment is noted. It must be reiterated that the CSIR and SANBI are undertaking a SEA and as such the specialist studies commissioned were requested to be at a largely desktop level in order to identify potential opportunities and constraints at a strategic high level that could be used to inform the location of the EGI corridors. Quantification of the risks was not part of the Specialist Terms of Reference. A semi-quantitative/qualitative assessment was required.</p> <p>The specialists assessed 125 km wide corridors that has been refined to the best 100 km wide corridors (i.e. those with as many low sensitivity areas as possible based on all features considered in the assessment). The entire 100 km wide corridor will not be developed with EGI and each phase will only be developed if there is a viable business case. Hence, there is no guarantee regarding the EGI development. However, once a specific project has been identified and proposed to proceed, there will be a requirement for specialist input to guide the routing of the power line prior to the development actually taking place (via compliance with the Standards, once implemented). During the project specific phase, site verification will be required. There will always be a need to verify the findings of the SEA on site per proposed project. Therefore, at the project specific level, once a project has been identified, there may be other studies that could be commissioned by the developer. Therefore, further investigation (i.e. a focused neotectonic investigation of the Richards Bay area) could be undertaken prior to construction, and if and when EGI has been identified and proposed in the Richards Bay area. However, based on further discussions with Dr. Andreoli, it has been agreed that the need for a proposed seismotectonic-seismic hazard assessment for the Richards Bay area needs to be discussed with the City of UMhlathuze outside of and independent to the EGI Expansion SEA.</p>
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate,	21 June 2019, Email	The map published by Manzunzu et al. (2019) and here referred [see Fig. 1, Appendix B] derives its information from the Seismotectonic Map of Africa by Meghraoui et al (2016) that is quoted in the caption. In this earlier paper and map the faults were indicated as: Active faults	Response from the Seismicity Specialist: Figure 1 in Appendix B of the Seismicity Assessment Report for the EGI Expansion SEA is included as Figure 3 in Manzunzu et al (2019). This has been clarified in the caption of Figure 1 in Appendix B. Meghraoui et al (2016) has not been quoted in the caption of Figure 1 in Appendix B or Figure 3

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	School of Geosciences, Wits University	Seismicity Chapter Fig. 1 of Appendix B Page 14 Line 18-25	(<150 ka). A forensic analysis of the quoted publications (Meghraoui et., 2016; Manzunzu et al., 2019) and of available peer-reviewed literature (cf. Steenkamp et al., 2018, S.Afr. J. Geol. 121, 421-430) leads to conclude that the last movement along such faults has been shifted arbitrarily from <150 ka to ≤ 2.6 Ma.	<p>in Manzunzu et al (2019). Manzunzu et al (2019) refer to Meghraoui et al (2019) in the text of their article. The reference is to the article that was published in Episodes in March 2016, rather than to the map that was released in at the 35th International Geological Congress in Cape Town in August 2016. The suggested reference to the wall map is the reference to the Episodes 2016 article.</p> <p>It is indeed true that the description of fault ages differs between Meghraoui et al (2016) and Manzunzu et al (2019).</p> <p>Meghraoui et al (2016, p. 11) state that the neotectonic map for Africa database includes "a database of neotectonic structures with Quaternary faulting" (i.e. <2.58 Ma). Figure 2 in Meghraoui et al (2016) shows two classes of faults, 'crustal faults' and 'active faults' (< 150 ka)', distinguished by colour and thicknesses; while the faults shown on Figure 7 appear to be only the 'active faults'. Presumably the 'crustal faults' are considered to have been active in the Quaternary (<2.58 Ma) but not active since 150 ka.</p> <p>Manzunzu et al (2019) distinguish between 'major faults' and 'active faults'.</p> <p>Comparison of the maps shows that the 'major faults' in Manzunzu et al (2019) correspond to the 'active faults' in Meghraoui et al (2016). Manzunzu et al's (2019) 'active faults', shown in yellow, are a smaller subset.</p> <p>Manzunzu et al (2019) provided further clarification (personal communication, 15 August 2019): "The active faults are Quaternary faults or were reactivated recently. We agree our active faults (in yellow) are a subset of active faults of Meghraoui et al. I think you should take it that the results in Manzunzu et al., 2019 are an update of the work in Meghraoui et al, where we had a bit more information to help us identify so called active faults, mainly through published geological information and by association with seismicity". This information has been included in the revised report.</p> <p>What does emerge is that relatively little is known about fault activity in South Africa. This is clearly stated in Table 2 (assumptions and limitations of the study) of the Seismicity Assessment Report</p>

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				<p>(Appendix C.3 of the EGI Expansion SEA Report).</p> <p>The authors of the Seismicity Assessment chapter thank Dr Andreoli for bringing the article by Hobday and Jackson (1979), Jackson and Hobday (1980) and Kruger and Meyer (1988) and Steenekamp et al. (2018) to our attention. We discuss and cite them in the appropriate sections of our report, i.e. Section 3.2 (Background) in the main report, and Neotectonic studies in Appendix A of the Seismicity Assessment Report (Appendix C.3 of the EGI Expansion SEA Report). Table 4 (Corridor Sensitivities) of the Seismicity Assessment Report for the EGI Expansion SEA has also been amended to indicate that there are other capable faults in the Expanded Eastern EGI Corridor in addition to the Tugela Fault.</p>
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	<p>21 June 2019, Email</p> <p>Seismicity Chapter</p> <p>Page 15</p> <p>Lines 8-12</p> <p>Fig. 3</p>	<p>In page 17 of the Document its authors maintain the superiority of the Probabilistic Seismic Hazard Assessment (PSHA) method over the parametric-historic (P-H) procedure by Kijko & Grantham (1998, 1999) toward the assessment of the hazard posed by tectonic seismicity. Seismotectonic data in the public domain (as peer review full length articles, University dissertations, open file Necsa Reports and conference proceedings) indicate that PSHA method, though theoretically correct, is intrinsically flawed, especially in respect of PGN corridors 1, 4 and 7 (Richards Bay area) for the reason expressed in the space below.</p>	<p>Response from the Seismicity Specialist: The authors are puzzled by Andreoli's assertion that we "maintain the superiority" of the PSHA method of the P-H procedure. We have tried to be even-handed, pointing out the difference between the methods and their predictions of ground motion, stating that the "ultimate test lies in the accuracy of their predictions", which will take centuries to confirm.</p> <p>Unfortunately, Dr Andreoli did not provide the authors with references to the articles, dissertations, Necsa reports and conference proceedings that "indicate that PSHA method, though theoretically correct, is intrinsically flawed".</p> <p>There are several other approaches to seismic hazard assessment apart from PSHA and the P-H methods, such as the Deterministic (DSHA) and Neodeterministic (NDSHA) methods. The choice of method is governed by the objective of the assessments (e.g. for national planning, design of critical structures such as nuclear power stations and hospitals), and the quality and completeness data (e.g. earthquake catalogues, ground motion prediction equations, description of active faults). Comparisons between the methods have been published (see, for example, 'Seismic Hazards and Risk Assessment in Engineering Practice' by P Somerville and Y Morwaki, in Intentional Handbook of Earthquake & Engineering Seismology, Part B (2003), produced under the auspices of Committee of Education of the International association of Seismology and the Physics of the Earth's Interior (IASPEI), in collaboration with the International Association of Earthquake Engineering (IAEE).</p>

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				<p>The authors believe that the PSHA method is appropriate for a study of this scale. It was used to produce the Global Seismic Hazard Map, released in December 2018. The Global Earthquake Model (GEM) Global Seismic Hazard Map is a product of the GEM Foundation. Initiated by the OECD's Global Science Forum in 2006, GEM was formed in 2009 as a non-profit foundation in Pavia, Italy, funded through a public-private sponsorship with the vision to create a world that is resilient to earthquakes. Participants represent national research, applied science or disaster management institutions, the private sector and international organisations. GEM's collaborative network comprises more than 70 public and private institutions organised under more than 25 regional, national and multilateral projects. The reference is provided below:</p> <p>M. Pagani, J. Garcia-Pelaez, R. Gee, K. Johnson, V. Poggi, R. Styron, G. Weatherill, M. Simionato, D. Viganò, L. Danciu, D. Monelli (2018). Global Earthquake Model (GEM) Seismic Hazard Map (version 2018.1 - December 2018), DOI: 10.13117/GEM-GLOBAL-SEISMIC-HAZARD-MAP-2018.1 https://www.globalquakemodel.org/africa-model-release</p>
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	21 June 2019, Email Seismicity Chapter Page 15 Lines 12-23	The elevated seismicity of certain parts of South Africa, namely the Northern Cape, appears to be a recent phenomenon of increasing strain rate, becoming quite apparent in 1996, as shown by Necsa's Vaalputs seismic monitoring records (Andreoli et al., 2009, SAGA Biennial Technical Meeting and Exhibition, Swaziland, 4 pp; Malephane et al., 2013, 13th SAGA Biennial Technical Meeting and Exhibition, Kruger Park, 4 pp.). It is arguable that this episode of enhanced strain rate in the Northern Cape over the past 23 years is a repeat of earlier "swarms" such as those previously experienced at Koffiefontein and Ceres-Tulbach in the 20th century, among others.	<p>Response from the Seismicity Specialist: The authors take note of Dr Andreoli's references to papers published in the proceedings of scientific meetings that were held in 2009 and 2013 that describe seismicity in the Northern Cape. These have been included in the appropriate sections of the report (i.e. Seismicity Assessment Report (Appendix C.3 of the EGI Expansion SEA Report)). We would, however, like to make several comments.</p> <ol style="list-style-type: none"> 1. The period of sensitive recording and the duration of the seismic 'swarm' (23 years) is very short in terms of the typical time scale of continental deformation. Consequently, it is difficult to extrapolate trends with confidence. 2. Seismicity may be indicative of the release of strain energy that has accumulated over a long period of time, rather than indicative of a sudden increase in strain. See, for example, Calais, E., Camelbeeck, T., Stein, S., Liu, M. and Craig, T.J., 2016. A new paradigm for large earthquakes in stable continental plate interiors. Geophysical Research Letters, 43(20), pp.10-621. Calais et al (2016) discuss earthquakes in Stable Continental Regions (SCRs) and argue "SCR

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				earthquakes are better explained by transient perturbations of local stress or fault strength that release elastic energy from a prestressed lithosphere. As a result, SCR earthquakes can occur in regions with no previous seismicity and no surface evidence for strain accumulation. They need not repeat, since the tectonic loading rate is close to zero. Therefore, concepts of recurrence time or fault slip rate do not apply. As a consequence, seismic hazard in SCRs is likely more spatially distributed than indicated by paleoearthquakes, current seismicity, or geodetic strain rates."
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	21 June 2019, Email Seismicity Chapter Page 21 Table 4	Expanded Eastern EGI Corridor - The Tugela Fault is not the only source of potential problems. The author of this section ignores the prominent N-S striking neotectonic faults (of the East African Rift system) that displace Quaternary deposits, including the 70 ka lignite of the Port Durnford Formation in the Richards Bay - St Lucia area (Andreoli et al., 1996, and references therein; Jackson and Hobday, 1980, Amer. J. Sci. 280, 333-362).	Response from the Seismicity Specialist: The authors thank Dr Andreoli for bringing the paper by Jackson and Hobday (1980) and the extended abstract by Kruger and Meyer (1988) to their attention and have cited these articles in their report. However, it should be noted that the origin of the forces that drove the deformation and faulting requires further investigation. For example: 1. Jackson and Hobday (1980, p. 155) conclude that the "deformation in the Port Durnford Formation took place by a combination of gravity gliding and clay diapirism". 2. Kruger and Meyer (1988) describe the fault in two sentences: "The inferred elevation of the post-Cretaceous surface as interpreted from geoelectrical and borehole data as well as field observations, indicate a normal fault striking north-south and coinciding with the course of the Muzi River. This fault has a down throw to the east of about 30 m and displaces the Port Durnford and Uloa Formations". However, the abstract does not provide paleoseismic information that would make it possible to estimate the magnitude and recurrence rate of earthquakes e.g. the strike length of the fault, and the date or amount of slip during any single event.
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	21 June 2019, Email Seismicity Chapter Page 25 Lines 39-40	The comments expressed above, in addition to the comments expressed for the Gas pipelines network show that there is no sufficient information to guide decisions on EGI development in South Africa, just rehashing of views that have been outdated since 1996.	Response from the Seismicity Specialist: The authors have amplified the review of the state of knowledge regarding neotectonics in the regions designated for the expansion of the EGI in Appendix B (Section headed "Neotectonic studies" on page 32) by discussing the papers brought to their attention by Dr Andreoli. The authors believe that the need for further field studies once the routes are better defined is amply described in the report. For

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
				<p>example:</p> <ol style="list-style-type: none"> 1. In Table 2 (Assumptions and Limitations), the poor knowledge of active faulting is noted. 2. In section 5.1 (Planning phase) it is recommended that regions within EGI corridors that could have capable faults be mapped. 3. In section 6 (Gaps in knowledge) the need for detailed paleoseismological and geological is noted. 4. In section 7 (Conclusions and further recommendations) we recommend that site specific assessments be made of regions that might have capable faults.
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	21 June 2019, Email Seismicity Chapter Appendix A Page 32 Lines 5-13	Neotectonic studies: The only paper quoted in this paragraph is that by Andreoli et al. of 1996. Since this widely referenced paper (and even before) independent researchers and the Necsa-lead team have produced an extensive set of peer-reviewed papers, dissertations and public domain Conference abstracts. It is arguable that the authors of this section should have been taken into consideration at least some of these more recent works to avoid the misinterpretations considered below.	<p>Response from the Seismicity Specialist: The authors thank Dr Andreoli for bringing the articles by Hobday and Jackson (1979), Jackson and Hobday (1980) and Kruger and Meyer (1988) and Steenekamp et al. (2018) and the abstracts presented at the SAGA and AfricaArray conferences to their attention and have cited them in Appendix B of the report.</p> <p>However, it should be noted that some of the reports, dissertations and conference proceedings are not peer reviewed and are difficult to access as they are not digital.</p> <p>Dr. Andreoli was contacted in July 2019 to discuss how to gain access to the Necsa reports referred to, as well as references to other articles, dissertations and conference abstracts. However, feedback was pending at the time of finalization of the EGI Expansion SEA. Nevertheless, information has been added and relevant sections of the Seismicity Assessment Report has been updated to address the general concerns made by Dr. Andreoli (i.e. Appendix A of the report, which is included in Appendix C.3 of the EGI Expansion SEA Report etc.). The overall findings and recommendations of the Seismicity Assessment Report has not changed, and the need for further site specific assessments in regions that might have capable faults is still recommended. As noted above, further neotectonic studies of the greater Richards Bay area should be discussed with the local authorities independent to the EGI Expansion SEA.</p>
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research	21 June 2019, Email Seismicity Chapter	The statement is indeed quoted almost verbatim from Bird et al., 1996. However, the problem rests on that word "primarily" (line 22) that was inserted to account for those areas of southern Africa where the orientation of	Response from the Seismicity Specialist: The authors regard the computer model of the southern African stress field published by Bird et al (2006; Dr Andreoli was a co-author) to be an important contribution to the study of the stress field in southern Africa.

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
	Associate, School of Geosciences, Wits University	Appendix A Page 32 Lines 22-24	Shmax, and Sigma 1 differ significantly from the outputs of the finite elements computer programme. A more careful reading of the cited references (Andreoli et al., 1996; Bird et al., 2006) and additional publications on the neotectonics of South Africa in the public domain (cf. Viola et al., 2005, EPSL 231, 147-160; Viola et al., 2012, Tectonophysics 514-517, 93-114) would have alerted the authors that the Wegener stress Anomaly as expressed in the western part of South Africa (e. g. the Northern Cape; also: Western Namibia) is unreconcilable with the models tested in the paper by Bird et al. (2006). As clearly expressed in those articles the Wegener stress Anomaly represents a region of the southern African plate where Sigma 1 is horizontal (and striking NW to NNW) where all the published geodynamic computer models make it vertical (and SHmax striking NW to NNW).	However, as pointed out by Dr Andreoli, there are some difficulties with the paper, not least being the boundary between the Nubian and Somalian plates, which was defined by joining the epicenters of earthquakes that are mining-induced and not tectonic in origin. This plate boundary continues to be used in posters published by the US Geological Survey, despite the error being pointed out in a letter to them by one of the authors (Durrheim) following the 2007 Machaze earthquake. However, a detailed analysis of the stress field was outside the scope of the Seismicity Assessment for the EGI Expansion SEA.
Dr. Marco A. G. Andreoli	Independent Geological Consultant and Research Associate, School of Geosciences, Wits University	21 June 2019, Email Seismicity Chapter Appendix A Page 32 Lines 35-50	Once again an important article, in this case the one by Malservisi et al., 2013, is quoted selectively. Indeed these authors state that "the South African region behaves rigidly, with deformation" of the order of 1 nanostrain yr ⁻¹ or less." However, the next sentence reads that "The analysis shows some higher strain rates in the eastern region, and the presence of spatially correlated residuals in the Cape Town region and the region east of Johannesburg. Although not statistically significant, the spatial coherence of those residuals could indicate tectonic activity ". According to the data presented by Malservisi et al 2013 (cf. Fig. 4) the stations between Hermanus and the Saldana Bay area show a residual velocity vector oriented NW to NNW relative to the stations further to the north and east. In northern KN the stations at Richards Bay and Ulundi show weak velocity vectors oriented toward Durban, Pietermaritzburg and Ladysmith.	Response from the Seismicity Specialist: Dr Andreoli is correct in emphasising that the paper by Malservisi et al (2013) does not claim that the region is perfectly rigid, but that deformation is exceedingly slow. Seismic activity demonstrates that there is continual tectonic activity and that destructive events do occur from time to time. The difficulty is in determining when and where the large events will occur.

2.11. Visual Assessment

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Gerhard Gerber	Western Cape DEADP, Development Facilitation	24 June 2019, Email Visual Assessment Chapter Page 33 Line 8 Table 8 Page 35-36 Section 10.1	<p>The assessment does consider most of the applicable and most likely-to-be affected environmental, heritage and human receptors with applicable/ reasonable buffer distance (as indicated/discussed on page 24).</p> <p>The planning phase best-practice measures to avoid/minimise visual impacts appear to be applicable to the content of the proposed corridor.</p>	Response from Visual Specialists: Agreed. No further action required.
Gerhard Gerber	Western Cape DEADP, Development Facilitation	24 June 2019, Email Visual Assessment Chapter General	<ul style="list-style-type: none"> ▪ It is acknowledged that it is not an easy task to find the optimal balance between choosing the shortest practical route and have little to no impact on economically valuable agricultural land in positioning essential power lines, and mitigating the visual impacts by choosing a route with the least obtrusive visual impact from strategic viewpoints such as residential areas and main roads. It is also understood that power lines cannot be too remote, as they will need to be easily accessible. ▪ Possible mitigation measures to consider include: <ul style="list-style-type: none"> ○ The reflective nature of the pylons (e.g. galvanised vs coated with less reflective paint, etc.). ○ Visible markers such as buoys, balls or other visual aids that alert aeroplanes, hand gliders, birds or other creatures at risk of colliding with the power lines. ○ The distance between pylons e.g. very high pylons with greater distances between the pylons or shorter pylons spaced closer together. ▪ The specialist study concluded with a proposed area within the corridor to be pursued to place the 	<ul style="list-style-type: none"> ▪ Response from Visual Specialists: Agreed. No further action required. ▪ Response from Visual Specialists: <ul style="list-style-type: none"> ○ Pylons can be left galvanised, which become dull grey with time, and therefore would not be reflective. ○ The markers are minor visual features and were therefore not considered an important visual issue, compared to the scale of the pylons in the landscape, particularly when these are seen in silhouette on the skyline. ○ The use of larger pylons at greater distances could help to reduce visual clutter in the landscape (similar to using fewer, but larger wind turbines), but depends on local context, where smaller pylons may have less visual effect on say nearby houses. The Visual Assessment Report has been updated (i.e. Section 10.1 of Appendix C.2 of the EGI Expansion SEA Report). ▪ Response from Visual Specialists: Agreed. Text has been added to the Visual Assessment Report (i.e. Section 9.1 of Appendix C.2 of the EGI Expansion SEA Report). The added text states, "As the SEA is concerned more with identifying suitable corridors at the regional scale, it is important that a basic visual assessment is carried out at the project stage,

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
			EGI through considering the factors listed on pages 32 to 35, and especially considering the best practice guideline. This Department reiterates that a Basic Assessment process is imperative to inform a more specific EGI placement route within the Western corridor.	<p>accompanied by more detailed mapping.</p> <p>Response from the CSIR: It is important to note that specialists will be consulted during the Project Specific stage for EGI development within the Expanded Eastern and Western EGI corridors in order to guide the routing. Standards have been compiled to include specific recommendations that must be implemented during the Project Specific stage. Standards provide a regulatory framework and process that will apply to EGI development within the corridors. It will allow exemption from Environmental Authorisation within the corridors. Refer to Section 2.6 of this Comments and Responses Appendix for additional information on the Decision-Making Tools.</p>

2.12. Biodiversity and Ecology (Terrestrial and Aquatic Ecosystems, and Species) – Integrated Biodiversity Assessment Chapter

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Rhett Smart	CapeNature, Scientific Services	<p>10 June 2019, Email</p> <p>Integrated Biodiversity Assessment Chapter</p> <p>General</p>	In terms of the broad categories which have been selected in identifying the biodiversity sensitivities, these are supported, with the Western Cape Biodiversity Spatial Plan utilised as the broad overarching biodiversity informant for the Western Cape Province. We do wish to note with regards to the protected area data that there are discrepancies between the various databases and we recommend that there should be engagement with the provincial conservation agencies to ensure the accuracy of this data. Apart from the sensitivities related to protected areas, it must be ensured that the National Environmental Management: Protected Areas Act (NEM:PAA, Act 57 of 2003) is adhered to. Protected areas should be avoided as far as possible, however if this cannot be achieved it must be ensured that any infrastructure is reflected in the protected area management plan (PAMP) and that there is approval from the management authority. We would also recommend that other non-NEM:PAA conservation areas are included, such as Biodiversity Agreements as high sensitivity.	<p>Response from the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) Integrating Author: It is recognised that inherent discrepancies and inaccuracies exist in spatial data. However, the latest, freely accessible and available data (at the time of compiling the specialist assessments forming part of the SEA) were used. For Protected Areas these were the South African Protected Areas and Conservation Areas Databases 2018 Q2 data, together with any additional protected/conservation areas from relevant provincial conservation plans. In the event that any development is at a stage to be implemented (i.e. actual route plotting, construction and operations) the latest available data at that time needs to be considered and ground-truthed/verified as part of the project specific phase.</p> <p>A Generic EMPr has not been compiled for the EGI Expansion SEA, as the one compiled as part of the 2016 EGI SEA, which was gazetted for comment in March 2018 and for implementation March 2019, will be used for EGI development. The specialists that were part of the EGI Expansion SEA Team reviewed the Generic EMPr for EGI development when it was gazetted for</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
				<p>comment in March 2018. The DEA then considered these comments when compiling the final Generic EMPr for EGI development for gazetting.</p> <p>Response from SANBI: As part of the National Biodiversity Assessment 2018, SANBI undertook an exhaustive review of Protected Areas, incorporating provincial agency, SANParks and the (DEA's South African Protected Areas Database (SAPAD) data to get the most comprehensive spatial footprint of what is being managed as Protected Areas. This layer has been used in the final pinch point analysis to make sure that Protected Areas or areas managed as Protected Areas that are not yet gazetted, are not listed as Very High Protected Areas.</p> <p>SANBI also recently undertook an exercise to collate all levels of Stewardship sites into one spatial data set. The SANBI SEA team are still awaiting feedback from a few provinces; however the biodiversity agreements were added as High sensitivity in the final corridor refinement.</p>
Rhett Smart	CapeNature, Scientific Services	<p>10 June 2019, Email</p> <p>Integrated Biodiversity Assessment Chapter</p> <p>General</p>	We do wish to query the specialist studies that were undertaken as it appears that this is a replication of the SEAs for wind and solar PV and EGI, without particular reference to the impacts related to the subject activity, namely gas pipelines. For the aforementioned SEAs there are specific impacts related to flight, both for fauna and aircraft, however gas pipelines do not pose this same particular risk. The impacts on birds and bats would be encompassed in the impacts related to habitat loss which would be relevant to all fauna.	<p>Response from the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) Integrating Author: Box 24 in the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) (which is included in Appendix C.1 of the Gas Pipeline SEA Report) clearly states that potential impacts to birds and bats as a result of gas pipelines are mainly indirect via habitat clearance. This is indeed also relevant to all other terrestrial fauna. Birds and bats were specifically included for the EGI Expansion SEA assessments as these do have established impacts to specifically birds, and highlighted in the Gas Pipeline SEA assessments as birds and bats are often one of the main concerns during Environmental Impact Assessments.</p>
Rhett Smart	CapeNature, Scientific Services	<p>10 June 2019, Email</p> <p>Integrated Biodiversity Assessment Chapter</p>	The impacts related to habitat loss are encompassed in the sections related to the biomes traversed, and there is reference to both fauna and flora. In this regard we do wish to note that the loss of habitat is the most significant cause of the loss of biodiversity by a considerable margin. If any fauna could be considered to have a specific impact as a result of gas pipelines that is not encompassed by the biome chapters, it would	<p>Response from the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) Integrating Author: This is agreed and it has been made more explicit in Section 5.1.1 of the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) for EGI.</p>

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
		General	be subterranean fauna as a result of excavation. Impacts on avifauna would of course still be relevant for the EGI Expansion SEA.	

2.13. Biodiversity and Ecological Impacts – Avifauna Chapter

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Siphokazi Ncume	City of Johannesburg, Environment and Infrastructure Services Department	27 June 2019 Avifauna Assessment General	Avifauna: The recommendations should be seen as generic and not replacing the project specific recommendations which will be generated for an individual project that requires an Environmental Impact Assessment.	Response from the CSIR: This comment is noted. Kindly refer to the responses provided above in Section 2.6 of this chapter that deal with the project specific phase, following this SEA.

2.14. Biodiversity and Ecological Impacts (Aquatic Ecosystems and Species) – Wetlands and Rivers Chapter

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Angila Joubert	Bergvliet Municipality	6 June 2019, Email Wetlands and Rivers Chapter Page 55 Line 23	How will this be ensured: Placement of the EGI within already disturbed/degraded areas?	Response from the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) Integrating Author: The SEA includes information on modified and transformed land (from the National Land Cover 2014, augmented by SANBI) (E.g. see Figure 14 and Figure 19 in Section 7.2 of the Integrated Biodiversity and Ecology Assessment for EGI Expansion (Appendix C.1 of the EGI Expansion SEA Report)), which, at a strategic level, is used to highlight these areas of low sensitivities which may be more preferable for the placement of infrastructure. At a project implementation stage (route plotting and construction), the presence of disturbed land for infrastructure placement will have to be verified in field. The placement of infrastructure in disturbed areas may not always be possible. It can thus not be ensured, but is recommended and encouraged where possible to reduce potential impacts. Where this is not possible, other management and mitigation actions need to be taken to reduce potential impacts to acceptable levels.

2.15. Biodiversity and Ecological Impacts (Terrestrial Ecosystems and Species) – Fynbos Biome Chapter

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Angila Joubert	Bergrivier Municipality	6 June 2019, Email Fynbos Biome Chapter Page 32 Line 9	Will Bergrivier Municipality be informed of the contractor and ECO representing the contractor; when activities commence within this municipal area?	Response from the CSIR: It is important to note that this comment was made in response to the Fynbos Biome Biodiversity Assessment for the EGI Expansion (Appendix C.1.1 of the EGI Expansion SEA Report). The Bergrivier Local Municipality does not fall within the <u>Expanded EGI Corridors</u> . However, it does fall within the Gas Pipeline Corridors. The gazetted Generic EMPr for the construction of EGI within gazetted corridors notes that the Project Developer is accountable for ensuring compliance with the EMPr and any conditions of approval from the Competent Authority (CA). The Environmental Authorisations usually specify that the relevant municipality or Local Environmental Department must be informed of the commencement of construction, contact details of the Contractor and the contact details of the Environmental Control Officer. Therefore, the affected municipalities are expected to be informed of these details. This requirement has been included in the Gas Pipeline Generic EMPr.
Gerhard Gerber	Western Cape DEADP, Development Facilitation	24 June 2019, Email Fynbos Biome Chapter Page 1 Line 4 Across all the specialist studies	Page 1 of all the specialist studies refer to “Draft v3 Specialist Assessment Report for Stakeholder Review”. The dates of the specialist assessment reports should be provided.	Response from the CSIR: A versioning table has been added at the beginning of the relevant Specialist Assessment Chapters included in Appendix C of the EGI Expansion SEA Report to note the dates of the chapters. A single versioning table has been included upfront of the Integrated Biodiversity Assessment chapter to include relevant dates of the Biodiversity Assessments. The V3 status has been removed accordingly.
Gerhard Gerber	Western Cape DEADP, Development Facilitation	24 June 2019, Email Fynbos Biome Chapter Page 32 Line 9-10	Where it is impossible to avoid very high or high sensitivity areas, Critical Biodiversity Areas and/or buffers, biodiversity offsets may be required. Further information pertaining to the strategic overview of how biodiversity offsets will be applied should be included in Section 9 (Best Practice Guidelines and Monitoring Requirements) of this specialist study.	Response from the Integrated Biodiversity and Ecology Assessment (Terrestrial and Aquatic Ecosystems, and Species) Integrating Author: Recommendations on how to implement biodiversity offsets (after being established as being the only last resort option, i.e. a sensitive area cannot by any other means be avoided or mitigated/managed to acceptable levels) was added in Section 9.1.1 under “Best practice guidelines and monitoring requirements” of the EGI Integrated Biodiversity and Ecology Assessment Chapter(Appendix C.1 of the EGI Expansion SEA Report). These have also been included in the corresponding chapter of the Gas Pipeline SEA Report.

2.16. Recommendations for the EMPr

Stakeholder Reviewer Name	Organisation	Date, Method of Submission and Specific Chapter	Reviewer Comment	Response
Rhett Smart	CapeNature, Scientific Services	10 June 2019, Email General	CapeNature recommends that a Generic Environmental Management Programme (EMPr) is compiled for the construction phase for the gas pipelines as was compiled for the EGI SEA. Implementation of appropriate mitigation measures can significantly reduce the impacts related to this activity. The EMPr must include measures related to each of the different methodologies for laying of the pipeline, which would include trenching, pipe-jacking and horizontal directional drilling. The selection of the most appropriate methodology must also be included and should take both engineering and environmental considerations into account.	Response from the CSIR: A Generic EMPr has not been compiled for the EGI Expansion SEA as the one compiled as part of the 2016 EGI SEA, which was gazetted for comment in March 2018 and for implementation March 2019, will be used for EGI development. The specialists that were part of the EGI Expansion SEA Team reviewed the Generic EMPr for EGI development when it was gazetted for comment in March 2018. The DEA then considered these comments when compiling the final EGI Generic EMPr for gazetting.