

# MERAPI SOLAR ENERGY FACILITY EXCELSIOR, FREE STATE

# ENVIRONMENTAL IMPACT ASSESSMENT



Contact: Gabriele Wood Address: PO Box 148

Sunninghill, 2157

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**E-mail:** gabriele@savannahsa.com

#### FOCUS GROUP MEETING

# FREE STATE DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

NOTES OF FOCUS GROUP MEETING

HELD ON 30 JANUARY 2013

VENUE
40 Jan van Riebeeck Road, Thaba Nchu,
Free State

Notes for the Record prepared by:

**Savannah Environmental** 

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

# FOCUS GROUP MEETING: MERAPI SOLAR ENERGY FACILITY

**Venue:** 40 Jan van Riebeeck Road, Thaba Nchu, Free State

**Date:** 30 January 2013

**Time:** 11h00

#### **WELCOME AND INTRODUCTION**

Ms Gabriele Wood of Savannah Environmental (Pty) Ltd thanked everyone for availing themselves for the meeting. She said that the purpose of the meeting was to present the Environmental Impact Assessment (EIA) for the proposed Merapi Solar Energy Facility project.

Ms Wood noted that Solaire Direct is the developer of the project and that Savannah Environmental had been appointed to undertake the EIA for the project. She said that the background to the project as well as the findings of the draft EIA report would be presented at the meeting.

#### **MEETING ATTENDEES**

Name	Organisation & Position
Thabithe Mokane	Department of Agriculture and Rural Development
Dineo Motlogelwa	Department of Agriculture and Rural Development
M.J Motoboli	Department of Agriculture and Rural Development
Matokelo Sehloho	Department of Agriculture and Rural Development –
	Agric. Advisor
Annie Seutloadi	Department of Agriculture and Rural Development –
	Agric. Advisor
Mosima Dipela	Department of Agriculture and Rural Development –
	Agric. Advisor
S.H Legegevu	Department of Agriculture and Rural Development –
	Agricultural Technician
Katlego Sitshingo	Department of Agriculture and Rural Development –
	Intern
Alicia Govender	Savannah Environmental – Environmental
	Assessment Practitioner
Gabriele Wood	Savannah Environmental – Public Participation and
	Social Consultant

#### **APOLOGIES**

None

## BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Alicia Govender presented the background to the project and the findings of the Draft Environmental Impact Assessment Report. The presentation is attached hereto.

#### **DISCUSSION SESSION**

Ms Thabita Mokone of the Free State Department of Agriculture and Rural Development thanked Savannah Environmental for the presentation. She noted that the Department would submit their comments in writing within the course of the following week.

#### **WAY FORWARD AND CLOSURE**

Ms Gabriele Wood thanked everyone for attending the meeting. The meeting was closed at 12:00.

	SAVANNAH ENVIRONMENTAL (PI	NTAL (F	ידי) נדם		ATTEN	ATTENDANCE REGISTER
Project	Project Merapi Solar Energy Facility			Meeting		Free State Department of Agriculture and Rural Development
Date	30 January 2013	Time	11h00	No.	Venue	40 Jan Van Riebeeck Road, Thaba Nchu, Free State

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# MERAPI SOLAR ENERGY FACILITY EXCELSIOR, FREE STATE

# ENVIRONMENTAL IMPACT ASSESSMENT

Savannah Environmental (Pty) Ltd

Contact: Gabriele Wood
Address: PO Box 148

Sunninghill, 2157

**Tel:** 011 656 3237 **Fax:** 086 684 0547

**E-mail:** gabriele@savannahsa.com

**FOCUS GROUP MEETING** 

MANTSOPA LOCAL MUNICIPALITY

NOTES OF FOCUS GROUP MEETING

HELD ON 30 JANUARY 2013

VENUE
38 JOUBERT STREET, LADYBRAND

**Notes for the Record prepared by:** 

**Savannah Environmental** 

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

# FOCUS GROUP MEETING: MERAPI SOLAR ENERGY FACILITY

Venue: 38 Joubert Street, Ladybrand

**Date:** 30 January 2013

**Time:** 14h00

#### WELCOME AND INTRODUCTION

Ms Gabriele Wood of Savannah Environmental (Pty) Ltd thanked Mr Selepe for availing himself for the meeting. She said that the purpose of the meeting was to present the Environmental Impact Assessment (EIA) for the proposed Merapi Solar Energy Facility project.

Ms Wood noted that Solaire Direct is the developer of the project and that Savannah Environmental had been appointed to undertake the EIA for the project. She said that the background to the project as well as the findings of the draft EIA report would be presented at the meeting.

#### **MEETING ATTENDEES**

Name	Organisation & Position
Mr Selby Selepe (SS)	Mantsopa Local Municipality – Municipal Manager
Ms Alicia Govender (AG)	Savannah Environmental
Ms Gabriele Wood (GW)	Savannah Environmental

#### **APOLOGIES**

None

# BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Alicia Govender presented the background to the project and the findings of the Draft Environmental Impact Assessment Report. The presentation is attached hereto.

#### **DISCUSSION SESSION**

Question / Comment	Response
SS: When does the public review period	GW: The public review period ends on 20
end?	February 2013.
SS: The socio-economic impacts of the	AG: A Social Impact Assessment (SIA) is
project are of key interest for the	undertaken as part of the EIA. This report
municipality at it is in the process of	outlines the socio-economic impacts the
reviewing its Integrated Development Plan	development would have on the municipality
(IDP).	in general.
SS: When would construction commence?	AG: Construction is due to commence
	towards the last quarter of 2014 if the
	developer is awarded preferred bidder status
	by the Department of Energy (DoE).

#### **WAY FORWARD AND CLOSURE**

Mr Selpe noted that Solaire Direct would be invited to present the project at the next Council Meeting which will be held on 22 February 2013.

Ms Gabriele Wood once again thanked Mr Selepe for availing himself for the meeting. The meeting was closed at 14:30.

	SAVANNAH ENVIRONMENTAL (PI	INTAL (P	ידי) נדם		ATTENI	ATTENDANCE REGISTER
Project	Project Merapi Solar Energy Facility			Meeting	Mantsop	Mantsopa Local Municipality
Date	30 January 2013	Time	13h00	No.	Venue	38 Joubert Street, Ladybrand

	Organisation	Name & Postal Address	Contact Details Signature
	Savannah Englannah	(ab: Cumoh	Tel : ON 656 32.57
-			Fax :
-	Designation		OLSS 357 580: III
	Public Participation.		E-mail : gabriele@Soumansa.com
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# ENVIRONMENTAL IMPACT ASSESSMENT



Contact: Gabriele Wood Address: PO Box 148

Sunninghill, 2157

**Tel:** 011 656 3237 **Fax:** 086 684 0547

**E-mail:** gabriele@savannahsa.com

**PUBLIC MEETING** 

NOTES OF PUBLIC MEETING

HELD ON 30 JANUARY 2013

VENUE
EXCELSIOR PUBLIC LIBRARY, 39 KOMMISSIE
STREET, EXCELSIOR

**Notes for the Record prepared by:** 

**Savannah Environmental** 

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

# PUBLIC MEETING: MERAPI SOLAR ENERGY FACILITY

Venue: Excelsior Public Library, 39 Kommissie Street, Excelsior

**Date:** 30 January 2013

**Time:** 16h00

#### **WELCOME AND INTRODUCTION**

Ms Gabriele Wood of Savannah Environmental (Pty) Ltd thanked everyone for availing themsleves for the meeting. She said that the purpose of the meeting was to present the Environmental Impact Assessment (EIA) for the proposed Merapi Solar Energy Facility project.

Ms Wood noted that Solaire Direct is the developer of the project and that Savannah Environmental had been appointed to undertake the EIA for the project. She said that the background to the project as well as the findings of the draft EIA report would be presented at the meeting.

#### **MEETING ATTENDEES**

Name	Organisation & Position
Mr. D.B Holmes (DH)	Excelsior Farmers' Association
Mr J.T.D Wessels (JW)	Farm Ceylon – Land Owner
Mr J.S Harmse (JH)	Farm Moedersgift – Land Owner
Ms A. Govender (AG)	Savannah Environmental – Environmental
	Assessment Practitioner
Ms G. Wood (GW)	Savannah Environmental – Public Participation and
	Social Consultant

#### **APOLOGIES**

None

## BACKGROUND & TECHNICAL ASPECTS REGARDING THE PROPOSED PROJECT

Alicia Govender presented the background to the project and the findings of the Draft Environmental Impact Assessment Report. The presentation is attached hereto.

#### **DISCUSSION SESSION**

Question / Comment	Response
DH: What areas have been identified as	AG: The ecologically sensitive areas
having a high/medium ecological	comprise of ridges located north of the
sensitivity?	proposed development.
JW: Will the solar panels reflect sunlight off	CR: The module glass is not a smooth glass
of them? Would this result in glare?	finish and does have an anti-reflective
	component to reduce reflection. Effort is
	made in design to reduce refection as this
	would then limit the generation capacity of a
	module. Our modules have even been
	approved to be used in an airport flight path
	which just indicates that reflection is not to
	cause any issues.
DH: When will construction commence and	AG: Construction is likely to commence
when will the plant start producing	towards the last quarter of 2014 if the
electricity?	developer is awarded preferred bidder status
	by the Department of Energy (DoE) and then
	generation 18 months later.
DH: The Farmers Association should be	Comment noted.
informed if alien plant species are	
identified.	
JW: How high are the solar panels from the	The highest point of the module support
ground? Will animals be permitted to graze	structure is less than 3 m high. Animals will
around the solar panels?	not be allowed to graze around the park as
	this has security implications for the Solar
	Park, which is fenced, guarded and under
	'lock and key'.

#### **WAY FORWARD AND CLOSURE**

Ms Gabriele Wood once again thanked everyone for availing themselves for the meeting. The meeting was closed at 17:00.

	SAVANNAH ENVIRONMENTAL (P	ENTAL (F	TY) LTD		ATTEN	ATTENDANCE REGISTER
Project	Project Merapi Solar Energy Facility			Meeting	Public Meeting	eeting
Date	30 January 2013	Time	16h00	, o N	Venue	Excelsior Public Library, 39 Kommissie Street, Excelsior Free State

	Organisation	Name & Postal Address	Contact Details Sign	Signature
	Savanah	Cabriele Cuted	Tel : 0   656 32.57	
-	Environmental		Fax :	There
	Designation		Cell : 083 45% 5570	
	Public Participation.		E-mail : appriete@soundheacon	
	EXCRASIOR	S.B. MOLMES	Tel : 05,9737206 .	i
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	OWNER		E-mail :	
		Alicia Goverales	Tel : 011 656 3237	
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# MERAPI PHOTOVOLTAIC (PV) SOLAR ENERGY FACILITY NEAR EXCELSIOR

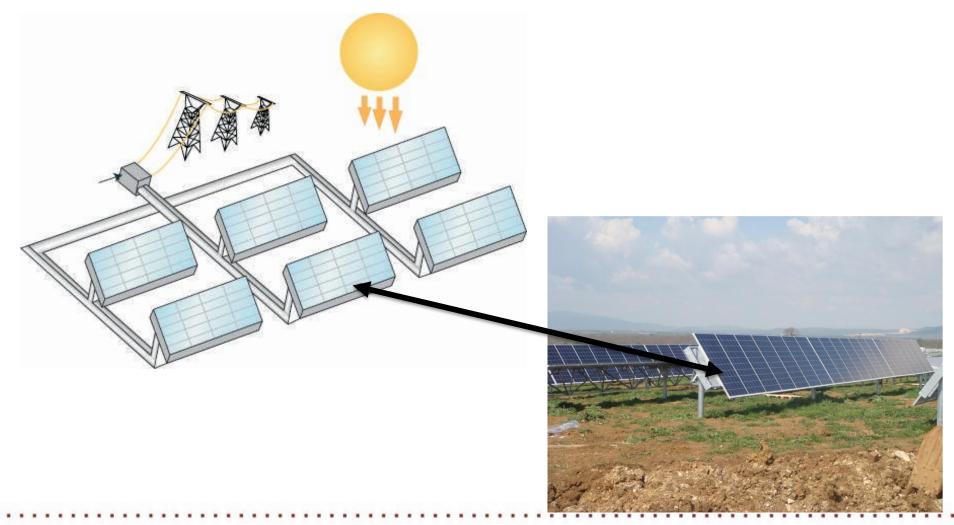
### FREE STATE PROVINCE

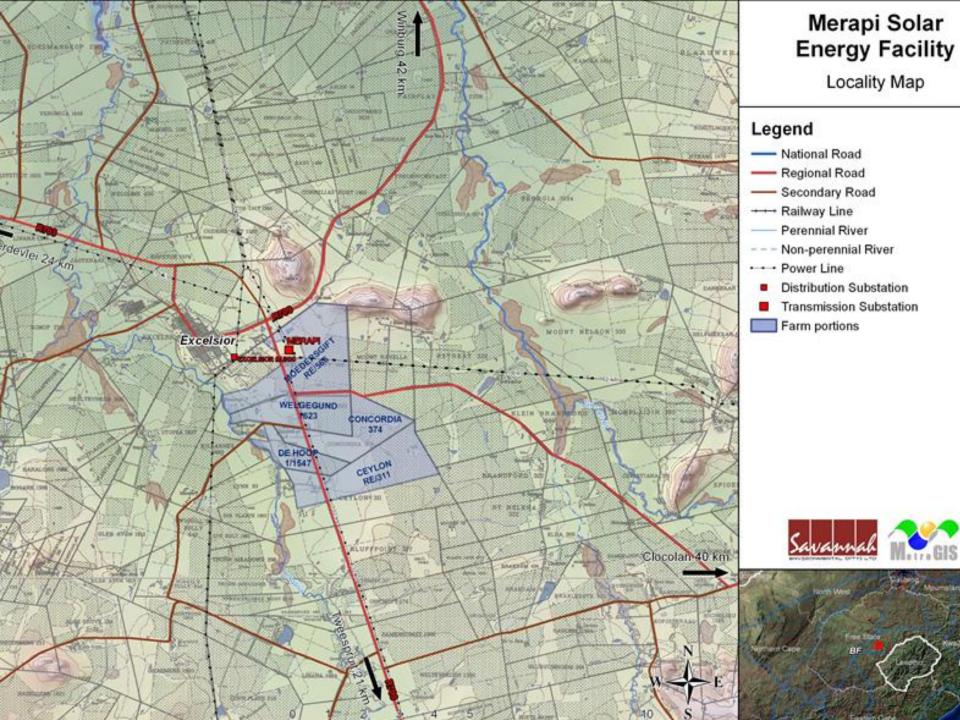


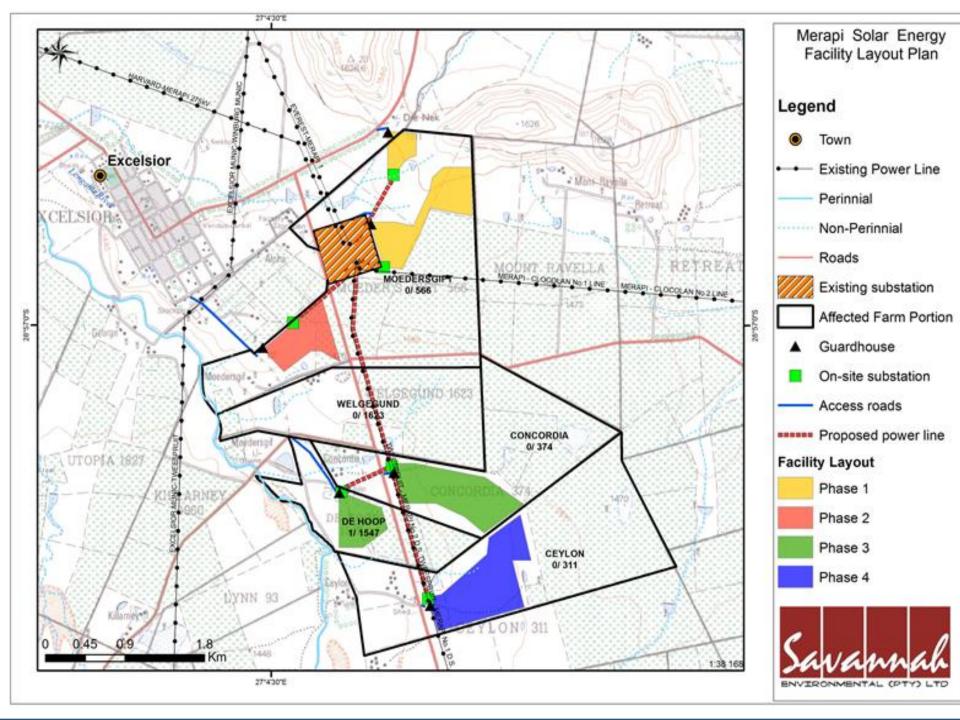
## **PROJECT OVERVIEW**

- Applicant: SolaireDirect Southern Africa
- Merapi Solar Energy Facility with <u>FOUR</u> <u>PHASES</u> near Excelsior
- DEA REF NO.: 14/12/16/3/3/2/361-364.
- 130 MW (total capacity for the four phases)
- Technology: Photovoltaic (PV) Panels
- EIA required

# WHAT IS A PHOTOVOLTAIC (PV) FACILITY?







## PROJECT COMPONENTS

- PV panels generating capacity of up to 130MW
- An on-site substation and 22/132kV overhead power line to facilitate the connection between the solar energy facility and the Eskom electricity grid.
- Cabling between the project components, to be lain underground where practical
- Internal access roads and fencing
- Workshop area for maintenance, storage, and offices

### **LEGAL CONTEXT**

- National Environmental Management Act (No 107 of 1998)
  - Overarching environmental legislation in South Africa
  - Identifies and regulates activities which may have a detrimental impact on the environment
  - Specifies the EIA process
  - Applicant requires authorisation from National DEA (in consultation with Provincial FS DETEA)
  - Independent environmental studies in accordance with the EIA Regulations of June 2010

# OVERVIEW OF ENVIRONMENTAL IMPACT ASSESSMENT PROCESS

#### PHASE 1

Notification Process

#### PHASE 2

Scoping Process

#### PHASE 3

Environmental Impact Assessment

#### PHASE 4

Decisionmaking

- Application form & reference number
- Advertise in printed media
- Notification to identified I&APs, stakeholders, & Organs of State

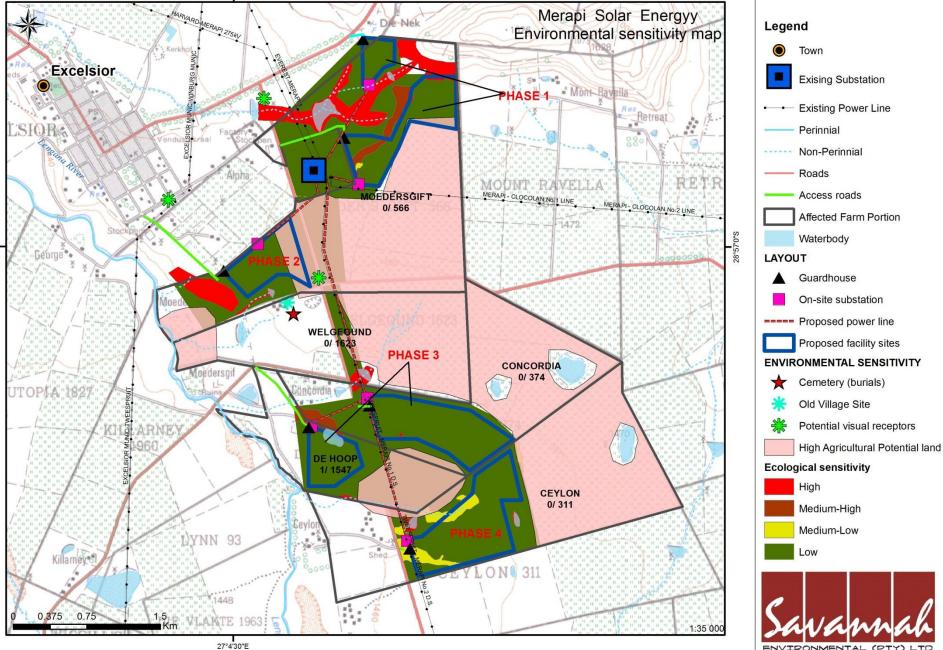
- Consultation with stakeholders & I&APs
- Focus group meetings and public meeting
- Distribution of BID
- Draft Scoping Report review period

- On-going public consultation
- Focus group meetings and public meeting
- Draft EIA Report & Draft EMP review period
- Final EIA Report submitted to DEA for review & decision-making
- Stakeholder & I&AP comments received during process are evaluated
- Appeals process

### APPROACH TO THE EIA PROCESS

- Identification & assessment of issues:
  - Impacts on biodiversity
  - Impacts on soils & agricultural potential
  - Impacts on heritage resources
  - Impacts on visual aesthetics
  - Impacts on the social environment
- Sensitive areas/ features identified through specialist studies & consultation
- Final design of facility to be informed by sensitive areas identified through the EIA Assessment process

PROJECT EVALUATION



# POTENTIAL ENVIRONMENTAL IMPACTS

ISSUE	IMPACT WITHOUT MITIGATION	IMPACT WITH MITIGATION
Impacts on biodiversity	High	Medium
Impacts on visual aesthetics	High	Medium
Impacts on heritage resources	Low	Negligible
Impacts on soils & agricultural potential	Medium	Low
Impacts on the social environment	Medium	Low

### **CONCLUSIONS**

- No environmental fatal flaws identified for any of the phases
- Sites are largely favourable from an ecological perspective areas of high sensitivity have been avoided
- Soil degradation/erosion requires management
- Agricultural potential is medium. Sensitive areas are avoided.
- Visual impact medium due to proximity of site to major roads,
   i.e. high number of visual receptors in the study area
- No sites of heritage significance were found during the surveys
- Positive social impact employment opportunities, skills development, & capacity building within the local communities.

### RECOMMENDATIONS

- All phases of the project should be authorised by DEA
- Environmental Management Programmes (EMPs) to be implemented to minimise impacts
- Disturbed areas should be rehabilitated as soon as possible after construction
- Identify & manage areas of high erosion potential
- Declared alien plants must be identified and managed
- Social beneficiation programme to be implemented

### **WAY FORWARD**

- Public Review period for Draft Environmental Assessment Reports until 21 February 2013
- Report available at:
  - Excelsior Public Library
  - www.savannahsa.com
- Final Reports to be submitted to DEA for review & acceptance
- Registered I&APs to be notified of decision on projects

### WHO TO CONTACT

# Savannah Environmental (Pty) Ltd Gabriele Wood

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