



**ENVIRONMENTAL IMPACT
ASSESSMENT PROCESS**

**PROPOSED TUTUKA
PHOTOVOLTAIC (PV) SOLAR
ENERGY FACILITY, NEAR
STANDERTON**

MPUMALANGA PROVINCE

Savannah Environmental (Pty) Ltd

Contact: Gabriele Wood
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**ENVIRONMENTAL IMPACT
ASSESSMENT PHASE**

LEKWA LOCAL MUNICIPALITY

**HELD ON
7 APRIL 2016**

LEKWA LOCAL MUNICIPALITY, STANDERTON

Notes for the Record prepared by:

Savannah Environmental

Please address any comments to Gabriele Wood at the above address.

PROPOSED TUTUKA PV SOLAR ENERGY FACILITY NEAR STANDERTON, MPUMALANGA PROVINCE

Venue: Lekwa Local Municipality, Standerton
Date: 7 April 2016
Time: 9:30

WELCOME AND INTRODUCTION

Gabriele Wood of Savannah Environmental (Pty) Ltd welcomed all in attendance and introduced herself as the public participation and social consultant for the Environmental Impact Assessment (EIA) process being undertaken for the proposed Tutuka PV Solar Energy Facility near Standerton in the Mpumalanga Province.

She noted that the project is being proposed by Eskom SOC Limited and that Savannah Environmental has been appointed as the independent environmental consultancy to undertake the EIA for the project.

Ms Wood thanked the members of the meeting for the opportunity to brief them about the proposed project. She noted that the purpose of the meeting was to introduce the project and obtain comments on the draft EIA Report and project in general.

MEETING ATTENDEES

Name	Organisation & Position
Itumeleng Mashishi (IM)	Lekwa Local Municipality – Town Planner
Sandhisha Jay Narain (SJN)	Savannah Environmental – Environmental Consultant
Gabriele Wood (GW)	Savannah Environmental – Public Participation and Social Consultant

APOLOGIES

None

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Sandhisha Jay Narain of Savannah Environmental presented the background and introduction to the project and provided an overview of the potential environmental impacts of the project identified in the draft EIA Report. (Please refer to the attached presentation).

DISCUSSION SESSION

Question / Comment	Response
IM: Has the EIA Report taken the Mpumalanga Biodiversity and Conservation Plan into account?	SJN: The EIA Report makes reference to the Mpumalanga Biodiversity and Conservation Plan although the Tutuka Power Station does not fall within a Critical Biodiversity Area (CBA) identified within this plan.
IM: What is the property earmarked for the development currently zoned as?	SJN: The site for the proposed Tutuka Solar Energy Facility falls within the Tutuka Power Station boundary. It is likely to be zoned as industrial property, however this would need to be verified.

WAY FORWARD AND CLOSURE

Gabriele Wood stated that Interested and Affected Parties could submit their written comments on the EIA process and proposed project to Savannah Environmental before 26 April 2016. She noted that the comments received would be included in the Final EIA Report that would be submitted to the Department of Environmental Affairs. She thanked the meeting attendees for availing themselves for the meeting. The meeting was closed at 10:00.



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**ENVIRONMENTAL IMPACT
ASSESSMENT PHASE**

PUBLIC MEETING

**HELD ON
6 APRIL 2016**

**ULWAZI PRIMARY SCHOOL HALL, THUTHUKANI,
MPUMALANGA**

Notes for the Record prepared by:

Savannah Environmental

Please address any comments to Gabriele Wood at the above address.

PROPOSED TUTUKA PV SOLAR ENERGY FACILITY NEAR STANDERTON, MPUMALANGA PROVINCE

Venue: Ulwazi Primary School, Thuthukani
Date: 6 April 2016
Time: 17:00

WELCOME AND INTRODUCTION

Gabriele Wood of Savannah Environmental (Pty) Ltd welcomed all in attendance and introduced herself as the public participation and social consultant for the Environmental Impact Assessment (EIA) process being undertaken for the proposed Tutuka PV Solar Energy Facility near Standerton in the Mpumalanga Province.

She noted that the project is being proposed by Eskom SOC Limited and that Savannah Environmental has been appointed as the independent environmental consultancy to undertake the EIA for the project.

Ms Wood thanked the members of the meeting for the opportunity to brief them about the proposed project. She noted that the purpose of the meeting was to introduce the project and obtain comments on the draft EIA Report and project in general.

MEETING ATTENDEES

Refer to the attendance register below.

APOLOGIES

None

BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

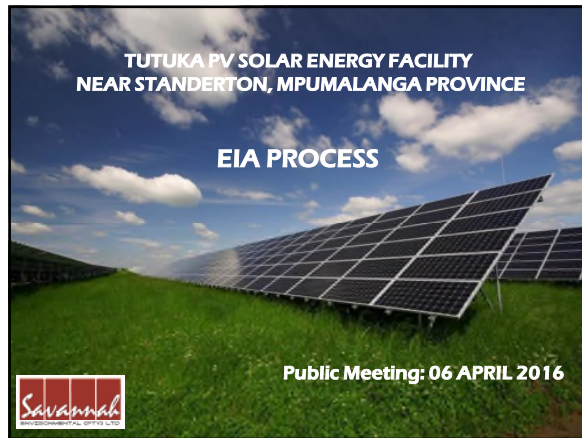
Sandhisha Jay Narain of Savannah Environmental presented the background and introduction to the project and provided an overview of the potential environmental impacts of the project identified in the draft EIA Report. (Please refer to the attached presentation).

DISCUSSION SESSION

Question / Comment	Response
Will this project improve the electricity supply to the community?	SJN: The purpose of the project is to reduce Eskom's self-consumption at the Tutuka Power Station. This project will promote the reduction of Eskom's carbon footprint and support the demand side management energy efficiency programme.
What employment opportunities will be provided by this project?	SJN: Approximately 250 – 300 employment opportunities will be created if the 65.9 MW solar facility is constructed. 100 – 150 employment opportunities will be created if the 24 MW solar energy facility is constructed. These figures are for the construction period of 12 – 24 months. 45% of the opportunities will be available to low-skilled workers, 22% will be available to semi-skilled workers, 33% will be available to skilled personnel. It must be noted that these figures are likely to vary depending on the final design of the proposed project.
We want Eskom and the appointed EPC contractor to consult with the leadership structures of the community when employing people from the local community so that we can verify that people employed on the project reside in the community.	SJN: Comment noted, the Environmental Management Programme (EMPr) stipulates that the contractor must employ local people through the ward councillor and municipality.
It seems as though only Eskom will benefit from this project while the local people are struggling to find work.	MM: The development of this project will result in economic benefits for the local community and local businesses.

WAY FORWARD AND CLOSURE

Gabriele Wood stated that Interested and Affected Parties could submit their written comments on the EIA process and proposed project to Savannah Environmental before 26 April 2016. She noted that the comments received would be included in the Final EIA Report that would be submitted to the Department of Environmental Affairs. She thanked the meeting attendees for availing themselves for the meeting. The meeting was closed at 18:00.



MEETING AGENDA

- Welcome and introduction
- Purpose of the meeting
- Project information
- EIA Phase
- EIA process & feedback of the findings of environmental studies
- Questions and Answers session
- Way forward & closure

CONDUCT OF THE MEETING

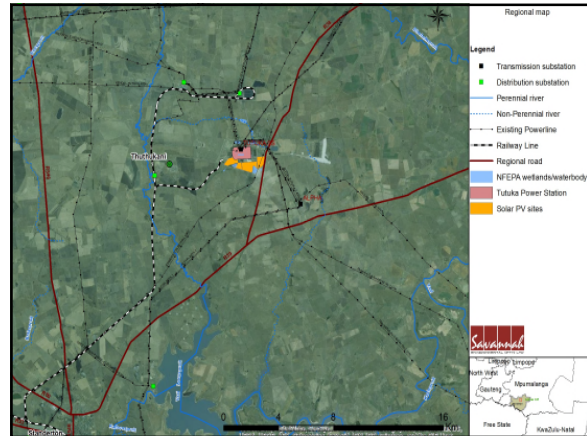
- Work through the facilitator
- Language of choice
- Questions to be taken during the discussion session
- Identify yourself
- Equal participation
- Cellphone etiquette

PURPOSE OF THE MEETING

- Introduction to the proposed project
- Provide a summary of findings: EIA for PV facility
- Identify issues/risks to the proposed project in consultation with stakeholders and interested and affected parties
- To record comments

BACKGROUND

- **Applicant** – Eskom Holdings SOC Ltd
- **Project Proposal** – Construction of the 65.9MW Tutuka PV Solar Energy Facility and associated infrastructure
- **Location for the PV Facility** – within the Tutuka coal fired power station boundary, approximately 28km north-east of Standerton in Mpumalanga Province



NEED AND DESIRABILITY

- Eskom is investigating the reduction of their self-consumption at various power stations
- 5 Solar PV projects being investigated
- These solar PV facilities will promote the reduction of Eskom's carbon footprint and support the demand side management energy efficiency programme
- Creation of local employment, business opportunities & skills development for the area
- "Clean" power generation in Mpumalanga Province and South Africa

PROJECT COMPONENTS

- Photovoltaic (PV) panels (Fixed Mounted PV or Tracking PV systems)
- On-site substation
- Power line
- Access roads
- Workshop
- Office buildings



PHOTOVOLTAIC (PV) TECHNOLOGY

Fixed



- Predetermined angle
- Less space required
- Low maintenance & installation costs
- Robust structures

Tracking

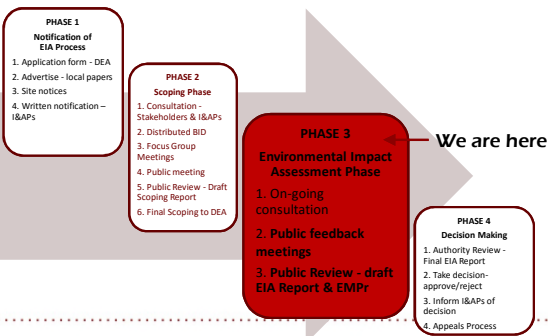


- Panels move with the sun
- Qualified technician required for regular servicing
- More energy generated through tracking

LEGAL BACKGROUND

- National Environmental Management Act (No 107 of 1998)
 - Overarching environmental legislation in South Africa
 - Specifies the requirements for the EIA process
- Eskom requires authorisation from DEA through this EIA process
- Independent environmental studies must be undertaken in accordance with the EIA Regulations

EIA PROCESS & PUBLIC INVOLVEMENT



THE EIA PROCESSES

- Assessment of Alternatives
- Assessment of issues:
 - Impacts on biodiversity, avifauna and wetlands
 - Impacts on visual aesthetics
 - Impacts on heritage resources
 - Impacts on soils & agricultural potential
 - Impacts on the social environment
- Impact assessments studies were undertaken to inform the EIA process
- Sensitive areas/features identified through specialist studies & consultation were used to inform the final design

PROJECT ALTERNATIVES

Layout Alternatives

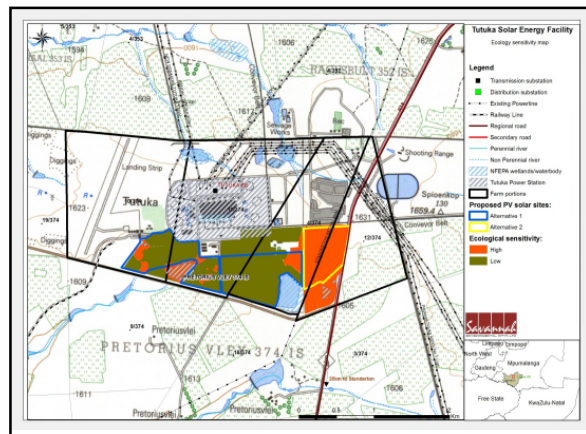
- Two layout alternatives
 - Layout Alternative 1: 65.9 MW
 - Layout Alternative 2: 24 MW
- Layout 1 is preferred from a technical and environmental perspective

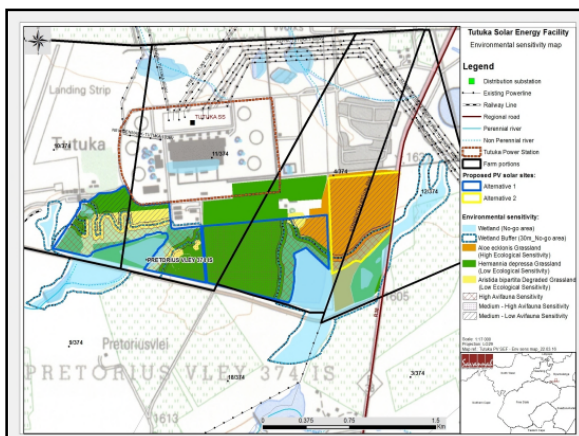
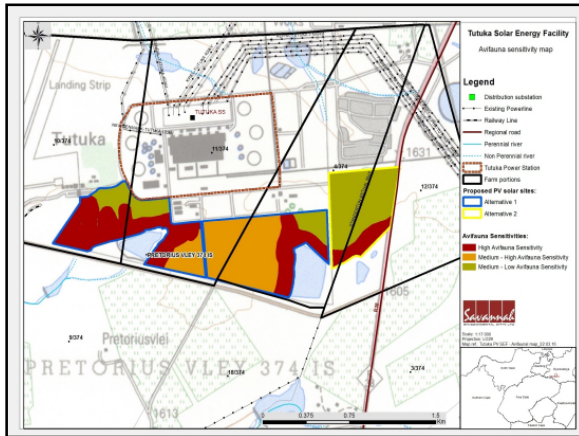
IDENTIFIED IMPACTS

- Positive impacts - economic benefits at the local & regional scale
 - Approximately 250-300 employment opportunities: 65.9 MW
 - Approximately 100-150 employment opportunities: 24 MW
 - 45% of the opportunities will be available to low-skilled workers
 - 22% will be available to semi-skilled workers
 - 33% will be available to skilled personnel
 - Skills Development
 - Economic benefits for local businesses
- Numbers are likely to vary depending on the final design of the proposed project

IDENTIFIED IMPACTS(Cont.)

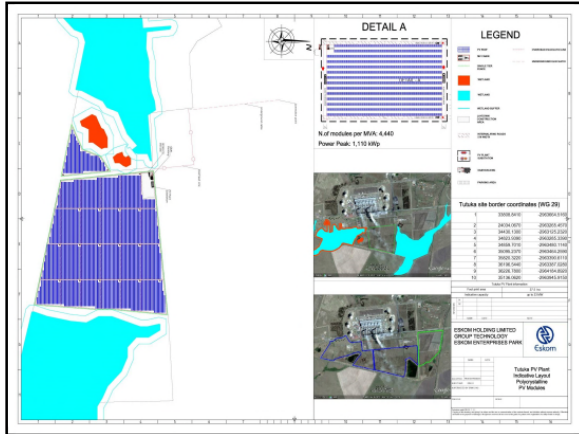
- Medium Impacts on Wetlands
- Medium impacts on birds
- Medium impact on Ecology (Fauna and Flora)
- Low visual impacts
- Low impacts on agricultural potential
- Low impacts on heritage resources
- Cumulative impacts: There are no other renewable energy projects in area. Cumulative impacts associated with other industrial developments – can be managed to acceptable level





MITIGATION STRATEGY

- The PV facility layout has been refined to avoid encroachment into the wetlands
- Maintain optimal wetland functionality
- 65.9 MW → 23 MW
- This refined layout will still meet the main objective of supplementing Eskom's self consumption at the Tutuka Power station



CONCLUSION

- No environmental fatal flaws identified in the EIA phase
- Alternative 1 is anticipated to have the least significant impact on ecological resources and generate greater positive impacts from a social perspective
- Preferred Layout avoids identified sensitive area within the site
- Impacts can be mitigated or enhanced through implementation of EMPr
- The majority of impacts expected to be limited to the site itself
- Benefits of the project expected to outweigh negative impacts
- Project can be authorised with recommended conditions

WAY FORWARD

- EIA report available for public review: 24 March 2016 – 26 April 2016
- I&APs invited to submit comments or questions
- Minute any issues / concerns from stakeholder / public meetings
- Final EIAr to be submitted to DEA in May 2016
- Registered parties to be notified of the DEA decision
- Appeals process

DISCUSSION / QUESTIONS

WHO TO CONTACT

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