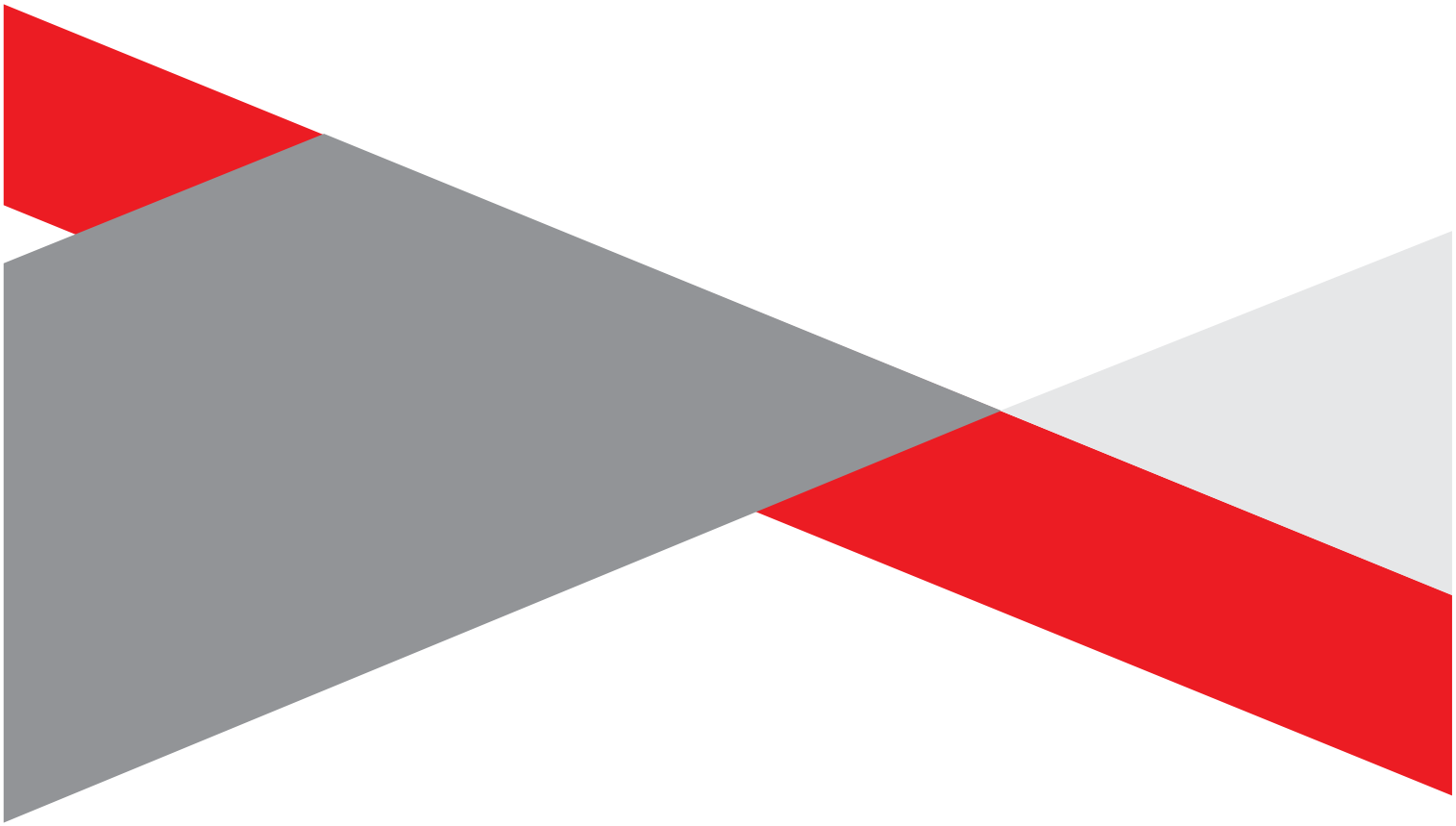
APPENDIX C8
MEETING NOTES



Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

MEETING NOTES OF A SPECIAL FOCUS GROUP MEETING HELD WITH THE RICHARDS BAY INDUSTRIAL DEVELOPMENT ZONE (IDZ) ENVIRONMENTAL REVIEW COMMITTEE MEMBERS HELD ON MONDAY, 20 JUNE 2022 AT 14H00 VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Nicolene Venter
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

PHAKWE RICHARDS BAY GAS POWER 3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES

Name	Department / Company / Organisation
Richards Bay Industrial Development Zone: Environmental Review Committee Members (Alphabetically according to Surname)	
Knosingiphile Biyela	RBIDZ
Sandy Camminga	Chairperson: Richards Bay Clean Air Association
Nokubonga Duma	Unknown
Nkosikhona Fakude	RBIDZ
Sethlabile Gcume	Environmental Officer: RBIDZ
Kershia Govender	City of uMhlathuze: EMI: Economic Development, Tourism & Environmental Affairs
Keith Harvey	RBIDZ
Phumla Luthuli	RBIDZ
Simthembile Mapu	RBIDZ
Muzi Mdamba	Unknown
Bonga Mkhize	KZN Department of Economic Development, Tourism and Environmental Affairs
Letitia Moodley	Investor Retention: RBIDZ
Sinovuyo Ndayi	RBIDZ
NFM	KZN Department of Economic Development, Tourism and Environmental Affairs
Zakithi Ngcobo	KZN Department of Economic Development, Tourism and Environmental Affairs
Percy Langa	Safety, Health, Environment, Quality: RB IDZ
Phumla Luthuli	RBIDZ
Theuns Roux	Planning Manager: RBIDZ
Dominic Wieners	EIA Reviewer: Ezemvelo KZN: Integrated Environmental Management Unit
Specialist	
Terri Bird	Air Quality Specialist: Airshed Planning Professionals
Phakwe Group	
Jordi Fernandez	Operations manager
Savannah Environmental	
Jo-Anne Thomas	Environmental Assessment Practitioner
Nicolene Venter	Public Participation and Social Consultant

APOLOGIES

Mr Sethabile
Mr Lambert

The attendees were requested to please register their attendance on MS Teams' Chat Function, which will serve as proof of attendance to the DFFE together with the meeting notes.

The Attendance Record is attached as **Appendix A** to the Meeting notes.

PRESENTATION

Nicolene Venter welcomed the Members of the Richard's Bay IDZ Environmental Review Committee (ERC) at the Special Focus Group Meeting (FGM), as arranged by the Richard's Bay IDZ ERC, and thanked them for their attendance. After the project team had introduced themselves, the Richard's Bay IDZ ERC Members introduced themselves to the project team.

Ms Sandy Camminga requested the IDZ to clarify who would be chairing the meeting in the absence of Mr Percy Langa. Nicolene responded that the IDZ ERC arranged the special meeting on behalf of Savannah Environmental and that Savannah Environmental will chair the meeting and will also be responsible for drafting the meeting notes.

She presented the agenda and purpose of the meeting.

Jo-Anne Thomas presented the following:

- project description for the Phakwe Richards Bay Gas Power3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed to date;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

She drew the attendees' attention to the following environmental aspects:

- Heritage Impact Assessment was not carried over from the scoping phase as there were no impacts of significance identified during the scoping phase and therefore no further assessment is required.
- Following the scoping phase, the need for a Quantitative Risk Assessment was identified and the assessment was conducted and included in the impact phase and the results as presented at the meeting.
- Various large-scale development projects in the area were included in the cumulative impact assessment, including the Karpowership Project, which is currently under appeal.

The presentation is attached as **Appendix B** to the meeting notes.

DISCUSSION SESSION

Question / Comment	Response
Dominic Wieners (Submitted on Virtual Chat Function)	
From an ecological perspective it was stated that development activities of medium impact are considered acceptable followed by appropriate restoration activities" Where will these "restoration activities" be undertaken, and is this being proposed	Jo-Anne Thomas responded that in terms of the specialist report, the specialist largely contextualises the impact on a more regional level, considering the overall cumulative impact of projects in Richards Bay. The restoration referred to is related to future planning for developments in the larger area at a municipal

Question / Comment	Response
through an offset discussion (i.e. offsite), or through the mitigation hierarchy (i.e. on site)? Additional comment added: There are a few initiatives in terms of offset proposals and commented that he is not sure whether Savannah Environmental and/or the Developer are aware of it. He indicated that he would go through the specialists' Reports.	level. The process would be more of a cooperation of the developer together with other planned projects in the area to minimise impacts on remaining biodiversity in the larger Richard's Bay area given the already high level of transformation of the area. Jo-Anne responded that the team is aware of some of the off-set proposals in the area (such as the work done for the Eskom gas to power project). She indicated that it would be appreciated if Mr Wieners can have a look at the specialists' Reports and should he require further clarifications, not to hesitate to contact Savannah Environmental who will obtain more detailed responses from the specialists.
The Aquatic Biodiversity assessment did not rate the cumulative significance. Kindly indicate why this was not done?	Jo-Anne Thomas responded that the conclusion was that the project did not have a significant impact on the wetlands on the project site itself or in the surrounding area. Therefore, the project does not contribute to the cumulative impact in the area. In terms of the specialists' methodology, they did not rate the cumulative impact. She noted that there is however already an impact on the wetlands. It was agreed that this should be clarified in the final EIA Report.
How will gas (either LNG or LPG) be provided to the IDZ precinct, given that it is suggested that traffic during operational phase will be minimal?	Jo-Anne Thomas responded that the gas would be delivered to the site via a pipeline infrastructure from the Richard's Bay port area. Only the use of LNG is being considered for the project. Should Hydrogen be used, it is the intention that it would also be transported to the project site via pipeline from the port, or it could be from elsewhere in Richards Bay area. It was mentioned that the pipeline infrastructure would be provided by Transnet and would be subject to ia separate EIA process. The attendees were informed that, based on media reports, there was a request for Information from Transnet to Developers or Interested Parties, requesting Proposal which would be released in July 2022.

Question / Comment	Response
It was mentioned that there are a number of initiatives proposed, including offset proposals and these need to be finalised.	Jo-Anne Thomas responded that Savannah Environmental is aware of a number of offset proposals as per their involvement in the Eskom project. She informed Mr Wieners that should he need any further clarifications, that Savannah Environmental is happy to provide them to him and would also obtain detailed responses from the specialists.
Sandy Camminga	
It was commented that this is one of those projects where the cart is before the horse as there is no idea as to where the gas would be sourced from. The concern is that the impact of the gas pipeline is not being considered at all and that it is not clear how the gas pipeline would reach the IDZ Zone 1F.	Nicolene Venter acknowledged the comment submitted.
It was stated that should the following question be included in the Report, that she be referred to the applicable section of the Report. It was asked whether the Air Quality Impact Assessment (AQIA) that was assessed focused on IDZ 1F as a cluster or on its own, i.e. will we get an understanding from this Report what the impact would be and what the impact zone would be specifically from the developments within the IDZ 1F.	The impact of the project on its own as well as that together with other developments (i.e. cumulative impact) was assessed in the EIA. The specialist report is included in Appendix G of the EIA Report.
It was noted that the Health Impact Assessment has been rated as none and the concern is that that would be a finding considering what the base line emissions are in Richards Bay and what the air quality is in Richards Bay.	Jo-Anne Thomas responded that detailed clarification regarding this impact would be sourced from the specialist and included as a post-meeting note in the meeting notes or attached as an appendix to the meeting notes. **<u>Post-meeting note</u>:** *Response by Specialist: Infotox* The purpose of the RAHIA and the HHRA is to assess the impact of the proposed power station on health in the receptor communities. The purpose is not to assess the impact of the baseline air quality on the community. However, the baseline health vulnerabilities of the community was considered. As stated in the RAHIA report: "Based on the assessment of the baseline health of the receptor community there are no grounds to assume a significantly increased vulnerability to the effects of exposure to the air pollutants of interest in the

Question / Comment	Response
	1-to-14-years population in the receptor area, as compared to the KwaZulu-Natal population. A slightly to moderately increased vulnerability is possible in the age group 65 years and older. These vulnerabilities are considered in the rating of the significance of health impacts." As stated in the HHRA report, "The criteria pollutant HHRA is approached through the calculation of attributable fractions of disease (AFs) based on the incremental change in the air concentration of the pollutant of interest," referring to the incremental change modelled by the air quality specialist. This approach is correct because the health impact contributed by the power station only is assessed. Thus, there is no ambiguity in the report which allows an interpretation that any claims are made regarding the health impact of the baseline pollution in Richards Bay.
The above concern ties into another issue i.e. there is no level that pollution is safe and considering the various guidelines, the matter is that no project would receive an Authorisation based on the impact that the development would have on air quality from a human health perspective.	**Post-meeting note:** *Response by Specialist: Infotox* The HHRA report stated that "health effects from exposure to PM2.5 concentrations below particulate matter air quality guidelines are well documented. Simplistic comparisons between exposure concentrations and ambient air quality guidelines are inadequate to quantify health outcomes, mainly because ambient air quality guidelines are used for management of air quality and are not intended for risk quantification. Furthermore, researchers have not been able to establish a safe threshold below which there are no health risks (WHO 2000 and 2005). Thus, it is true that a "zero risk" threshold cannot be identified for PM2.5 concentrations, but this does not imply that incremental contributions to the PM2.5 concentration by human activity are always associated with an unacceptable risk to health. This is because some baseline risk to health, due to PM2.5 in air, will always be present, even in areas where human activity is minimal. PM2.5 in air also arises from natural sources, such as wind-blown dust and natural veld fires. Thus, the question is not whether there is zero risk to health due to the power station, but whether the risk will be notably different from the background risk. With notably we mean that more

Question / Comment	Response
	cases of the health effects of interest will be detectable in the receptor population. The HHRA study has indicated that this will not be the case, that the risk associated with the power station will be so small as not to be distinguishable from the background risk. Thus, it is not expected that more cases of the health effects of interest will be detectable in the receptor population when the power station comes into operation, provided that the resulting air quality changes are as modelled by the air quality specialist. This explanation PM2.5 is also applicable to SO2, NO2 and CO.
The concern was raised regarding the possible impact on the road infrastructure in the Alton area as now there is zero space to bring in one more truck utilising the road. The team was informed of the current road surface conditions in the area. Trucks are not being allowed coming in from the N2 into Alton.	Jo-Anne responded that the Traffic Specialist would have considered the road conditions in the assessment and would need to provide further insight into the road conditions as mentioned by Ms Camminga. Theuns Roux informed the attendees that the IDZ did the SPLUMA Application for Zone 1F and Zone 1A in 2013 of which both were approved. Information was shared regarding ongoing traffic assessment to address any traffic and road condition issues and these impacts should not be only addressed by the IDZ but by the Municipality as well. The western arterial road is of paramount importance to lessen the traffic congestion of Alton and Alton North.
In response to Mr Roux's response, Ms Camminga requested that Savannah Environmental reassess their findings as traffic impact cannot be low as indicated in the presentation. She mentioned that the traffic impact at IDZ Zone 1F is a fatal flaw.	Percy Langa responded that the IDZ can provide a letter to Savannah Environmental in which the two following historical points can be addressed: 1. increase of traffic within the IDZ; and 2. condition of roads. It was mentioned that a formal response regarding this matter would be provided by the IDZ as it is currently a legal issue between the IDZ and the City of uMhlathhuze.
The project team was informed that the dust issue in the area is signifcant, especially from a cumulative aspect, due to i.e.: • open stockpile in Alton; and • trucks running through Alton of which the cargo is not covered, etc.	Terri Bird responded that this source of concern could be added to the cumulative section of the Air Quality Report and reference it as an issue It could also be commented that there would be changes in the particulates at the nearest monitoring station, and therefore mitigation measures would be required from the

Question / Comment	Response
If there is already a problematic baseline of air quality and a proposed development added to it, no matter the percentage, additional impacts are added.	Municipality, the stockpile owners and/or users, and quantify them and add some management practices into the cumulative assessment.
Additional to the above, it was recommended that the project team look at the Municipality's Land-Use Plan as it is believed that those stockpiles are illegal, and it would be appreciated if this concern could be highlighted in the Report.	Nicolene Venter acknowledged the point raised.
The issue was also raised that developments are constantly added to IDZ 1F, adding to the cumulative impacts that these impacts are then not property assessed and addressed.	Terri Bird responded that Airshed had included all the facilities for which information was available in their cumulative assessment. Information that could not be found is for the Chlor Alkaline Plant. The assessment indicated that the impact is fairly low due to the type of pollutants that are fairly dissimilar for the Alkaline Plant and the other facilities. A full quantitate assessment has not been done but the cumulative assessment does include the information that was made available to the specialist team.
In terms of climate change issue, one of the slides spoke to avoidance of emissions by effectively using less coal. It was asked as to how that argument holds up when there is an increasingly demand for electricity but there is no reduction in the use of coal.	Jo-Anne Thomas responded that the basis of the study was to consider the intention from the planning at a national level, i.e. the introduction of gas into the grid was to replace coal as a balancing technology for the grid and to support the introduction of renewables. The planning from a Government perspective is that from 2023 coal fired power stations would commence with decommissioning. In order to ensure stability of the grid, there needs to be another form of stability which almost acts as a baseload if renewable energies are not operating. That is the intention of gas. The climate change specialist considered the offset of coal in determining the offset emissions.
In response to the answer provided to the comment above, it is premised that coal consumption would be reduced but there is no guarantee as one does not see any traction on gas-to-power and what the electricity cost implications would be. At the end of the day does this project justify the reduction in coal consumption?	
At the end of the day, would one really see the reduction of coal.	Jordi Fernandez informed the attendees it is expected that Government would make a call to reduce the usage of coal as Government needs to consider the increase in Carbon Tax. It is therefore important for Eskom to reduce their carbon emissions. It is also important to note that that the maintenance cost of coal fired power stations are becoming increasingly expensive. It is important to reduce the global emissions in the country and one needs to look at the bigger picture and not site-specific impacts.
Percy Langa	

Question / Comment	Response
The project team to confirm the reference made in the presentation regarding the zoning of the site as one of the allowable land uses is definitely Noxious Industries but the actual zoning itself is not Noxious Industry.	**Post-meeting note:** Phase 1F is zoned Noxious Industry (same as Mondi, Foskor, Hillside, Isizinda, Bayside).
In the overview provided, Gas Power 2 project was mentioned, it is recommended that different colours indicating the various Gas Power Projects.	Nicolene Venter acknowledged the recommendation.
In terms of the list of specialists, it was mentioned that a Heritage Impact Assessment was not done and the reason, therefore. It was mentioned that the IDZ undertook the same study as part of their EIA done in 2015. It is important that reference is made to the 'chance find protocol' of heritage resources and that these are included in the EMPr and that in needs to be implemented by the contractor.	Jo-Anne Thomas confirmed that the 'chance find protocol' of heritage resources is included in the EMPr.
Keith Harvey	
It was enquired as to what the lifespan of the gas power plant facility.	Jordi Fernandez responded that it would be up to 25 to 30 years with the current technology available.
As everyone is trying to reach net zero in 2050, Japan is looking to the possibility of mixing coal and ammonia to reduce their emissions and they would probably achieve it. Hearing that Eskom is planning to decommission their coal fired power stations, it is believed that those structures or land could be used for something else.	Jo-Anne Thomas responded that as part of the decommissioning process of Eskom's coal fired power stations, they are looking at the utilisation of the land for possibly renewable energy projects.
In terms or renewable energies, in particular the battery technology, these renewable energies would not be able to provide the high volume of megawatts required for the country and it is for this reason that one needs to look at gas power stations, especially to avoid long term loadshedding.	The comment was noted by the attendees.
In terms of the concerns raised regarding Alumina Alley, the IDZ is attending to the matter with their customers as coal export was planned to arrive by rail and now it is being trucked in. The IDZ is investigating and in the process of sourcing finance to construct a railway line to	Nicolene Venter thanked Mr Harvey for the information he provided regarding the history of the roads and the various options being considered to address the situation. The information received at the meeting regarding the traffic conditions will be shared with the specialist.

Question / Comment	Response
Zone 1F. The IDZ cannot be held responsible for coal trucks utilising roads that are not built to accommodate their load and he indicated that he agrees with Ms Camminga that the road conditions need to be resolved.	
It was asked whether issues raised against the Richard's Bay Gas Power 2 project have been taken into account and whether certain conditions have been imposed.	Jo-Anne Thomas responded that this EIA process is regulated in terms of the legislation and is being followed accordingly, and the team had not considered aspects that are not legislated in this legal process.
Sandy Camminga	
It was commented that it is important that the traffic impact should be looked at holistically as the current situation has been created by Transnet, the Transnet Ports Authority, etc.	Nicolene Venter acknowledged the comment as submitted by Ms Camminga.

WAY FORWARD AND CLOSURE

As a closing statement, Jordi Fernandez thanked the attendees for their attendance and informed them that the Report contains much more detailed information as only a summary of the findings were presented at the meeting.

Jo-Anne Thomas thanked the attendees for their valuable inputs and comments submitted at the meeting and that these will be shared with the relevant specialists.

Nicolene Venter thanked the attendees for sharing their local knowledge with the project team and thanked the Richard's Bay IDZ Environmental Review Committee for arranging the Focus Group Meeting. She reminded the attendee that the EIA Report commenting period is ending on Friday, 22 July 2022 and that it would be appreciated if written comments can be received before or on the 22 July 2022.

The meeting was closed at 15h30.

LIST OF ABBREVIATIONS AND ACRONYMS

AQIA	Air Quality Impact Assessment	FGM	Focus Group Meeting
CCPP	Combined Cycle Power Plant	KZN	KwaZulu-Nataal
DFFE	Department of Forestry, Fisheries and the Environment	RBIDZ	Richard's Bay Industrial Development Zone
ERC	Environmental Review Committee		

APPENDIX A: Attendence Record	
Meeting Title:	Phakwe Richards Bay GP3 CCPP: Focus Group Meeting - Richards Bay Industrial Development Zone, Environmental Review Committee Members(EIA Report Presentation)
Total Number of Participants	22
Meeting Title	Special ERC Meeting- RBGP3 Savannah Environmental
Meeting Start Time	6/20/2022, 1:55:24 PM
Meeting End Time	6/20/2022, 3:36:25 PM
Meeting Id	93dd0395-493e-41d3-8c76-eef395c58314

Full Name	Role
Nicolene Venter	Organiser
Jo-Anne Thomas	Presenter
Terri Bird	Air Quality Specialist
Jordi Fernandez	Development Manager
Theunis Roux	Attendee
Letitia Moodley	Attendee
Nkosikhona Fakude	Attendee
Sandy Camminga (RBCAA)	Attendee
Nkosingiphile Biyela	Attendee
Dominic Wieners	Attendee
Kershia Govender	Attendee
Phumla Luthuli	Attendee
Sethabile Gcume	Organiser
Simthembile Mapu	Attendee
Keith Harvey	Attendee
Percy Langa	Attendee
Muzi Mdamba	Attendee
Sinovuyo Ndayi	Attendee
NFM EDTEA	Attendee
Bonga Mkhize	Attendee
Zakithi Ngcobo	Attendee
Nokubonga Duma	Attendee

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

Key Stakeholder Workshop
Wednesday, 22 June 2022

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AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Scoping Assessment & Findings
- Discussion
- Way Forward

2

CONDUCT OF THE MEETING

- Recording of Meeting
- Please stay on mute during the presentation
- Register attendance on Chat function (name, surname & affiliation)
- Please raise your hand to indicate a comment or question to raise
- Questions submitted in Chat function will be responded at the end of the presentation

3

PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings of the assessment of the project as documented in the **EIA Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final EIA Report** to be submitted to the DFFE

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PROJECT OVERVIEW
(Jo-Anne Thomas)

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PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu Natal
- **Project footprint:** 11.8ha

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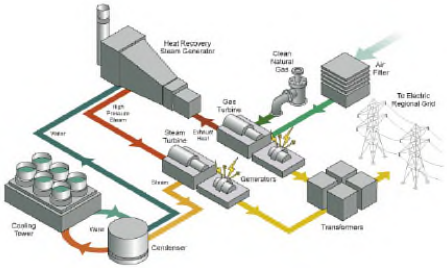
Combined Cycle Gas to Power Technology



- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

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OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised for development of infrastructure for the IDZ, including the infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
- The site will be accessed via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure)

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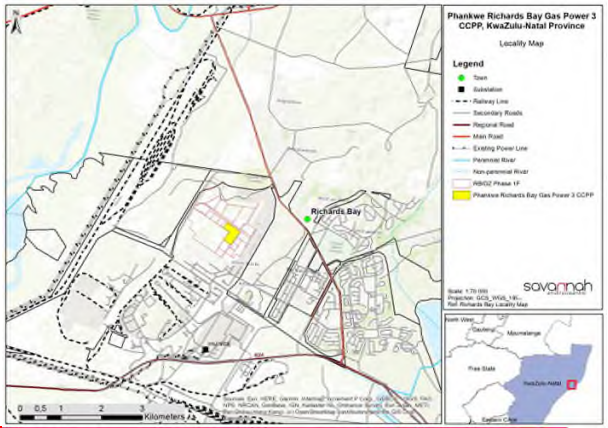

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SPECIALIST STUDIES

Specialist	Field of study
Anita Rautenbach of Rautenbach Biodiversity Consulting	Terrestrial Ecology (including fauna and flora)
Dale Kindler and Andrew Husted of The Biodiversity Company	Aquatic ecology
Ivan Baker of The Biodiversity Company	Soils
Terri Bird of Airshed	Air Quality
Infotox	Health Risk Assessment
Promethium Carbon	Climate Change
Lourens du Plessis of LOGIS	Visual
Morne de Jager of EARES	Noise
Eugene de Beer of Urban-Econ Development Economists	Socio-economic
Iris Wink of JG Afrika	Traffic
Mike Oberholzer of Riscom	Quantitative Risk Assessment

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Terrestrial ecology	• Site located within areas recognised as of national, provincial, district or municipal conservation significance. • Phase 1F of the IDZ is still largely undeveloped but has a history of anthropogenic disturbance. • Project site on has experienced past environmental disturbances that were judged to have had a negative influence on its biodiversity and ecology. • Site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities. • Many of the anticipated project-specific impacts during the construction and operational phases can be successfully mitigated to moderate, low, and minor levels of significance, and are thus considered acceptable.
Aquatic ecology	• Three hydrogeomorphic (HGM) units were identified within the 500 m regulated area of the site. • Two of the wetlands infilled in terms of the RBIDZ EA. • The remaining third wetland is not in a position in the landscape to be affected by the development. • No additional authorisation or WUL is required for the proposed PRBGP3 project. • The conceptual wetland plan developed for the IDZ must be implemented for the project.

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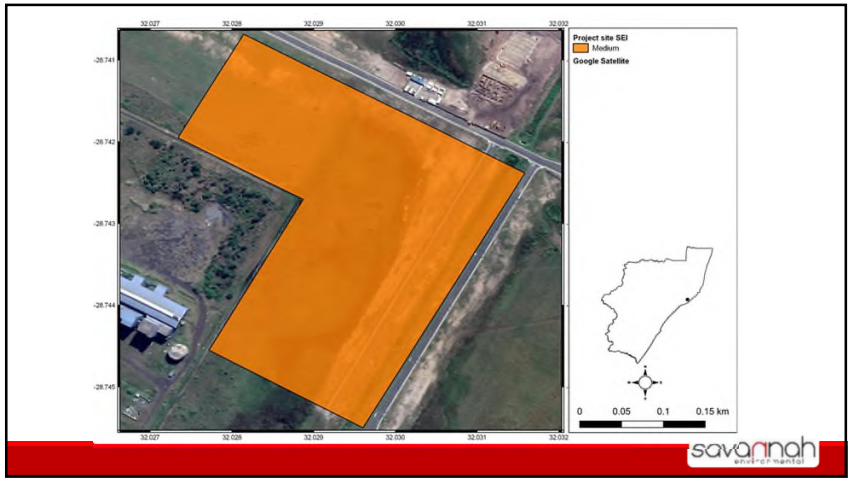

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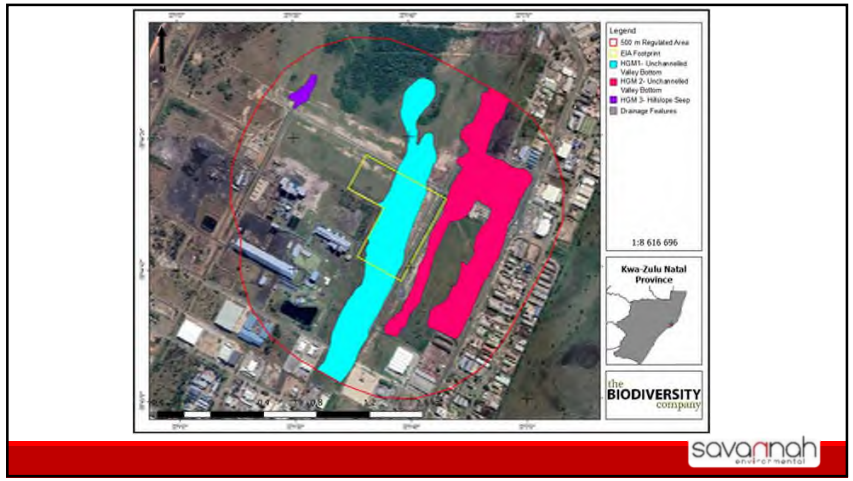

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Soils and Agricultural Potential	• Overall land potential ranges from "Low" (for the wetland areas characterised by non-arable conditions) to "Very High" under natural conditions • Potential loss of highly valued land. • Regardless of whether or not the proposed activities proceed, the soil will not be used for agriculture due to the zoning of the area. The soil resources will ultimately never be of value to farming practices reliant on high potential arable land. • Therefore, no impacts towards agricultural land use are foreseen.

Air quality	• Construction phase could result in off-site exceedances of PM10 daily and annual National Ambient Air Quality Standards (NAAQS) over the 36-month construction phase. Impact of low significance expected with mitigation.
	  ◦ Wet suppression of exposed areas.
	  ◦ Reduce unnecessary traffic and strict on-site speed control.
	  ◦ Reduction of extent of open areas.
	  ◦ Restriction of disturbance to periods of low wind speeds.
	  ◦ Re-vegetation of cleared areas as soon as practically feasible.
	• Compliance with NAAQS under normal operations as applicable to sulfur dioxide (SO_2), particulate matter (PM10 and PM2.5), carbon monoxide (CO) and total volatile organic compounds (TVOCs). Low impact significance. No additional mitigation required.

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions

Air quality	• Exceedances of the nitrogen dioxide (NO_2) NAAQ Limit Concentration could result from the normal operation of the facility using natural gas, but the frequency of exceedance is likely to be within that allowed by the NAAQS. Medium impact significance for NO_2 reduced to low with mitigation.
	  ◦ Water injection for NOx emission controls to meet MES (already planned).
	  ◦ Minimise start-up events or the duration thereof as far as is practical.
	  ◦ Turbine maintenance as per manufacturers recommendations
	  ◦ A move to pure hydrogen fuel with appropriate combustion zone temperature control, as soon as practically possible, will reduce emissions of NO_x.
	• Impact of start-up on ambient NO_2 concentrations was estimated, and exceedances of the NAAQS could result at residential receptors, schools and medical facilities. The impacts can be reduced if the turbines reach Minimum Emission Standards in less than 30 minutes, and if the frequency of start-up events is reduced

Health Risk	• Impacts on health associated with $PM_{2.5}$, SO_2, NO_2, CO and VOC emissions during construction, operational and decommissioning phases assessed as of low significance, with a neutral status. • Implementation of the project associated with low impact on health, even in sensitive receptor communities.

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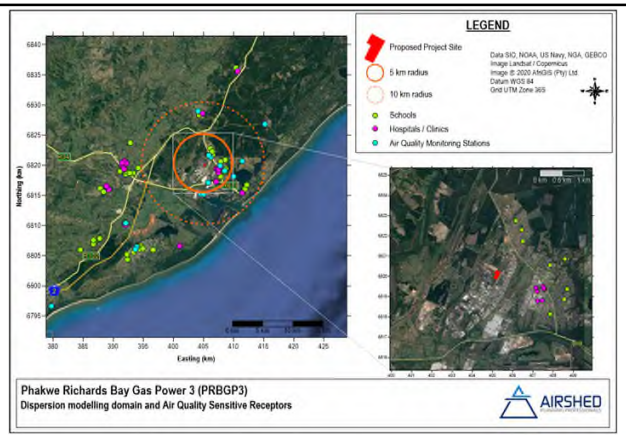

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Climate change	• The project (assuming using NG) will emit 82 ktCO_2e during the construction phase, 7 870 ktCO_2e/year during the operational phase and 236 000 ktCO_2e over its lifetime. The portion of these emissions emitted inside the borders of South Africa represents 1,9% of the low emission NDC carbon budget calculated, for the lifetime of the project. • Potential positive impact of the proposed project, the expected GHG emissions from the project will avoid emissions through the displacement of coal and support for the grid to accept intermittent renewable energy. • Total avoided emissions is 236 million tCO_2e over the lifetime of the project through the displacement of the coal baseline. • Positive impact of the project with respect to avoided emissions outweighs the contribution of the project to national inventory. • With respect to the resilience of the project to climate change, no significant risk factors identified.
Visual	• The project is not expected to have a significant visual impact within the larger study area. • The location of the site is in line with the principle of consolidating industrial infrastructure within allocated areas. • Significance of the impacts expected to be moderate to low as there are no known potential sensitive visual receptors within close proximity of the site.

18

SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Noise	• Output of the modelling exercise indicates a potential noise impact of low significance for both the day- and night-time periods for all the project phases. • No mitigation or management measures are required or recommended to reduce noise levels (when considering Environmental Noise). • The power generation facility still has to comply with the relevant Health and Safety Regulations and Guidelines that my stipulate periodic noise monitoring (Noise-Induced Hearing Loss Regulations [GNR 307 of 2020] as well as the Occupational Health and Safety Act, 1993 [Act 85 of 1993]).

Socio-economic	• The project will result in both negative and positive impacts.
	• All identified economic impacts will be positive, including:
	  • Increases in Production generated in the economy & energy generation
	  • Contribution to Gross Value Add (GVA)
	  • Contribution to Employment Creation
	  • Contribution to Business Income levels retained in the economy
	• Some social impacts are negative in nature, including:
	  • Impacts on sense of place, air quality and traffic
	  • Demographic and gender impacts
	  • Crime impacts
	  • Impacts on social and human capital
	  • Infrastructural impacts

19

SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Traffic	• Main impact on the external road network will be during the construction phase. The number of abnormal load vehicles was estimated and found to be able to be accommodated by the road network. • The traffic generated during the construction phase, although significant, will be temporary and impacts are considered to be negative and of medium significance before and of low significance after mitigation. • The traffic generated during the operation phase will be minimal and will not have an impact on the surrounding road network. • The preferred access roads to the site are the roads located off the R34 viz. Western Arterial, Alumina Alley and Bullion Road.
Unplanned events	• As a result of the risk assessment study conducted for the proposed PRBGP3 facility in Richards Bay, a number of events were found to have risks beyond the site boundary. These risks could be mitigated to acceptable levels. • No fatal flaws that would prevent the project proceeding to the detailed engineering phase of the project were identified. • MHI Study must be completed must be completed in accordance with the MHI regulations and compliance with relevant SANS codes to be assured. • Completion of an emergency preparedness and response document for on-site and off-site scenarios prior to initiating the MHI risk assessment (with input from local authorities).

20

CUMULATIVE IMPACTS

- Assessment of the cumulative impacts was undertaken through the consideration of impacts in isolation and compared to the cumulative impacts of the Phakwe Richards Bay Gas Power 3 CCPP and other industrial developments at a scale specifically identified by each specialist.
- Considered project in relation to all known and viable large-scale industrial developments located within a radius of 10km from the project site, including proposed power generation projects

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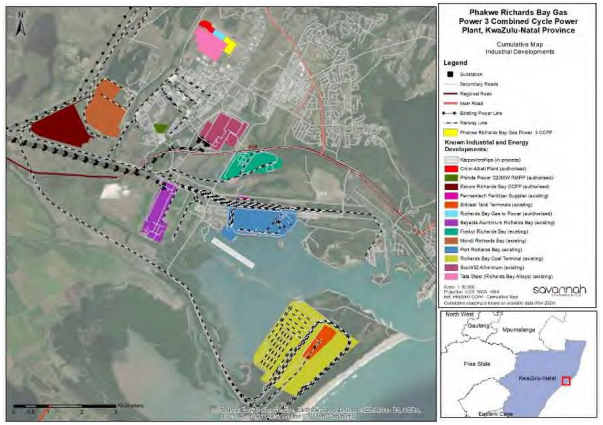

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CUMULATIVE IMPACTS

Specialist assessment	Overall significance of impact of the proposed project considered in isolation	Cumulative significance of impact of the project and other projects in the area
Terrestrial Biodiversity	Medium	Medium
Aquatic Biodiversity	None	Not rated
Soils and Agricultural Potential	Medium	Medium
Air Quality	Low	Medium
Health	None	Not rated
Climate Change	High	High
Visual	Medium	Medium
Noise	Low	Low
Socio-Economic	Low	Low
Traffic	Low	Medium
Risk Assessment (unplanned events)	Low	Low

23

CONCLUSION AND RECOMMENDATIONS

- Project is well aligned with the national, provincial and local policy framework
- From a biodiversity perspective, the site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities.
- The RBIDZ received EA, which includes the development of two of the wetland areas. The remaining third wetland is not in a position in the landscape to be affected by the development
- From a land use perspective, the site is located within the Richards Bay Industrial Development Zone, Phase 1F. The site is designated for noxious industry such as the proposed gas to power plant.

24

CONCLUSION AND RECOMMENDATIONS

- From a social perspective, the project has the potential to impact negatively on ambient air quality, human health, ambient noise levels and sense of place. Impacts expected to be limited.
- Positive socio-economic impacts of the project are expected at a regional and national level.
- The project is expected to have a high impact on climate change. The inclusion of the project onto the grid could, however, contribute to a potential net reduction in GHG emissions.
- No environmental fatal flaws identified with the project
- All impacts associated with the project can be mitigated to acceptable levels or enhanced through the implementation of the recommended mitigation or enhancement measures.
- Through the assessment of the development of the Phakwe Richards Bay Gas Power 3 CCPP within the project site it can be concluded that the development of the facility is environmentally acceptable (subject to the implementation of the recommended mitigation measures).

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DISCUSSION

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WAY FORWARD & CLOSURE
(Nicolene Venter)

27

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WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period from **06 June – 22 July 2022**
- **(https://savannahsa.com/public-documents/energy-generation/prbgp3-2000mw-ccpp/)**
- Final EIA Report submission to DFFE (end-July 2022)
- Our Public Participation team is available to answer any questions
- Registered parties will be notified of decision issued by DFFE and the Appeals process

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WHO TO CONTACT

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Fax: 086 684 0547
Cell: 060 978 8396
www.savannahSA.com

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Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

MEETING NOTES OF THE FOCUS GROUP MEETING HELD WITH THE KING CHETSHWAYO DISTRICT MUNICIPALIT AND CITY OF UMHLATHUZE LOCAL MUNICIPAL OFFICIALS
HELD ON TUESDAY, 21 JUNE 2022 AT 09H00
VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Nicolene Venter
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

PHAKWE RICHARDS BAY GAS POWER 3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES
(Captured Alphabetically according to Surname)

Name	Department / Company / Organisation
Lindani Dladla	City of uMhlathuze
Xolile Dube	Environmental & Disaster Management: King Cetshwayo District Municipality
Nokubonga Duma	Environmental Planning: City of uMhlathuze
Lindiwe Zondi	Electrical and Energy Services: City of uMhlathuze
Zipho Zondo	City of uMhlathuze
Phakwe Group	
Jordi Fernandez	Operations manager
Savannah Environmental	
Jo-Anne Thomas	Environmental Assessment Practitioner
Rendani Rasivhetshele	Environmental Assessment Practitioner
Nicolene Venter	Public Participation and Social Consultant

APOLOGIES

No apologies were submitted.

The attendees were requested to please register their attendance on MS Teams' Chat Function, which will serve as proof of attendance to the DFFE together with the meeting notes.

The Attendance Record is attached as **Appendix A** to the Meeting notes.

PRESENTATION

Nicolene Venter welcomed the meeting attendees and thanked them for their attendance. After the project team had introduced themselves, the meeting attendees introduced themselves to the project team.

She presented the agenda and purpose of the meeting.

Jo-Anne Thomas presented the following:

- project description for the Phakwe Richards Bay Gas Power 3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed to date;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

She drew the attendees' attention to the following environmental aspects:

- Fuel for the power station will be delivered to the site via pipeline, most likely from the Richards Bay port.

- A Heritage Impact Assessment was not carried over from the scoping phase as there were no impacts of significance identified during the scoping phase and therefore no further assessment is required.
- Following the scoping phase, the need for a Quantitative Risk Assessment was identified and the assessment was conducted and included in the impact phase and the results as presented at the meeting.
- Various large-scale development projects in the area were included in the cumulative impact assessment, including the Karpowership Project, which is currently under appeal.

The presentation is attached as **Appendix B** to the meeting notes.

DISCUSSION SESSION

Question / Comment	Response
Nokubonga Duma	
It has been noted that the pipeline infrastructure has not yet been established and asked whether it forms part of this EA application or would it form part of a separate EA application.	Jo-Anne Thomas responded that it is expected that the gas pipeline would be coming from the Richard's Bay Port and would be a Transnet initiative or a private entity, appointed by Transnet. Currently the pipeline network has not been defined. However, there was a request from Transnet earlier this year around April, where information was requested from independent developers and as per information from the media and Transnet, a Request for Proposals will be made available in July this year for development of the gas terminal at the port as well as the pipeline infrastructure within the Richard's Bay area. Jordi Fernandez added that the reason why the pipeline is not included in this EA application is that the project needs to align with the country's strategy. Nothing has been formalised or published as yet regarding this strategy, but Government's intention is to consider an LNG terminal to supply gas as a country asset and ensure public access to it.
In terms of the high impact of Climate Change (GHG emissions) as a result of this development it was asked what the mitigation measures are and how the applicant is proposing to off-set as a result of the impact.	Jo-Anne Thomas responded that as presented the assessment was undertaken considering the use of natural gas. The only mitigation applicable to the project is to reduce its emissions over its lifetime. The intention of the developer is to utilize a mix of natural gas and hydrogen, and potentially ultimately use only hydrogen as their fuel source. Hydrogen is considered to be a renewable fuel with little to no impact on climate change, provided that it is produced using renewable energy as an energy source. It has been indicated that hydrogen will become a

Question / Comment	Response
	competitive fuel to replace natural gas in facilities such as gas to power plants and that is the mitigation and or off-set in terms of climate change. It was also recommended by the specialist that the development switch to hydrogen as a fuel source as soon as possible. Jordi Fernandez added that it is the developer's plan to have a plant that is hydrogen ready. The turbines and all the plant can use hydrogen as part of the fuel mix, as soon as hydrogen is available in sufficient amounts and at a competitive price. It is the intention of experts and government to enhance and increase the use and production of green hydrogen in the country, meaning that over the long term only green hydrogen would be available at a more reasonable price, making the industry more competitive. The current technology design of the plant is to use hydrogen gas, resulting in lowering the level of emissions.
In terms of the cumulative impacts, can it be confirmed that the impact of emissions has been assessed to what is already happening in the Richards Bay area, especially outside the 10km radius that formed part of the study.	Jo-Anne Thomas responded that the environmental specialist considered all developments as indicated on the cumulative map and that the modelling could only be done on information available to the specialists. The impact of a gas to power plant is large because of the use of fossil fuel and it is believed that the results (numbers) are included in the report and if not, Savannah Environmental will request the specialists to provide this specific information. The information will be included as a post-meeting note to the meeting notes. **Post-meeting note**: In respect to GHG emissions, it is almost impossible to assess this on a local scale. In terms of cumulative impacts, the impact was considered at a global scale, i.e. internationally.
Lindani Dladla	
Confirmed that the EIA Report would be perused and that written comments on the EIA Report would be submitted.	Nicolene Venter thanked Mr Dladla for the confirmation and commented that the team is looking forward to the consolidated comments from City of uMhlathuze.

WAY FORWARD AND CLOSURE

As a closing statement, Jordi Fernandez thanked the attendees for their attendance and informed them that the Report contains much more detailed information as only a summary of the findings were presented at the meeting.

Jo-Anne Thomas thanked the attendees for their valuable inputs and comments submitted at the meeting.

Nicolene Venter thanked the attendees for sharing their local knowledge with the project team. She informed the attendees that as no comments or questions were raised during the meeting, that they are most welcome to send the team an e-mail with questions or comments that they may have after discussing the project with colleagues.

She reminded the attendees that the EIA Report commenting period is ending on Friday, 22 July 2022 and as the EIA Report is available for a 45-day review and comment period, that Savannah Environmental will send two (2) reminder e-mail regarding the review period nearing its end and that it would be appreciated if written comments can be received before or on the 22 July 2022.

The meeting was closed at 10h15.

LIST OF ABBREVIATIONS AND ACRONYMS

EA	Environmental Authorisation

APPENDIX A: Attendence Record

Meeting Title:	Phakwe Richards Bay GP3 CCPP: Focus Group Meeting - King Chetshwayo District & City of uMhlathuze Local Municipal Officials. (EIA Report Presentation)
Attended participants	9
Meeting Start Time	6/21/2022, 8:54:50 AM
Meeting End Time	6/21/2022, 10:06:04 AM
Meeting Id	1227622d-6088-4c97-ad97-8f046ac27bca

Name	Role
Nicolene Venter	Organizer
Jo-Anne Thomas	Presenter
Jordi Fernandez	Project Developer
Rendani Rasivhetshele	Attendee
Zipho Zondo	Attendee
Nokubonga Duma	Attendee
Lindiwe Zondi	Attendee
Xolile Dube	Attendee
Lindani Dladla	Attendee

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

FOCUS GROUP MEETING
KING CHETSHWAYO DISTRICT & CITY OF UMHLATHUZE LOCAL MUNICIAPLITY

Tuesday, 21 June 2022

1

AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Key Summary of Environmental Findings
- Discussion
- Way Forward

2

CONDUCT OF THE MEETING

- Recording of Meeting
- Please stay on mute during the presentation
- Register attendance on Chat function (name, surname & affiliation)
- Please raise your hand to indicate a comment or question to raise
- Questions submitted in Chat function will be responded at the end of the presentation

3

PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings of the assessment of the project as documented in the **EIA Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final EIA Report** to be submitted to the DFFE

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PROJECT OVERVIEW
(Jo-Anne Thomas)

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PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu -Natal
- **Project footprint:** 11.8ha

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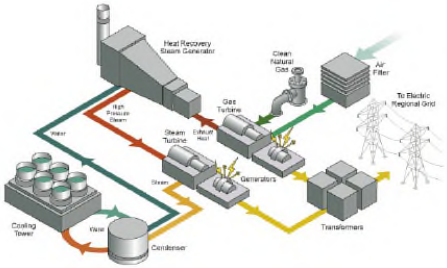
Combined Cycle Gas to Power Technology



- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

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OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised for development of infrastructure for the IDZ, including the infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
- The site will be accessed via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure)

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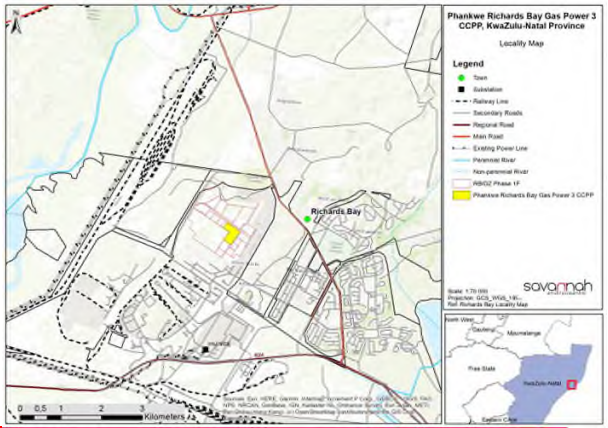

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SPECIALIST STUDIES

Specialist	Field of study
Anita Rautenbach of Rautenbach Biodiversity Consulting	Terrestrial Ecology (including fauna and flora)
Dale Kindler and Andrew Husted of The Biodiversity Company	Aquatic ecology
Ivan Baker of The Biodiversity Company	Soils
Terri Bird of Airshed	Air Quality
Infotox	Health Risk Assessment
Promethium Carbon	Climate Change
Lourens du Plessis of LOGIS	Visual
Morne de Jager of EARES	Noise
Eugene de Beer of Urban-Econ Development Economists	Socio-economic
Iris Wink of JG Afrika	Traffic
Mike Oberholzer of Riscom	Quantitative Risk Assessment

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Terrestrial ecology	• Site located within areas recognised as of national, provincial, district or municipal conservation significance. • Phase 1F of the IDZ is still largely undeveloped but has a history of anthropogenic disturbance. • Project site on has experienced past environmental disturbances that were judged to have had a negative influence on its biodiversity and ecology. • Site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities. • Many of the anticipated project-specific impacts during the construction and operational phases can be successfully mitigated to moderate, low, and minor levels of significance, and are thus considered acceptable.
Aquatic ecology	• Three hydrogeomorphic (HGM) units were identified within the 500 m regulated area of the site. • Two of the wetlands infilled in terms of the RBIDZ EA. • The remaining third wetland is not in a position in the landscape to be affected by the development. • No additional authorisation or WUL is required for the proposed PRBGP3 project. • The conceptual wetland plan developed for the IDZ must be implemented for the project.

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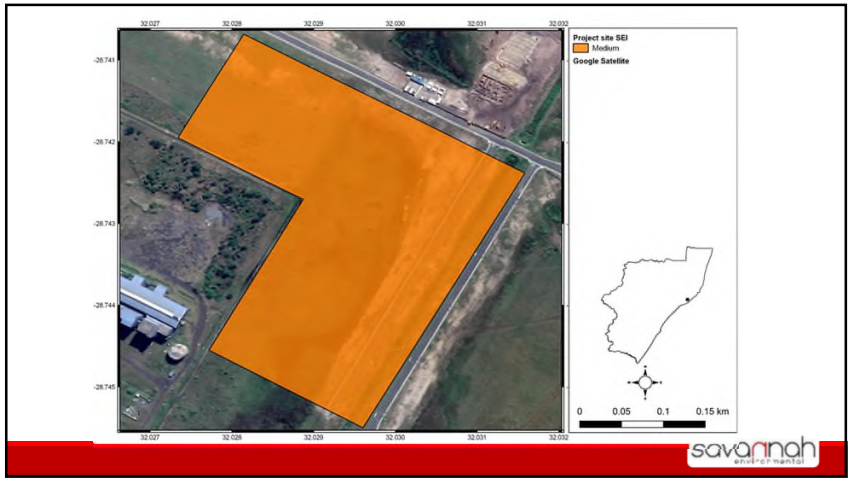

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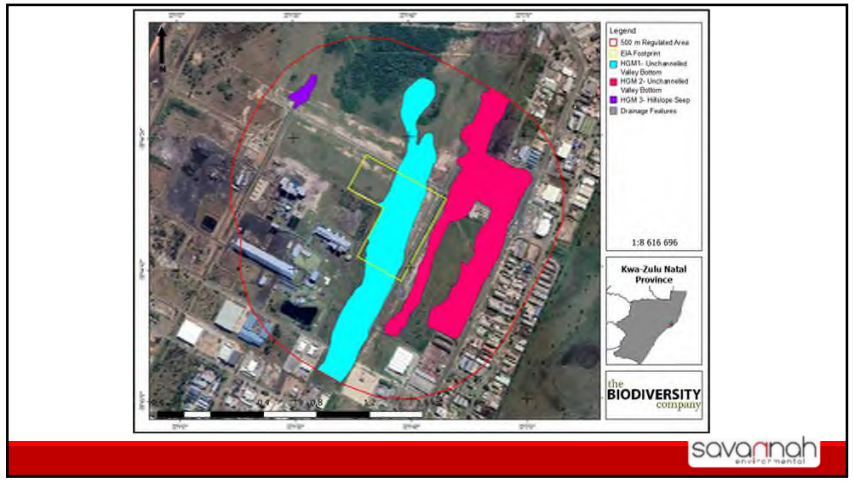

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Soils and Agricultural Potential	• Overall land potential ranges from "Low" (for the wetland areas characterised by non-arable conditions) to "Very High" under natural conditions • Potential loss of highly valued land. • Regardless of whether or not the proposed activities proceed, the soil will not be used for agriculture due to the zoning of the area. The soil resources will ultimately never be of value to farming practices reliant on high potential arable land. • Therefore, no impacts towards agricultural land use are foreseen.

Air quality	• Construction phase could result in off-site exceedances of PM10 daily and annual National Ambient Air Quality Standards (NAAQS) over the 36-month construction phase. Impact of low significance expected with mitigation.
	  ◦ Wet suppression of exposed areas.
	  ◦ Reduce unnecessary traffic and strict on-site speed control.
	  ◦ Reduction of extent of open areas.
	  ◦ Restriction of disturbance to periods of low wind speeds.
	  ◦ Re-vegetation of cleared areas as soon as practically feasible.
	• Compliance with NAAQS under normal operations as applicable to sulfur dioxide (SO_2), particulate matter (PM10 and PM2.5), carbon monoxide (CO) and total volatile organic compounds (TVOCs). Low impact significance. No additional mitigation required.

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions

Air quality	• Exceedances of the nitrogen dioxide (NO_2) NAAQ Limit Concentration could result from the normal operation of the facility using natural gas, but the frequency of exceedance is likely to be within that allowed by the NAAQS. Medium impact significance for NO_2 reduced to low with mitigation.
	  ◦ Water injection for NOx emission controls to meet MES (already planned).
	  ◦ Minimise start-up events or the duration thereof as far as is practical.
	  ◦ Turbine maintenance as per manufacturers recommendations
	  ◦ A move to pure hydrogen fuel with appropriate combustion zone temperature control, as soon as practically possible, will reduce emissions of NO_x.
	• Impact of start-up on ambient NO_2 concentrations was estimated, and exceedances of the NAAQS could result at residential receptors, schools and medical facilities. The impacts can be reduced if the turbines reach Minimum Emission Standards in less than 30 minutes, and if the frequency of start-up events is reduced

Health Risk	• Impacts on health associated with $PM_{2.5}$, SO_2, NO_2, CO and VOC emissions during construction, operational and decommissioning phases assessed as of low significance, with a neutral status. • Implementation of the project associated with low impact on health, even in sensitive receptor communities.

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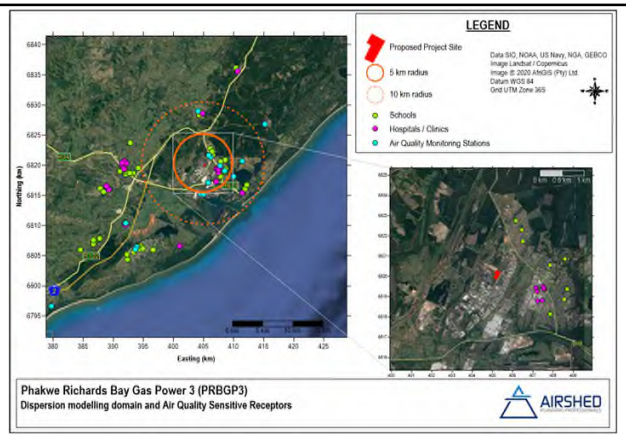

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Visual	• The project is not expected to have a significant visual impact within the larger study area. • The location of the site is in line with the principle of consolidating industrial infrastructure within allocated areas. • Significance of the impacts expected to be moderate to low as there are no known potential sensitive visual receptors within close proximity of the site.

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Socio-economic	• The project will result in both negative and positive impacts.
	• All identified economic impacts will be positive, including:
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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
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Unplanned events	• As a result of the risk assessment study conducted for the proposed PRBGP3 facility in Richards Bay, a number of events were found to have risks beyond the site boundary. These risks could be mitigated to acceptable levels. • No fatal flaws that would prevent the project proceeding to the detailed engineering phase of the project were identified. • MHI Study must be completed must be completed in accordance with the MHI regulations and compliance with relevant SANS codes to be assured. • Completion of an emergency preparedness and response document for on-site and off-site scenarios prior to initiating the MHI risk assessment (with input from local authorities).

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- Assessment of the cumulative impacts was undertaken through the consideration of impacts in isolation and compared to the cumulative impacts of the Phakwe Richards Bay Gas Power 3 CCPP and other industrial developments at a scale specifically identified by each specialist.
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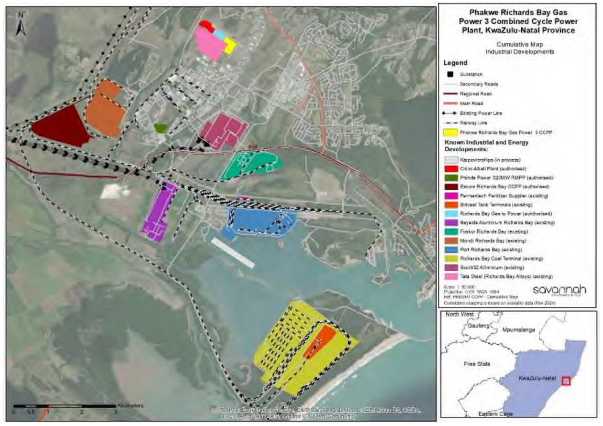

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Soils and Agricultural Potential	Medium	Medium
Air Quality	Low	Medium
Health	None	Not rated
Climate Change	High	High
Visual	Medium	Medium
Noise	Low	Low
Socio-Economic	Low	Low
Traffic	Low	Medium
Risk Assessment (unplanned events)	Low	Low

23

CONCLUSION AND RECOMMENDATIONS

- Project is well aligned with the national, provincial and local policy framework
- From a biodiversity perspective, the site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities.
- The RBIDZ received EA, which includes the development of two of the wetland areas. The remaining third wetland is not in a position in the landscape to be affected by the development
- From a land use perspective, the site is located within the Richards Bay Industrial Development Zone, Phase 1F. The site is designated for noxious industry such as the proposed gas to power plant.

24

CONCLUSION AND RECOMMENDATIONS

- From a social perspective, the project has the potential to impact negatively on ambient air quality, human health, ambient noise levels and sense of place. Impacts expected to be limited.
- Positive socio-economic impacts of the project are expected at a regional and national level.
- The project is expected to have a high impact on climate change. The inclusion of the project onto the grid could, however, contribute to a potential net reduction in GHG emissions.
- No environmental fatal flaws identified with the project
- All impacts associated with the project can be mitigated to acceptable levels or enhanced through the implementation of the recommended mitigation or enhancement measures.
- Through the assessment of the development of the Phakwe Richards Bay Gas Power 3 CCPP within the project site it can be concluded that the development of the facility is environmentally acceptable (subject to the implementation of the recommended mitigation measures).

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WAY FORWARD & CLOSURE
(Nicolene Venter)

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WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period from **06 June – 22 July 2022**
- Report & Appendices available on Savannah Environmental's website (https://savannahsa.com/public-documents/energy-generation/prbgp3-2000mw-ccpp/)
- Final EIA Report submission to DFFE – envisaged end-July 2022
- Our Public Participation team is available to answer any questions
- Registered parties will be notified of decision issued by DFFE and the Appeals process

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WHO TO CONTACT

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DISCUSSION

Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

MEETING NOTES OF THE KEY STAKEHOLDER WORKSHOP HELD WITH ORGANS OF STATE OFFICIALS & KEY STAKEHOLDER REPRESENTATIVES HELD ON WENESDAY, 22 JUNE 2022 AT 09H00 VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Nicolene Venter
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

PHAKWE RICHARDS BAY GAS POWER3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES
(Captured Alphabetically according to Surname)

Name	Department / Company / Organisation
Khumbulani Buthelezi	Acid Division: Foskor (Pty) Ltd
Zinhle Buthelezi	King Cetshwayo District Municipality
Sabelo Gwala	City of uMhlathuze
David Hallowes	groundWork
Hansa Ahmed	Unknown
Deidre Herbst	Eskom Holdings SOC Ltd
Nozipho Khathi	Air Quality: King Cetshwayo District Municipality
Gabrielle Knott	Centre for environmental Rights
Percy Langa	SHREQC Manager: RBIDZ
Edward Mahasi	DFFE
Portia Makitla	DFFE Biodiversity Conservation
Ziyanda Malibiji	DWS
Themba Mdumela	Development Administration: City of uMhalthuze
Mthoko Mhlongo	Land Use Management: City of uMhlathuze
Krishnee Naidoo	DWS
Lumko Ncapai	Transnet NPA – Head Office
Bongumusa Ndwandwe	Development Administration: City of uMhlathuze
Sibongile Qulu	Property Administration, City Development: City of uMhlathuze
Cassandra Schnoor	South Durban Community Environmental Alliance
Franz Schmidt	SHREQC Manager: RB Alloys (RBIDZ 1F)
Ziqubu Siyabonga	Air Quality Specialist: City of uMhlathuze
Jaco Schutte	Transportation Planning: City of uMhlathuze
Alex Searle	The Umhlatuzi Valley Sugar Company
Brenda Strachan	City of uMhlathuze
Pepler Stander	EPCM Holdings
Lizell Ströh	SA Civil Aviation Authority
Mvelo Zulu	Air Quality Compliance & Enforcement Officer: King Cetshwayo District Municipality
Specialist	
HJ Swanepoel	Climate Change Specialist: Promethium Carbon
Sarah Goodbrand	Climate Change Specialist: Promethium Carbon
Phakwe Group	
Jordi Fernandez	Operations manager
Savannah Environmental	
Jo-Anne Thomas	Environmental Assessment Practitioner
Rendani Rasivhetshele	Environmental Assessment Practitioner
Nicolene Venter	Public Participation and Social Consultant

APOLOGIES

Ms Sandy Camminga: Richards Bay Clean Air Association

Ms Terri Bird: Air Quality Specialist

The attendees were requested to please register their attendance on MS Teams' Chat Function, which will serve as proof of attendance to the DFFE together with the meeting notes.

The Attendance Record is attached as **Appendix A** to the Meeting notes.

PRESENTATION

Nicolene Venter welcomed the meeting attendees and thanked them for their attendance. She presented the agenda and purpose of the meeting.

Jo-Anne Thomas presented the following:

- project description for the Phakwe Richards Bay Gas Power3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed to date;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

She drew the attendees' attention to the following environmental aspects:

- Fuel for the power station will be delivered to the site via pipeline, most likely from the Richards Bay port.
- A Heritage Impact Assessment was not carried over from the scoping phase as there were no impacts of significance identified during the scoping phase and therefore no further assessment is required.
- Following the scoping phase, the need for a Quantitative Risk Assessment was identified and the assessment was conducted and included in the impact phase and the results as presented at the meeting.
- Various large-scale development projects in the area were included in the cumulative impact assessment, including the Karpowership Project, which is currently under appeal.

The presentation is attached as **Appendix B** to the meeting notes.

DISCUSSION SESSION

Question / Comment	Response
Raised on the Teams Chat Function during the presentation	
Ahmed Hansa	
Has Eskom network portion/requirements for the integration of the power station been included?	Jo-Anne Thomas responded that a separate study would be undertaken for the grid connection. Depending on the capacity of the connection it would be either a Basic Assessment of a full EIA process and this would be concluded once the grid connection solution has been agreed with Eskom.
Alex Searle	
It would be important to know what land would be affected by these high voltage lines.	Nicolene Venter responded that the affected properties are not yet known and as per the responses provided by Jo-Anne Thomas, a separate BA / EIA would need to be undertaken for the grid connection. Properties affected would be determine at that stage.
Cassandra Schnoor	
It was mentioned that the source of the gas has not been determined but will be piped in from the port. The port has only just started an SEA process to increase capacity, of which the timelines are not known or the outcome, so how does this project link to the SEA process if any?	Jordi Fernandez responded that the project is complex and depends on several things together with timelines. One of these factors is that the gas supply needs to be determined, i.e. a supplier is needed and also the suppliers need confirmation that there is an off-taker to take the gas. All the projects need to be synchronised in time, but these projects are driven by different stakeholders as one part cannot be responsible for everything. In terms of this particular project, the procurement process for gas to power to be issued by government will determine the timeframe for project implementation. Following the bid, the project would need to be selected as a preferred bidder and would need to reach financial close before construction can start. This process could take up to three years meaning that the power plant would be operational only around 2026. It is expected that this 3 – 4-year period would coincide the the time period that the government / Transnet port authority will also take to complete their assessment and studies for the establishment of a terminal in the port, and for the construction of that terminal. This means that the port timeframe needs to align with the gas suppliers/producers. Transnet has already issued a request for proposals for a terminal in Richards Bay port and is is expected that an RFP for the construction of such terminals will be issued in July.

Question / Comment	Response
	if there is no pipeline to bring gas to the site, the project could not proceed to financial close, and construction would not be completed. We are in initial stages of the process and going ahead with the assumption that the government and different stakeholders are doing all the correct steps to create the conditions where the plant would be viable and have access to the required gas.
Lizell Ströh	
Can emissions cause air turbulence?	Jo-Anne Thomas responded that here would be some heat that would be exhausted to the air through the power generation process, but a combined cycle gas power plant utilises a portion of the heat from the first cycle in the process which reduces the emission of heat, i.e. it is not like an open cycle gas plant it uses the heat to heat up steam and to generate additional electricity which is why the efficiency with this type of plant increases. The heat that is emitted should be minimal, but it is uncertain about the height that air turbulence could occur. She added that more detail could be obtained from the air quality specialist. Jordi Fernandez asked for clarification on what is meant by air turbulence to obtain the correct clarification from the specialist, i.e. does it mean any type of turbulence – any movement of air or air movement above a certain speed and/or temperature. He added that besides part of heat being used in the steam cycle, the power plant has a stack for each turbine, through which emissions (including heat) are emitted. The height of the stack means the air is cooling down in the process of going up.
Zinhle Buthelezi	
My question is on the health impact study which methodology was used to acquire the information presented to this meeting.	Jo-Anne Thomas responded that the specialist studies are guided by the Good Practice of IFC Guideline. **<u>Post-meeting note</u>:** The methodology for the Health Impact Assessment is included as Appendix H of the EIA Report.
Comments raised after the presentation (including the late submission on the Teams Chat Function during the discussion session)	

Question / Comment	Response
Comments captured as per the flow of the discussion session	
Mthoko Mhlongo	
It was asked for clarification purposes that the Sensitivity Map included in the EIA Report, does it speak to Noise Sensitivity as it would impact the residents of Brackenham & Wild en Weide Suburbs. If the map speaks to sensitivity noise impacts what are these.	Jo-Anne Thomas responded that the area shaded in green on the sensitivity map reflects the potential noise sensitive receptors including the location of the residential areas. The specialist determined that there would not be an impact on those noise receptors as a result of the construction and operational of the project due to the distance of these from the site.
He informed the project team that his comments have been shared with his colleagues and that formal written comments would be submitted to Savannah Environmental.	Nicolene Venter thanked Mr Mhlongo for the confirmation that the team will receive written comments from the City of uMhlathuze.
Ziyanda Malibiji	
It was mentioned during the presentation that there are three (3) wetlands within the 500m buffer of the site, and it was further indicated that two of those were already authorised through the IDZ's application. In terms of the statement made during the presentation that as the wetland on the site does not require a WUL, can it be confirmed that the DWS, who is the custodian and decision-maker of all water resources, has been consulted.	Jo-Anne Thomas responded that she cannot confirm whether the specialist consulted the DWS, but they did follow the methodology of the Department. The reason for indicating that there would be no impact on the wetland is because of the nature of the landscape in the area and the potential flows of surface water. It was confirmed that a more detailed response would be obtained from the specialist and include it as a post-meeting note in the workshop notes. **<u>Post-workshop note</u>:** The DWS was not consulted for the compilation of the report. The report confirmed the loss/destruction of two wetland units which has already been authorised by the DWS. The third wetland unit was identified within the 500 m regulation area but is not in a position in the landscape to be impacted by the project.
Khumbulani Buthelezi	
In terms of the gas pipeline which will be done through a separate EIA process, there is no guarantee that the project would be approved by the relevant Authority for Authorisation. As a worst-case scenario, if that project is not approved, did the developer considered any other alternative method of securing the fuel source to the site?	Jordi Fernandez responded that at this moment there is not any other way than a pipeline to transport natural gas to the plant. Natural gas is only transported via pipeline due to the volume needed to be transported. These types of volumes cannot be transported by trucks. Even in liquefied form, it needs to be transported via a pipeline. Currently, if there is no pipeline, the project would not be viable. There could however be experts or

Question / Comment	Response
	new technologies developed that allow alternative means of gas transportation. Currently, if the pipeline is not approved, the team would have to deal with the matter and look at what options are available. This is a project and business, and the Environmental Authorisation is only one part of the requirements. To reach financial close (i.e. construction) need all pieces of the puzzle must be in place. If an important piece is missing at financial close, an alternative would need to be found to make the project viable.
It was asked whether Climate Change Impact rating only includes the site location or does it include the cumulative impacts of the entire Richards Bay industrial area in terms of GHGs and emissions.	Jo-Anne Thomas responded that there are two parts to the question, as the first part is: • Climate Change; and • Air Quality In terms of the assessment for air quality and other impacts, the project on its own was considered which is the impact assessment in the EIA Report and then there is a separate chapter in the report that addresses cumulative impacts – i.e. the impact of the project together with other projects in the area. Therefore, both was considered. The impact assessment of climate change is slightly different as it is assessed on international level. Sarah Goodbrand, Climate Change specialist, added that in respect to GHG emissions, it is almost impossible to assess this on a local scale. In terms of cumulative impacts, impact was considered at a global scale, i.e. internationally.
It was stated that the air quality status around the Richards Bay area needs to be assessed as the air quality in the area is already highly compromised.	Jo-Anne Thomas advised that Mr Buthelezi review the methodology statement as included in the Air Quality Report and informed him that the current air quality status has been taken into consideration during the assessment.
As per the response provided by Mr Fernandez, the team was informed that the EIA process is a critical piece of the puzzle.	Nicolene Venter thanked Mr Buthelezi for this comment.
Ziyanda Malibiji	
What are the proposed options for water and basic sustainability of the project?	Jo-Anne Thomas responded that terms of the lease agreement between the applicant and the IDZ, water would be provided by the IDZ and the current proposal is that the water would be received from the Municipality. Should there be

Question / Comment	Response
	an alternative such as usage of wastewater, which can be treated, that would also be considered by the developer. But as mentioned, the requirements are for the IDZ to provide the services to the site.
It was commented that it is believed that the SLAs are attached to the EIA Report to confirm the capacity for the services.	Jo-Anne Thomas responded that there are no specific letters included in the EIA Report. It would not be possible to provide such confirmation. However, non-binding confirmation could be sourced. As mentioned, the requirement is for the IDZ to provide that service and it is included in the lease agreement with the developer and IDZ. Jordi Fernandez added in terms of water source availability that as the project is located in the IDZ, they provide access to all the services required. Water would be provided to the site and effluent water would go out via the existing sewage water pipeline system. The IDZ is connected to the Municipal grid to provide the water and the Municipality's sewage system. In terms of volumes, as mentioned by Ms Thomas, initially the water available is potable water and would be used by the project as this is the water that is currently available. The IDZ indicated that in terms of their agreement with the Municipality, they have sufficient water capacity to sustain this proposed development. Discussions are taking place between the IDZ and the Municipality to increase the water volume and services to the IDZ, not only for this proposed project, but for the overall operations at the IDZ. As a developer, PRBGP3 had indicated to the IDZ that they are more than willing collaborate with them in the conversations with the Municipality to secure access to more water, not only for this project but also for the IDZ in general. In the future, should other sources of water become available, then the project would consider that resource. Finally, the long-term plan is to establish a recycling plant, i.e. water treatment plant, to be constructed in Richards Bay and that would mean that high volumes of treated water would come this source. The securing of water is a key component as the long-term planning is that the plant would be in operation for 25 years.
Sibongile Qulu	

Question / Comment	Response
It was asked that in terms of the risk rating regarding Air Quality, the table indicated the rating as low. Considering that the MHI has been done on ammonia what impacts does that have on the rating.	Jo-Anne Thomas responded that after discussions with the Air Quality Specialists regarding this impact, they indicated that there would not be a significant difference / impact on the impact rating as a result of her assessment. A further response will be requested from the air quality specialist. Jordi Fernandez added that based on the matter of ammonia, firstly it is not sure whether ammonia would be used or not. And, secondly, the amount of ammonia that would be utilise would be small. The use of ammonia in the plant was indicated by the specialist for adjusting the pH of the water used in the steam cycle. Generally, it is normal practice to use ammonia to adjust the pH of that water. That is the only use that ammonia would have. As the detailed design is not yet completed, there may be other alternatives to ammonia to be used to adjust the pH. Storage of ammonia would be in small quantities.
In terms of incidents, the rating table indicates the impact as low, although it was mentioned that interventions would be put in place to address incidents. One of the interventions are to change from fuel to hydrogen. The question is how long this would happen and in terms of the design, would it require any change within the process itself.	Jordi Fernandez responded that the planning is that the plant has been designed to be hydrogen ready, meaning the plant has been designed in such a way that it would be able to use hydrogen with little modification should the hydrogen become available. Also, the service provider who would be providing the turbines has indicated that the turbines are ready to operate on a certain amount of hydrogen. It is not yet known when the hydrogen would become available. What the team are aware of is that the SA Government has indicated that they want to position South Africa as a key global player in the green hydrogen industry and be able to put the country in a position as a large producer of green hydrogen for local use and for export. It is therefore the developer's expectation that this would eventually happen, i.e. when the green hydrogen becomes available, the plant would be ready for usage at the required volume. As the fuel would be locally produced, it also makes business sense. Currently there is no indication when this fuel source would materialise.
Additional comments submitted on the Teams Chat Function	
Franz Schmidt	

Question / Comment	Response
A link to Heat Island Impacts | US EPA was uploaded onto the chat function.	Nicolene Venter acknowledged this submission.
Cassandra Schnoor	
It was also noted that a pipeline will be used to deliver fuel to the site. Is a pipeline currently there or does that need to be constructed as part of the project?	Jo-Anne Thomas responded that, as mentioned during the discussion session, the pipeline does not form part of this EA application process and that a separate process would be followed for this infrastructure. It can be confirmed that there is currently no gas pipeline to the site.
Gabrielle Knott	
As a follow-up on from Cassandra's question, if there is not currently a pipeline and the port is not currently geared for LNG, then it is expected that LPG will be used as fuel input, is that correct? Was LPG assessed in the EIA, especially the AQIA and CCIA?	As detailed in the EIA Report, only LNG and Hydrogen are being considered as fuel sources for the project. The project will not make use of LPG or heavy fuel oils.
My question has been answered. If there is no pipeline and no LNG infrastructure, there will be no project (per Mr Fernandez's answer to Ms Schnoor).	Nicolene Venter confirmed with the attendees that the question has been responded to as per Mr Fernandez's response to Khumbulani Buthelezi.
Conflicting statements (transcript will show), but I understand. Alternatives are not being considered now, will be done through an amendment process. I would like to put on record that if a Reg 31/32 amendment process is used, that the impacts must be properly assessed through new Impact Assessments (not 'Impact Statements').	Jordi Fernandez responded that he needs to make correction to this statement – what was said that for the project to reach financial close the economic viability of the project one needs to have several aspects in place. If there is no pipeline or LNG, the project would need to be reassessed in terms of its viability and alternatives to get the right permits to be able to proceed. In terms of assessing alternative fuel delivery options, it is believed that those alternatives would be assessed as and when required, however, it was requested that Ms Thomas respond to the environmental process of these alternatives. Jo-Anne Thomas confirmed that should there be alternatives, it would require additional processes and assessments, depending on the Legislation at the time and confirmed that the process will include assessment of any impacts associated with the alternatives considered and a public participation process.
Jaco Schutte	
I commented on the TIA that was submitted to the uMhlathuze municipality. Only the traffic during the construction phase was	As noted in the presentation, the gas will be delivered to the site via pipeline. The only traffic expected during operation is that related to

Question / Comment	Response
assessed. According to me the traffic during the Normal Operations must also be assessed. With the reply on the meeting, I assume that the gas will not be transported to site by road and that the project will not go forward if the pipeline is not in place.	employees working at the site and deliveries of equipment in the event of maintenance. As stated in the meeting, if there is no pipeline or LNG the project would need to be reassessed in terms of its viability and alternatives to get the right permits to be able to proceed.
Edward Mahosi	
Who is the Case Officer for this project at DFFE EIA Section or at the relevant Competent Authority?	The Case Officer at the DFFE is Mathlodi Mogorosi.
Franz Schmidt	
Could we put a requirement that construction cannot start before delivery of NG and electricity evacuation has been approved?	Jo-Anne responded that from a process perspective Savannah Environmental cannot pre-empt what the DFFE would include in their EA, but it is most likely that the Department would include a condition to the effect that no construction can commence without the assessment and approval of the associated infrastructures, i.e. fuel source confirmed and connection to the national grid network has been confirmed. Jordi Fernandez added from a technical point of view it would be a business consideration. Before construction can start, the availability of gas needs to be confirmed and the evacuation of the power also needs to be confirmed. All permits, permissions and securities have to be in place before construction will commence.
Portia Makitla	
Is the gas pipeline route assessed in the current EIA?	Nicolene Venter responded that this question has been raised during the discussion session and responded to but to confirm, the gas pipeline does not form part of this application and would be assessed under a separate EIA process.
Can the layout map show the 3rd wetland area as a No-Go area?	Jo-Anne Thomas responded that it would be confirmed with the specialist as to whether this should be reflected as a no-go area. It needs to be noted that the third wetland does not fall within the footprint of the development site, but it would be added to the sensitivity map

WAY FORWARD AND CLOSURE

As a closing statement, Jordi Fernandez thanked the attendees for their attendance and informed them that the Report contains much more detailed information as only a summary of the findings were presented at the meeting.

Jo-Anne Thomas thanked the attendees for their valuable inputs and comments submitted at the meeting and stated that these will be shared with the relevant specialists.

Nicolene Venter thanked the attendees for sharing their local knowledge with the project team and thanked the Richards Bay IDZ Environmental Review Committee for arranging the Focus Group Meeting. She reminded the attendee that the EIA Report commenting period is ending on Friday, 22 July 2022 and that it would be appreciated if written comments can be received before or on the 22 July 2022.

The meeting was closed at 11h30.

LIST OF ABBREVIATIONS AND ACRONYMS

AQIA	Air Quality Impact Assessment	LPG	Liquid Petroleum Gas
CCIA	Climate Change Impact Assessment	MHI	Major Hazardous Installation
DFFE	Department of Forestry, Fisheries and the Environment	NG	Natural Gas
DWS	Department of Water and Sanitation	NPA	National Ports Authority
EDTEA	Economic Development, Tourism and Environmental Affairs (KZN)	RB	Richard's Bay
EA	Environmental Authorisation	SA	South Africa
GHG	Greenhouse Gas	SLA	Service Level Agreement
LNG	Liquid Nitrogen Gas	WUL	Water Use License

APPENDIX A: Attendence Record

Meeting Title:	Phakwe Richards Bay GP3 CCPP: Key Stakeholder Workshop(EIA Report Presentation)
Total Number of Participants	56
Meeting Start Time	6/22/2022, 8:46:40 AM
Meeting End Time	6/22/2022, 11:20:33 AM
Meeting Id	44f55df3-b21b-48a3-a798-10aa0f7b7ac1

Full Name	Role
Nicolene Venter	Organizer
Jo-Anne Thomas	Presenter
Saneshan Govender	Attendee
Sarah Goodbrand	Attendee
Themba Mdumela	Attendee
Zane Abdullah	Attendee
Mvelo Zulu	Attendee
Jaco Schutte	Attendee
Koogendran Govender	Attendee
Bongumusa Ndwandwe	Attendee
Franz Schmidt	Attendee
Rendani Rasivhetshele	Presenter
Portia Makitla	Attendee
K Naidoo	Attendee
Sabelo Gwala	Attendee
Justice Ramagoma	Attendee
Mpetjane Kgole	Attendee
HJ Swanepoel	Attendee
Malibiji Ziyanda	Attendee
Nwabisa Mehlomakulu	Attendee
Thivhusiwi Netshidongololwe	Attendee
Tanica	Attendee
Mpho Muswubi	Attendee
Lizell Stroh	Attendee
Ahmed Hansa	Attendee
Khumbulani Buthelezi	Attendee
Lwandle Sibango	Attendee
Pepler Stander	Attendee
Sethabile Gcume	Attendee
Sethabile Gcume	Attendee
Alex Searle	Attendee
David Hallowes	Attendee
Cassandra Schnoor	Attendee
Zinhle Buthelezi	Attendee
Lumko Ncapai	Attendee
Brenda Strachan	Attendee
D Nhlapo	Attendee
Jordi Fernandez	Attendee
Nozipho Khathi	Attendee
Sibongile Qulu	Attendee
kholwani	Attendee
Mula Phalanndwa	Attendee

Mpho Mobeng	Attendee
Gabrielle Knott	Attendee
Ziqubu Siyabonga	Attendee
Letitia Moodley	Attendee
Edward Mahosi	Attendee
Tsholofelo Moreosele	Attendee
Deidre Herbst	Attendee
Mthoko Mhlongo	Attendee
Bradley Smith	Attendee
Sipho Mbatha	Attendee
Busani	Attendee
Percy Langa	Attendee
Zilindile Masango	Attendee
Bonga Mkhize	Attendee
Zane Abdullah	Attendee

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

Key Stakeholder Workshop
Wednesday, 22 June 2022

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AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Scoping Assessment & Findings
- Discussion
- Way Forward

2

CONDUCT OF THE MEETING

- Recording of Meeting
- Please stay on mute during the presentation
- Register attendance on Chat function (name, surname & affiliation)
- Please raise your hand to indicate a comment or question to raise
- Questions submitted in Chat function will be responded at the end of the presentation

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PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings of the assessment of the project as documented in the **EIA Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final EIA Report** to be submitted to the DFFE

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PROJECT OVERVIEW
(Jo-Anne Thomas)

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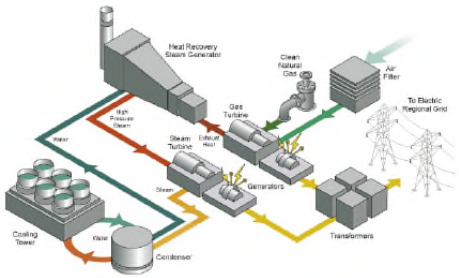
PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu Natal
- **Project footprint:** 11.8ha

6

Combined Cycle Gas to Power Technology



- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

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OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised for development of infrastructure for the IDZ, including the infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
- The site will be accessed via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure)

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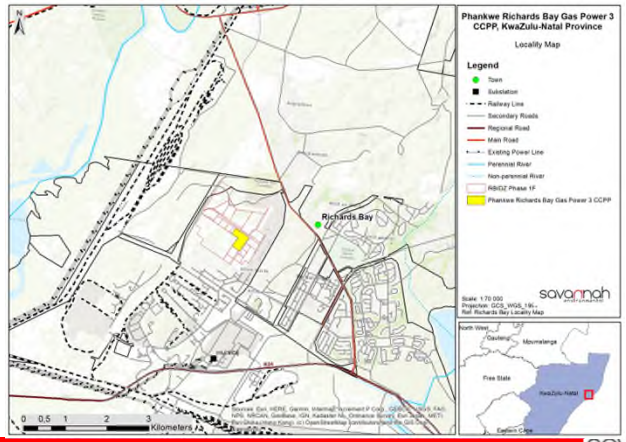

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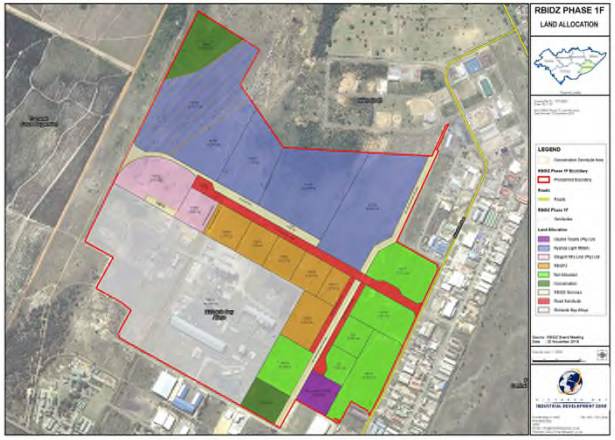

10

SPECIALIST STUDIES

Specialist	Field of study
Anita Rautenbach of Rautenbach Biodiversity Consulting	Terrestrial Ecology (including fauna and flora)
Dale Kindler and Andrew Husted of The Biodiversity Company	Aquatic ecology
Ivan Baker of The Biodiversity Company	Soils
Terri Bird of Airshed	Air Quality
Infotox	Health Risk Assessment
Promethium Carbon	Climate Change
Lourens du Plessis of LOGIS	Visual
Morne de Jager of EARES	Noise
Eugene de Beer of Urban-Econ Development Economists	Socio-economic
Iris Wink of JG Afrika	Traffic
Mike Oberholzer of Riscom	Quantitative Risk Assessment

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Terrestrial ecology	• Site located within areas recognised as of national, provincial, district or municipal conservation significance. • Phase 1F of the IDZ is still largely undeveloped but has a history of anthropogenic disturbance. • Project site on has experienced past environmental disturbances that were judged to have had a negative influence on its biodiversity and ecology. • Site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities. • Many of the anticipated project-specific impacts during the construction and operational phases can be successfully mitigated to moderate, low, and minor levels of significance, and are thus considered acceptable.
Aquatic ecology	• Three hydrogeomorphic (HGM) units were identified within the 500 m regulated area of the site. • Two of the wetlands infilled in terms of the RBIDZ EA. • The remaining third wetland is not in a position in the landscape to be affected by the development. • No additional authorisation or WUL is required for the proposed PRBGP3 project. • The conceptual wetland plan developed for the IDZ must be implemented for the project.

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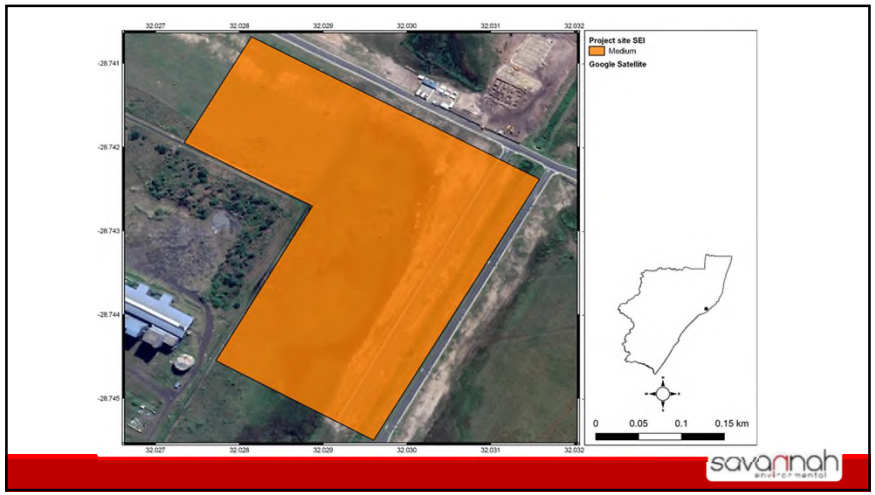

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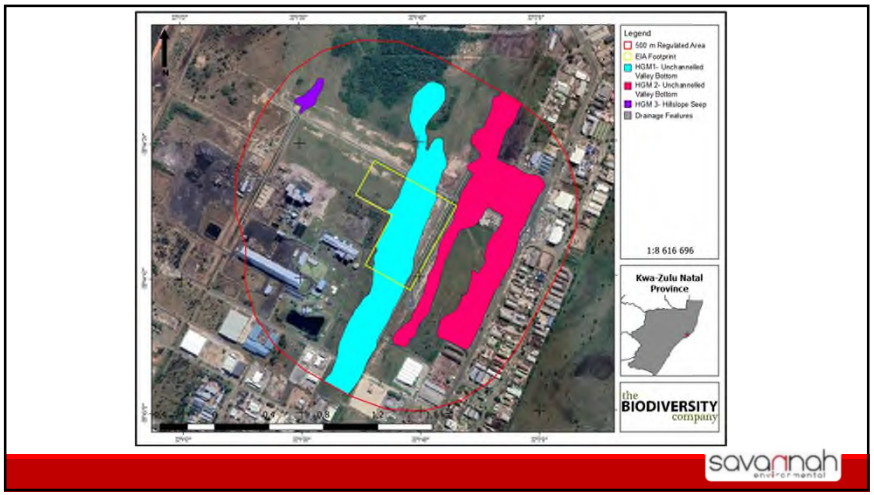

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Soils and Agricultural Potential	• Overall land potential ranges from "Low" (for the wetland areas characterised by non-arable conditions) to "Very High" under natural conditions • Potential loss of highly valued land. • Regardless of whether or not the proposed activities proceed, the soil will not be used for agriculture due to the zoning of the area. The soil resources will ultimately never be of value to farming practices reliant on high potential arable land. • Therefore, no impacts towards agricultural land use are foreseen.

Air quality	• Construction phase could result in off-site exceedances of PM10 daily and annual National Ambient Air Quality Standards (NAAQS) over the 36-month construction phase. Impact of low significance expected with mitigation.
	  • Wet suppression of exposed areas.
	  • Reduce unnecessary traffic and strict on-site speed control.
	  • Reduction of extent of open areas.
	  • Restriction of disturbance to periods of low wind speeds.
	  • Re-vegetation of cleared areas as soon as practically feasible.
	• Compliance with NAAQS under normal operations as applicable to sulfur dioxide (SO_2), particulate matter (PM10 and PM2.5), carbon monoxide (CO) and total volatile organic compounds (TVOCs). Low impact significance. No additional mitigation required.

15

SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions

Air quality	• Exceedances of the nitrogen dioxide (NO_2) NAAQ Limit Concentration could result from the normal operation of the facility using natural gas, but the frequency of exceedance is likely to be within that allowed by the NAAQS. Medium impact significance for NO_2 reduced to low with mitigation.
	  • Water injection for NOx emission controls to meet MES (already planned).
	  • Minimise start-up events or the duration thereof as far as is practical.
	  • Turbine maintenance as per manufacturers recommendations
	  • A move to pure hydrogen fuel with appropriate combustion zone temperature control, as soon as practically possible, will reduce emissions of NO_x.
	• Impact of start-up on ambient NO_2 concentrations was estimated, and exceedances of the NAAQS could result at residential receptors, schools and medical facilities. The impacts can be reduced if the turbines reach Minimum Emission Standards in less than 30 minutes, and if the frequency of start-up events is reduced

Health Risk	• Impacts on health associated with $PM_{2.5}$, SO_2, NO_2, CO and VOC emissions during construction, operational and decommissioning phases assessed as of low significance, with a neutral status. • Implementation of the project associated with low impact on health, even in sensitive receptor communities.

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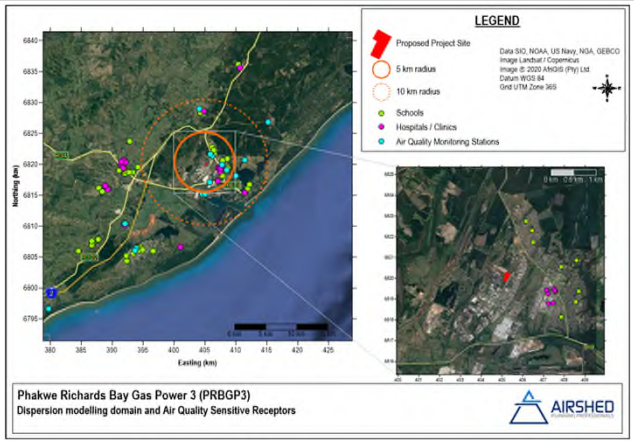

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Climate change	• The project (assuming using NG) will emit 82 ktCO_2e during the construction phase, 7 870 ktCO_2e/year during the operational phase and 236 000 ktCO_2e over its lifetime. The portion of these emissions emitted inside the borders of South Africa represents 1.9% of the low emission NDC carbon budget calculated, for the lifetime of the project. • Potential positive impact of the proposed project, the expected GHG emissions from the project will avoid emissions through the displacement of coal and support for the grid to accept intermittent renewable energy. • Total avoided emissions is 236 million tCO_2e over the lifetime of the project through the displacement of the coal baseline. • Positive impact of the project with respect to avoided emissions outweighs the contribution of the project to national inventory. • With respect to the resilience of the project to climate change, no significant risk factors identified.
Visual	• The project is not expected to have a significant visual impact within the larger study area. • The location of the site is in line with the principle of consolidating industrial infrastructure within allocated areas. • Significance of the impacts expected to be moderate to low as there are no known potential sensitive visual receptors within close proximity of the site.

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Noise	• Output of the modelling exercise indicates a potential noise impact of low significance for both the day- and night-time periods for all the project phases. • No mitigation or management measures are required or recommended to reduce noise levels (when considering Environmental Noise). • The power generation facility still has to comply with the relevant Health and Safety Regulations and Guidelines that my stipulate periodic noise monitoring (Noise-Induced Hearing Loss Regulations [GNR 307 of 2020] as well as the Occupational Health and Safety Act, 1993 [Act 85 of 1993]).

Socio-economic	• The project will result in both negative and positive impacts.
	• All identified economic impacts will be positive, including:
	  • Increases in Production generated in the economy & energy generation
	  • Contribution to Gross Value Add (GVA)
	  • Contribution to Employment Creation
	  • Contribution to Business Income levels retained in the economy
	• Some social impacts are negative in nature, including:
	  • Impacts on sense of place, air quality and traffic
	  • Demographic and gender impacts
	  • Crime impacts
	  • Impacts on social and human capital
	  • Infrastructural impacts

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SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
Traffic	• Main impact on the external road network will be during the construction phase. The number of abnormal load vehicles was estimated and found to be able to be accommodated by the road network. • The traffic generated during the construction phase, although significant, will be temporary and impacts are considered to be negative and of medium significance before and of low significance after mitigation. • The traffic generated during the operation phase will be minimal and will not have an impact on the surrounding road network. • The preferred access roads to the site are the roads located off the R34 viz. Western Arterial, Alumina Alley and Bullion Road.
Unplanned events	• As a result of the risk assessment study conducted for the proposed PRBGP3 facility in Richards Bay, a number of events were found to have risks beyond the site boundary. These risks could be mitigated to acceptable levels. • No fatal flaws that would prevent the project proceeding to the detailed engineering phase of the project were identified. • MHI Study must be completed must be completed in accordance with the MHI regulations and compliance with relevant SANS codes to be assured. • Completion of an emergency preparedness and response document for on-site and off-site scenarios prior to initiating the MHI risk assessment (with input from local authorities).

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CUMULATIVE IMPACTS

- Assessment of the cumulative impacts was undertaken through the consideration of impacts in isolation and compared to the cumulative impacts of the Phakwe Richards Bay Gas Power 3 CCPP and other industrial developments at a scale specifically identified by each specialist.
- Considered project in relation to all known and viable large-scale industrial developments located within a radius of 10km from the project site, including proposed power generation projects

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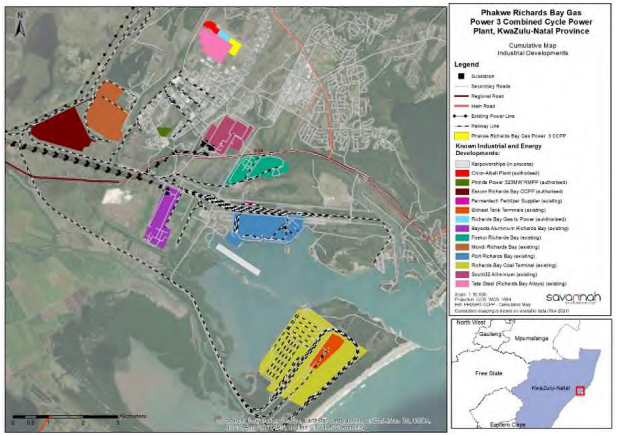

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CUMULATIVE IMPACTS

Specialist assessment	Overall significance of impact of the proposed project considered in isolation	Cumulative significance of impact of the project and other projects in the area
Terrestrial Biodiversity	Medium	Medium
Aquatic Biodiversity	None	Not rated
Soils and Agricultural Potential	Medium	Medium
Air Quality	Low	Medium
Health	None	Not rated
Climate Change	High	High
Visual	Medium	Medium
Noise	Low	Low
Socio-Economic	Low	Low
Traffic	Low	Medium
Risk Assessment (unplanned events)	Low	Low

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CONCLUSION AND RECOMMENDATIONS

- Project is well aligned with the national, provincial and local policy framework
- From a biodiversity perspective, the site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities.
- The RBIDZ received EA, which includes the development of two of the wetland areas. The remaining third wetland is not in a position in the landscape to be affected by the development
- From a land use perspective, the site is located within the Richards Bay Industrial Development Zone, Phase 1F. The site is designated for noxious industry such as the proposed gas to power plant.

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CONCLUSION AND RECOMMENDATIONS

- From a social perspective, the project has the potential to impact negatively on ambient air quality, human health, ambient noise levels and sense of place. Impacts expected to be limited.
- Positive socio-economic impacts of the project are expected at a regional and national level.
- The project is expected to have a high impact on climate change. The inclusion of the project onto the grid could, however, contribute to a potential net reduction in GHG emissions.
- No environmental fatal flaws identified with the project
- All impacts associated with the project can be mitigated to acceptable levels or enhanced through the implementation of the recommended mitigation or enhancement measures.
- Through the assessment of the development of the Phakwe Richards Bay Gas Power 3 CCPP within the project site it can be concluded that the development of the facility is environmentally acceptable (subject to the implementation of the recommended mitigation measures).

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DISCUSSION

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WAY FORWARD & CLOSURE
(Nicolene Venter)

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WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period from **06 June – 22 July 2022**
- **(https://savannahsa.com/public-documents/energy-generation/prbgp3-2000mw-ccpp/)**
- Final EIA Report submission to DFFE (end-July 2022)
- Our Public Participation team is available to answer any questions
- Registered parties will be notified of decision issued by DFFE and the Appeals process

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WHO TO CONTACT

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Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

NOTES OF THE INFORMATION POSTER DISPLAY HELD ON THURSDAY, 23 JUNE 2022 AT 15H00 VENUE: PELICAN HALL, BUSCOM CENTRE, ZULULAND CHAMBER OF BUSINESS FORUM COMMUNITY PARK, GULDENGRACHT, ALTON, RICHARDS BAY

Notes for the Record prepared by:
Nicolene Venter
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

PHAKWE RICHARDS BAY GAS POWER 3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

ATTENDEES
(Captured Alphabetically according to Surname)

Name	Department / Company / Organisation
Richard Buyazi	South Durban Community Environmental Association
Samuel Mantoro	Resident: Richard's Bay
JP Orlandini	Resident: Richard's Bay
Mike Patterson	Chief Executive Officer: Zululand Chamber of Business forum
Savannah Environmental	
Jo-Anne Thomas	Environmental Assessment Practitioner
Nondumiso Bulunga	Lead Consultant: Social, Stakeholder Engagement & GIS
Nicolene Venter	Public Participation and Social Consultant

APOLOGIES

No apologies were submitted.

POSTERT DISPLAY

Nicolene Venter and Nondumiso Bulunga welcomed attendees upon arrival and introduced them to Jo-Anne Thomas who presented information as available on the posters:

- project description for the Phakwe Richards Bay Gas Power 3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed todate;
- the environmental studies that have been undertaken; and
- key summary of the results of the environmental studies undertaken.

She informed the attendees regarding the following environmental aspects:

- Fuel for the power station will be delivered to the site via pipeline, most likely from the Richards Bay port.
- A Heritage Impact Assessment was not carried over from the scoping phase as there were no impacts of significance identified during the scoping phase and therefore no further assessment is required.
- Following the scoping phase, the need for a Quantitative Risk Assessment was identified and the assessment was conducted and included in the impact phase and the results as presented at the meeting.
- Various large scale development projects in the area were included in the cumulative impact assessment, including the Karpowership Project, which is currently under appeal.

The poster display material is attached as **Appendix A** to these notes.

COMMENTS / QUESTIONS

Question / Comment	Response
JP Orlandini	
Is there the potential for gas leaks from the gas pipeline and what could be the impact on health?	Jo-Anne Thomas responded that a Major Hazard Installation (MHI) Risk Assessment would need to be completed for the gas pipeline as the gas within the pipeline would be pressurised. She indicated as from this Risk Assessment, an emergency plan would need to be developed to be implemented in the event of a leakage or explosion.
Richard Buyazi	
Who is the applicant? Is it the same as the Gas-Power 2 project?	Jo-Anne Thomas responded that the applicant is Phakwe Richards Bay Gas Power 3. She added that Phakwe are part of the RB Gas Power 2 project, but the current application is a separate applicant.
Where would the water supply be sourced from, and would it be expensive for the end user?	Jo-Anne Thomas responded that in terms of the lease agreement between the applicant and the IDZ, water would be provided by the IDZ and the current proposal is that the water would be received from the Municipality. Should there be an alternative such as usage of wastewater, which can be treated, that would also be considered buy the developer. But as mentioned, the requirements are for the IDZ to provide the services to the site. It was mentioned that there is Service Agreement between the RBIDZ and the City of uMhlathuze.
It was requested that the agreement mentioned be shared with the SDCEA.	Jo-Anne Thomas confirmed that once the document is received from the RBIDZ it would be forwarded to the SDCEA.
In terms of employment how will an equilibrium be reached in terms of the jobs. they need to understand how the current employment in the coal industry versus this new industry compare.	Jo-Anne Thomas responded that the government is ensuring plans are in place for a Just Energy Transition which considers the employment within the coal sector. There is a whole programme that is being run by the government to understand what the transition looks like which includes a lot of job opportunities in the energy sector and from this indirect employment will be created. She indicated that Eskom is undertaking a socio-economic assessment to determine impacts of decommissioning of their power stations and alternative uses of the sites to address job losses. Nondumiso Bulunga added that additional to what Eskom is doing, the World Bank has a study

Question / Comment	Response
	they are conducting to understand the socio-economic dynamics of employment opportunities and the kind of employment that will be created in the renewable energy industry.
It was asked whether information regarding the desalination plant is available.	Mike Patterson responded that the infrastructure belongs to and is being managed by the City of uMhlathuze and that it is an expensive infrastructure to maintain.
Mike Patterson	
There is a similar project to this one that is mentioned, what is the name of it?	Jo-Anne Thomas responded that the approved project is the Richards Bay Gas Power 2 facility. This is a 400MW facility already authorised.
The project team was informed that two of the key questions that are asked by international investors: • is there water; and • is there electricity The proposed project would be an important one as it could improve the electricity supply situation in the country.	The information share was acknowledged.
It was mentioned that there is a gas resource located approximately 80km offshore (40 nautical miles) from Richards Bay and this resource could assist with the economic growth / investments in Richards Bay.	

WAY FORWARD AND CLOSURE

Jo-Anne Thomas thanked the attendees for their valuable inputs and comments submitted and wished them a safe journey.

LIST OF ABBREVIATIONS AND ACRONYMS

RBIDZ	Richards Bay Industrial Development Zone	SDCEA	South Durban Community Environmental Association

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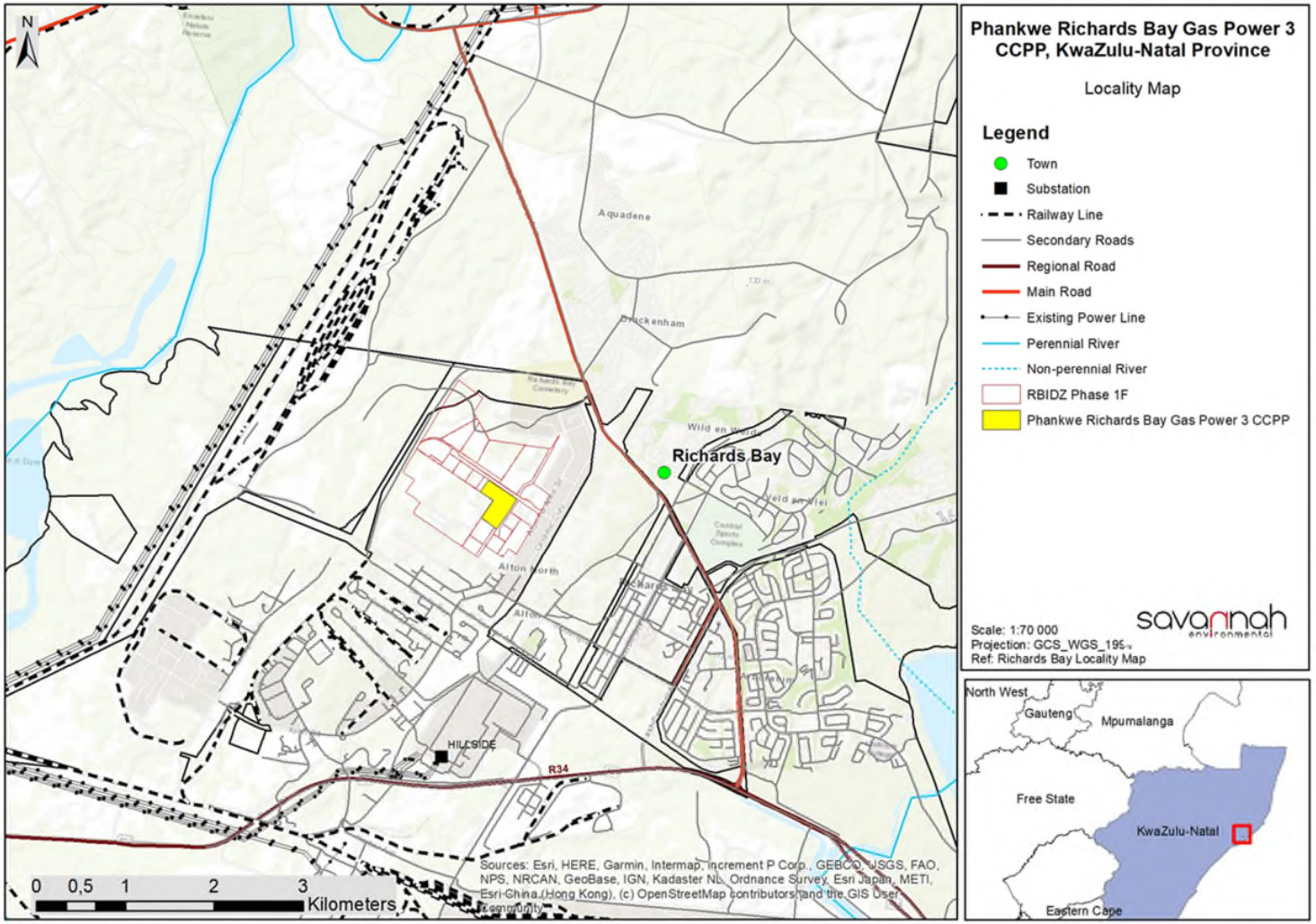
PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT



- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu -Natal
- **Project footprint:** 11.8ha

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PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT

Component	Description/ Dimensions
Location of the site	Erven 16820, 16819 1/16674 and a subdivision of Erf 17442 within the Richards Bay IDZ Phase 1F, KwaZulu-Natal
Landowner	Richards Bay Industrial Development Zone (IDZ), Phase 1F
Municipal Jurisdiction	King Cetshwayo District Municipality and the City of uMhlathuze Local Municipality
Electricity Generating capacity	2000MW (installed)
Proposed technology	Combined Cycle Gas Turbine Technology with associated Balance of Plant
Extent of preferred project sites	11.8ha
Extent of the 2000MW PRBGP3 CCPP	Up to 11ha
Stack dimensions (Site elevation: 43 - 47 m above mean sea)	» Exhaust and bypass stack height will be a minimum of 45m up to 90m (1 stack per Heat Recovery Steam Generator (HRSG) and one additional bypass for each gas turbine. » Diameter of each stack is expected to be approximately 9m
Fuel Sources	» Natural gas (LNG or similar) – 2 218 407 840 (i.e. 2 218 million) normal m^3. » Mixture of Natural gas and Hydrogen
Site access	Via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure) and internal access roads (width of up to 6m) which will be constructed.
Grid connection	» Onsite substation (275kV or 400kV) » The Phakwe Richards Bay Gas Power 3 CCPP will be connected to the national grid via a 275kV or 400kV Eskom Switching Station and underground transmission cables that will connect to the selected Eskom grid connection point. A separate EIA process will be undertaken for the switching station and transmission line.
Water requirements	» Construction phase: ~25 000m^3 of water for a period of 36-48 months. » Operation phase: ~1 130 000 m^3 per annum. » To be provided by the RB IDZ and sourced from the uMhlathuze Municipality Water Works.
Associated infrastructure	» Temporary laydown areas; » Warehousing and buildings; » Workshop building; » Fire water pump building; » Administration and Control Building; » Ablution facilities; » Storage facilities; » Guard House; » Fencing; » Maintenance and cleaning area; » Operational and maintenance control centre
Raw/Process-Water Storage Reservoir	Water storage facilities will be located on site. This will include a raw water and fire water tank, demineralisation water tank and a tank for partially treated water.

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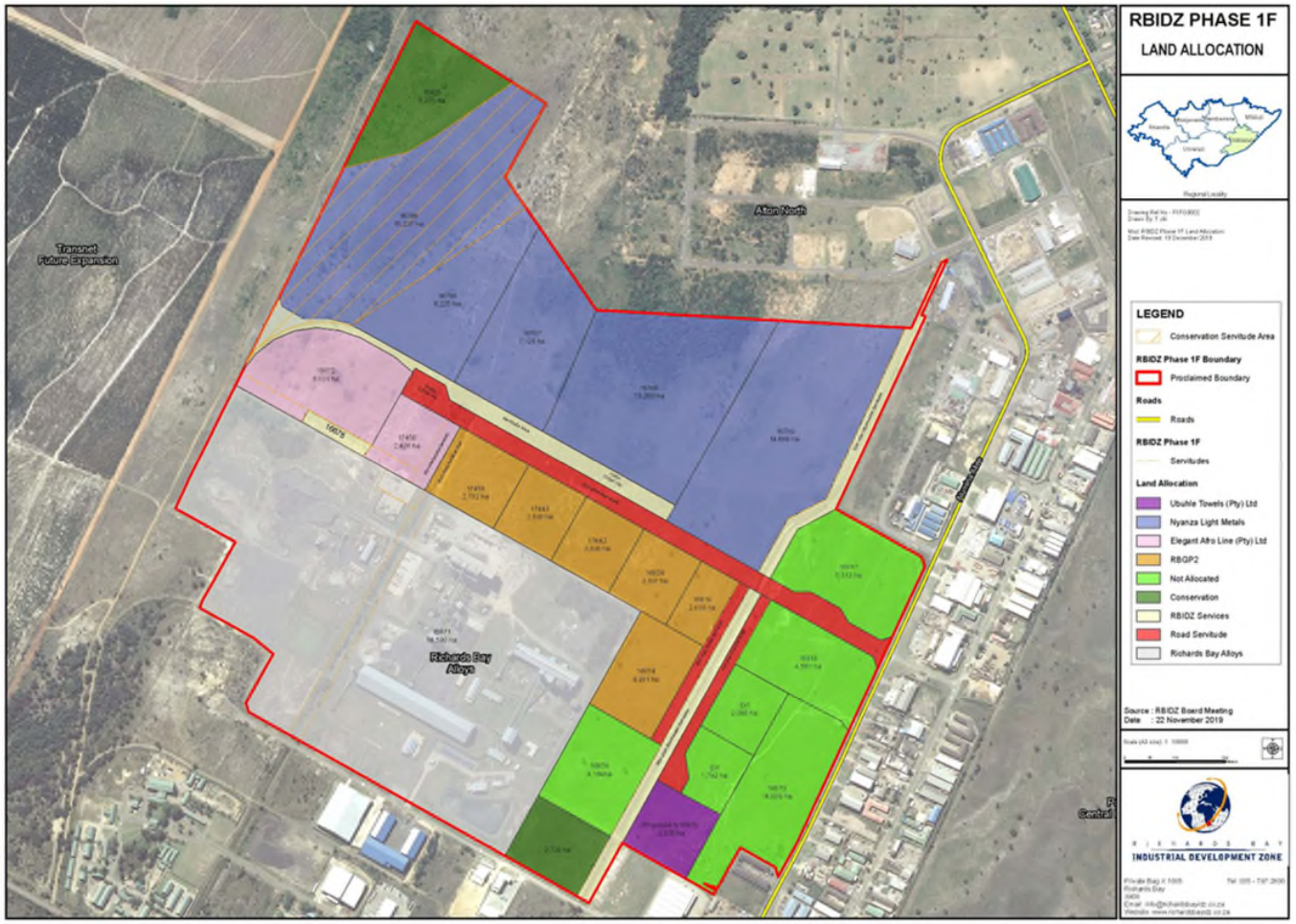
PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT



- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Site authorised for development of infrastructure for the IDZ, including the infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)

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PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT
SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions
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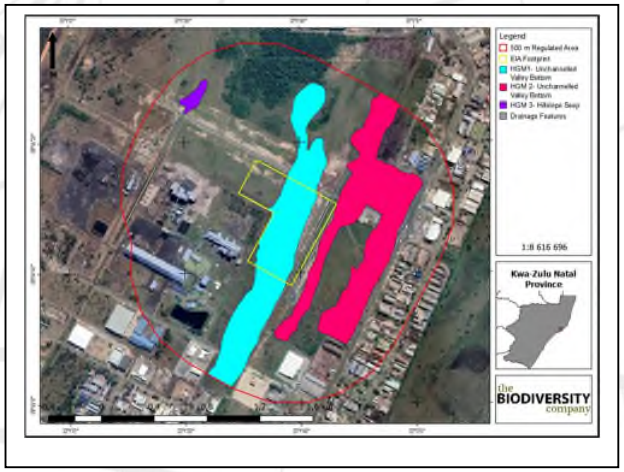

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	  • Water injection for NOx emission controls to meet MES (already planned).
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	  • Turbine maintenance as per manufacturers recommendations
	  • A move to pure hydrogen fuel with appropriate combustion zone temperature control, as soon as practically possible, will reduce emissions of NO_X.
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SUMMARY OF ASSESSMENT AND CONCLUSIONS

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Noise	Output of the modelling exercise indicates a potential noise impact of low significance for both the day- and night-time periods for all the project phases. No mitigation or management measures required. Facility must comply with the relevant Health and Safety Regulations and Guidelines.

PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT
SUMMARY OF ASSESSMENT AND CONCLUSIONS

Environmental Aspect	Summary of Assessment and Conclusions

Socio-economic	• The project will result in both negative and positive impacts.
	• All identified economic impacts will be positive, including:
	  • Increases in Production generated in the economy & energy generation
	  • Contribution to Gross Value Add (GVA)
	  • Contribution to Employment Creation
	  • Contribution to Business Income levels retained in the economy
	• Some social impacts are negative in nature, including:
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	  • Demographic and gender impacts
	  • Crime impacts
	  • Impacts on social and human capital
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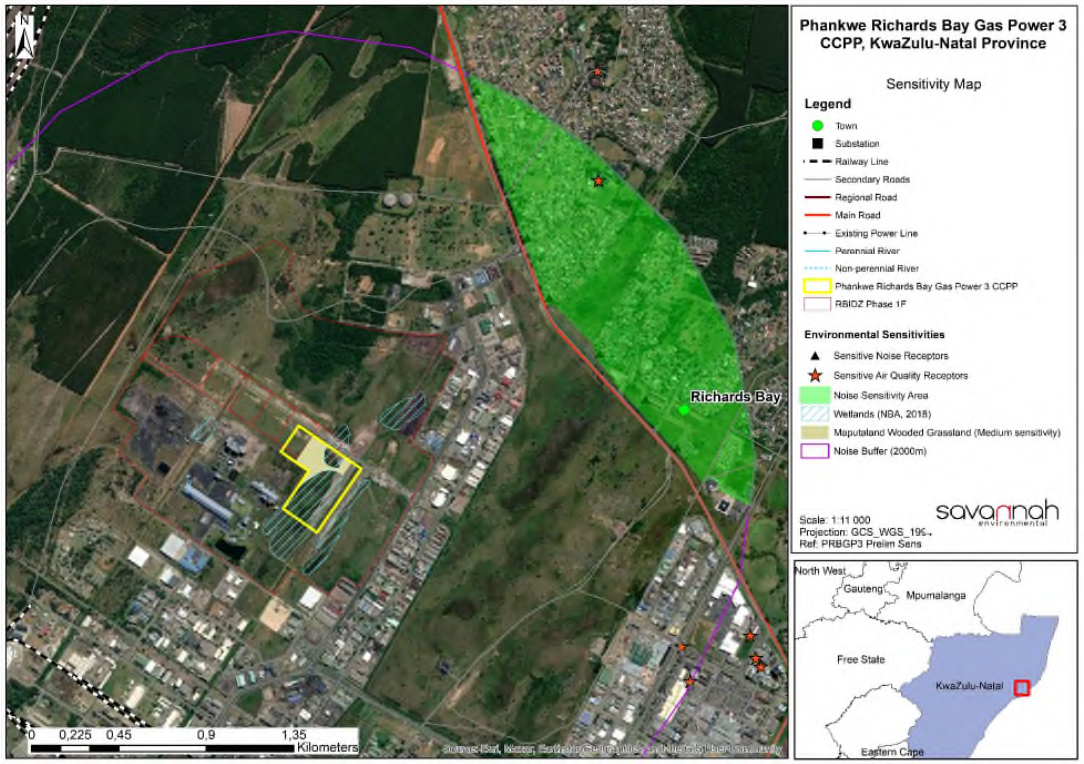
PHAKWE RICHARDS BAY GAS POWER 3 COMBINED CYCLE POWER PLANT
CONCLUSION AND RECOMMENDATIONS



- Project is well aligned with the national, provincial and local policy framework
- Site has been determined to have a moderate Ecological Importance. Development activities of medium impact are considered acceptable followed by appropriate restoration activities.
- The RBIDZ received EA, including the development of two of the wetland areas. The remaining third wetland will not be affected by the development.
- From a land use perspective, the site is located within the RBIDZ, Phase 1F, designated for noxious industry.
- From a social perspective, the project has the potential to impact negatively on ambient air quality, human health, ambient noise levels and sense of place. Impacts expected to be limited.
- The project is expected to have a high impact on climate change. The inclusion of the project onto the grid could, however, contribute to a potential net reduction in GHG emissions.
- No environmental fatal flaws identified with the project
- Concluded that the development of the facility is environmentally acceptable (subject to the implementation of the recommended mitigation measures).

SCOPING PHASE

Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESSES FOR THE PHAKWE RICHARDS BAY GAS-TO-POWER3 2000MW COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

MEETING NOTES OF THE FOCUS GROUP MEETING HELD WITH THE KZN PROVINCIAL DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM & ENVIRONMENTAL AFFAIRS AND EZEMVELO KZN OFFICIALS HELD ON THURSDAY, 25 NOVEMBER 2021 AT 11H30 VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Tammy Lee-Goddard
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

RICHARDS BAY GAS-TO-POWER3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES

Name	Position
Ezemvelo KZN Wildlife	
Dominic Wieners	Integrated Environmental Management Unit
Phakwe Group	
Jordi Fernandez	Operations manager
Savannah Environmental	
Tamryn Lee Goddard	Environmental Consultant
Jana De Jager	Environmental Consultant
Nicolene Venter	Public Participation and Social Consultant
Jo-Anne Thomas	Director

APOLOGIES

No apologies were submitted.

The Attendance Record is attached as **Appendix A** to the workshop notes.

PRESENTATION

Nicolene Venter welcomed Mr Wieners at the Focus group meeting and thanked him for his attendance.

She presented the agenda and purpose of the meeting.

Jana de Jager presented the following:

- project description for the Phakwe Richards Bay Gas-to-Power3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed to date;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

Nicolene Venter informed Mr Wieners that it is important to note that the public participation process is an ongoing process and commences when site notices are erected at the development site and with the distribution of the Background Information Document (BID) and is not limited to the 30-day review and comment period of the Scoping Report. The public participation process is only concluded once registered Interested and Affected Parties are notified of the Department of Forestry, Fisheries, and the Environment's (DFFE) decision to issue Environmental Authorisations for the project.

The presentation is attached as **Appendix B** to the meeting notes.

DISCUSSION SESSION

Question / Comment	Response
Dominic Wieners	
In terms of the climate change study, would the cumulative impact be assessed during the impact phase?	Jana de Jager responded that the air quality and climate change specialist will look at the various authorized projects in the area and assess the cumulative impact.
Why are the coal terminals and south dunes included in the cumulative map as there are no gas to power facilities proposed at this location?	Jana de Jager responded that gas power plants and the impacts by surrounding industries (including the coal terminals) would be considered during the cumulative air quality study.
The project team was informed that the Eskom CCPP project's footprint is larger than the actual footprint and it seems that the wetland offsets are included in the footprint on the cumulative map.	Jana de Jager thanked Mr Wieners for the information and confirmed that the team will relook at the matter and adjust the footprint as required.
How many studies have been done in the scoping phase?	Jana de Jager responded that all the studies as presented have done on desk-top level, and will be assessed further during the EIA phase. The only two studies outstanding are the climate change and health, which will only be undertaken during the EIA phase.
Jordi Fernandez	
As a closing statement, Mr Fernandez thanked Mr Wieners for his valuable inputs into the process.	

WAY FORWARD AND CLOSURE

Nicolene Venter asked whether Mr Wieners would be attending the Focus Group Meeting that is scheduled with the Richards Bay IDZ Environmental Review Committee to which he responded positively. She enquired whether there were any other environmental-related comments that Mr Wieners would like to raise before closing the FGM officially. It was noted that no further comments needed to be raised at this time. She informed Mr Wieners that he can submit any further written comments via e-mail, and she reminded the attendee that the Scoping Report commenting period is ending on Monday, 13 December 2021 and that it would be appreciated if written comments can be received before or on the 13th of December 2021.

She thanked the Mr Wieners for making time to attend the FGM and for his valuable inputs into the EIA and public participation process.

The meeting was closed at 12h00.

LIST OF ABBREVIATIONS AND ACRONYMS

BID	Background Information Document	FGM	Focus Group Meeting
CCPP	Combined Close Power Plant	KZN	KwaZulu-Natal
DFFE	Department of Forestry, Fisheries, and the Environment		

APPENDIX A: Attendance Record

SE2662: Phakwe Richards Bay Gas-to-Power CCPP Project		
Total Number of Participants	5	
Meeting Title	RICHARDS BAY GAS-TO-POWER3 2000MW CCPP: Invitation to Focus Group Meeting - KZN DEDTEA & Ezemvelo KZN	
Meeting Start Time	11/25/2021, 11:21:37 AM	
Meeting End Time	11/25/2021, 12:05:17 PM	
Meeting Id	b7df1554-b5ef-4d6f-8728-3b26ed58587d	
Full Name	**Join Time**	**Leave Time**
Jana de Jager	11/25/2021, 11:21:37 AM	11/25/2021, 12:05:15 PM
Nicolene Venter	11/25/2021, 11:21:55 AM	11/25/2021, 12:05:17 PM
Tamryn Lee Goddard	11/25/2021, 11:23:31 AM	11/25/2021, 12:05:14 PM
Dominic Wieners	11/25/2021, 11:30:34 AM	11/25/2021, 12:05:14 PM
Jordi Fernandez	11/25/2021, 11:32:26 AM	11/25/2021, 12:05:16 PM

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

Focus Group Meeting
December 2021

1

AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Scoping Assessment & Findings
- Discussion
- Way Forward

2

CONDUCT OF THE MEETING

- Recording of Meeting
- Please stay on mute during the presentation
- Register attendance on Chat function (name, surname & affiliation)
- Please raise your hand to indicate a comment or question to raise
- Questions submitted in Chat function will be responded at the end of the presentation
- Equal opportunity
- Questions in your choice of language
- When speaking please enable video, if possible

3

PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings as documented in the **Scoping Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final Scoping Report** to be submitted to the DFFE

4

PROJECT OVERVIEW
(Jana de Jager)

5

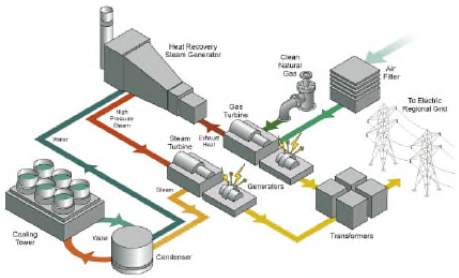
5

PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu Natal.

6

Combined Cycle Gas to Power Technology



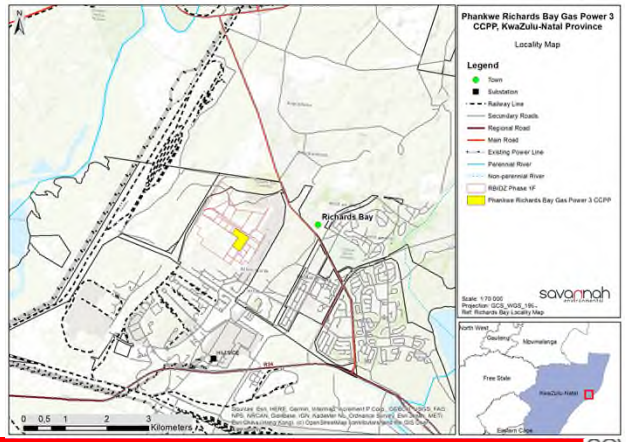
- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

7

OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised to infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
- The site will be accessed via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure)

8



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ENVIRONMENTAL IMPACTS/SENSITIVIES IDENTIFIED

- The following has been identified within the Scoping Phase:
  - Terrestrial Biodiversity Impacts (fauna & flora);
  - Wetland and Aquatic Impacts;
  - Palaeontological & Archaeological Impacts;
  - Air Quality Impacts (incl. human health related impacts);
  - Climate Change Impacts;
  - Noise Impacts;
  - Visual Impacts;
  - Socio- Economic Impacts

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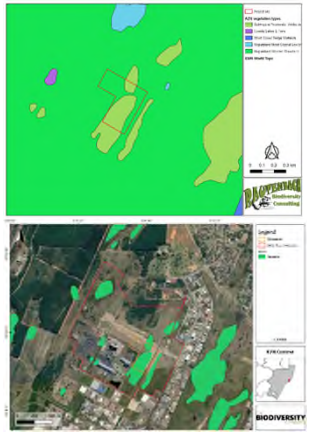

Terrestrial Biodiversity & Aquatic Assessments

- Terrestrial Ecology
  - Site was found to be degraded during preliminary site investigation
  - Fauna and flora of conservation concern may be present although unlikely
- Aquatic
  - IDZ offset wetlands are located within the development area – earmarked to be offset within other areas as part of the RBIDZ development

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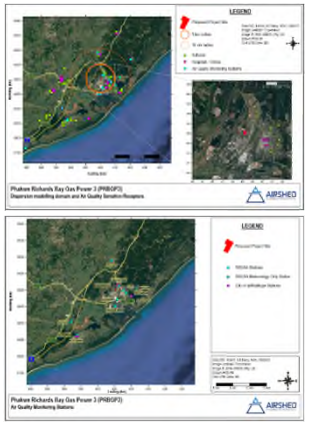

Air Quality Assessment

- Baseline air quality information summarised from the available air quality monitoring stations (RBCAA & City of uMhlatuze.
- Sensitive receptors identified
- Impact to ambient air quality will be simulated during EIA phase

13

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Noise Assessment

- Potential noise sensitive receptors were identified
- Ambient sound levels measured within industrial area and closets residential area

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Visual Impact Assessment

- The viewshed analyses will be undertaken from the project components height above ground level, taking into account the industrial character of the landscape
- The zones of visual influence of the proposed PRBGP3 will be modelled

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SCOPING SPECIALIST ASSESSMENTS

Specialist Study	Approach/Methodology
Heritage and Paleontological	• No heritage resources of significance were recorded within the study site.
Climate Change	• Although the Phakwe Richards Bay Gas Power 3 CCPP proposes to progressively reduce carbon emission over time with the increased presence of green hydrogen as part of the fuel mix, climate change impacts associated with the development of the Phakwe Richards Bay Gas Power 3 CCPP relate to the combustion of fuel (natural gas) at the CCPP which will produce greenhouse gas emissions that will contribute to the global phenomenon of anthropogenic climate change. A Greenhouse Gas (GHG) inventory will be calculated for the proposed PRBGP3 to quantify the effects of the Project on climate change.
Socio-economic	• Detailed overview of the socio-economic environment which will be impacted by the proposed CCGPP development and associated infrastructure.

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SUMMARY OF POTENTIAL IMPACTS

Impact Report Specialist Studies	Assessment of issues
Terrestrial Biodiversity Assessment (fauna & flora);	• Loss of vegetation • Loss of faunal species • Potential habitat fragmentation • Infestation of alien species
Wetland and Aquatic Assessment	• Altered hydrology • Impaired water quality • Impeded ecological services
Paleontological & Archaeological	• No impacts on archaeological and palaeontological resources is expected in this project study area.
Noise Assessment	• Increased noise levels in the vicinity of the plant

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SUMMARY OF POTENTIAL IMPACTS

Impact Report Specialist Studies	Assessment of issues
Air Quality Assessment	• Potential to impact on the ambient air quality of the area through elevated daily PM10 concentrations (during construction) • Contribute NO_x, CO, SO_x and VOCs to the existing baseline concentrations
Climate Change Assessment	• GHG emissions into the atmosphere that contribute to anthropogenic climate change
Visual Assessment	• Impact on sensitive receptors and sense of place
Socio-Economic Assessment	• Increase in the production and GDP, and Employment opportunities (economic) • Impact on sense of place, presence of construction workers, social upliftment (social)
Traffic Assessment	• Traffic congestion (construction) • Noise and dust impacts due to traffic

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CUMULATIVE IMPACTS

- The approach in assessing cumulative impacts will be informed by the scale at which the impact is likely to occur, as well as surrounding developments.
- Developments considered as part of cumulative assessment:
  - Large-scale industrial developments within a 30km radius of the PRGP3 CCPP
  - Energy facilities located within a 30km radius of the proposed PRBGP3 CCPP
    - The assessment as part of the EIA phase will take into consideration both of the RMIPPPP and 3000MW gas to power procurement programmes (worst-case scenario).

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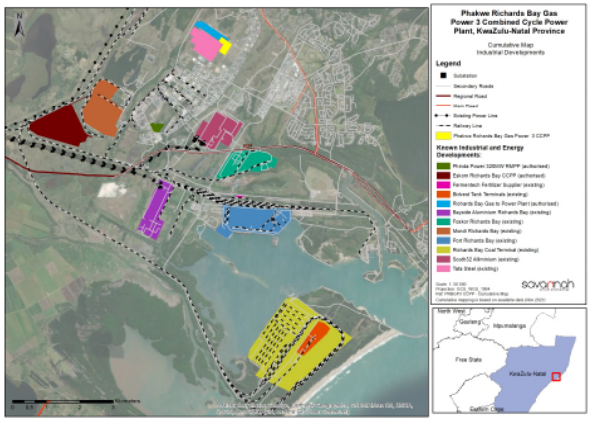

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CONCLUSIONS AND RECOMMENDATIONS

- The PRBGP3 is located in an industrial area with a limited development footprint
- The findings of the Scoping Report were based primarily on desktop assessments and site visits
- Based on this assessment, no environmental fatal flaws have been identified to be associated with the project at this stage in the process
- Therefore, there is no reason why the project cannot be evaluated further in a detailed EIA study
- Plan of Study for EIA is detailed in the Scoping Report, including specialist investigations to be undertaken

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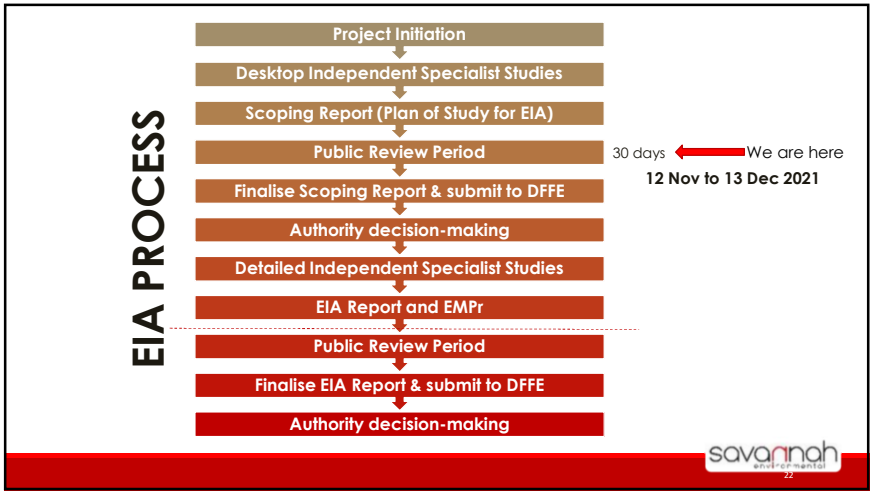

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DISCUSSION

23

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WAY FORWARD & CLOSURE
(Nicolene Venter)

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WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period ends **Monday, 13 December 2021**
- Final Scoping Report submission to DFFE (January 2022)

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WHO TO CONTACT

Savannah Environmental (Pty) Ltd
Nicolene Venter
Email: publicprocess@savannahsa.com
PO Box 148, Sunninghill, 2157
Tel: 011 656 3237
Fax: 086 684 0547
Cell: 060 978 8396
www.savannahSA.com

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Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PHAKWE RICHARDS BAY GAS-TO-POWER3 2000MW COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

NOTES OF THE FOCUS GROUP MEETING HELD WITH THE KING CHETSHWAYO DISTRICT MUNICIPALITY AND THE CITY OF UMHLATHUZE LOCAL MUNICIPALITY OFFICIALS HELD ON THURSDAY, 25 NOVEMBER 2021 AT 09h00 VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Tammy Lee-Goddard
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

PAKWE RICHARDS BAY GAS-TO-POWER3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES

Name	Position
City of uMmhlatuze	
Lindiwe Khumalo	Deputy Energy Manger: Air Quality Management Unit
Brenda Strachan	City Development Department - Spatial and Environmental Planning Team
Gugu Gazu	Air Quality Management Unit
Sabelo Gwala	Air Quality Management Unit
King Chetshwayo District Municipality	
Xolile Dube	Environment and disaster management
Wisdom Mpofu	Environment and disaster management
Gift Mathalise	Planning Department
Phakwe Group	
Jordi Fernandez	Operations Manager
Savannah Environmental	
Tamryn Lee Goddard	Environmental Assessment Practitioner
Jana De Jager	Environmental Assessment Practitioner
Nicolene Venter	Public Participation and Social Consultant

APOLOGIES

Wisdom Mpofu submitted apologies on behalf of Londeka Ngcobo.

The list of invitees and the Attendance Record is attached as **Appendix A** to the workshop notes.

PRESENTATION

Nicolene Venter welcomed the attendees at the Focus group meeting and thanked them for their attendance.

She presented the agenda and purpose of the meeting.

Jana de Jager presented the following:

- project description for the Pakwe Richards Bay Gas-to-Power3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed todate;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

The presentation is attached as **Appendix B** to the meeting notes.

Nicolene Venter highlighted that the public participation process is an ongoing process and commences when site notices are erected at the development site and with the distribution of the Background Information Document (BID) and is not limited to the 30-day review and comment period of the Scoping Report. The public participation process is only concluded once registered

Interested and Affected Parties are notified of the decision of the Department of Forestry, Fisheries and the Environment (DFFE) dec for the project.

DISCUSSION SESSION

Question / Comment	Response
Xolile Dube	
Are there any plans on looking at waste management and monitoring after implementation and how would the Wastewater be treated?	Jana de Jager responded that where required, mitigation and monitoring measures related to waste management would be included in the Environmental Impact Assessment (EIA) phase. Jordie Fernandez responded that water would be sourced from potable water supplied by the IDZ or potentially the proposed municipal industrial wastewater facility, which PRBGP3 will pass through a water treatment system to demineralise before use at the plant. The end-product (brine) would then be fed back into the municipal wastewater (sewerage) system. The discharge water will not need to be demineralised (treated) as the salts within the brine is not considered to be hazardous.
Why are the projects i.e., fuel source, grid connection, etc. separated and not assessed holistically as they are closely interlinked?	Jana de Jager responded that the feasibility of the plant first needs to be determined, after which the feasibility of the other projects would be assessed. Jordi Fernandez added that it is not currently known whether the procurement process would include a national gas supply project. There is an unknown factor in terms of the requirements from the Department of Mineral Resources and Energy (DMRE) such as whether IPPs would be required to build their own pipelines and terminals or use Transnet's proposed pipeline. For these reasons, it was decided to separate the processes. Discussions still need to take place with Eskom regarding the grid connection.
Brenda Strachan	
Please confirm where the supply of gas would be sourced from.	Jana de Jager responded that anything related to the gas pipeline will be separate authorisation process to that currently being undertaken. The source of gas is yet to be determined.
How will the power generated be evacuated to the national grid?	Jana de Jager responded that power generated by the plant will be evacuated by transmission infrastructure which will be assessed

Question / Comment	Response
	as part of a separate EIA process and not included in this EIA application.
Gugu Gazu	
What is the capacity of the boilers?	Jordi Fernandez indicated that this information if not available at this stage. This will depend on the final layout of the plant and depend on the number of turbines and boilers for the combined cycle. He informed the attendees that for a combined cycle power plant a boiler is not required, whereas in a coal plant a boiler is needed to burn the coal for steam to activate the turbines. In a gas plant, the gas turbine is used to heat the steam and produce energy. The gas turbine is essentially warming the steam in a closed circuit without a boiler.
Gift Mathalize	
Queried the emphasis of negative impacts and lack of emphasis of positive impacts on the community, economy, and local community.	Jana de Jager responded that more detail on the positive and negative impacts, specifically from a socio-economic perspective, would be presented in the EIA report.
Wisdom Mpofu	
Queried the source of the gas and the pipeline for which a separate EIA.	Jordi Fernandez added that the fuel source would be natural gas or a mixture of natural gas and green hydrogen. The gas would be provided through Transnet's pipeline from the Richards Bay harbour, or the IPP would consider building their own pipeline. It would not be feasible to transport the gas to the site via trucks. The source of natural gas still needs to be established through further consultation with Transnet and other authorities.
Holistically, should this project be successful, why going through the EIA process if the fuel supply source is uncertain? What are the implications to the current EIA if the pipeline project is rejected?	Nicolene Venter acknowledged the question and responded that a response will be provided in the meeting notes, addressing the holistic approach. **Post-meeting note:** Although there are uncertainties regarding the fuel supply, a strategic approach is being followed. As such when the fuel supply is duly authorised and confirmed, the required authorisation processes for the CCPP would have been undertaken so as not to delay project implementation. The Phakwe RBG2P3, in totality, requires three (3) Environmental Authorisations (EAs)i.e. gas

Question / Comment	Response
	plant, grid connection and pipeline (gas connection). Should one of the EAs not be granted, then the entire project would not be viable. Separate EA applications are submitted to avoid any possible delays in the processes, as each project component has different timelines.

WAY FORWARD AND CLOSURE

Nicolene Venter thanked everyone for their inputs to the meeting. She informed the attendees that they can submit any further written comments via e-mail, and she reminded the attendee that the Scoping Report comment period is ending on Monday, 13 December 2021 and advised that it would be appreciated if written comments can be received before or on the 13th of December 2021.

She thanked the attendees for making time to attend the FGM and for their valuable inputs into the EIA and public participation process.

The meeting was closed at 10h00.

LIST OF ABBREVIATIONS AND ACRONYMS

BID	Background Information Document	EA	Environmental Authorisation
CCPP	Combined Close Power Plant	EIA	Environmental Impact Assessment
DFFE	Department of Forestry, Fisheries, and the Environment	FGM	Focus Group Meeting
DMRE	Department of Mineral Resources and Energy	MW	Megawatt

APPENDIX A: Attendence Record

Total Number of Participants	13
Meeting Title	RICHARDS BAY GAS-TO-POWER3 2000MW CCPP: Invitation to Focus Group Meeting (King Chetshwayo DM & City of uMhlathuze LM)
Meeting Start Time	11/25/2021, 8:42:35 AM
Meeting End Time	11/25/2021, 10:13:02 AM
Meeting Id	c636f0b5-9f0d-44cd-a9e2-d226026dbc1b

Full Name	Join Time	Leave Time
Brenda Strachan	11/25/2021, 9:01:26 AM	11/25/2021, 10:08:55 AM
Gift Mathalise	11/25/2021, 8:55:54 AM	11/25/2021, 8:57:10 AM
Gift Mathalise	11/25/2021, 9:02:56 AM	11/25/2021, 10:08:58 AM
Gugu Gazu	11/25/2021, 9:26:56 AM	11/25/2021, 10:11:57 AM
Jana de Jager	11/25/2021, 8:43:18 AM	11/25/2021, 10:09:24 AM
Jordi Fernandez	11/25/2021, 9:00:52 AM	11/25/2021, 10:08:58 AM
Lindiwe Khumalo	11/25/2021, 9:00:21 AM	11/25/2021, 10:09:20 AM
Nicolene Venter	11/25/2021, 8:42:35 AM	11/25/2021, 10:09:11 AM
Sabelo Gwala	11/25/2021, 9:05:08 AM	11/25/2021, 10:13:02 AM
Tamryn Lee Goddard	11/25/2021, 8:46:50 AM	11/25/2021, 10:08:57 AM
Wisdom Mpofu	11/25/2021, 9:05:26 AM	11/25/2021, 10:08:58 AM
Xolile Dube	11/25/2021, 9:00:44 AM	11/25/2021, 10:08:55 AM
Zipho Zondo	11/25/2021, 10:10:23 AM	11/25/2021, 10:10:23 AM

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

Focus Group Meeting
December 2021

1

AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Scoping Assessment & Findings
- Discussion
- Way Forward

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- Recording of Meeting
- Please stay on mute during the presentation
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3

PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings as documented in the **Scoping Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final Scoping Report** to be submitted to the DFFE

4

PROJECT OVERVIEW
(Jana de Jager)

5

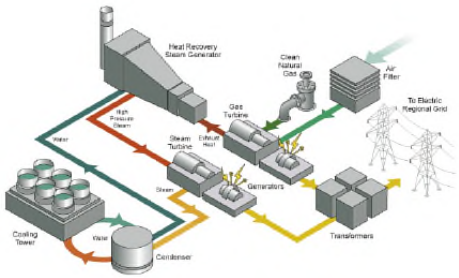
5

PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu Natal.

6

Combined Cycle Gas to Power Technology



- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

7

OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised to infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
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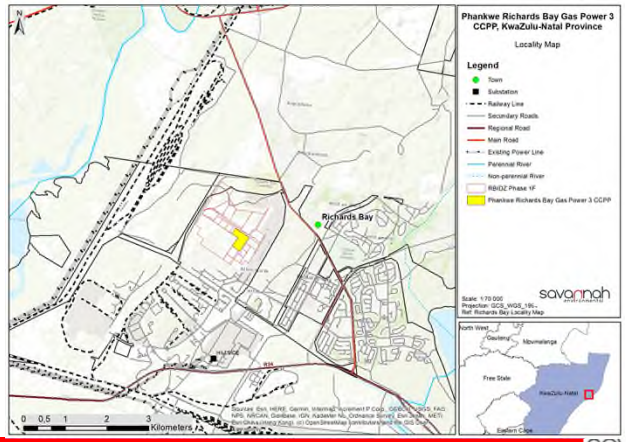

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ENVIRONMENTAL IMPACTS/SENSITIVIES IDENTIFIED

- The following has been identified within the Scoping Phase:
  - Terrestrial Biodiversity Impacts (fauna & flora);
  - Wetland and Aquatic Impacts;
  - Palaeontological & Archaeological Impacts;
  - Air Quality Impacts (incl. human health related impacts);
  - Climate Change Impacts;
  - Noise Impacts;
  - Visual Impacts;
  - Socio- Economic Impacts

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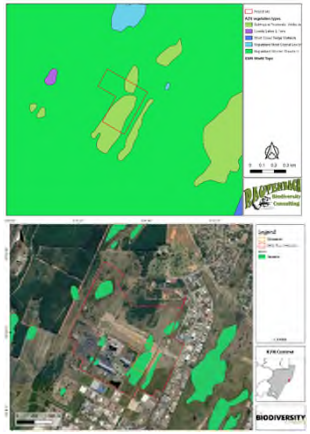

Terrestrial Biodiversity & Aquatic Assessments

- Terrestrial Ecology
  - Site was found to be degraded during preliminary site investigation
  - Fauna and flora of conservation concern may be present although unlikely
- Aquatic
  - IDZ offset wetlands are located within the development area – earmarked to be offset within other areas as part of the RBIDZ development

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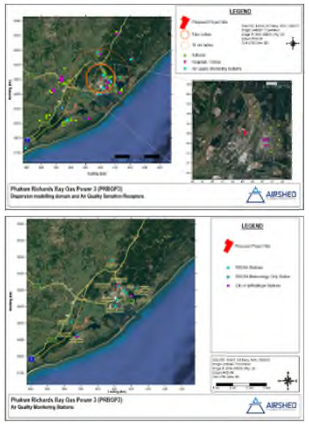

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- Baseline air quality information summarised from the available air quality monitoring stations (RBCAA & City of uMhlatuze.
- Sensitive receptors identified
- Impact to ambient air quality will be simulated during EIA phase

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Noise Assessment

- Potential noise sensitive receptors were identified
- Ambient sound levels measured within industrial area and closets residential area

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Visual Impact Assessment

- The viewshed analyses will be undertaken from the project components height above ground level, taking into account the industrial character of the landscape
- The zones of visual influence of the proposed PRBGP3 will be modelled

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SCOPING SPECIALIST ASSESSMENTS

Specialist Study	Approach/Methodology
Heritage and Paleontological	• No heritage resources of significance were recorded within the study site.
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SUMMARY OF POTENTIAL IMPACTS

Impact Report Specialist Studies	Assessment of issues
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CUMULATIVE IMPACTS

- The approach in assessing cumulative impacts will be informed by the scale at which the impact is likely to occur, as well as surrounding developments.
- Developments considered as part of cumulative assessment:
  - Large-scale industrial developments within a 30km radius of the PRGP3 CCPP
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    - The assessment as part of the EIA phase will take into consideration both of the RMIPPPP and 3000MW gas to power procurement programmes (worst-case scenario).

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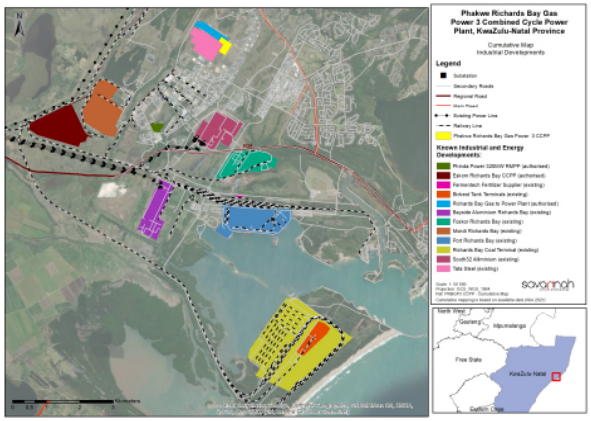

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CONCLUSIONS AND RECOMMENDATIONS

- The PRBGP3 is located in an industrial area with a limited development footprint
- The findings of the Scoping Report were based primarily on desktop assessments and site visits
- Based on this assessment, no environmental fatal flaws have been identified to be associated with the project at this stage in the process
- Therefore, there is no reason why the project cannot be evaluated further in a detailed EIA study
- Plan of Study for EIA is detailed in the Scoping Report, including specialist investigations to be undertaken

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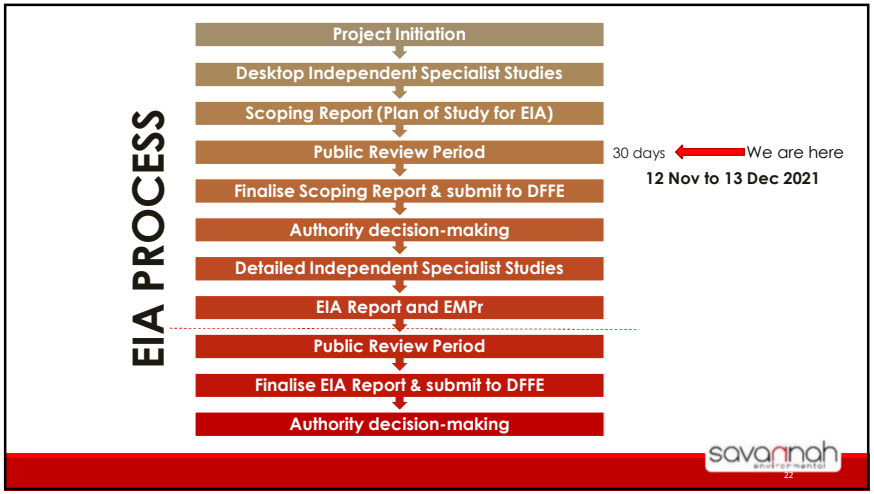

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DISCUSSION

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WAY FORWARD & CLOSURE
(Nicolene Venter)

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WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period ends **Monday, 13 December 2021**
- Final Scoping Report submission to DFFE (January 2022)

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WHO TO CONTACT

Savannah Environmental (Pty) Ltd
Nicolene Venter
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PO Box 148, Sunninghill, 2157
Tel: 011 656 3237
Fax: 086 684 0547
Cell: 060 978 8396
www.savannahSA.com

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Savannah Environmental (Pty) Ltd | Directors: KM Jodas, J Thomas, M Matsabu
Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESS FOR THE PHAKWE RICHARDS BAY GAS-TO-POWER 3 2000MW COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

MEETING NOTES OF THE FOCUS GROUP MEETING HELD WITH THE RICHARDS BAY INDUSTRIAL DEVELOPMENT ZONE (IDZ) ENVIRONMENTAL REVIEW COMMITTEE MEMBERS HELD ON WEDNESDAY, 08 DECEMBER 2021 AT 09H00 VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Nicolene Venter
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

RICHARDS BAY GAS-TO-POWER3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES

Name	Department / Company / Organisation
Richards Bay Industrial Development Zone: Environmental Committee Meeting Members (Alphabetically according to Name)	
Dominic Wieners	Ezemvelo KZN: Integrated Environmental Management Unit
Gugu Gazu	
Letitia Moodley	
Muzi	
Nozipho Khati	Air Quality: King Cetshwayo District Municipality
Percy Langa	Safety, Health, Environment, Quality: RB IDZ
Sandy Camminga	Chairperson: Richards Bay Clean Air Association
Sethabile Gcume	Environmental Officer: RB IDZ
Simthembile Mapu	RB IDZ
Wisdom Mpofu	Senior Manager: Statutory & Development Planning: King Cetshwayo District Municipality
Xolile Dube	King Cetshwayo District Municipality
Ziqubu Siyabonga	Air Quality Specialist
Phakwe Group	
Jordi Fernandez	Operations manager
Savannah Environmental	
Jana De Jager	Environmental Consultant
Nicolene Venter	Public Participation and Social Consultant

APOLOGIES

No apologies were submitted.

The Attendance Record is attached as **Appendix A** to the Meeting notes.

PRESENTATION

Nicolene Venter welcomed the Members of the Richards Bay IDZ Environmental Review Committee at the Focus group meeting and thanked them for their attendance.

She presented the agenda and purpose of the meeting.

Jana de Jager presented the following:

- project description for the Phakwe Richards Bay Gas-to-Power3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed todate;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

Nicolene Venter informed the attendees that it is important to note that the public participation process is an ongoing process and commences when site notices are erected at the development site and with the distribution of the Background Information Document (BID) and is not limited to the 30-day review and comment period of the Scoping Report. The public participation process is only concluded once registered Interested and Affected Parties are notified of the Department of Forestry, Fisheries, and the Environment's (DFFE) decision to issue Environmental Authorisation for the project.

All meeting attendees introduced themselves. Jordi Fernandez gave a short overview of Phakwe Richards Bay Gas Power 3 as a company of the Phakwe Group and their engagement in the renewable energy sector as follows:

- Phakwe Group is a 100% black-owned south Africa group of companies.
- Phakwe Richards Bay Gas Power 3 (Pty) Ltd (PRBGP3) is a 100% black-owned company belonging 100% to the Phakwe Group.
- Phakwe Group has been an important player in the Energy Sector in South Africa for a number of years since Round 1 of the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).
- The Portfolio of energy assets of Phakwe Group includes one (1) Wind Farm and eight (8) Solar Photovoltaic (PV) plants.
- Phakwe Group is the only South Africa black-owned company that is a majority (90%) owner of an energy plant in South Africa.
- Phakwe intend to diversify the energy mix of its portfolio, including Gas-to-Power plants. To this purpose, Phakwe, through the PRGP3, is proposing the 2000MW Gas-to-Power plant project for which this Environmental Authorisation application is applicable.

The presentation is attached as **Appendix B** to the meeting notes.

DISCUSSION SESSION

Question / Comment	Response
Wisdom Mpofu	
The expectation from the presentation was to see impacts being categorised in positive and negatives, and it seems that more emphases has been placed on negative impacts and that the socio-economic positive impacts associated with a project such as this, are not being presented. The importance of presenting both the negative and positive impacts is for stakeholders to make informed contributions when commenting on the content of the report.	Jana de Jager responded that although the positive and negative impacts are summarised in the Scoping Report (SR) the presentation could be improved to also highlight the positive impacts associated with the proposed development e.g. employment opportunities, contribution to local economic, etc.
Xolile Dube	
Reiterated the residual impacts as alluded to by Mr Mpofu to see positive impacts presented.	Jana de Jager reiterated the presentation could be improved to also highlight the positive impacts associated with the proposed development

It was suggested that mitigation measures to minimise negative impacts and enhance positive impacts also be presented.	Jana de Jager responded that the impact significance and the mitigation thereof would be addressed during EIA phase. The scoping phase served to only highlight the positive and negative impacts, directly or indirectly affected, cumulative impacts, etc. When presenting the summary of the EIA report, the presentation would change drastically as to present a summary of all the impacts and mitigations and providing stakeholder an opportunity to engage in the proposed mitigation measures.
Would waste water be generated as part of this process?	Jordi Fernandez responded the plant would produce wastewater as an output of the demineralisation plant on site and the washing of turbines, blow down, as well as oily water. The wastewater will be contaminated with heavy metals and need to be disposed of by a specialist contractor. The wastewater would be stored in a sump at each unit. Oily water will be collected from drains and would be sent to an oily water separator located on the site. Grey water from the separator would be discharged into the Richard's Bay IDZ's wastewater system which is a dedicated effluent discharge pipeline used by existing industrial users in the area. However, prior to any discharge of grey water, it is important to check with the Richard's Bay IDZ that the correct oily water separator filter, as per the Richard's Bay IDZ, is purchased as it would ensure that grey water discharged into the Richard's Bay IDZ's system would not contaminate the wastewater system.
Would the potential waste management impacts be monitored prior, during and after construction?	Jana de Jager responded that as Jordi Fernandez alluded to is that it is not contamination risk are not expected and therefore there is no specific requirements for monitoring from a geohydrological perspective.
Gugu Gazu	
What is the capacity of the boilers?	Jordi Fernandez responded that infrastructure capacity is dependent on the final configuration of the plant. It is envisaged that the final configuration / technical design of the plant would subject to the procurement process.
The reason for the question regarding boiler capacity is that the City of uMhlathuze works with AEL applications up to 10MW and any boiler capacity above 10MW, the application	Jordi Fernandez informed the delegate that there are different technologies for a combined gas cycle process and that of a coal fired power plant. For this project's process, there are no

needs to go to the King Chetshwayo District Municipality for evaluation and approval.	boilers. Boilers are applicable in coal power plants where water is boiled to create steam to turn the turbines.
Wisdom Mpofu	
Asked where the gas source is coming from and would there be any gas supply provided by truck.	Jana de Jager responded that the gas would be provided to the plant through the proposed Transnet pipeline network within the Richards Bay area. The location of pipeline has not yet been confirmed. The gas pipeline process would undergo a separate EIA process. It can be confirmed that gas would not be trucked to the plant. Jordi Fernandez added that the source of the gas or combination thereof has not yet been determined. It can, however, be confirmed that it would be transported from the Richards Bay harbour through a Transnet pipeline but should Transnet's pipeline not be in time to provide fuel to the plant, the alternative option is to consider a private owned pipeline infrastructure. Due to the high volume of gas required at the plant, no trucking of gas could be considered and as the gas would be in liquid form, there is no regassification plant at the site and also currently not a technical option.
Brenda Strachan	
For confirmation, would the gas supply and the evacuation infrastructure of the energy generated be separate EA processes.	Jana de Jager confirmed that the gas pipeline and evacuation infrastructure would be separate EA processes to this current EA process being undertaken.
Confirm whether energy that has been generated, the grid connection from the plant to the grid network and any other associated infrastructure would be assessed separately.	Jana de Jager confirmed that the grid connection infrastructure would follow a separate EA process.
Xolile Dube	
Why are these processes separated as they are closely link and should be assessed holistically?	Jana de Jager responded that it relates to the feasibility of the plant, and should it be feasible, then the next would be the fuel supply and if that is in place, then the grid connection can be assessed. Although the question for a holistically approach is understood, the reasoning why such a process is not followed is that each process has its own impacts that needed to be assessed.

	Jordi Fernandez added that the Government is running a separate process in terms of providing natural gas to the Richard's Bay area, and there are also the unknowns from the DMRE procurement / specification process for gas-to-power. In terms of the electrical grid infrastructure, discussions were held with Eskom and the outcome was that they need clarity as to which projects receive EAs. When the time is right, Phakwe will approach Eskom and initiate the process for the grid connection when a more defined route would be known.
Wisdom Mpofu	
Commenting that he is in support of a holistically EA approach for all the processes, but after hearing the explanations, the reasoning behind separate EA applications is understood.	Nicolene Venter thanked Mr Mpofu for his added comment to the holistically approach of the EAs.
Percy Langa	
All layout maps, especially that on slide 10 of the presentation must be aligned with the EIA-approved and WULA-approved layouts. Refer to Layout Map No. 2 (preferred layout) in the 1F EIA Report.	Jana de Jager responded that the maps will be updated as requested. **Post-meeting note:** The updated maps are included in Appendix L of the final Scoping Report (SR).
Will Savannah Environmental also be applying for any other licenses or permits e.g. AEL, WML, effluent disposal?	Jana de Jager responded that no additional permits form part of this project's EA application. Jordi Fernandez added that permit applications processes are not part of Savannah Environmental's scope of work as they are only appointed to undertake the EIA process. All permit applications would follow after the EA has been issued. Currently, a WML is not required as no waste would be generated, and the effluent would go into the Municipal sewage system.
Cumulative assessment must also include other G2Ps e.g. Karpowership, NFIPP, Phinda Power.	Jana de Jager responded that the EIA phase cumulative assessment will follow a worst-case scenario taking into account known heavy industries and gas power facilities in the Richard's Bay area.
Dominic Wieners	
Recommended a dual assessment for cumulative impacts with all proposed G2P proposals, and those that have already been authorised (e.g. Eskom).	Jana de Jager reiterated that the cumulative assessment will take into account the known existing and authorised gas to power facilities.

Percy Langa	
Does this project include transmission power lines?	Jana de Jager responded that a separate EA process would be followed for the grid connection infrastructure for the facility.
Sandy Camminga	
The current status is that the Port does not know where the gas would be sourced from and the proposed pipeline routing from the Port to the various G2P plants and this makes it difficult for stakeholders to comments on these applications.	Jordi Fernandez responded that unfortunately, as a developer, they do not have any control over the fuel source and the proposed pipeline routing. To date, the timeframes also get moved out and at some stage Government considered Coega as a port of entry for the gas.
The Air Quality Report would be fully interrogated in the EIA phase, especially the possible impact to the nearby communities.	Jana de Jager thanked Ms Camminga and indicated that the team is looking forward to the RBCAA inputs.
It was mentioned that Phakwe might need to look at their own Disaster Management operation as the City of uMhlathuze would not be able to handle / assist should there be a disaster situation.	Jana de Jager responded that aspects related to disaster management will be further considered during the EIA phase.
It was enquired who the Air Quality Assessment specialist is.	Jana de Jager responded that Savannah Environmental appointed Airshed due to the quality of their work and knowledge of the air quality matters in the Richard's Bay area.
Dominic Wieners	
There are serious limitations for the port getting gas out from the port (at their south dunes proposed locations) to any of the IDZ areas, or the greater Richards Bay landscape	Jana de Jager responded that these limitations ought to be considered during the separate EA process for the gas pipeline infrastructure.
Jordi Fernandez	
As a closing statement, Mr Fernandez thanked the attendees for their valuable inputs into the process.	

WAY FORWARD AND CLOSURE

Nicolene Venter asked whether there were any other environmental-related comments that the Committee Members would like to raise before closing the FGM officially. It was noted that no further comments needed to be raised at this time. She informed the attendees that they can submit any further written comments via e-mail, and she reminded the attendee that the Scoping Report commenting period is ending on Monday, 13 December 2021 and that it would be appreciated if written comments can be received before or on the 13th of December 2021.

She thanked the attendees for making time to attend the FGM and for their valuable inputs into the EIA and public participation process.

The meeting was closed at 10h10.

LIST OF ABBREVIATIONS AND ACRONYMS

AEL	Air Emissions License	NFIPP	Nseleni Independent Floating Power Plant
DMRE	Department of Mineral Resources and Energy	RB	Richard's Bay
EA	Environmental Authorisation	RBCAA	Richard's Bay Clean Air Association
EIA	Environmental Impact Assessment	SR	Scoping Report
EMPr	Environmental Management Programme	WML	Waste Management License
G2P	Gas-to-Power	WULA	Water Use License Application
IDZ	Industrial Development Zone		

APPENDIX A: Attendance Record

Total Number of Participants	13
Meeting Title	RICHARDS BAY GAS-TO-POWER3 2000MW CCPP: RB IDZ Environmental Review Committee
Meeting Start Time	12/8/2021, 8:47:31 AM
Meeting End Time	12/8/2021, 10:04:10 AM
Meeting Id	2eb4f7f9-7c63-41ab-b56d-29f24dea6a4d
ATTENDEES	
Nicolene Venter	
Ziqubu Siyabonga	
Jana de Jager	
Percy Langa	
Jordi Fernandez	
Sethabile Gcume	
Dominic Wieners	
Sandy Camminga	
Ziqubu Siyabonga	
Simthembile Mapu	
Nozipho Khathi	
Muzi	
Letitia Moodley	

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

Focus Group Meeting

Richards Bay Industrial Development Zone: Environmental Review Committee

December 2021

1

AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Scoping Assessment & Findings
- Discussion
- Way Forward

2

CONDUCT OF THE MEETING

- Recording of Meeting
- Please stay on mute during the presentation
- Register attendance on Chat function (name, surname & affiliation)
- Please raise your hand to indicate a comment or question to raise
- Questions submitted in Chat function will be responded at the end of the presentation

3

PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings as documented in the **Scoping Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final Scoping Report** to be submitted to the DFFE

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PROJECT OVERVIEW
(Jana de Jager)

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PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu Natal.

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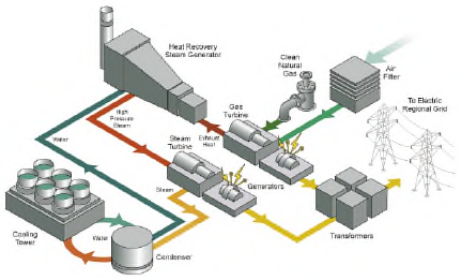
Combined Cycle Gas to Power Technology



- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

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OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised to infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
- The site will be accessed via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure)

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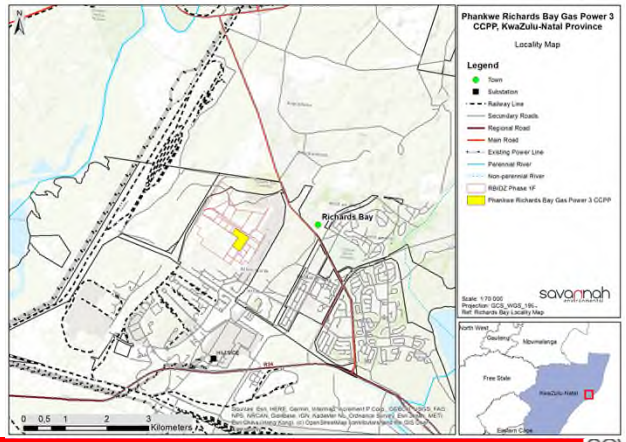

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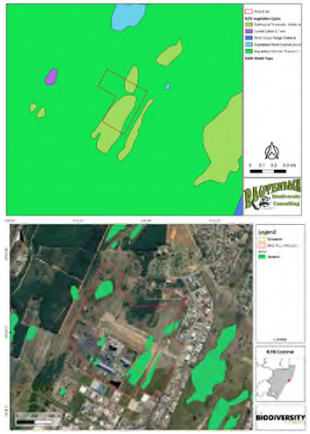

Terrestrial Biodiversity & Aquatic Assessments

- Terrestrial Ecology
  - Site was found to be degraded during preliminary site investigation
  - Fauna and flora of conservation concern may be present although unlikely
- Aquatic
  - IDZ offset wetlands are located within the development area – earmarked to be offset within other areas as part of the RBIDZ development

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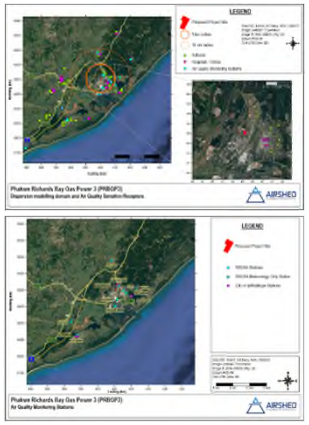

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- The viewshed analyses will be undertaken from the project components height above ground level, taking into account the industrial character of the landscape
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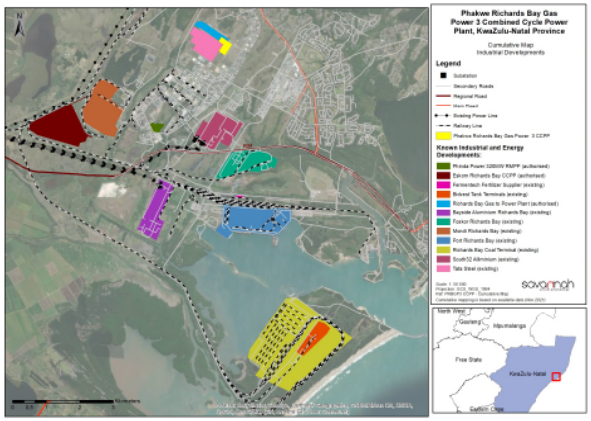

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CONCLUSIONS AND RECOMMENDATIONS

- The PRBGP3 is located in an industrial area with a limited development footprint
- The findings of the Scoping Report were based primarily on desktop assessments and site visits
- Based on this assessment, no environmental fatal flaws have been identified to be associated with the project at this stage in the process
- Therefore, there is no reason why the project cannot be evaluated further in a detailed EIA study
- Plan of Study for EIA is detailed in the Scoping Report, including specialist investigations to be undertaken

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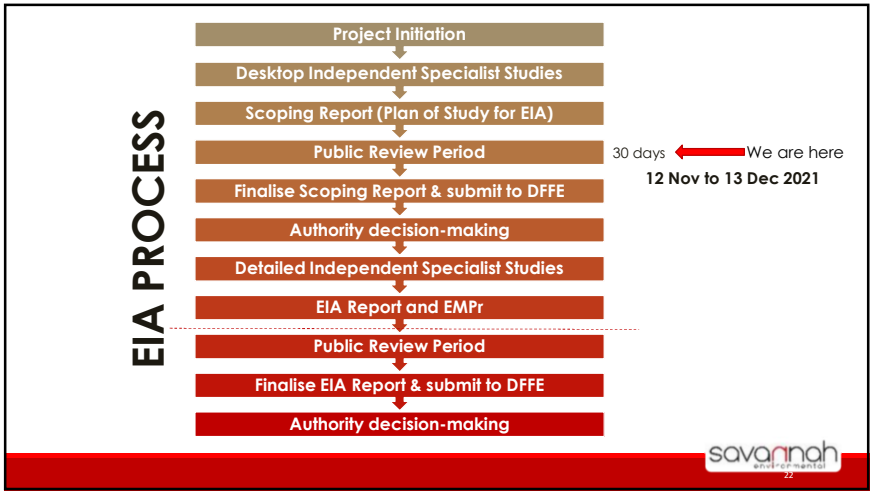

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DISCUSSION

23

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WAY FORWARD & CLOSURE
(Nicolene Venter)

24

24

WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period ends **Monday, 13 December 2021**
- Final Scoping Report submission to DFFE (January 2022)

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WHO TO CONTACT

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Company Reg No.: 2006/000127/07
VAT Reg No.: 4780226736

ENVIRONMENTAL IMPACT ASSESSMENT AND PUBLIC PARTICIPATION PROCESSES FOR THE PHAKWE RICHARDS BAY GAS-TO-POWER3 2000MW COMBINED CYCLE POWER PLANT (CCPP) IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

DFFE Reference Number:14/12/16/3/3/2/2117

NOTES OF THE KEY STAKEHOLDER WORKSHOP HELD ON THURSDAY, 9 DECEMBER 2021 VENUE: MICROSOFT TEAMS, VIRTUAL MEETING

Notes for the Record prepared by:
Tammy Lee-Goddard
Savannah Environmental (Pty) Ltd
E-mail: publicprocess@savannahsa.com

Please note that these notes are not verbatim, but a summary of the comments submitted at the meeting. Please address any comments to Savannah Environmental at the above address

PHAKWE RICHARDS BAY GAS-TO-POWER3 2000MW CCPP LOCATED IN RICHARDS BAY, KWAZULU-NATAL PROVINCE

MEETING ATTENDEES (Alphabetically according to Company

Name	Position
City of uMhlathuze	
Brenda Strachan	City Development Department - Spatial and Environmental Planning Team.
Zipho Zondo	Environmental Planning
Lindiwe Zonde	Electrical and Energy Services
Centre for Environmental Rights	
Gabriel Knott	Attorney
Department of Fisheries, Forestry and the Environment (DFFE)	
Portia Makitla	Control Biodiversity Officer
Auliciaj Maifo	Control Biodiversity Officer
Ayanda Mnyungula	KZN Forestry Branch
Thembalakhe Sibozana	Forestry Regulations and Support
Department of Water and Sanitation	
Sibango Lwandle	Environmental Specialist
Ziyanda Malibiji	Scientific Technician
Eskom	
Koogendran Govender	Gas and Renewable Chief Engineer
Ezemvelo KZN Wildlife	
Dominic Wieners	Principle Conservation Planner
Foskor (Pty) Ltd	
Khumbulani Buthelezi	Senior Manager: SHREQ
Groundworks (NPO)	
Avena Jacklin	Senior Manager: Climate and Energy Justice
King Cetshwayo District Municipality	
Nozipho Khathi	Air Quality Manager,
KZN Department of Economic Development, Tourism and Environmental Affairs	
Muzi Mdamba	Environmental Officer
Muzi Mthamba	
Nosipho Ktasi	Air Quality Intern
Richards Bay Clean Air Association (RBCAA)	
Sandy Camminga	Chairperson
Richards Bay Alloys	
Frans Schmidt	SHREQC Manager
Richards Bay Industrial Development Zone	
Sethabile Gcume,	Environmental Officer
Frans Schmidt	SHREQC Manager Richards Bay Alloys (RB IDZ1F)
Tembakazi Koali	Business Development and Support
Percy Langa	SHEQ Manager
Letitia Moodley	Investor Retention
Richards Bay Minerals – Rio Tinto	
Londi Mchunu	
South Durban Community Environmental Alliance	

Cassandra Schnoor	Environmental Project Officer: Oil, Gas and Energy
Transnet National Ports Authority	
Basil Ngcobo	Port Engineer
Lumko Ncapai	Sustainability specialist
Vuyo Keswa	Environmental Manager
Jabulani Sithole	Executive Manager Business Development Oil & Gas Infrastructure
Transnet Port Terminals – Richards Bay	
Lumka Khumalo	Communications Manager
Phakwe Group - Applicant	
Jordi Fernandez	Operations Manager
Unidentified Attendees (not registered their attendance on the Conversation Platform)	
Zakithi	
Sethabile Thabede	
Zainul Sheikh	
Savannah Environmental	
Jo-Anne Thomas	Director
Jana De Jager	Environmental Assessment Practitioner
Nicolene Venter	Public Participation and Social Consultant
Tamryn Lee Goddard	Environmental Consultant

APOLOGIES

Makhosi Mthembu – City of uMhlathuze

The list of invitees and the Attendance Record is attached as **Appendix A** to the workshop notes.

PRESENTATION

Nicolene Venter welcomed the attendees at the Key Stakeholder Workshop and thanked them for their attendance.

She presented the agenda and purpose of the meeting.

Jana de Jager presented the following:

- project description for the Phakwe Richards Bay Gas-to-Power3 2000MW CCPP project;
- the locality of the project site;
- the scoping and public participation processes followed to date;
- the environmental studies that have been undertaken; and
- a key summary of the results of the environmental studies undertaken.

Jordi Fernandez gave an overview of Phakwe Richards Bay Gas Power 3 as a company of Phakwe Group and their engagement in the renewable energy sector.

The presentation is attached as **Appendix B** to the workshop notes.

DISCUSSION SESSION

Question / Comment	Response
Frans Schmidt	
The cumulative impact map was queried as presented in the project overview by stating that the location (indicated in blue on the locality map) for the proposed RBG2P3 is in the same area as the approved Chlor-Alkali Plant. Frans responded to the project team that it seems there are now two projects being proposed on the same site.	Jana de Jager responded that she was aware of the Chlor-Alkali project but was not certain if it falls within the IDZ and that this query would be addressed in the cumulative assessment as part of the EIA phase. Jo-Anne Thomas added that the area indicated as the RBG2P3 project is the authorized area for the RBG2P2 project (400MW Gas-to-power) and the area as indicated is correct for the RBG2P3 project. Jordi Fernandez responded to Frans's comment that the area indicated for the RBGP2 project site is the only project as indicated in blue on the locality map, and that the Chlor-Alkali authorized area does not fall within the RBGas2Power plant area.
Percy Langa	
Confirmed the query raised by Frans, stating that part of the area indicated in the blue polygon to the West is the Chlor-Alkali approved Gas project and that the cumulative map would need to be updated to indicate the correct study area.	Jana de Jager responded that the map would be updated and included in the final Scoping Report.
Sandy Camminga	
It was reiterated that, as mentioned at various meetings, Transnet cannot provide a clear answer or updated information as to where in the port the off take would be and what the pipeline infrastructure would look like.	Basil Ngcobo responded this matter needs to be posed and addressed by the Department of Mineral Resources and Energy (DMRE) as to where the consolidation lies. He added that the port only act as a vehicle / platform to receive and distribute the gas, and to supply the necessary infrastructure. The IPP would have to source the gas and the port would issue the required permits and facilitate the gas received at the port and the distribution thereof.
The floating Gas-to-Power and other Gas-to-Power applications cannot be excluded from the cumulative impact assessment as these projects are both currently in appeals process and therefore still a 'live' application.	Jana de Jager responded that authorised gas power development as well as existing heavy industries will be included in the cumulative assessment as part of the EIA. The inclusion of the floating gas power projects, although not authorised, will be looked into for the EIA phase.

Question / Comment	Response
The gas source for the facility needs to form part of the application and it was enquired for clarification purposes where would the gas be sourced from, the pipeline routes, and associated timeframes.	Jordi Fernandez responded that at this stage the source of fuel is not yet determined and that the fuel source could be transported by the proposed pipeline
Dominic Wieners	
Additional to Sandy Camminga's question for clarification on where the gas would be source from and how the gas would be excavated from the proposed keys. He commented that the excavation would fall within the jurisdiction of Transnet	Jo-Anne Thomas responded that this activity is not within Savannah Environmental's scope of work but that the question raised is an important issue that needs to be addressed and requested Transnet to provide information regarding this matter for inclution in the EIA process as this issue has been raised on various platforms in the PP process. Basil informed the attende4es that would not be excavating any gas and that the gas would most probably be imported from overseas. The gas would be brought in in LNG Vessels and would be either permanently store in the vessels at the berth. It is envisaged that new berths would have to be established to accommodate the number of LNG Vessels expected at the Port. The gas would be re-gasify for transporting it either by pipeline or road to the power plants. He noted that this matter would be followed up after the meeting with the relevant parties.
Khumbulani Buthelezi	
There is a concern with looking at the project from a site perspective in isolation and not considering the associated infrastructure and subsequent cumulative impacts on the environment. He noted that once the information from the above questions is obtained then only would the EIA contain meaningful input. The summary of the potential impacts as presented does not address the importance of mitigation strategies of these impacts in the Richards Bay area.	Jana de Jager responded that these questions would be addressed in the EIA phase by the various specialists and would also provide the appropriate mitigation measures for each potential negative impact.

Question / Comment	Response
Sandy Camminga	
It was commented that it is important not to lose track of the issue regarding the evacuation of the gas and the regasification infrastructure, and the impacts associated with these features.	Jana de Jager acknowledged the comment, and that the evacuation of the gas would form part of Transnet's EIA application.
Avena Jacklin	
Depending on LNG imports, has climate change implications all long the supply chain from its extraction to production to distribution and storage with high risk of methane gas emissions been assessed? She commented that 5his impact should form part of the project's climate change impacts and cumulative impacts?	Jana de Jager responded that the climate change assessment to be undertaken as part of the EIA phase take on a life cycle view on the project such as the supply and distribution of the gas.
It was commented that the response does not answer the question as there are environmental impacts associated with the supply of LNG into our shores and that the process of obtaining the gas involves fracking and that it goes further than the source but involves the extraction phase, distribution, and utilization. All emissions need to be looked at from the entire supply chain.	Jo-Anne Thomas responded that the climate change specialist considers international best practice and standards and does look at the entire supply change from a life cycle perspective as well as the cumulative impacts thereof. She informed the attendee that this comment would be submitted to the Air Quality Specialist to clarify their methodology as documented in the Scoping Report.
Avena also queried the potential impacts of displacement and replacement of existing livelihoods by a change of land use in the area and would a proper socio-economic impact study be conducted?	Jana de Jager responded that there would be no land-use change associated with this project as the project is located in the IDZ and the land has already been identified for Onoxius Industry. The comment regarding the impact of displacement would be submitted to the Socio-economic Specialist and to include it in their EIA Report.
Gabriel Knott	
It was commented that the impacts of a Floating Storage Regasification Unit (FSRU) facility or similar gas supply options need to be included in the cumulative assessment.	Jana de Jager noted the request and responded that this impact would be submitted to the specialists to include in their cumulative impact assessment.
Avena Jacklin	
The Needs and Desirability of the project needs to be reconsidered, as gas is not needed in the energy mix. The energy baseload can be met through other renewable processes. It was commented that the project did not fully explored alternatives that are safer, cleaner and more sustainable!	Jo-Anne Thomas responded that the Need and Desirability of the project would be addressed further in the EIA phase. The IRP includes the requirements for gas to form part of the energy mix to balance the renewable energy sector. Jordi Fernandez contested the statement that gas is not needed in the energy mix, as gas is part of the IRP 2019 that defines the energy mix

Question / Comment	Response
	required for the country and gas would be used to replace coal. Gas plants can supply energy during off peak times in the renewable energy sector.
The IRP indicates that 3000MW in total for gas, yet Richard's Bay alone has 15,000MW worth of gas-to-power applications. How does this project consider and evaluate all the other applications in this area, let alone the country as whole?	Jo-Anne Thomas responded that Savannah Environmental is aware that the IRP has a cap of 3000MW until 2030 but are not sure of what could happen after 2030. There is no clarity on the best positions for gas projects at this point, but are aware of other applications, and these will be considered during the EIA phase as a number of EAs have been rejected by the Department. Jordi Fernandez responded that as a developer Phakwe is bringing its best proposal to the table for the benefit of the country but it is important to note that the decision lies with the Department and the government will decide on the allocated megawatts based on the defined capacities of the country and the procurement standards There is a possibility that not all the megawatts would be approved but the application for EA for this project will be authorized up to the limit defined. Phakwe acknowledges these limits and the implications.
Gabriel Knott	
It was requested that a slide listing the 'assessment of issues' in terms of Climate Change Assessment as 'GHG emissions into the atmosphere that contribute to anthropogenic climate change' be included in the next presentation. It is believed that these could be expanded on further to include all elements that need to be assessed per the DFFE's national guidelines for consideration of climate change impacts which is currently in draft form.	Jana de Jager acknowledged the request and comment and said that these would be considered in the EIA phase.
Sibango Lwandle	
It was stated that the 32m regulated zones needs to be considered when dealing with water resources, thereby "overlooking" the Department of Water and Sanitation (DWS) "stricter" statutes. The project team was requested to consider the DWS regulatory requirements as well in the specialists' assessments of impacts related to water resources.	Jana de Jager responded that these regulations are considered, i.e. the 500-meter buffer around wetlands and that this would be considered as part of the assessment process in the EIA phase.

Question / Comment	Response
Avena Jacklin	
As an alternative fuel, investing in gas-to-power infrastructure is expensive and would only create local jobs in its construction phase. Gas infrastructure will have to be decommissioned and it does not fit into the country's ambitions for a just transition to a low carbon economy and one that develops a safe and sustainable local economy. As an independent EAP, Savannah Environmental had not covered this aspect adequately.	Jo-Anne Thomas responded that the EIA process is currently only in the scoping phase however appreciate comments raised which would be forwarded to the independent specialists for adequate assessment in the EIA phase. As mentioned earlier, gas is part of the energy mix for South Africa and for the just transition to low carbon economy, this would be further investigated and included in the EIA assessment. This comment will also be submitted to the socio-economic specialist to address the issue regarding job creation and just transition. Jordi Fernandez responded that he disagreed with the concern raised regarding the lack of job creation that the project would contribute to the economy. He informed the attendees that jobs would be created during the construction, and during the operational phase jobs would be created in the form of maintenance, with various levels of skill sets. It was further elaborated that the goal of the country is to be completely decarbonized by the year 2050, and that although not included in the presentation, Phakwe Richards Bay Gas-to-Power Plant intends to incorporate Hydrogeninto the gas mix and eventually move to 100% Hydrogen when it is fully available to use. At this point the facility will have zero carbon emissions. Jordi Fernandez responded that the Green Hydrogen Plans are based on the plans of South Africa available to the public and in terms of timelines, Phakwe's timelines are based on the targets set by South African Institutions. Phakwe RBGP3 will be users of the power of GH when available. The timelines will therefore be based on when plans for availability of green hydrogen becomes publicly available.
In terms of the plan to move to GHG, what are the definite timelines for this plan and what would it entail in terms of additional infrastructure to move to GHG.	Jordi Fernandez responded that according to the information given by the gas turbine provider, the technology that are providing can operate to up to 20% hydrogen mix with natural gas and would be able to evolve and adapt to accommodate 100% hydrogen with only small engineering changes without the whole turbine being replaced i.e. minor technology upgrades.

Question / Comment	Response
	Phakwe's intentions are to be 50% GHG by 2035 and be 70 or more over 2040 depending on the availability of GHG resource and technology. In terms of the availability of GHG, noting that there are intensive talks and prospects for South Africa in the GHG economy and how South Africa would evolve into this production sphere, which Phakwe would like to embrace. However, this is not in Phakwe's hands. The timelines are uncertain and are depended on the evolution of GHG in South Africa, however Phakwe is committed to utilizing GHG production in the local sphere.
Could the plans and timelines for the move to GHG be shared and put in writing and included with the meeting notes?	Jordi Fernandez responded that the Green Hydrogen Plans are based on the plans of South Africa available to the public and in terms of timelines, Phakwe's timelines are based on the targets set by South African Institutions. PRBGP3 will be users of the power of GH when available. The timelines will therefore be based on when plans for availability of green hydrogen becomes publicly available.
Gabriel Knott	
The reference to local unskilled jobs, which are primarily available to local communities during construction is noted. However, thereafter, unskilled jobs during operation phase are minimal as these jobs would be mainly reserved for energy engineers and similar. It was requested that this matter be adequately addressed in the socio-economic assessment for the EIA.	Jana de Jager responded that Savannah Environmental take note of the request and confirm that it would be adequately addressed in the Socio-economic assessment of the EIA. The Socio-economic Specialists will consider the figures related to unskilled and skilled labor during the construction and operational phase.
Avena Jacklin	
What is the estimated volume of water usage for cooling and heating, and where will the extraction and discharge points be located?	Jordi Fernandez estimated an average of 1 000 000 m³ of water per year and the source of water would be potable water. The plant is located in the Richards Bay IDZ and the water would be provided by the Richards Bay IDZ for the plant based on their allocation. Other sources of water may become available as the Municipality is planning a water recycling plant for water being used from industry. When this becomes available, Phakwe can look at using this water source and not that of potable water. In terms of discharge of water, the Richards Bay IDZ have a sewer system to evacuate the effluent which is connected to the municipality

Question / Comment	Response
	effluent system. This way no water will be discharged to the soil. The effluent the plant would provie is potable water with a high concentration of natural salts present in potable water. The effluent concentration will be maintained at the limits defined by the municipality for salts. In this way there will be no polluting.
Ayanda Mnyungula	
A concern was rasied over the mangroves in the Richards Bay area and the biodiversity living in these mangroves and the indirect impact both short term and long term impacts and these would need to be assessed in the EIA phase.	Jana de Jager confirmed that the terrestrial biodiversity and aquatic specialists would be assessing these impacts and provide adequate mitigation strategies for any negative impacts identified.
Sibongo Lwandle	
It was requested that the EAP consult with the Richards Bay IDZ whether they have the spare water capacity for the project or does the Richards Bay IDZ have their own water purification plant they are running. The DWS would like a confirmation of the water source and what is the capacity thereof for the project. Secondly, is the water being used for the cooling process? The DWS would like an assessment of the resultant temperature of the water once it is cooled as such that it can be discharged into the system.	Jana de Jager de Jager responded and acknowledged that aspect of confirmation of water availability from the IDZ and the temperature of the effluent will be considered. Jordi Fernandez clarified that in terms of the water being cooled, the cooling system is a closed system (circuit) where it is heated and cools down and heated and cools down. Therefore, the effluent does not consist of hot water . He mentioned that the turbine is cooled by air.
Avena Jacklin	
What is the estimated heat output from the combustion process based on similar operations?	Jordi Fernandez responded that the estimated temperature inside the turbine is approximately 1 600 or 1700 degrees. This varies in different places but when the heat arrives to heat the water in the steam circuit it is already lower but hot enough to convert the water to steam in the close circuit. The tower that discharges the steam to the atmosphere is above the cooling system so this would be lower, but he does not have the exact temperature. This would be checked and clarified.
Clarifying the question pertaining to the heat output, it was referred to what is discharged into the atmosphere. Would this be considered in the air quality assessment?	Jana de Jager, as alluded to by Jordi Fernandez, that the air temperature at the exit of the stacks would be considered as part of the air quality assessment.

Conversation Function Notes and the delegate had to leave the meeting and agreed that a response can be provided in the Workshop Notes

Question / Comment	Response
Dominic Wieners	
Switching to green hydrogen raises further concerns that there is currently no infrastructure or planned infrastructure for import or evacuation from the port, should it be found to be best imported there.	Jordi Fernandez: The development of the infrastructure to deliver the green hydrogen to the customers will be part of the Green Hydrogen Economy strategy and plans, that not only is considering the production, but also the transport and distribution of the hydrogen produced. When time arrives and H2 becomes available PRBGP3 will only focus on the last-mile connection from the plant to the distribution site. Given that hydrogen can use the same pipeline than natural gas and will be mixed with it, most probably PRBPGP3 will be using the existing last-mile gas connection to bring the hydrogen into the plant.

WAY FORWARD AND CLOSURE

Nicolene Venter asked whether there were any other environmental-related comments that the attendees would like to raise before closing the KSW officially. It was noted by all attendees that no further comments needed to be raised at this time.

She informed the attendees that they can submit any further written comments via e-mail, and she reminded the attendees that the Scoping Report's commenting period is ending on Monday, 13 December 2021 and that it would be appreciated if written comments can be received before or on the 13th of December 2021.

The attendees were also informed that should they not have any written comments, they can also email or send a formal letter stating that the content of the report was reviewed, and no written comments would be submitted.

She thanked the participants for making time to attend the KSW and for their valuable inputs into the EIA and public participation process.

The meeting was closed at 11h00.

LIST OF ABBREVIATIONS AND ACRONYMS

BID	Background Information Document	FSRU	Floating Storage Regasification Unit
CCPP	Combined Close Power Plant	GH	Green Hydrogen
DFFE	Department of Forestry, Fisheries, and the Environment	GHG	Greenhouse Gas
DMRE	Department of Mineral Resources and Energy	IDZ	Industrial Development Zone

DWS	Department of Water and Sanitation	IPP	Independent Power Producer
EA	Environmental Authorisation	IRP	Integrated Resource Plan
EAP	Environmental Assessment Practioner	KSW	Key Stakeholder Workshop
EIA	Environmental Impact Assessment	KZN	KwaZulu Natal
FGM	Focus Group Meeting	LNG	Liquid Nitrogen Gas

APPENDIX A: Attendence Record

Meeting Title	RICHARDS BAY GAS-TO-POWER3 2000MW CCPP: Invitation to Key Stakeholder Workshop	
Total Number of Participants	39	
Meeting Start Time	12/9/2021, 8:46:47 AM	
Meeting End Time	12/9/2021, 3:20:47 PM	
Meeting Id	d17fef67-9f60-467c-9634-ee628fa94f92	

Full Name	Join Time	Leave Time
Aulicia Maifo	12/9/2021, 9:06:07 AM	12/9/2021, 10:53:53 AM
Avena Jacklin	12/9/2021, 9:38:18 AM	12/9/2021, 10:53:42 AM
Ayanda Alex Mnyungula	12/9/2021, 9:03:26 AM	12/9/2021, 10:41:58 AM
Basil Ngcobo	12/9/2021, 9:00:26 AM	12/9/2021, 10:39:52 AM
Brenda Strachan	12/9/2021, 9:06:09 AM	12/9/2021, 10:53:38 AM
Cassandra Schnoor	12/9/2021, 9:01:47 AM	12/9/2021, 10:53:42 AM
Dominic Wieners	12/9/2021, 9:06:48 AM	12/9/2021, 10:26:43 AM
Franz Schmidt	12/9/2021, 9:05:58 AM	12/9/2021, 10:53:42 AM
Gabrielle Knott	12/9/2021, 9:16:12 AM	12/9/2021, 10:53:47 AM
Jabulani Sithole	12/9/2021, 9:39:45 AM	12/9/2021, 10:53:54 AM
Jana de Jager	12/9/2021, 8:50:06 AM	12/9/2021, 10:53:48 AM
Jo-Anne Thomas	12/9/2021, 8:49:34 AM	12/9/2021, 10:53:47 AM
Jordi Fernandez	12/9/2021, 9:03:27 AM	12/9/2021, 10:53:52 AM
Khumbulani Buthelezi	12/9/2021, 9:17:38 AM	12/9/2021, 12:42:16 PM
Koogendran Govender	12/9/2021, 9:05:32 AM	12/9/2021, 1:22:29 PM
Letitia Moodley	12/9/2021, 8:56:33 AM	12/9/2021, 10:53:40 AM
Lindiwe Zondi	12/9/2021, 9:03:55 AM	12/9/2021, 10:38:29 AM
Lumko Ncapai	12/9/2021, 9:00:42 AM	12/9/2021, 11:06:31 AM
Mchunu, Londi	12/9/2021, 9:02:42 AM	12/9/2021, 9:09:12 AM
Muzi Mdamba	12/9/2021, 9:08:57 AM	12/9/2021, 10:51:15 AM
Nicolene Venter	12/9/2021, 8:47:51 AM	12/9/2021, 10:54:05 AM
Nondumiso Bulunga	12/9/2021, 8:47:15 AM	12/9/2021, 9:28:26 AM
Nozipho Khathi	12/9/2021, 9:06:36 AM	12/9/2021, 10:53:48 AM
Percy Langa	12/9/2021, 9:01:44 AM	12/9/2021, 10:53:44 AM
Portia Makitla	12/9/2021, 9:09:35 AM	12/9/2021, 10:38:19 AM
Sethabile Thabede	12/9/2021, 9:39:33 AM	12/9/2021, 10:54:14 AM
Sandy Camminga	12/9/2021, 9:22:42 AM	12/9/2021, 10:24:33 AM
Seoka Lekota	12/9/2021, 9:47:44 AM	12/9/2021, 9:51:28 AM
Sethabile Gcume	12/9/2021, 9:03:09 AM	12/9/2021, 10:53:52 AM
Sibango Lwandle	12/9/2021, 8:58:17 AM	12/9/2021, 10:53:51 AM
Tamryn Lee Goddard	12/9/2021, 8:46:47 AM	12/9/2021, 10:53:48 AM
Tembakazi Koali	12/9/2021, 9:01:49 AM	12/9/2021, 10:53:50 AM
Thembalakhe Sibozana	12/9/2021, 8:56:58 AM	12/9/2021, 10:57:38 AM
Vuyo Keswa	12/9/2021, 9:22:37 AM	12/9/2021, 10:53:39 AM
Zainul Shiekh	12/9/2021, 8:58:21 AM	12/9/2021, 8:59:40 AM

Zakithi	12/9/2021, 9:04:08 AM	12/9/2021, 9:26:43 AM
Zipho Zondo	12/9/2021, 8:54:19 AM	12/9/2021, 3:20:47 PM
Ziyanda Malibiji	12/9/2021, 9:02:28 AM	12/9/2021, 10:53:55 AM

Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant, Richards Bay, Kwazulu-Natal Province

Key Stakeholder Workshop
December 2021

1

AGENDA

- Welcome and Introduction
- Meeting Conduct
- Purpose of the Meeting
- Introduction and Project Overview
- Scoping Assessment & Findings
- Discussion
- Way Forward

2

CONDUCT OF THE MEETING

- Recording of Meeting
- Please stay on mute during the presentation
- Register attendance on Chat function (name, surname & affiliation)
- Please raise your hand to indicate a comment or question to raise
- Questions submitted in Chat function will be responded at the end of the presentation

3

PURPOSE OF THE MEETING

- Provide stakeholders and I&APs with an overview of the Phakwe Richards Bay Gas Power 3 Combined Cycle Power Plant (CCPP)
- Summary of the **Environmental Impact Assessment (EIA) & Public Participation** being undertaken
- Present a summary of key environmental findings as documented in the **Scoping Report**
- Provide stakeholders the opportunity to seek clarity regarding the project and environmental assessment
- Obtain and record comments for inclusion in the **Final Scoping Report** to be submitted to the DFFE

4

PROJECT OVERVIEW
(Jana de Jager)

5

5

PROJECT OVERVIEW

- **Applicant:** Phakwe Richards Bay Gas Power 3 (Pty) Ltd
- **Project Description:** up to 2000MW combined cycle gas to power plant operated on natural gas or a mixture of natural gas and hydrogen
- **Location:** Erf 16820, Erf 16819,Erf 1/16674, and Subdivision of Erf 17442, Richards Bay IDZ Phase 1F, Richards Bay, KwaZulu Natal.

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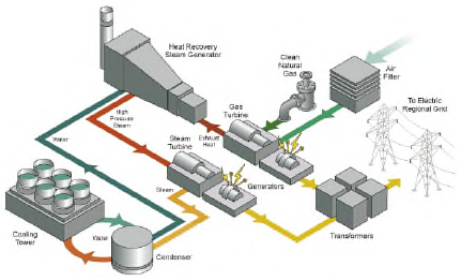
Combined Cycle Gas to Power Technology



- CCPP is one of the most efficient power generating technologies to convert either gas or potentially a mixture of gas and hydrogen to mechanical power or electricity.
- Using a blend of hydrogen gas as a fuel source for turbine operation benefits the reduction in carbon emissions pre-combustion (if green or similarly sourced hydrogen is used), as well as during combustion.

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OVERVIEW OF THE SITE

- Located in an industrial area (Richards Bay IDZ Phase 1F) with existing heavy industries
- Zoned for noxious industry (City of uMhlathuze land use zoning)
- Vegetation and ecological conditions onsite have been previously transformed
- Richards Bay IDZ has been authorised to infill wetlands onsite (DFFE Ref No.: 14/12/16/3/3/3/665)
- The site will be accessed via existing roads within the IDZ Phase 1F (already approved through an EIA undertaken for the Phase 1F infrastructure)

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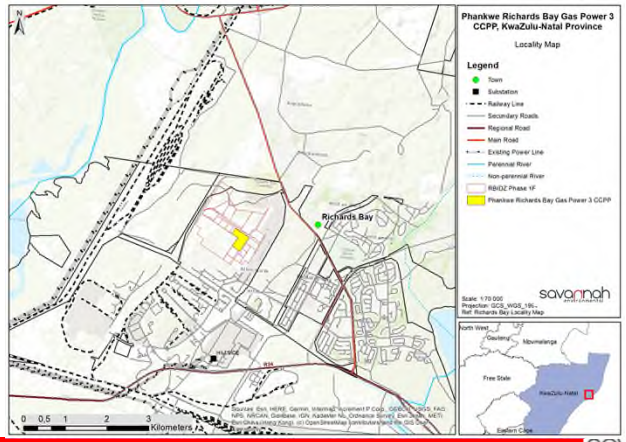

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ENVIRONMENTAL IMPACTS/SENSITIVIES IDENTIFIED

- The following has been identified within the Scoping Phase:
  - Terrestrial Biodiversity Impacts (fauna & flora);
  - Wetland and Aquatic Impacts;
  - Palaeontological & Archaeological Impacts;
  - Air Quality Impacts (incl. human health related impacts);
  - Climate Change Impacts;
  - Noise Impacts;
  - Visual Impacts;
  - Socio- Economic Impacts

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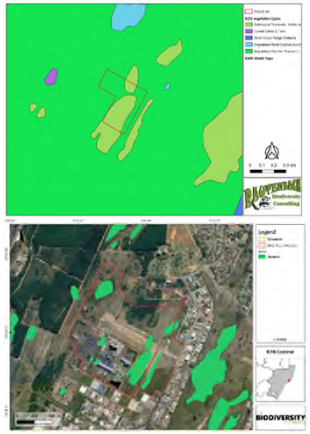

Terrestrial Biodiversity & Aquatic Assessments

- Terrestrial Ecology
  - Site was found to be degraded during preliminary site investigation
  - Fauna and flora of conservation concern may be present although unlikely
- Aquatic
  - IDZ offset wetlands are located within the development area – earmarked to be offset within other areas as part of the RBIDZ development

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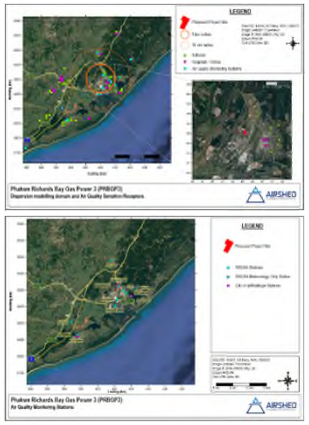

Air Quality Assessment

- Baseline air quality information summarised from the available air quality monitoring stations (RBCAA & City of uMhlatuze.
- Sensitive receptors identified
- Impact to ambient air quality will be simulated during EIA phase

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Noise Assessment

- Potential noise sensitive receptors were identified
- Ambient sound levels measured within industrial area and closets residential area

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Visual Impact Assessment

- The viewshed analyses will be undertaken from the project components height above ground level, taking into account the industrial character of the landscape
- The zones of visual influence of the proposed PRBGP3 will be modelled

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SCOPING SPECIALIST ASSESSMENTS

Specialist Study	Approach/Methodology
Heritage and Paleontological	• No heritage resources of significance were recorded within the study site.
Climate Change	• Although the Phakwe Richards Bay Gas Power 3 CCPP proposes to progressively reduce carbon emission over time with the increased presence of green hydrogen as part of the fuel mix, climate change impacts associated with the development of the Phakwe Richards Bay Gas Power 3 CCPP relate to the combustion of fuel (natural gas) at the CCPP which will produce greenhouse gas emissions that will contribute to the global phenomenon of anthropogenic climate change. A Greenhouse Gas (GHG) inventory will be calculated for the proposed PRBGP3 to quantify the effects of the Project on climate change.
Socio-economic	• Detailed overview of the socio-economic environment which will be impacted by the proposed CCGPP development and associated infrastructure.

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SUMMARY OF POTENTIAL IMPACTS

Impact Report Specialist Studies	Assessment of issues
Terrestrial Biodiversity Assessment (fauna & flora);	• Loss of vegetation • Loss of faunal species • Potential habitat fragmentation • Infestation of alien species
Wetland and Aquatic Assessment	• Altered hydrology • Impaired water quality • Impeded ecological services
Paleontological & Archaeological	• No impacts on archaeological and palaeontological resources is expected in this project study area.
Noise Assessment	• Increased noise levels in the vicinity of the plant

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SUMMARY OF POTENTIAL IMPACTS

Impact Report Specialist Studies	Assessment of issues
Air Quality Assessment	• Potential to impact on the ambient air quality of the area through elevated daily PM10 concentrations (during construction) • Contribute NO_x, CO, SO_x and VOCs to the existing baseline concentrations
Climate Change Assessment	• GHG emissions into the atmosphere that contribute to anthropogenic climate change
Visual Assessment	• Impact on sensitive receptors and sense of place
Socio-Economic Assessment	• Increase in the production and GDP, and Employment opportunities (economic) • Impact on sense of place, presence of construction workers, social upliftment (social)
Traffic Assessment	• Traffic congestion (construction) • Noise and dust impacts due to traffic

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CUMULATIVE IMPACTS

- The approach in assessing cumulative impacts will be informed by the scale at which the impact is likely to occur, as well as surrounding developments.
- Developments considered as part of cumulative assessment:
  - Large-scale industrial developments within a 30km radius of the PRGP3 CCPP
  - Energy facilities located within a 30km radius of the proposed PRBGP3 CCPP
    - The assessment as part of the EIA phase will take into consideration both of the RMIPPPP and 3000MW gas to power procurement programmes (worst-case scenario).

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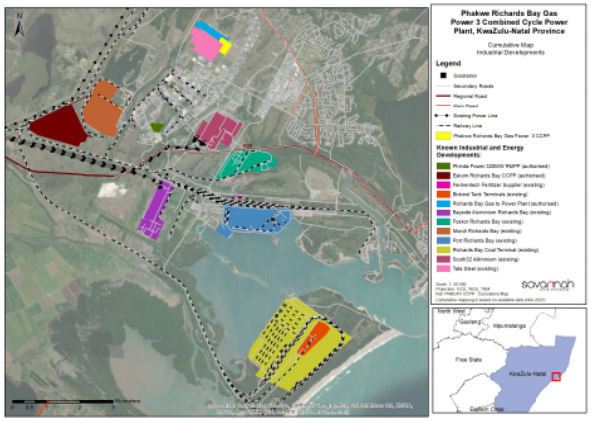

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CONCLUSIONS AND RECOMMENDATIONS

- The PRBGP3 is located in an industrial area with a limited development footprint
- The findings of the Scoping Report were based primarily on desktop assessments and site visits
- Based on this assessment, no environmental fatal flaws have been identified to be associated with the project at this stage in the process
- Therefore, there is no reason why the project cannot be evaluated further in a detailed EIA study
- Plan of Study for EIA is detailed in the Scoping Report, including specialist investigations to be undertaken

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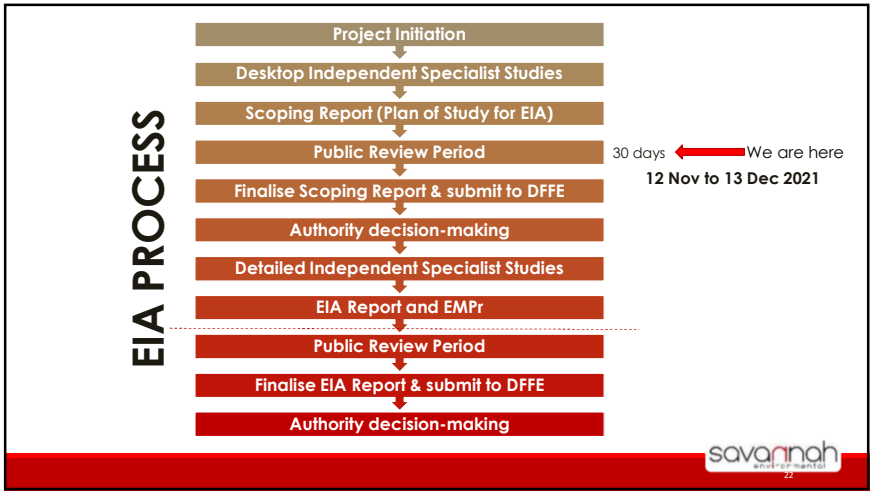

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DISCUSSION

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WAY FORWARD & CLOSURE
(Nicolene Venter)

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WAY FORWARD

- Meeting notes will be distributed for verification together with the presentation
- Review and comment period ends **Monday, 13 December 2021**
- Final Scoping Report submission to DFFE (January 2022)

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