APPENDIX H
SOCIAL REPORT

NORTHAM SOLAR PHOTOVOLTAIC FACILITY (PV) ENERGY FACILITY

Limpopo Province

Social Assessment – Baseline Report

May 2022

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REPORT DETAILS

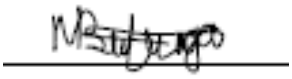
Title	:	Social Impact Assessment (SIA) Scoping Report: Northam Solar PV Energy Facility
Authors	:	Savannah Environmental (Pty) Ltd Nondumiso Bulunga
External Peer Review	:	Dr Neville Bews
Client	:	Zondereinde Solar (Pty) Ltd
Report Revision	:	Revision 0
Date	:	May 2022

When used as a reference this report should be cited as: Savannah Environmental (2022) Social Impact Assessment (SIA) Report for the Northam Solar PV Energy Facility , Limpopo Province.

SPECIALIST DECLARATION OF INTEREST

I, Nondumiso Bulunga, 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.



Nondumiso Bulunga
Name

Signature

18 May 2022
Date

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ACRONYMS

B-BBEE	Broad-Based Black Economic Empowerment
CLO	Community Liaison Officer
DFFE	Department of Forestry, Fisheries and the environment
DoE	Department of Energy
DM	District Municipality
EA	Environmental Authorisation
EAP	Economically Active Population
EHS	Environmental, Health and Safety
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
GDP	Gross Domestic Product
GNR	Government Notice
I&AP	Interested and Affected Party
IDP	Integrated Development Plan
IEP	Integrated Energy Plan
IFC	International Finance Corporation
IRP	Integrated Resource Plan
km	Kilometre
kV	Kilovolt
LED	Local Economic Development
LM	Local Municipality
NEMA	National Environmental Management Act (No. 107 of 1998)
NDP	National Development Plan
O&M	Operation and Maintenance
PGDS	Provincial Growth and Development Strategy
PICC	Presidential Infrastructure Coordinating Committee
PSDF	Provincial Spatial Development Framework
SDF	Spatial Development Framework
SIA	Social Impact Assessment
SIP	Strategic Infrastructure Project
SWOT	Strengths, Weaknesses, Opportunities and Threats

1. INTRODUCTION AND PROJECT DESCRIPTION

Zondereinde Solar (Pty) Ltd proposes the construction and operation of a Solar Photovoltaic (PV) Energy Facility and associated infrastructure on Portion 1 of the Farm Kopje Alleen 422KQ, located approximately 35km south of Thabazimbi and 18km northwest of Northam, between the R510 in the west and the R511 in the east in the Thabazimbi Local Municipality and Waterberg District in the Limpopo Province.

The Solar PV Energy Facility will have a contracted capacity of up to 100MW and will use single axis or double axis tracking PV technology to harness the solar resource on the project site. The purpose of the facility is to generate electricity for exclusive use by Zondereinde Mine. The construction the Solar PV Energy Facility aims to increase Northam Platinum Limited's security of electricity supply, enhance the sustainability of its operations, and reduce carbon emissions. The proposed 100MW Northam Solar PV Energy Facility is central to achieving these gaols, while simultaneously generating employment opportunities through the construction and operation of the facility.

The grid connection infrastructure for the facility will include low voltage underground cabling from the PV panels to the 33kV on-site substation and 33kV overhead power lines to evacuate the generated power to the consumer substations (i.e., the metallurgical complex and shaft substations).

Nondumiso Bulunga of Savannah Environmental (Pty) Ltd has been appointed as the independent social consultant responsible for undertaking a Social Impact Assessment (SIA) as part of the EIA process being conducted for the project.

1.1. Project Description

The Northam Solar PV Energy Facility is located on the following properties:

PV Facility, including associated facility	**Portion 1 of the Farm Kopje Alleen 422KQ**

Infrastructure associated with the solar PV facility will include:

- Solar PV array, comprising PV modules and mounting structures.
- Inverters and transformers.
- Cabling between the project components.
- A 33kV on-site facility substation to facilitate the connection between the Solar PV Energy Facility and mine electrical distribution system.
- Offices, control room/s and a storage facility.
- A 33kV overhead power line for the distribution of the generated power, which will be connected to the existing metallurgical complex and shaft substations.
- Temporary laydown areas.
- Access road (paved/gravel), internal gravel roads and fencing around the development area.

A development area of up to ~240ha has been identified within the project site (~1185ha) by Zondereinde Solar (Pty) Ltd for the development of the Northam Solar PV Energy Facility. Within the development area, a much smaller development footprint will be defined for assessment and the suitable placement of infrastructure. To avoid areas of potential sensitivity and to ensure that potential detrimental environmental impacts are minimised as far as possible, the full extent of the larger development area will be considered

in the Scoping Phase, and a development footprint within which the infrastructure of the PV facility and associated infrastructures will be located will be fully assessed during the EIA Phase.

1.2. Objective of the Scoping Process

This SIA Report has been prepared as part of the Scoping Process being undertaken for Northam Solar PV Energy Facility and associated infrastructure. The purpose of this SIA Report is to provide details on the nature and extent of SBPM solar PV facility and associated infrastructure, and the potential social impacts associated with the construction, operation, and decommissioning of the project. The inputs contained within this SIA Scoping Report are intended to provide a high-level overview of the social environment within which the project is proposed and identify potential social issues which will be addressed in detail as part of the EIA Phase specialist investigations.

The objective of this SIA Report is therefore to:

- Identify and review policies and legislation which may have relevance to the activity from a social perspective.
- Provide comment on the need and desirability of the proposed activity from a social perspective.
- Identify potential impacts and risks associated with the preferred activity and technology alternatives.
- Identify key social issues to be addressed in the EIA phase.
- Agree on the level of assessment to be undertaken, including the methodology to be applied to determine the impacts and risks the activity will impose on the preferred site through the life of the activity, including the nature, significance, consequence, extent, duration and probability of the impacts to inform the location of the development footprint within the preferred site.
- Identify suitable measures to avoid, manage or mitigate identified social impacts and determine the extent of residual risks that need to be managed and monitored.

1.3. Details of the Independent Specialist

This SIA Report has been undertaken by Nondumiso Bulunga of Savannah Environmental.

- **Nondumiso Bulunga** – holds a Master's degree in advanced Geographical Information System and has eight years of experience in the environmental field. Her key focus is on environmental and social impact assessments, public participation, stakeholder engagement environmental management screening as well as mapping using ArcGIS for a variety of environmental projects.

- **Dr Neville Bews** is a Senior Social Scientist and Human Resource professional at Dr. Neville Bews & Associates. Dr. Bews has a Doctorate in Literature and Philosophy (D. Litt. et Phil) from the Rand Afrikaans University (RAU) (now the University of Johannesburg (UJ)), and 37 years of experience in the fields of Social Impact Assessment and Research, and Human Resource Management. Dr. Bews has worked on a number of large infrastructure, mining and water resource projects.

Dr Neville Bews has undertaken an external review of this SIA and has provided an external reviewer's letter. This letter is attached as **Appendix C.**

Figure 1.1: Locality map illustrating the location of Northam Solar PV Energy Facility, Limpopo Province.

1.4. Structure of the SIA Report

This SIA Report has been prepared in accordance with the requirements of Appendix 6 of the 2014 EIA Regulations, as amended. An overview of the contents of this SIA Report, as prescribed by Appendix 6 of the 2014 EIA Regulations (GNR 326), and where the corresponding information can be found within the report is provided in **Table 1.1**.

Table 1.1: Summary of where the requirements of Appendix 6 of the 2014 NEMA EIA Regulations (GNR 326), as amended, are provided within this Specialist Report.

	Requirement	Location in Report
(a)	Details of – (i) The specialist who prepared the report. (ii) The expertise of that specialist to compile a specialist report including a curriculum vitae.	Section 1
(b)	A declaration that the specialist is independent in a form as may be specified by the competent authority.	Specialist Declaration of Interest
(c)	An indication of the scope of, and the purpose for which, the report was prepared.	Section 2
(cA)	An indication of the quality and age of base data used for the specialist report.	Section 4
(cB)	A description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change.	Section 5
(d)	The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment.	Section 2
(e)	A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used.	Section 2
(f)	Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternatives.	Section 4 Section 5
(g)	An identification of any areas to be avoided, including buffers.	N/A
(h)	A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers	N/A
(i)	A description of any assumptions made and any uncertainties or gaps in knowledge.	Section 2
(j)	A description of the findings and potential implications of such findings on the impact of the proposed activity or activities.	Section 5
(k)	Any mitigation measures for inclusion in the EMPr.	Appendix A
(l)	Any conditions for inclusion in the environmental authorisation.	Section 6
(m)	Any monitoring requirements for inclusion in the EMPr or environmental authorisation.	Appendix A
(n)	A reasoned opinion – (i) Whether the proposed activity, activities or portions thereof should be authorised. (iA) Regarding the acceptability of the proposed activity or activities. (ii) If the opinion is that the proposed activity, activities or portions thereof should be authorised, any avoidance, management and mitigation measures.	Section 6
(o)	A description of any consultation process that was undertaken during the course of preparing the specialist report.	Section 2
(p)	A summary and copies of any comments received during any consultation process and where applicable all responses thereto.	N/A
(q)	Any other information requested by the competent authority.	N/A

	Requirement	Location in Report
2.	Where a government notice gazetted by the Minister provides for any protocol or minimum information requirement to be applied to a specialist report, the requirements as indicated in such notice will apply.	N/A

2. METHODOLOGY AND APPROACH

2.1. Purpose of the Study

The International Principles for Social Impact Assessment define SIA as:

"*The processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions*".

The International Principles for Social Impact Assessment define social impacts as changes to one or more of the following:

- People's way of life – that is, how they live, work, play and interact with one another on a day-to-day basis.
- Their culture – that is, their shared beliefs, customs, values and language or dialect.
- Their community – its cohesion, stability, character, services and facilities.
- Their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.
- Their environment – the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust and noise they are exposed to, the adequacy of sanitation, their physical safety, and their access to and control over resources.
- Their health and wellbeing – health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity.
- Their personal and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties.
- Their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

The purpose of this SIA Report is therefore to:

- Provide baseline information describing the social environment within which the project is proposed, and which may be impacted (both positively and negatively) as a result of the proposed development.
- Identify, describe and assess possible social risks / fatal flaws and social impacts that may arise as a result of the proposed development (in terms of the detailed design and construction, operation, and decommissioning phases of the project).
- Recommend ways in which negative impacts can be avoided, minimised, or their significance reduced, and positive impacts maximised or enhanced.

2.2. Approach to the Study

This SIA Report provides a snapshot of the current social setting within which the Northam Solar PV Energy Facility is proposed. It provides an overview of the manner and degree to which the current status quo is likely to change or be impacted by the construction, operation and decommissioning of the project, as well as the manner in which the social environment is likely to impact on the development itself.

An overview of the assessment methodology utilised as part of this SIA is provided below.

The SIA process comprised the following:

» Collection and review of existing information, including national, provincial, district, and local plans, policies, programmes, census data, and available literature from previous studies conducted within the area. Project specific information was obtained from the project proponent.
» Identification of potential direct, indirect and cumulative impacts likely to be associated with the construction, operation, and decommissioning of the proposed project. Impacts associated with construction can also be expected to be associated with the decommissioning phase (however, to a lesser extent as the project site would have previously undergone transformation and disturbance during construction)
» Preparation of a SIA Report for inclusion in the Scoping Report to be prepared for the project.

2.2.1. Collection and Review of Existing Information

Existing desktop information that has relevance to the proposed project, project area and / or surrounds was collected and reviewed. The following information was examined as part of this process:

» Project maps and layouts.
» Google Earth imagery.
» A description of the project (as provided by the project proponent).
» Responses to questions posed to the project proponent regarding employment and social upliftment and local economic development opportunities (as provided by the project proponent).
» Census Data (2011), and the Local Government Handbook (2019).
» Planning documentation such as Provincial Growth and Development Strategies (PGDSs), Local and District Municipality Integrated Development Plans (IDPs), Spatial Development Frameworks (SDFs), and development goals and objectives.
» Relevant legislation, guidelines, policies, plans, and frameworks.
» Available literature pertaining to social issues associated with the development and operation of solar PV power plants and associated infrastructure.

2.3. Limitations and Assumptions

The following assumptions and limitations are applicable to this SIA Report:

» It was assumed that information provided by Zondereinde Solar (Pty) Ltd) and Savannah Environmental team was accurate and that the technical specifications of the Project and site selection are in accordance with the relevant requirements.
» This report and assessment are dependent on the accuracy of the publicly available secondary information such as Statistics South Africa (StatsSA,2011).
» This SIA Report was prepared based on information that was available to the specialist at the time of preparing the report. The sources consulted are not exhaustive, and the possibility exists that additional information which might strengthen arguments, contradict information in this report, and / or identify additional information might exist. Additional information available from the public participation undertaken during the Scoping process will be included and considered within the final report, where relevant.
» Some of the project projections reflected in this SIA Report may be subject to change, and therefore may be higher or lower than those estimated by the project proponent.

» It is assumed that the motivation for and planning and feasibility study of the project were undertaken with integrity, and that information provided by the project proponent was accurate and true at the time of preparing this SIA Report.

3. LEGISLATION AND POLICY REVIEW

The legislative and policy context applicable to a project plays an important role in identifying and assessing the potential social impacts associated with the development. In this regard a key component of the SIA process is to assess a proposed development in terms of its suitability with regards to key planning and policy documents.

The following key pieces of documentation were reviewed as part of this legislation and policy review process:

National Policy and Planning Context:
- Constitution of the Republic of South Africa, 1996
- National Environmental Management Act (No. 107 of 1998) (NEMA)
- White Paper on the Energy Policy of the Republic of South Africa (1998)
- National Energy Act (No. 34 of 2008)
- Integrated Energy Plan (IEP) (2015)
- National Development Plan (NDP) 2030 (2012)
- Strategic Infrastructu0s (SIPs)

Provincial Policy and Planning Context:
- Limpopo Spatial Development Framework (LSDF) 2015
- Limpopo Development Plan (2015-2019)

Local Policy and Planning Context:
- Integrated Development Plan (IDP) of the Waterberg District Municipality 2020-2021
- Integrated Development Plan (IDP) of the Thabazimbi Local Municipality 2019/2020
- Strategic Environmental Assessment (SEA) for Wind and Solar energy in South Africa (CSIR)
- Independent Power Producers Procurement Programme (IPPPP)

3.1. National Policy and Planning Context

Any project which contributes positively towards the objectives mentioned within national policies could be considered strategically important for the country. A review of the national policy environment suggests that the PV facility is considered integral to contributing towards social upliftment and economic development, even if only limited in extent.

A brief review of the most relevant national legislation and policies is provided in table format (**Table 3.1**) below.

Table 3.1: Relevant national legislation and policies for the Northam Solar PV Energy Facility

Relevant legislation or policy	Relevance to the proposed project
Constitution of the Republic of South Africa, 1996	Section 24 of the Constitution pertains specifically to the environment. It states that Everyone has the right to an environment that is not harmful to their health or well-being, and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation,

Relevant legislation or policy	Relevance to the proposed project
	promote conservation and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. The Constitution outlines the need to promote social and economic development. Section 24 of the Constitution therefore requires that development be conducted in such a manner that it does not infringe on an individual's environmental rights, health, or well-being. This is especially significant for previously disadvantaged individuals who are most at risk to environmental impacts.
National Environmental Management Act (No. 107 of 1998) (NEMA)	This piece of legislation is South Africa's key piece of environmental legislation, and sets the framework for environmental management in South Africa. NEMA is founded on the principle that everyone has the right to an environment that is not harmful to their health or well-being as contained within the Bill of Rights. The national environmental management principles state that the social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment. The need for responsible and informed decision-making by government on the acceptability of environmental impacts is therefore enshrined within NEMA.
National Development Plan 2030 (2012)	The National Development Plan (NDP) 2030 is a plan prepared by the National Planning Commission in consultation with the South African public which is aimed at eliminating poverty and reducing inequality by 2030. In terms of the Energy Sector's role in empowering South Africa, the NDP envisages that, by 2030, South Africa will have an energy sector that promotes: » Economic growth and development through adequate investment in energy infrastructure. The sector should provide reliable and efficient energy service at competitive rates, while supporting economic growth through job creation. » Social equity through expanded access to energy at affordable tariffs and through targeted, sustainable subsidies for needy households. » Environmental sustainability through efforts to reduce pollution and mitigate the effects of climate change. The NDP aims to provide a supportive environment for growth and development, while promoting a more labour-absorbing economy. The development of the grid connection infrastructure is considered to be relevant to the plan due to the need of the infrastructure for economic growth within the Thabazimbi and Local Municipality municipal area.
White Paper on the Energy Policy of the Republic of South Africa (1998)	The White Paper on Energy Policy places emphasis on the expansion of energy supply options to enhance South Africa's energy security. This can be achieved through increased use of RE and encouraging new entries into the generation market. South Africa has an attractive range of cost-effective renewable resources, taking into consideration social and environmental costs. Government policy RE is thus concerned with meeting the following challenges: » Ensuring that economically feasible technologies and applications are implemented.

Relevant legislation or policy	Relevance to the proposed project
	» Ensuring that an equitable level of national resources is invested in renewable technologies, given their potential and compared to investments in other energy supply options. » Addressing constraints on the development of the renewable industry. The policy states that the advantages of renewable energy include; minimal environmental impacts during operation in comparison with traditional supply technologies, generally lower running costs, and high labour intensities. Disadvantages include; higher capital costs in some cases; lower energy densities; and lower levels of availability, depending on specific conditions, especially with sun and wind based systems. Nonetheless, renewable resources generally operate from an unlimited resource base and, as such, can increasingly contribute towards a long-term sustainable energy future. The White Paper on Energy Policy therefore supports the advancement of RE sources and ensuring energy security through the diversification of supply.
National Energy Act (No.34 of 2008)	The purpose of the National Energy Act (No. 34 of 2008) is to ensure that diverse energy resources are available, in sustainable quantities and at affordable prices, to the South African economy in support of economic growth and poverty alleviation; while taking environmental management requirements into account. In addition, the Act also provides for energy planning, and increased generation and consumption of Renewable Energies (REs). The objectives of the Act, are to amongst other things, to: » Ensure uninterrupted supply of energy to the Republic. » Promote diversity of supply of energy and its sources. » Facilitate energy access for improvement of the quality of life of the people of the Republic. » Contribute to the sustainable development of South Africa's economy. The National Energy Act therefore recognises the significant role which electricity plays growing the economy while improving citizens' quality of life. The Act provides the legal framework which supports the development of RE facilities for the greater environmental and social good, and provides the backdrop against which South Africa's strategic planning regarding future electricity provision and supply takes place. It also provides the legal framework which supports the development of RE facilities for the greater environmental and social good.
Integrated Energy Plan (IEP) (2016)	The Integrated Energy Plan (IEP) (which was developed under the National Energy Act (No. 34 of 2008)), recognises that energy is essential to many human activities, and is critical to the social and economic development of a country. The purpose of the IEP is essentially to ensure the availability of energy resources, and access to energy services in an affordable and sustainable manner, while minimising associated adverse environmental impacts. Energy planning therefore needs to balance the need for continued economic growth with social needs, and the need to protect the natural environment. The IEP is a multi-faceted, long-term energy framework which has multiple aims, some of which include: » To guide the development of energy policies and, where relevant, set the framework for regulations in the energy sector.

Relevant legislation or policy	Relevance to the proposed project
	» To guide the selection of appropriate technologies to meet energy demand (i.e. the types and sizes of new power plants and refineries to be built and the prices that should be charged for fuels). » To guide investment in and the development of energy infrastructure in South Africa. To propose alternative energy strategies which are informed by testing the potential impacts of various factors such as proposed policies, introduction of new technologies, and effects of exogenous macro- economic factors.
National Development Plan 2030 (2012)	The National Development Plan (NDP) 2030 is a plan prepared by the National Planning Commission in consultation with the South African public which is aimed at eliminating poverty and reducing inequality by 2030. In terms of the Energy Sector's role in empowering South Africa, the NDP envisages that, by 2030, South Africa will have an energy sector that promotes: » Economic growth and development through adequate investment in energy infrastructure. The sector should provide reliable and efficient energy service at competitive rates, while supporting economic growth through job creation. » Social equity through expanded access to energy at affordable tariffs and through targeted, sustainable subsidies for needy households. » Environmental sustainability through efforts to reduce pollution and mitigate the effects of climate change. The NDP aims to provide a supportive environment for growth and development, while promoting a more labour-absorbing economy. The development of the grid connection infrastructure is considered to be relevant to the plan due to the need of the infrastructure for economic growth within the City of Matlosana Local Municipality municipal area.
Strategic Infrastructure Projects (SIPs)	The Presidential Infrastructure Coordinating Committee (PICC) are integrating and phasing investment plans across 18 Strategic Infrastructure Projects (SIPs) which have the following 5 core functions: » To unlock opportunity. » Transform the economic landscape. » Create new jobs. » Strengthen the delivery of basic services. » Support the integration of African economies. A balanced approach is being fostered through greening of the economy, boosting energy security, promoting integrated municipal infrastructure investment, facilitating integrated urban development, accelerating skills development, investing in rural development and enabling regional integration. SIP 8 of the energy SIPs supports the development of RE projects as follow: » SIP 8: Green energy in support of the South African economy: Support sustainable green energy initiatives on a national scale through a diverse range of clean energy options as envisaged in the Integrated Resource Plan (IRP 2010) and supports bio-fuel production facilities.

Relevant legislation or policy	Relevance to the proposed project
	The development of the proposed project is therefore also aligned with SIP 8 as it constitutes a green energy initiative which would contribute clean energy in accordance with the IRP 2010 – 2030.

3.2. Provincial Policies

This section provides a brief review of the most relevant provincial policies. The proposed Northam Solar PV Energy Facility is considered to align with the aims of these policies, even if contributions to achieving the goals therein are only minor.

A brief review of the most relevant provincial policies is provided in table format (**Table 3.2**) below.

Table 3.2: Relevant provincial policies for the Northam Solar PV Energy Facility

Relevant policy	Relevance to the proposed project
Limpopo Spatial Development Framework (LSDF) 2015	The LSDF is used as a tool for forward planning to direct decisions within the domain of land development throughout the province. In broad terms, the LSDF: » Indicates the spatial implications of the core development objectives outlined in the PGDS; » Serves as a spatial plan that facilitates local economic development (LED); » Lays down strategies, proposals and guidelines as these relate to overall sustainable development; » Facilitates cross-boundary co-operation between municipalities and provinces; » Serves as a manual for integration and standardisation of the planning frameworks across all spheres of provincial government; and » Informs district municipalities within the province regarding the location and nature of the physical development.
Limpopo Development Plan (2015-2019)	The Limpopo Development Plan (2015-1019) is based on lessons learnt from previous Limpopo Strategies and Plans, on the National Development Plan (NDP), the MTSF Outcomes, the State of the Nation and Province Addresses. The National Planning Commission believes that the following capital investment are relevant to Limpopo, and should be prioritised: » The upgrading of informal settlements; » Public transport infrastructure and systems; » The construction of a new coal line to unlock coal deposits in the Waterberg; » Development of a number of key new water schemes to supply urban and industrial centres; and » Procuring about 20 000 MW of renewable electricity by 2030.

3.3. District and Local Municipalities Policies

The strategic policies at a district and local level have similar objectives for the respective areas, namely, to accelerate economic growth, create jobs, and uplift communities. The proposed Northam Solar PV Energy Facility is considered to align with the aims of these policies, even if contributions to achieving the goals therein are only minor.

A brief review of the most relevant district and local municipal policies is provided in table format (**Table 3.3**) below.

Table 3.3: Relevant district and local municipal policies for the Northam Solar PV Energy Facility

Relevant policy	Relevance to the proposed project
Integrated Development Plan (IDP) of the Waterberg District Municipality 2020-2021	The Waterberg Municipality seeks to the best energy hub and ecotourism destination in Southern Africa. The key economic sectors with the Waterberg District Municipality are mining, electricity/water, services, trade/catering and agriculture, with mining making the biggest contribution to the GDP. The land use pattern is fairly natural within the district, with most of the mining operations concentrated on the periphery, whereas the central area is mostly characterised by the tourism and game industry. Waterberg District Municipality adopted a 2020/21 IDP Review Framework and Process Plan, which informed all 5 local municipality's process plans and it was adopted by the Municipal Council. The main purpose of the process plan is to integrate all the processes and activities, institutional arrangements and time frames of the various sector departments, NGOs, parastatal etc. The Framework/Process plan was adopted by Council in 2019. The process plan will guide the municipality in terms of Legislative requirements and the timeframes Process plans should:

Relevant policy	Relevance to the proposed project
	» Guide decision making in respect of service delivery and public sector investment » Inform budgets and service delivery programs of various government departments and service agencies » Coordinate the activities of various service delivery agencies within Waterberg District Municipality.
Integrated Development Plan (IDP) of the Thabazimbi Local Municipality 2019/2020	The IDP states the following as priority development issues for the municipal area: » Unemployment » Poverty alleviation » Services delivery » HIV/AIDS » Local Economic Development » Good governance » Institutional Development » Skills Development » Financial Viability Municipal has Local Economic Development project such as: » Support to small-scale mining » Poultry projects » Development of market stalls for informal traders at Northam and Thabazimbi » Establishment of a database of local SMMEs

3.4. Conclusion

The review of relevant legislation, policies and documentation pertaining to the proposed development indicates that the establishment of the PV Facility and associated grid connection infrastructure is supported at a national, provincial, and local level, and that the proposed project will contribute positively towards a number of targets and policy aims.

4. SOCIAL PROFILE

Zondereinde Solar (Pty) Ltd proposes the construction and operation of a Solar Photovoltaic (PV) Energy Facility and associated infrastructure on Portion 1 of the Farm Kopje Alleen 422KQ, located approximately 35km south of Thabazimbi and 18km northwest of Northam, between the R510 in the west and the R511 in the east in the Thabazimbi Local Municipality and Waterberg District in the Limpopo Province.

The grid connection infrastructure for the facility will include low voltage underground cabling from the PV panels to the 33kV on-site substation and 33kV overhead power lines to evacuate the generated power to the consumer substations (i.e., the metallurgical complex and shaft substations).

A facility development footprint, which will include the PV facility will be identified within the development area considered in the Scoping phase (refer to **Table 4.1**) and assessed in detail in the EIA phase of the process.

Table 4.1: Spatial Context of the study area for the development of the Northam Solar PV Energy Facility

Province	Limpopo Province
District Municipality	Waterberg District Municipality
Local Municipality	Thabazimbi Local Municipality
Ward number(s)	11
Nearest town(s)	Northam
Preferred access	R510 in the west and the R511 in the east

This Chapter provides an overview of the socio-economic environment of the province, DM, and LM within which the Northam Solar PV Energy Facility is proposed and provides the socio-economic basis against which potential issues can be identified.

4.1. Limpopo Province

Limpopo, South Africa's northernmost province, borders onto Mozambique, Zimbabwe and Botswana. It also borders the Mpumalanga, Gauteng and North West provinces. Named after the Limpopo River, which flows along its northern border, it is a region of contrasts, from true Bushveld country to majestic mountains, primeval indigenous forests, unspoiled wilderness and patchworks of farmland. In the eastern region lies the northern half of the magnificent Kruger National Park.

Limpopo ranks fifth in South Africa in both surface area and population, covering an area of 125 754km² and being home to a population of 5 779 090. The capital is Polokwane (previously Pietersburg). Other major cities and towns include Bela-Bela (Warmbad), Lephalale (Ellisras), Makhado (Louis Trichardt), Musina (Messina), Thabazimbi and Tzaneen.

Mining is the primary driver of economic activity. Limpopo is rich in mineral deposits, including platinum-group metals, iron ore, chromium, high and middle-grade coking coal, diamonds, antimony, phosphate and copper, as well as mineral reserves such as gold, emeralds, scheelite, magnetite, vermiculite, silicon and mica. The province is a typical developing area, exporting primary products and importing manufactured goods and services.

The climatic conditions in the province allow for double harvesting seasons, which results in it being the largest producer of various crops in the agricultural market. Sunflowers, cotton, maize and peanuts are cultivated in the Bela-Bela–Modimolle area. Bananas, litchis, pineapples, mangoes and pawpaws, as well as a variety of nuts, are grown in the Tzaneen and Makhado areas. Extensive tea and coffee plantations create many employment opportunities in the Tzaneen area. The Bushveld is cattle country, where controlled hunting is often combined with ranching.

Limpopo is divided into five district municipalities, which are further subdivided into 22 local municipalities (refer to **Figure 4.1**).

4.2. Waterberg DM

The Waterberg District Municipality is a Category C municipality located in the western part of the Limpopo Province. It is strategically located in sharing its borders with Capricorn District Municipality in the north and Sekhukhune District Municipality in the east. The south-western boundary abuts the North West, while the Gauteng Province lies on the south-eastern side.

The municipality is the biggest district in the province, making up just more than a third of its geographical area. It shares its five-border control points with Botswana, namely Groblersbrug, Stockpoort, Derdepoort, Zanzibar and Platjan. It is comprised of five local municipalities: Bela-Bela, Lephalale, Modimolle-Mookgophong, Mogalakwena and Thabazimbi.

The region, as we know it today, is more than three million years old. With its great variety of wildlife, birds and scenic splendour. It is one of South Africa's prime ecotourism destinations.

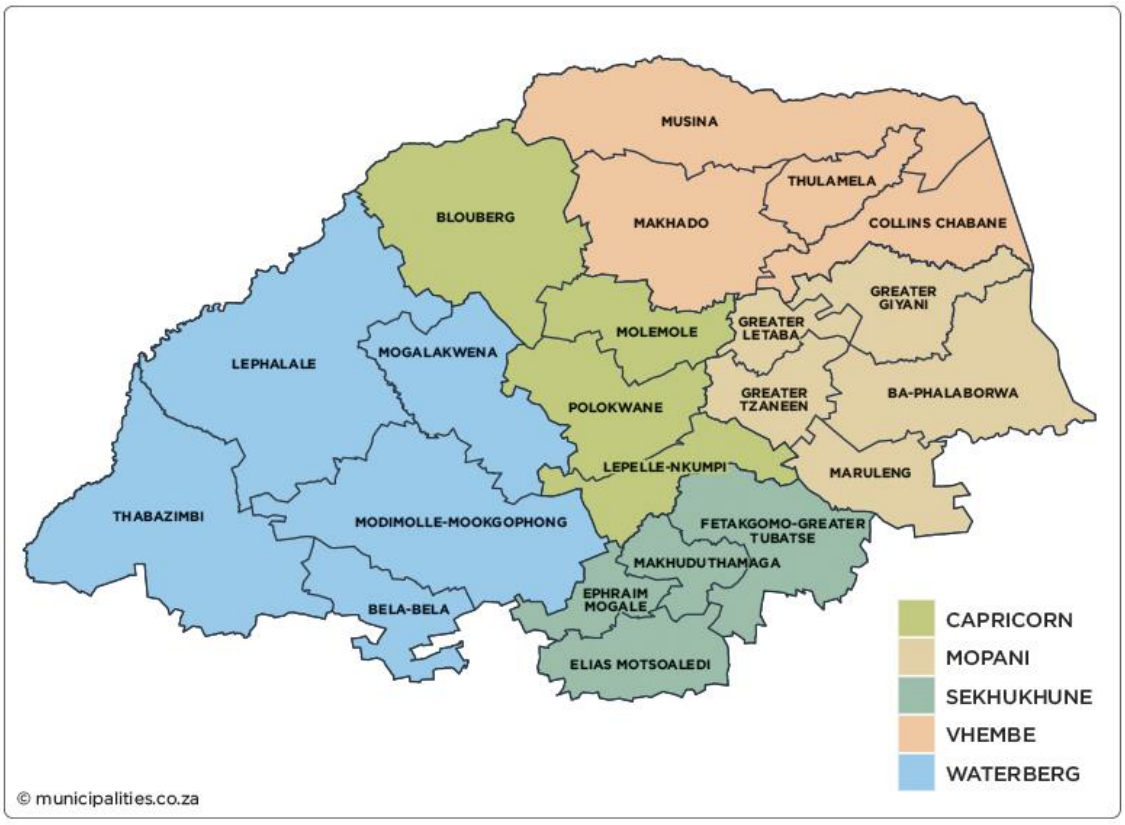

Figure 4.1: Map showing the municipalities of the Limpopo (Source: www.municipalities.co.za).

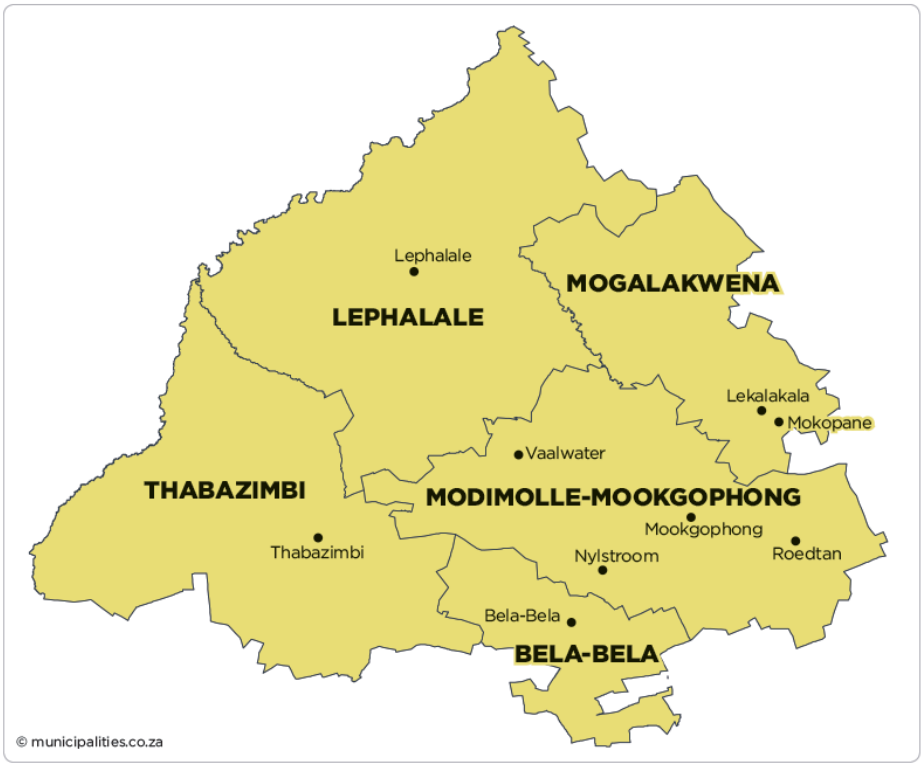

Figure 4.2: Map showing the municipalities of the Waterberg (Source: www.municipalities.co.za).

4.3. Thabazimbi LM

The Thabazimbi Local Municipality is a Category B municipality located within the Waterberg District in the south-western part of the Limpopo Province. It has Botswana as its international neighbour, and is a mere two-hour drive from Pretoria. It is one of five municipalities in the district.

Thabazimbi is known as 'mountain of iron', which is a Setswana name referring to the highly lucrative iron ore reef first discovered in the municipality in 1919. The Marakele National Park, which is a subsidiary of the National Parks Board, and in the same standard as the Kruger National Park and Mapungube is located within the municipality. Mining in the area has been undertaken since the 1930s, when iron and steel production started. Apart from iron ore, the Thabazimbi Municipality is surrounded by platinum-producing areas. Other minerals produced in the area include andalusite.

Agriculture has also proven to be a strong economic sector in the municipality. Agricultural commodities produced are wheat, beans and maize. The municipality's goals are aligned with those of the Provincial Growth and Development Strategy in Limpopo. This will ensure that the growth trajectory also addresses the objective of poverty eradication through job creation and business opportunity stimulation.

4.4. Baseline Description of the Social Environment

Table 4.2 provides a baseline summary of the socio-economic profile of the Thabazimbi LM within which the Northam Solar PV Energy Facility is located. In order to provide context against which the LM's socio-economic profile can be compared, the socio-economic profiles of the Waterberg DM, Limpopo Province, and South Africa as a whole have also been considered. The data presented in this section have been derived from the 2011 Census, the Local Government Handbook South Africa 2019, Limpopo Spatial Development Framework (LSDF) 2015, Limpopo Development Plan (2015-2019), and the Waterberg DM and Thabazimbi LM IDPs.[1]

Table 4.2: Baseline description of the socio-economic characteristics of the area within which the Northam Solar PV Energy Facility

Location characteristics
» The project is proposed within the Limpopo Province, which covers the area that lies Northern most in South Africa, just South of Zimbabwe. » The project is proposed within the Thabazimbi LM of the Waterberg DM. » The Thabazimbi LM is approximately 11214.4km² in extent, whilst Waterberg is 45315.6km² in extent.
Population characteristics
» According to the Statistics SA Thabazimbi had a population intercensal growth rate of 0.028% for the period 2011-2016. » Thabazimbi population for the year 2016 (Community Survey) was 96 232. » The Waterberg District Municipality (WDM) population constitutes 12.6% of the total provincial population with an average household size of 3.5. » The Thabazimbi Local Municipality (TLM) constitutes approximately 12.5% of the total population of the WDM with an average household size that is lower than he above-mentioned at 2.8. » Between 2001 and 2011, the population growth rate was 0.8% at the Provincial level followed by 1,2% at the District level and the TLM has the highest rate of 2,6% » The majority of the population in Limpopo, WDM and TLM (59,8%, 64,3% and 63%, respectively) is within the working age group (15 to 64 years). » There is a notably higher percentage at the District and Local Municipality levels, probably linked with in-migration in search of employment opportunities » Dependency ratios in Limpopo, WDM and TLM are estimated to be 67,35, 55,5% and 30,8% respectively; the significant difference in dependency is likely to reflect high number o migrants in the TLM.
Economic, education and household characteristics
» Over 17% of the working age population (15 to 64 years) in LP has no formal education and only 22,4% has obtained a grade 12/matric education (Census, 2011). » The WDM closely follows the Province with 12,5% of the working age population having no formal education and 23,3% having obtained a grade 12/matric education. » Both the Province and District have 9% of the working age population with tertiary level education. » Although TLM cannot be considered to have high levels of education, its population has higher education levels as compared to the Province and District, this is most likely due to the number of qualified employees working at the various mining operations. » Nearly 9% of the working age population has no formal education, 56,4% has obtained a grade 12/matric education and 8% have higher educational training.

1 While information was derived from the Local Government Handbook South Africa 2019, Limpopo SDF, Waterberg DM and Thabazimbi LM IDPs, these sources largely make use of statistical information derived from the Census 2011. The information presented in this Chapter may therefore be somewhat outdated, but is considered sufficient for the purposes of this assessment (i.e. to provide an overview of the socio-economic characteristics against which impacts can be identified and their significance assessed).

- According to Waterberg District IDP Report (2012/13), there are 333 schools in the WDM and 67 of them are based within the TLM.
- According to WDM IDP Report (2013), mining plays an important role in LP's economy, it is currently the most dominant contributor to the Province's Gross Geographic Product (GGP) at 29,4%.
- The sectors with the smallest contribution to the GGP are manufacturing, agriculture, forestry and fishing and the construction industry at 2.5% each.
- WDM's main GDP contribution comes from mining (47,4%) and agriculture (21%); another significant contributor is tourism (WDM IDP, 2011/12).
- Mining activities in WDM include minerals such as platinum, iron ore, coal and diamonds.
- WDM is home to a world-renowned biosphere and as a result, tourism plays a major role in the economy.
- The WDM's agricultural activities comprise 30% of the Province's agricultural activities, contributing over 4% to the Districts GGP.
- These activities include crop, cattle and game farming.
- Similar to the Province and District, TLM's economy is driven by three pillars; mining, agriculture and tourism (Thabazimbi Local Municipality Agriculture Strategy Report, 2012).
- Although mining constitutes the lowest land use in the TLM, statistics indicate that it contributes significantly to the Gross Domestic Product (GDP) and employment rates.
- TLM contributes 36% to the District's GDP.
- According to TLM IDP Report (2015), mining has been instrumental through its recruitment practices in driving significantly in migration into the municipal area, thereby contributing significantly to the current population profile.
- Agriculture and eco-tourism also contribute fairly significantly to the economy; agricultural activities constitute 40% of the District's agricultural activities. According to WDM IDP Report (2013) maize, sorghum, sunflowers, wheat, soya beans, groundnuts, paprika, potatoes, tomatoes, onions, cabbage and citrus fruits are commonly grow in TLM.
- Cattle farming including cattle ranches and poultry and pig production are also common in TLM.
- Game farming activities within TLM include auctioning of animals, hunting and processing food items.

Services

- The majority of the WDM and TLM population (87,6% and 77,9%) live in formal dwellings and a greater percentage than the Province lives in informal dwellings (11,2% and 20,6)
- Approximately 2% of the population reside in traditional dwellings and 1,2% in WDM.
- Cattle farming including cattle ranches and poultry and pig production are also common in TLM. Game farming activities within TLM include auctioning of animals, hunting and processing food items.
- The most dominant source of energy for lighting in Limpopo is electricity at ~ 88%.
- Considerably few people in the WDM and TLM make use of electricity compared to the Province
- In TLM, only 35% of the population use electricity for lighting, 33,5% for cooking and 31% for heating purposes, respectively.
- WDM and TLM have the highest percentage of households with access to piped water at ~94% and ~95%, respectively.
- At the ward level in TLM, fewer people have access to piped water as compared to the Local Municipality
- Approximately 68% of households in Limpopo use pit toilets, ~45% in WDM and 21% in the TLM.
- In terms of flush toilets, 68% of households in TLM have flush toilets, ~48% in WDM, followed by the Province with ~22%.
- Refuse collection in the broad Project area is poor. Limpopo Province has particularly low levels of formal weekly refuse removal at 21% as compared to ~46% in TLM and 63% in WDM.

5. OVERVIEW OF SOCIAL ISSUES

This Chapter provides a detailed description and evaluation of the potential social impacts that have been identified for the detailed design and construction, operation, and decommissioning phases, of the proposed Northam Solar PV Energy Facility.

This assessment considered the following points:

» The nature, extent and significance of the features within the social landscape being considered.
» The existing disturbance already present within the social landscape (i.e. mining activities and other industrial developments/infrastructure).

Social impacts are expected to occur during both the construction and operation phases of the PV solar facility. The status of the impacts will either be positive or negative and either mitigation or enhancement measures are recommended for the management of the impacts depending on the status of the impacts.

5.1. Social Impacts during the Construction Phase

The majority of social impacts associated with the project are anticipated to occur during the construction phase of the development, and are typical of the type of social impacts generally associated with construction activities. These impacts will be temporary and short-term (~12 months), but could have long-term effects on the surrounding social environment if not planned or managed appropriately. It is therefore necessary that the detailed design phase be conducted in such a manner so as not to result in permanent social impacts associated with the ill-placement of project components or associated infrastructure or result in the mis-management of the construction phase activities.

The positive and negative social impacts identified and assessed for the **construction phase** includes:

» Direct and indirect employment opportunities
» Economic multiplier effects
» Influx of jobseekers and change in population
» Safety and security impacts
» Impacts on daily living and movement patterns
» Nuisance impacts, including noise and dust
» Visual impacts and sense of place impacts

Table 5.1: Impact assessment on direct and indirect employment opportunities

Impact Creation of direct and indirect employment opportunities and skills development			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Construction of the project will result in the creation of a number of direct and indirect employment opportunities, which will assist in addressing unemployment levels within the area and aid in skills development of communities in the area.	Positive – the creation of employment opportunities will assist to an extent in alleviating unemployment levels within the area.	The impact will occur at a local, regional and national level.	None identified at this stage
Description of expected significance of impact At its peak, the construction is likely to result in the creation of approximately 300 – 400 employment opportunities. Of those employment opportunities available, approximately 60% will comprise opportunities for low skilled workers, 25% for semi-skilled workers, and 15% for skilled workers. Skills developed through experience in the construction of the facility will be retained by the community members involved. The impact is likely to be positive, local to national in extent, short-term, and of medium significance			
Gaps in knowledge & recommendations for further study » Collection on exact direct and indirect employment opportunities and skills development opportunities. » Collection of information on local hospitality and services sector **Recommendations with regards to general field surveys** » Site visits and interviews with representatives from local municipality, and the hospitality and services sector. » Site visit and interviews with local chamber of commerce			

Table 5.2: Economic multiplier effects

Impact Economic multiplier effects			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Economic multiplier effects from the use of local good and services during the construction phase.	Positive – There are likely to be opportunities for local businesses to provide goods and services during the construction phase of development.	The impact will occur at a local and regional.	None identified at this stage
Description of expected significance of impact Economic multiplier effects from the use of local goods and services opportunities include but are not limited to, the provision of construction materials and equipment, and workforce essentials such as services, safety equipment, ablution, accommodation, transportation and other goods. The increase in demand for goods and services may stimulate local business and local economic development (however locally sourced materials and services may be limited due to availability). There is likely to be a direct increase in industry and indirect increase in secondary businesses. The impact is likely to be positive, local to regional in extent, short-term, and of medium significance.			
Gaps in knowledge & recommendations for further study » Collection on exact direct and indirect employment opportunities and skills development opportunities. » Collection of information on local hospitality and services sector **Recommendations with regards to general field surveys** » Site visits and interviews with representatives from local municipality, and the hospitality and services sector. » Site visit and interviews with local chamber of commerce			

Table 5.3: Assessment of impacts from an influx of jobseekers and change in population

Impact Influx of jobseekers and change in population			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Issue Increased pressure on infrastructure and basic services, and social conflicts during construction as a result of in-migration of people.	Negative – The in-migration of job seekers to the area could result in increased pressure being placed on infrastructure and basic services, and a rise in social conflicts.	The impact will occur at a local level.	None identified at this stage
Description of expected significance of impact An influx of people looking for employment or other economic opportunities could result in increased pressure being placed on economic and social infrastructure, and a change in the local population. Population change refers to the size, structure, density as well as demographic profile of the local community. An influx of jobseekers into an area, could lead to a temporary increase in the level of crime, cause social disruption and put pressure on basic services. It could also potentially create conflict between locals and outsiders due to potential differences in racial, cultural and ethnic composition. A further negative impact that could result due to an influx of jobseekers into an area is an increase in unemployment levels due to an oversupply of available workforce, particularly with respect to semi- and unskilled workers.			
Gaps in knowledge & recommendations for further study » Collection of information on existing community challenges and needs **Recommendations with regards to general field surveys** » Site visit and interviews with representatives from local municipality and community representative			

Table 5.4: Assessment of safety and security impacts

Impact Safety and security impacts			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Temporary increase in safety and security concerns associated with the influx of people during the construction phase.	Negative – The in-migration of job seekers to the area could be perceived to result in increased criminal activity.	The impact will occur at a local level.	None identified. No workers should be allowed to reside on-site during construction.
Description of expected significance of impact The commencement of construction activities can be associated with an increase in crime within an area. The perceived loss of security during the construction phase of a project due to an influx of workers and / or outsiders to the area (as in-migration of newcomers, construction workers or jobseekers are usually associated with an increase in crime), may have indirect effects such as increased safety and security concerns for neighbouring properties, damage to property, increased risk of veld fire, stock theft, poaching, crime and so forth. The labour force will not permanently reside within the construction site.			
Gaps in knowledge & recommendations for further study » Information on existing crime levels within the area. » Mechanisms for employment of local labour and minimisation of in-migration. **Recommendations with regards to general field surveys** » Site visit and interviews with mine representatives and representatives from geoscience council.			

Table 5.5: Assessment of impacts on daily living and movement patterns.

Impact			
Impacts on daily living and movement patterns			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Temporary increase in traffic disruptions and movement patterns during construction	Negative – An increase in traffic due to construction vehicles and heavy vehicles could create short-term disruptions and safety hazards for current road users.	The impact will occur at a local level.	None identified.
Description of expected significance of impact Increased traffic due to construction vehicles and heavy vehicles could cause disruptions to road users and increase safety hazards. The use of local roads and transport systems may cause road deterioration and congestion. The impact is likely to be negative, local in extent, short-term, and of low significance given the proximity of the project to existing mining operations within the area			
Gaps in knowledge & recommendations for further study **Gaps in Knowledge** » Number of vehicle trips anticipated during construction. **Recommendations with regards to general field surveys** » Site visit and interviews with mine representatives and representatives from geoscience council.			

Table 5.6: Assessment of nuisance impacts (noise and dust)

Impact			
Nuisance impacts (noise and dust)			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Nuisance impacts in terms of temporary increase in noise and dust, and wear and tear on access roads to the site.	Negative – The impact will negatively impact sensitive receptors and could cause disruptions for neighbouring properties.	The impact will occur at a local level.	None identified.
Description of expected significance of impact Nuisance impacts associated with construction related activities include noise, dust, and possible disruption to adjacent properties. Site clearing activities increase the risk of dust and noise being generated, which can in turn negatively impact on adjacent properties. The movement of heavy construction vehicles and construction activities and equipment also have the potential to create noise, as well as impacts on travellers travelling along the via the Swartklip Road which branches off the R510 provincial road on the south-eastern side of the SBPM development area. The primary sources of noise during construction would be from construction equipment, vehicle and truck traffic. Noise levels can be audible over a large distance although are generally short in duration. Dust would be generated from construction activities as well as trucks / vehicles driving on gravel access roads. This impact will negatively impact sensitive receptors. The impact of noise and dust on sensitive receptors can be reduced through the application of appropriate mitigation measures.			
Gaps in knowledge & recommendations for further study » Impact of noise and dust on surrounding landowners. **Recommendations with regards to general field surveys** » Site visit and interviews with mine representatives and representatives from geoscience council.			

Table 5.7: Assessment of visual impacts and impacts on the sense of place

Impact
Visual and sense of place impacts

Issue	Nature of Impact	Extent of Impact	No-Go Areas
Intrusion impacts from construction activities will have an impact on the area's "sense of place".	Low Negative – The project could alter the area's sense of place which could impact on sensitive receptors.	The impact will occur at a local level.	None identified.
Description of expected significance of impact Intrusion impacts such as aesthetic pollution (i.e. building materials, construction vehicles, etc.), noise and light pollution will impact the "sense of place" for the local community. Construction related activities have the potential to negatively impact a local area's "sense of place". Such an impact is likely to be present during the construction phase.			
Gaps in knowledge & recommendations for further study » Collection of information on location of existing farming and hospitality operations and activities. **Recommendations with regards to general field surveys** » Site visit and interviews with mine representatives and representatives from geoscience council.			

5.2. Potential Social impacts during the Operation Phase

It is anticipated that the SBPM solar facility will operate for approximately 20 years, or as long as required by the mine.

The potential positive and negative social impacts that could arise because of the operation of the proposed project include the following:

» Direct and indirect employment opportunities
» Visual impact and sense of place impacts

Table 5.8: Employment opportunities and skills development

Impact Direct and indirect employment opportunities and skills development			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Creation of direct and indirect employment and skills development opportunities and skills development as a result of the operation of the project.	Positive – The creation of employment opportunities and skills development will assist to an extent in alleviating unemployment levels within the area.	The impact will occur at a local, regional and national level.	None identified at this stage
Description of expected significance of impact During operation a number of direct full time employment opportunities will be created. Of those employment opportunities created approximately 70% will comprise opportunities for low-skilled workers, 25% will comprise opportunities for semi-skilled workers, and approximately 5% will comprise opportunities for skilled workers. Employment opportunities include safety and security staff, operation and monitoring; and maintenance crew. Maintenance activities will be carried out throughout the lifespan of the project, and will include washing of solar panels, vegetation control, and general maintenance around the solar energy facility. The impact is likely to be positive, local to national in extent, long-term, and of medium significance.			
Gaps in knowledge & recommendations for further study » Information on the exact direct and indirect employment opportunities and skills development opportunities likely to be created during construction **Recommendations with regards to general field surveys** » Site visits and interviews with representatives from local municipality, and the hospitality and services sector.			

» Site visit and interviews with local chamber of commerce

Table 5.9: Assessment of the visual impact and impacts on sense of place

Impact Visual and sense of place impacts			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Sense of place impacts from a social perspective associated with the operation phase of the solar energy facility and associated infrastructure.	Negative – The project could alter the areas sense of place which could negatively impact on sensitive receptors.	The impact will occur at local level.	None identified at this stage
Description of expected significance of impact An area's sense of place is created through the interaction of various characteristics of the environment, including atmosphere, visual resources, aesthetics, climate, lifestyle, culture, and heritage. An area's sense of place is however subjective and largely dependent on the demographics of the population residing within the area and their perceptions regarding trade-offs. For example, while some individuals may prefer not to see any form of infrastructure development, others may be interested in large-scale infrastructure, or engineering projects and consider the impact to be less significant. Such a scenario may be true given that one of the main economic sectors within the area is mining which has altered the landscape from natural to industrial.			
Gaps in knowledge & recommendations for further study **Gaps in Knowledge** » Potential sensitive visual receptors need to be identified as part of the social impact assessment. **Recommendations with regards to general field surveys** » Site visit and interviews with local farmers and representatives from local municipality and farming and hospitality associations etc.			

6. CONCLUSION AND RECOMMENDATIONS

This SIA Scoping level study focused on the collection of data to provide an understanding of the current social environment associated with the SBPM solar PV facility and grid connection corridor that is proposed and identifying and assessing social issues and potential social impacts associated with the development of such a nature. The environmental assessment framework for evaluation of impacts at the scoping phase and the relevant criteria was applied to evaluate the significance of the potential impacts and to recommend appropriate mitigation and enhancement measures for the identified impacts. In addition, gaps in knowledge were identified and recommendations made for additional studies in the EIA phase of the process.

A summary of the potential positive and negative impacts identified for the construction and operation phases of the project are presented in Error! Reference source not found. and Error! Reference source not found.. A summary of the potential positive and negative cumulative social impacts identified for the project is provided in Error! Reference source not found..

Table 6.1: Summary of potential social impacts identified for the construction phase of the Northam Solar PV Energy Facility

Impact	Status	Significance
Positive Impacts		
Creation of direct and indirect employment and skills development opportunities.	Positive	Medium
Economic multiplier effects	Positive	Medium
Negative Impacts		
In-migration of people (non-local workforce and jobseekers).	Negative	Medium
Safety and security impacts	Negative	Medium
Impacts on daily living and movement patterns	Negative	Low
Nuisance impact (noise and dust)	Negative	Low
Visual and sense of place impacts	Negative	Low

Table 6.2: Summary of potential social impacts identified for the operation phase of the SBPM solar PV facility

Impact	Status	Significance
Positive Impacts		
Direct and indirect employment and skills development opportunities	Positive	Medium
Negative Impacts		
Visual and sense of place impacts	Negative	Low

6.1. Key findings and Recommendations

The social impacts identified (including all positive and negative impacts) will be either of a low or medium significance. No negative impacts with a high significance rating have been identified to be associated with the development of the Northam Solar PV Energy Facility. All negative social impacts are within acceptable limits with no impacts considered as unacceptable from a social perspective. The

recommendations proposed for the project are considered to be appropriate and suitable for the mitigation of the negative impacts and the enhancement of the positive impacts.

It is recommended that a full EIA level Social Impact Assessment (SIA) be conducted as part of the EIA phase. Based on the findings of the social impact assessment, the following approach to the EIA Phase studies is proposed:

- Review comments pertaining to social impacts received from members of the public, key stakeholders, and any organ of state during the public review of the Scoping Report. Where applicable, comments received from the Department of Environment, Forestry and Fisheries on the Final Scoping Report (FSR), which may pertain to social impacts or have relevance to the SIA, will also be reviewed.
- Collect primary data during a site visit. Interview directly affected and adjacent landowners, and key stakeholders to obtain primary information related to the project site, social environment, and to gain their inputs on the proposed project and its perceived social impact (positive and /or negative).
- Update the baseline information with information received during the site visit, as well as any additional information received from the client, or updates to the project description.
- Assess impacts identified for the project in terms of their nature, extent, duration, magnitude, probability, status, and significance; as well as the degree to which the impact can be reversed, may cause irreplaceable loss of resources, and can be mitigated.
- Identify mitigation measures with which to reduce negative impacts and enhance positive impacts for inclusion in the Environmental Management Programme (EMPr). As far as possible the mitigation hierarchy of "avoid, minimise, and reduce" will be followed in the mitigation of potential negative impacts.
- Identify any conditions for inclusion in the Environmental Authorisation (EA).
- Identify any monitoring requirements for inclusion in the EMPr or EA.
- Provide a reasoned opinion regarding the acceptability of the project, and whether the proposed project should be authorised.
- Prepare a SIA Report for inclusion in the EIA Report to be prepared for the project.
- Subject the SIA Report prepared for the project for inclusion in the EIA Report to external peer review.

6.2. Conclusion

The proposed SBPM solar PV facility and associated infrastructure is unlikely to result in permanent damaging social impacts. From a social perspective it is concluded that the project could be developed subject to the implementation of the recommended mitigation measures and management actions contained in the report.

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