

Bloemsmond Solar 1, Northern Cape Province

Social Input for the amendment of the Environmental
Authorisation

August 2020

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PROJECT DETAILS

Title	:	Bloemsmond Solar 1, Northern Cape Province: Social Input for the Amendment of the Environmental Authorisation
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SPECIALIST DECLARATION OF INTEREST

I, Lisa Opperman , declare that –

- » I act as the independent specialist in this application.
- » I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant.
- » I declare that there are no circumstances that may compromise my objectivity in performing such work.
- » I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity.
- » I will comply with the Act, Regulations and all other applicable legislation.
- » I have no, and will not engage in, conflicting interests in the undertaking of the activity.
- » I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing – any decision to be taken with respect to the application by the competent authority; and – the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority.
- » All the particulars furnished by me in this form are true and correct.
- » I realise that a false declaration is an offence in terms of Regulation 48 and is punishable in terms of section 24F of the Act.

Lisa Opperman

Name

August 2020

Date



Signature

TABLE OF CONTENTS

	PAGE
PROJECT DETAILS	i
SPECIALIST DECLARATION OF INTEREST	ii
TABLE OF CONTENTS	iii
PURPOSE OF THE REPORT	1
1. OVERVIEW OF THE PROJECT AS INDICATED AND CONSIDERED IN THE SIA	1
1.1. Project Description	1
1.2. Potential Social Impacts as determined through the EIA Process	2
2. DETAILS OF THE AMENDMENTS	5
3. POTENTIAL FOR CHANGE IN THE SIGNIFICANCE OF SOCIAL IMPACTS AS A RESULT OF THE PROPOSED AMENDMENTS	5
4. ADVANTAGES AND DISADVANTAGES OF THE PROPOSED AMENDMENTS	7
5. CONCLUSION	7

PURPOSE OF THE REPORT

AEP Bloemsmond Solar 1 (Pty) Ltd proposes the development of Bloemsmond Solar 1, a commercial PV energy facility and associated infrastructure on a site 30km south-west of Upington and 16km north-east of Keimoes, in the Northern Cape Province. The proposed project comprises a commercial photovoltaic (PV) solar energy facility and associated infrastructure and is intended to form part of the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP).

Bloemsmond Solar 1 received Environmental Authorisation (EA) from the National Department of Environmental Affairs (DEA) in accordance with the National Environmental Management Act (No. 107 of 1998) (NEMA), and the 2014 Environmental Impact Assessment (EIA) Regulations (GNR 326) after the completion of an EIA process. The Environmental Authorisation was obtained on 26 April 2016 under the reference number 14/12/16/3/3/2/815.

A Social Impact Assessment (SIA) Report was prepared by Candice Hunter of Savannah Environmental (Pty) Ltd in October 2015¹ in order to assess the positive and negative social impacts associated with the project.

AEP Bloemsmond Solar 1 (Pty) Ltd is now proposing an amendment to the Environmental Authorisation, which consists of the inclusion of a Battery Energy Storage System (BESS). This results in a change of the project description and the infrastructure associated with the project, as well as the layout of the facility. It must be noted that the inputs provided as part of this report assumes that no new areas or properties will be affected by the amendment (i.e. addition of BESS), other than those previously assessed (**Figure 1.1**), and that no new listed activities in terms of the EIA Regulations, 2014, are triggered.

1. OVERVIEW OF THE PROJECT AS INDICATED AND CONSIDERED IN THE SIA

1.1. Project Description

Bloemsmond Solar 1 is proposed on Portion 4 and Portion 15 of the Farm Bloemsmond 455, in Ward 07 of the Kai! Garib Local Municipality (LM), of ZF Mgcawu District Municipality (DM), Northern Cape Province. The project is located approximately 30km south-west of Upington and 16km north-east of Keimoes.

Bloemsmond Solar 1 constitutes a commercial solar energy generation facility, and will utilise photovoltaic (PV) solar technology. The project will have a maximum installed capacity of ~100MW², and will include the following associated infrastructure:

- » Several arrays of photovoltaic (PV) solar panels.
- » Mounting structures to support the PV panels.

¹ Savannah Environmental (2015) Social Impact Assessment (SIA) EIA Report for AEP Bloemsmond Solar 1 PV Facility on a site south west of Upington, Northern Cape Province.

² The contracted capacity assessed in the SIA was ~75MW, however this was increased to 100MW as part of an amendment process for the project.

- » On-site inverters to step up the power and a substation to facilitate the connection between the solar energy facility and the Eskom electricity grid connection point.
- » A new 132kV power line between the on-site substation and the Dyasons Klip Substation (located on the farm Dyasons Klip RE/454).
- » Cabling between the project components, to be laid underground where practical.
- » Offices and workshop areas for maintenance and storage.
- » Temporary laydown areas.
- » Internal access roads and fencing.

1.2. Potential Social Impacts as determined through the EIA Process

The SIA that was undertaken as part of the EIA process for the solar energy facility identified impacts during both the construction and operation phases. Both positive and negative impacts were identified for these development phases.

The following positive impacts are expected to occur during the construction phase:

- » Direct employment and skills development; and
- » Economic multiplier effects.

The following negative impacts are expected to occur during the construction phase:

- » In-migration of people (non-local workforce and jobseekers);
- » Safety and security impacts;
- » Impacts on daily living and movement patterns; and
- » Nuisance impacts (including noise and dust).

The following positive impacts are expected to occur during the operation phase:

- » Direct employment and skills development;
- » Development of clean, renewable energy infrastructure; and
- » Contribution to local Socio-economic Development (SED) / Economic Development (ED).

The following negative impacts are expected to occur during the operation phase:

- » Visual and sense of place impacts; and
- » Impacts associated with the loss of agricultural land.

Impacts during the decommissioning phase were also identified and linked to loss of jobs and associated income. Other impacts associated with decommissioning are considered to be similar to the impacts identified during the construction phase.

Positive and negative cumulative impacts were also assessed as part of the SIA.

The positive cumulative impacts include:

- » Cumulative impact from employment, skills and business opportunities.

The negative cumulative impacts include:

- » Cumulative impacts associated with large-scale in-migration of people; and
- » Cumulative impacts on the sense of place and landscape.

Overall conclusion of the Social Impact Assessment:

The SIA concluded that the project is supported, but that mitigation measures should be implemented and adhered to. Positive and negative impacts have been identified. The assessment of the key issues indicated that there are no negative impacts that can be classified as fatal flaws and which are of such a significance that they cannot be successfully mitigated. Positive impacts could be enhanced by implementing appropriate enhancement measures through careful planning.

General conclusions made in the SIA include:

- » The potential negative social impacts associated with the construction phase are typical of construction related projects and not just focussed on the construction of PV facilities (these relate to influx of non-local workforce and jobseekers, intrusion and disturbance impacts, safety and security) and could be reduced with the implementation of the mitigation measures proposed.
- » Employment opportunities will be created during the construction and operation phases and the impact is rated as positive even if only a small number of individuals benefit in this regard.
- » The proposed project could assist the local economy in creating entrepreneurial development opportunities, especially if local business could be involved in the provision of general material and services during the construction and operational phases.
- » Capacity building and skills training among employees are critical and would be highly beneficial to those involved, especially if they receive portable skills to enable them to also find work elsewhere and in other sectors.
- » The proposed development also represents an investment in infrastructure for the generation of clean, renewable energy, which, given the increased awareness of climate change, represents a positive social benefit for society as a whole.

Key recommendations as provided in the SIA were identified for the enhancement of positive impacts and the management and mitigation of negative impacts. These include:

- » Appoint of a community liaison officer to assist with the management of social impacts and to deal with community issues.
- » In terms of employment related impacts, it is important to consider that job opportunities for the unskilled and semi-skilled in the study area could create competition among local unemployed people. Introducing an outside workforce will therefore most likely worsen local endeavours to obtain jobs and provoke discontent as well as put pressure on the local services available. It is imperative that local labour be sourced, wherever possible, to ensure that benefits accrue to the local communities. Efforts should be made to involve local businesses during the construction activities where possible. Local procurement of labour and services/products would greatly benefit the community during the construction and operational phases of the project.
- » Where possible, local procurement of services and equipment in order to enhance the multiplier effect. This would serve to mitigate other subsequent negative impacts such as those associated with the inflow of outsiders to the area, the increased pressure on the infrastructure and services in the area, as well as the safety and security concerns.
- » Involve the community in the process as far as possible (encourage co-operative decision making and partnerships with local entrepreneurs).
- » Implement mitigation measures to reduce and avoid negative impacts.
- » Employ mitigation measures to minimise the dust pollution and damage to existing roads.

- » Safety and security risks should be taken into account during the planning/construction phase of the proposed project. Access control, security and management should be implemented to limit the risk of crime increasing in the area.

2. DETAILS OF THE AMENDMENTS

The requested amendment will result in a change in the layout, with the main change being the addition of a BESS to the associated infrastructure of the facility. The BESS will be located within the authorised development footprint and will not affect any areas not previously assessed as part of the SIA. The BESS is proposed to be located to the west of the authorised facility on-site substation and to the east of the laydown area

The generation capacity of the facility will remain at 100MW.

The amended layout illustrating the location of the BESS is included as **Figure 2.1**.

The BESS will cover an area up to 4.2ha in extent. The proposed technology will be lithium battery technology and units will be transported to site fully assembled. The battery system proposed for the projects includes thermal management systems to mitigate the potential risk of fire and leakage. The technology does not contain heavy metals.

3. POTENTIAL FOR CHANGE IN THE SIGNIFICANCE OF SOCIAL IMPACTS AS A RESULT OF THE PROPOSED AMENDMENTS

In terms of Regulation 32(1)(a)(i) of the EIA Regulations, the following section provides an assessment of the social impacts related to the proposed amendment for Bloemsmond Solar 1. Understanding the nature of the proposed amendment and the fact that the addition of the BESS does not change the assessed and authorised development footprint, which was fully assessed as part of the SIA, it is concluded that the proposed amendments will not introduce any new social impacts, nor significantly alter the social impacts as previously assessed in the SIA. It is understood that the BESS will result in additional employment opportunities during the construction (50 opportunities) and operation (5 opportunities) phases, however these are limited and do not affect the significance ratings of the related impacts.

As required in terms of Regulation 32(1)(a)(iii) of the EIA Regulations, consideration was given to the requirement for additional measures to ensure avoidance, management and mitigation of impacts associated with the proposed change. Considering that there will be no change in impacts, no additional mitigation or enhancement measures are required for the addition of the BESS to the layout from a social perspective. The recommendations, mitigation and enhancement measures provided in the SIA are considered to be sufficient for the enhancement of the positive impacts and the management and mitigation of the negative impacts to acceptable levels. Therefore, all enhancement and mitigation measures, as proposed in the SIA are still required to be implemented for the amended Bloemsmond Solar 1 development.

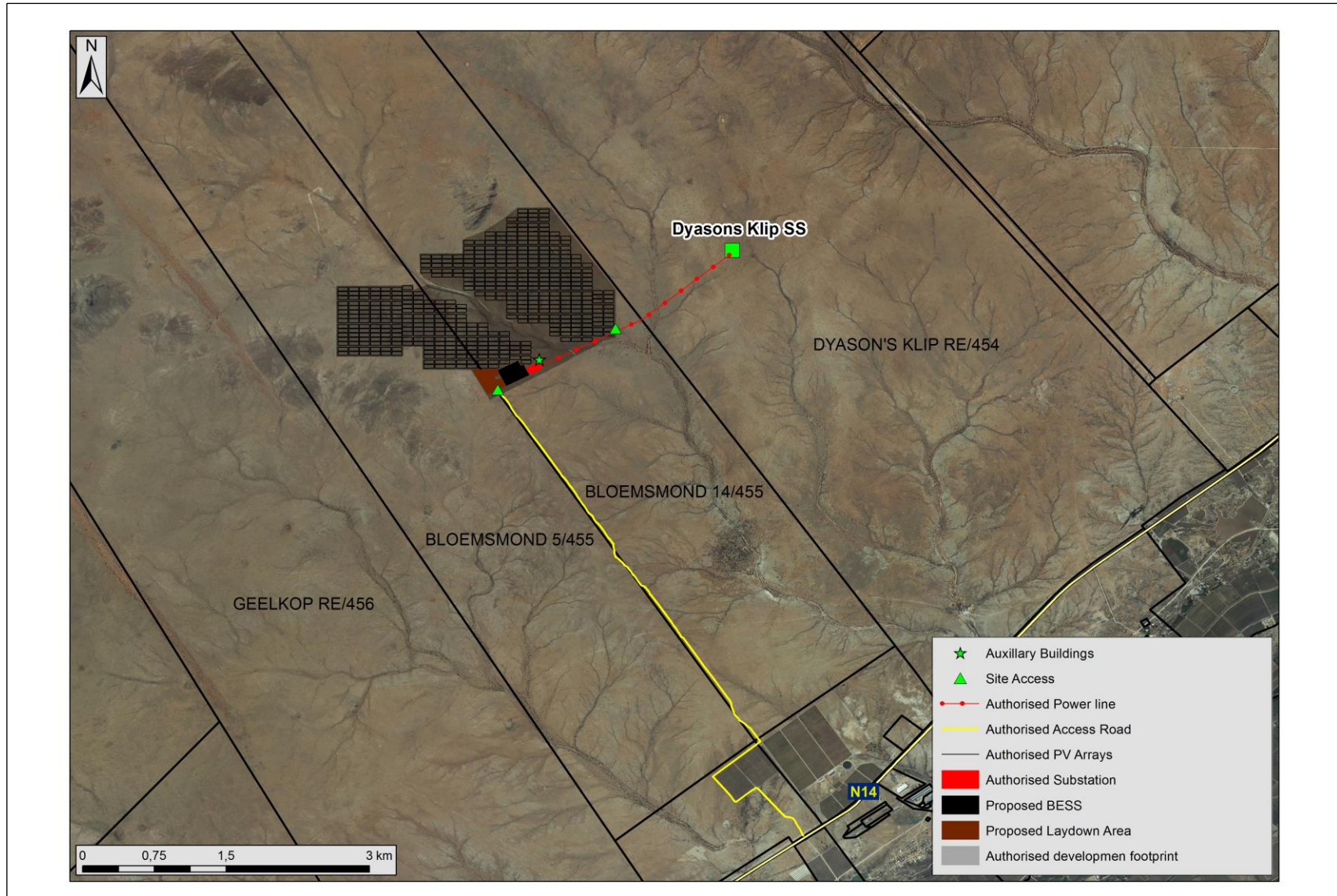


Figure 2.1: Proposed amended Bloemsmond Solar 1 layout map, as considered within this report.

4. ADVANTAGES AND DISADVANTAGES OF THE PROPOSED AMENDMENTS

In terms of Regulation 32(1)(a)(ii) of the EIA Regulations, this section provides details of the advantages and disadvantages of the proposed amendment from a social perspective.

No specific advantages or disadvantages have been identified from a social perspective with the implementation of the proposed amendment as part of the Bloemsmond Solar 1 project.

5. CONCLUSION

Based on the nature of the proposed amendment for Bloemsmond Solar 1, and the fact that the proposed BESS falls within the properties and development footprint which was fully assessed as part of the SIA (October 2015), it can be concluded that the amendment will not lead to any additional impacts other than those identified and assessed within the SIA (undertaken in 2015). No change in the significance of the impacts is expected to occur and there is no need for any additional recommendations or mitigation measures other than those already specified in the SIA (2015).

The proposed amendment is considered to be acceptable from a social perspective and can be approved, subject to the implementation of the mitigation and enhancement measures as specified in the SIA (October 2015).