

REVIEW OF THE FINAL ENVIRONMENTAL IMPACT ASSESSMENT REPORTS AND CLIMATE CHANGE IMPACT ASSESSMENT: NUCLEAR-1 PROJECT, DUYNEFONTEIN, WESTERN CAPE

Stakeholder Engagement: Virtual Meeting

16h00 – 17h30 15 August 2023



Welcome

Chair: Sharon Jones (Partner, SRK)

Presenters: Kate Steyn (Principal, SRK)
Robbie Louw (Promethium)

Scribe: Murad Esau (SRK)

Eskom: Mpho Muswubi
Deidre Herbst
Deon Jeannes
Mervin Theron
Lewis Phidza
Keith Featherstone



Welcome

Purpose of the Virtual Meeting:

- To provide a forum for stakeholders to discuss the findings of the Environmental Impact Assessment (EIA) Review Report and Climate Change Impact Assessment (CCIA).
- Independent consultants (SRK and Promethium) will present findings, and with the proponent (Eskom), answer your questions.
- Comments raised and responses will be recorded, submission of written comments is encouraged.
- Where we are unable to answer (especially technical) questions in the meeting, or questions of clarity to inform further comments, we undertake to provide responses in the next day or two.

Welcome

Ground Rules

- Attendance will be noted.
- Meeting is being recorded; minutes taken by SRK.
- All questions must be submitted via the online chat function.
- Meeting chair will field questions and direct them to the appropriate responder during the **Discussion** session at the end of the presentations.
- Questions and responses will be captured in the Issues and Responses Summary.
- Additional questions may be submitted in writing to SRK until 23 August 2023.



Agenda

- 01 Background and Scope of Work
- 02 EIA and Specialist Study Reviews (SRK)
- 03 Climate Change Impact Assessment (Promethium)
- 04 Way Forward
- 05 Discussion
- 06 Close

01

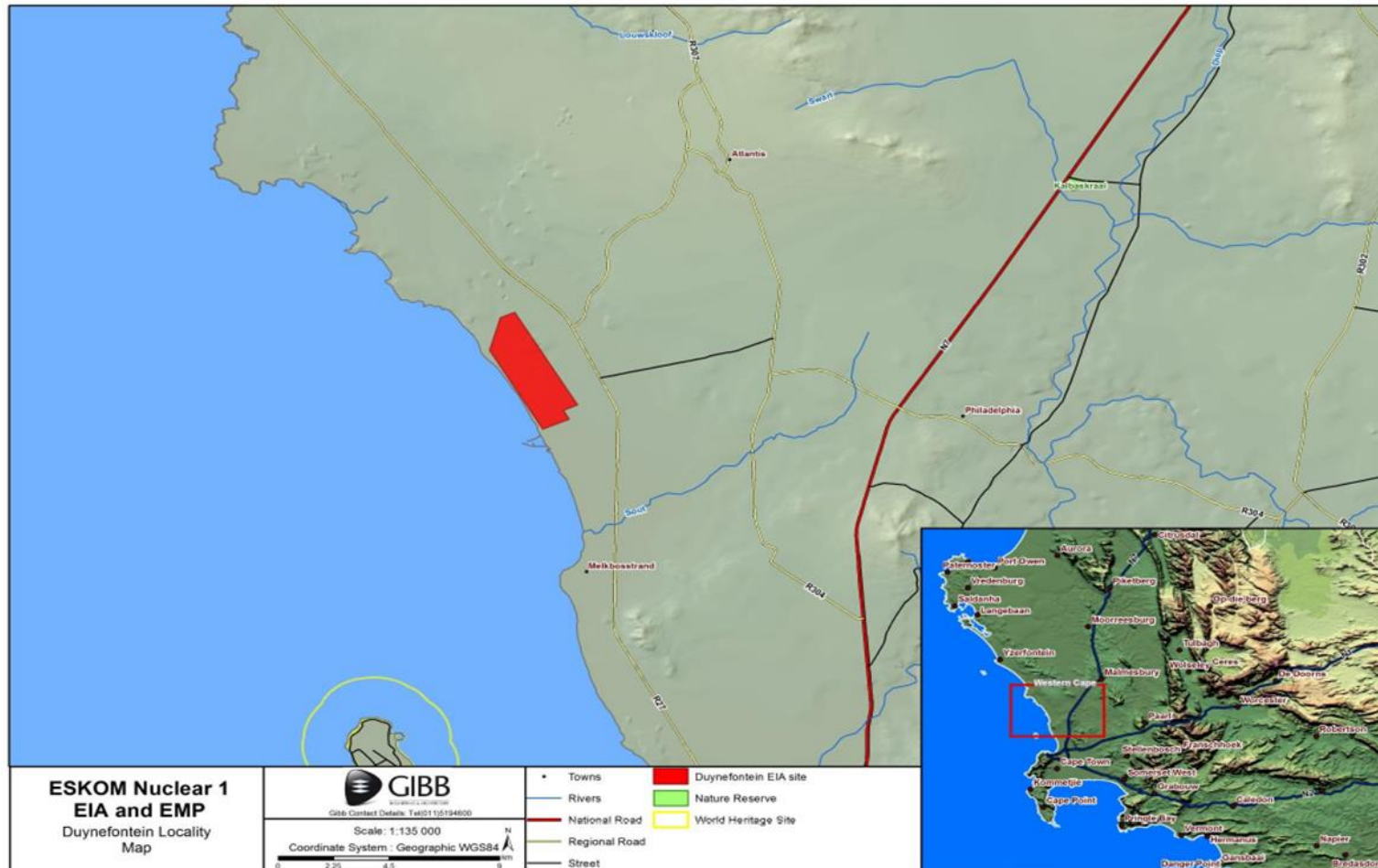
Background and Scope of Work

Review of Nuclear-1 EIA and compilation of CCIA

Background

- Eskom appointed ARCUS GIBB (Pty) Ltd (now GIBB) to undertake an EIA for proposed construction, operation and decommissioning of new nuclear power station (Nuclear-1) and associated infrastructure.
- Three alternative sites assessed:
 - Thyspunt (Eastern Cape)
 - Duynefontein (Western Cape)
 - Bantamsklip (Western Cape)
- Department of Forestry, Fisheries and the Environment (DFFE) granted **Environmental Authorisation** (EA) for proposed nuclear plant at **Duynefontein** in 2017.

Location of the Duynefontein site



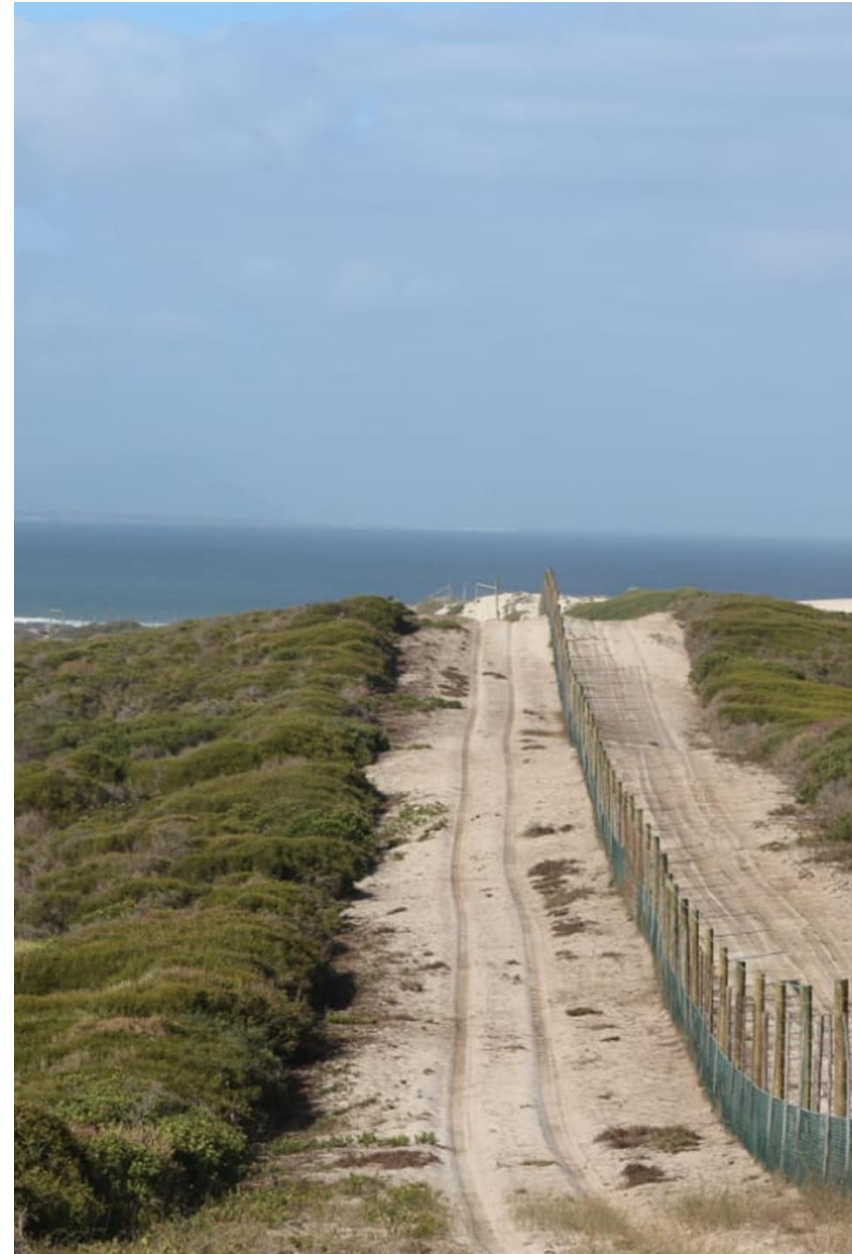
Appeal Process

- EA appealed.
- Appeal process adjourned in 2022.
- Eskom instructed to commission additional studies:
 - **Independent review of EIA.**
 - **Climate Change Impact Assessment (CCIA) study.**



Scope of Work

- To inform the Minister's decision on the appeal process:
 - **Review** specialist studies, EIR, EMPr: to determine risks of not updating reports and how risks (if any) need to be mitigated.
 - Compile report **documenting findings** of review and recommend methods to address any gaps.
 - Undertake a **CCIA**.
 - Conduct **public participation**, as per EIA Regulations (2014), as amended.



Purpose of Current Public Participation Process

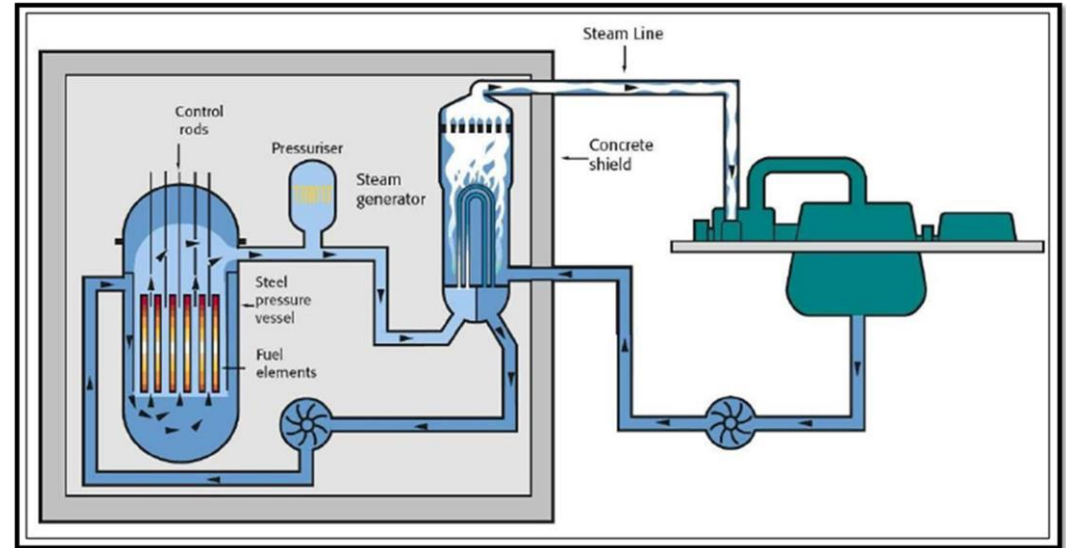
- To solicit comments only on Review Report (SRK) and CCIA (Promethium).
- **NOT** intended to:
 - Reopen comment on issues previously identified and assessed in the EIA undertaken by GIBB.
 - Open discussion on the accuracy of detailed technical information in the EIA Report, EMPr and specialist studies.
 - Open discussion regarding the appeal process.
 - Assess the project motivation e.g. appropriate energy mix (coal, gas, nuclear, renewables).
 - Discuss any aspects of the existing Koeberg power plant or the ongoing NNR licensing process for new build at Koeberg.



Project Description

Eskom proposes to construct and operate a conventional nuclear power station at Duynefontein, in order to meet the total demand for electricity:

- Pressurised Water Reactor
- 4000 MW
- 9 years to construct
- Footprint ~265 ha



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EIA and Specialist Study Reviews

SRK

EIA Review

Regulatory Context

- Nuclear-1 EIA undertaken by GIBB governed by EIA Regulations, 2006 (GN R385 of 2006), promulgated in terms of NEMA.
- Subsequently, EIA Regulations, 2014, other new regulatory requirements, specialist study regulations, specialist reporting protocols (GN 320, 2022) and standards have come into effect.
- NEMA 2014 EIA regulations include transitional arrangements:

“An application submitted in terms of the previous NEMA regulations...must be dispensed with in terms of those previous NEMA regulations...”

EIA Review

Scope of the Review

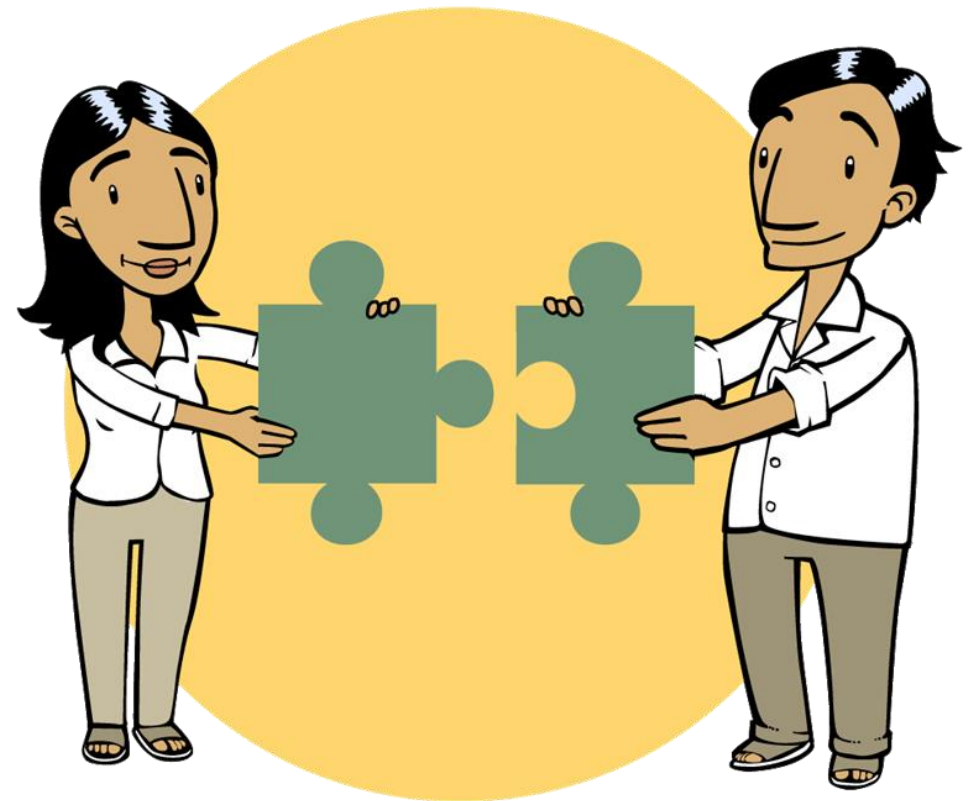
■ The Review:

- Recognises Nuclear-1 EIA could not and, in law, **does not need to comply** with instruments which came into effect after Nuclear-1 EIA commenced.
- Does not assess the **correctness or accuracy of information** presented in EIR or specialist reports.
- **Assumes that EIA process**, stakeholder engagement, EIR and specialist studies were comprehensive, **legally compliant and fit-for-purpose** when EA was granted in 2017.
- Is **not a technical review**, but rather a process review, in effect a **gap analysis** assessing whether EIA (specialist studies, EIR and EMPr) undertaken over 10 years ago remains fit-for-purpose.

EIA Review

Focus on how the EIA (undertaken in terms of 2006 EIA Regulations) is aligned with **intent** and '**spirit**' of:

- **EIA Regulations, 2014.**
- **(New) Specialist study regulations and reporting protocols.**



EIA Review

Review Approach and Methodology

Is old information still **suitable**?

- Is baseline information/data adequate?
- Have conditions changed so considerably that information may compromise the original EA?

Is information **material**?

- Does status of information in EIR or a study affect impacts of project, increasing risk that the project will not withstand further appeals in the future?

How should any data deficiencies and risks be **addressed**?

- Through new conditions attached to EA and/or appeal decision.
- By new application for EA (i.e. a new EIA process).
- By updating EMPr.
- Through a Specialist Study Addendum.
- By implementing a Grievance Redress Mechanism and reacting to valid grievances as they arise.
- Through another legislative process (e.g. land use application).
- Some other process.

EIA Review

Review of **Specialist Impact Assessment** Studies

- Dune Geomorphology
- Hydrology
- Geohydrology
- Oceanography
- Marine Ecology
- Freshwater Ecology and Wetlands
- Botany and Dune Ecology
- Vertebrate Fauna
- Invertebrate Fauna
- Social
- Economic
- Agricultural
- Air Quality
- Noise
- Visual
- Town Planning
- Transportation
- Heritage
- Radiology

EIA Review

Review of **Technical Assessments**

- Geological Hazard
- Freshwater Supply
- Emergency Response
- Seismic Risk
- Geotechnical Suitability
- Site Control
- Emergency Response
- Transmission Integration
- Radioactive Waste Management
- Human Health Risk
- Beyond Design Accident Report
- Position of 1:100 Sea Floodline

31 Specialist and Technical Reviews

EIA Review

Review Team

Name	Organisation	Studies Reviewed
Chris Dalgliesh	SRK	<ul style="list-style-type: none"> • Economic Assessment • EIR • EMPr
Sharon Jones	SRK	<ul style="list-style-type: none"> • EIR
Kate Steyn	SRK	<ul style="list-style-type: none"> • Freshwater Ecology and Wetlands Monitoring Report • Vertebrate Fauna Assessment • Invertebrate fauna Assessment
Jennifer Barnard	SRK	<ul style="list-style-type: none"> • Dune Geomorphology Assessment • Marine Ecology Assessment • Oceanographic Assessment • Agricultural Impact Assessment • Radioactive Waste Management • EIR
Rob Gardiner	SRK	<ul style="list-style-type: none"> • Hydrological Assessment • Geohydrological Assessment • Freshwater Supply • Position of 1:100 Sea Floodline • Social Impact Assessment
Nicola Rump	SRK	<ul style="list-style-type: none"> • Botany and Dune Ecology Assessment • Heritage Impact Assessment
Hasheel Tularam	SRK	<ul style="list-style-type: none"> • Air Quality Assessment • Noise Assessment

Name	Organisation	Studies Reviewed
Bruce Engelsman	SRK	<ul style="list-style-type: none"> • Geological Hazard Assessment • Seismic Risk Assessment • Geotechnical Suitability Assessment • Site Control Report
Kelly Armstrong	SRK	<ul style="list-style-type: none"> • Visual Impact Assessment
Dr. Dawid de Villiers	SciRAD Consulting	<ul style="list-style-type: none"> • Radiological Impact Assessment • Emergency Response Report • Beyond Design Accident Report
Chanel Barnard	Urban-Econ	<ul style="list-style-type: none"> • Tourism Assessment
Dr. Johan Christoff Krogscheepers	Innovative Transport Solutions	<ul style="list-style-type: none"> • Transportation Assessment
Tim Florence	Planning Partners	<ul style="list-style-type: none"> • Town Planning Report
Dr. Willie van Niekerk	Infotox	<ul style="list-style-type: none"> • Human Health Risk Assessment
Ahmed Hansa	Eskom	<ul style="list-style-type: none"> • Transmission Integration Report

EIA Review

Review Conclusions: Specialist Studies

- Specialist reports are suitable for decision making.
- Recommendations:
 - Economic Impact Assessment: the Minister must consider the IRP (DoE, 2019).
 - 1:100 year flood line: Nucear-1 design must comply with separate Site Safety Reports (SSRs).
 - Grid Integration Report: update Grid Integration Study.

EIA Review

Review Conclusions: EIR

- **Project description** in FEIR remains valid.
- No material changes to **baseline**.
- Impact assessment **methodology** robust; relevant impacts assessed. No material omissions identified.
- Statements on **energy mix** and **integration into the energy grid** may be outdated; should be informed by the updated IRP.
- Original **public participation process** provided DFFE with comprehensive understanding of stakeholder interest to inform decision making.

EIA Review

Review Conclusions: EMPr

- EMPr is a **dynamic document** which will need to be **routinely updated** by Eskom as new information becomes available.



EIA Review

Review Conclusions

- The **EIA process was adequate** to meet requirements in terms of the EIA Regulations, 2014.
- The assumptions and limitations as well as the conclusions and recommendations in the FEIR remain valid and the **FEIR remains fit-for-purpose** to inform the DFFE decision.

EIA Review

Recommendations: Eskom

The principal recommendations are that Eskom must:

- Acquire relevant (environmental) **permits and licenses**.
- Ensure design **complies with recommendations in separate SSRs**.
- Commission a **new Grid Integration Study**.
- **Update the EMPr**.

EIA Review

Recommendations: Appeal Process

FEIR remains valid and is fit-for-purpose

to inform the decision, subject to:

- Eskom implementing SRK's recommendations.
- The Minister considering Section 34(1) determination issued in accordance with the Electricity Regulation Act of 2006 for 2 500 MW new nuclear.
- The Minister considering the IRP (2019) which considers a mix of energy sources.



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Climate Change Impact Assessment (CCIA)

Promethium

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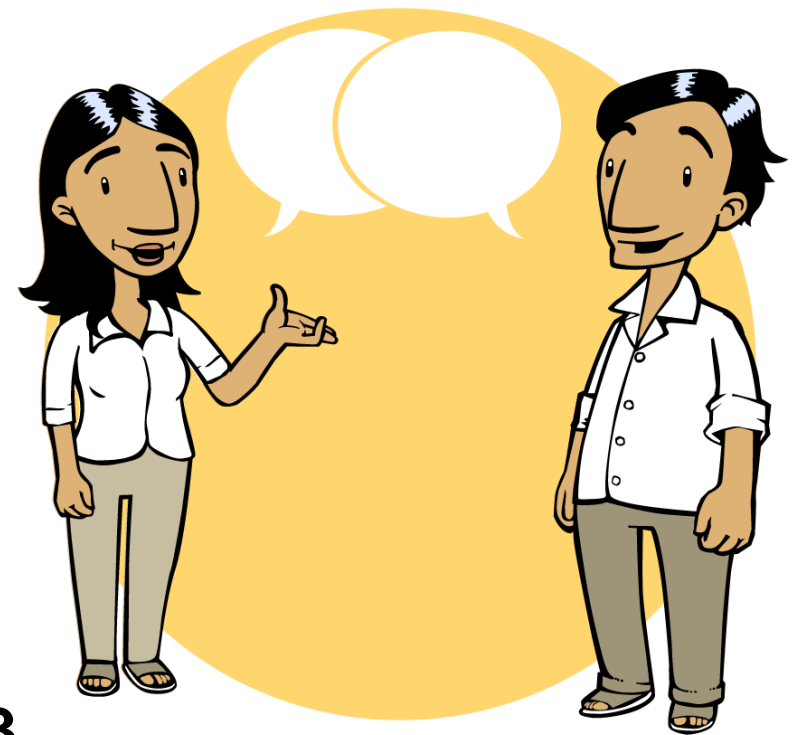
Way Forward

Stakeholder Engagement Process

Way Forward

Stakeholder Engagement Process

- Review Report and CCIA available at :
 - Atlantis Avondale Public Library.
 - Cape Town Central Library.
 - Koeberg Public Library.
 - Tableview Public Library.
 - SRK's Rondebosch office.
 - SRK's website: www.srk.co.za.
 - Eskom's website: www.eskom.co.za.
- Comment period ends **23 August 2023**.



Way Forward

Stakeholder Engagement Process

- All comments and responses will be included in an Issues and Responses Summary.
- Please submit all comments in writing.
- All written comments can be addressed to:

Asheerah Meyer
Postnet Suite #206
Private Bag X18
Rondebosch 7701

Fax: 021 685 7105
Tel: 021 659 3060
email: ctpp@srk.co.za
- Final Review Report and CCIA (including all stakeholder comments) will be made available for information and submitted to the Minister for a decision.



05

Discussion

EIA Review and CCIA

06

Close

Thank You

Presented by:

Kate Steyn

Robbie Louw

Chairperson: Sharon Jones