MIDDELVLEI SOLAR ENERGY FACILITY

GAUTENG Province

Social Scoping Study

FEBRUARY 2023

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REPORT DETAILS

Title	:	Social Impact Assessment (SIA) Scoping Report: Middelvlei Solar Energy Facility
Authors	:	Savannah Environmental (Pty) Ltd Molatela Ledwaba
External Peer Review	:	Tony Barbour
Client	:	Portion 132 Middelvlei (Pty) Ltd
Report Revision	:	Revision 0
Date	:	February 2023

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

SPECIALIST DECLARATION OF INTEREST

I, Molatela Ledwaba, 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.

Molatela Ledwaba

Name

Signature

February 2023

Date

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ACRONYMS

DM	District Municipality
DMRE	Department of Mineral Resources and Energy
DoE	Department of Energy
DoJ	Department of Justice
DM	District Municipality
EEDSM	Energy efficiency demand-side management
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
GNR	Government Notice
IDP	Integrated Development Plan
IFC	International Finance co
IRP	Integrated Resource Plan
km	Kilometre
kV	Kilovolt
LED	Local Economic Development
NEMA	National Environmental Management Act (No. 107 of 1998)
NDP	National Development Plan
PSDF	Provincial Spatial Development Framework
RWCLM	Rand West City Local Municipality
RBS	Revised Balanced Scenarios
REIPPPP	Renewable Independent Power Producer Programme
SDF	Spatial Development Framework
SIA	Social Impact Assessment
SP	Significance Points
WRDM	West Rand District Municipality

1. INTRODUCTION

Savannah Environmental (Pty) Ltd has been appointed by Portion 132 Middelvlei (Pty) Ltd as the lead consultants to undertake and manage the Environmental Impact Assessment (EIA) process for the development of the proposed Middelvlei Solar Energy Facility and associated infrastructure (hereafter referred to as "the Project") proposed on Portion 132 of the Farm Middelvlei 255 IQ (refer to Figure 1-1). The proposed development is located near Randfontein in Gauteng Province.

Molatela Ledwaba of Savannah Environmental (Pty) Ltd is the independent social consultant responsible for undertaking a Social Impact Assessment (SIA) and compiling the report as part of the EIA process being conducted for the project.

1.1 Study Objective

The purpose of this Scoping Study is to examine all relevant factors in order to provide unbiased assessment of the potential social impact of the proposed construction and operation of the Project. The report presents the potential prospects and constraints identified through the scoping study that would potentially arise as a result of the implementation of the project.

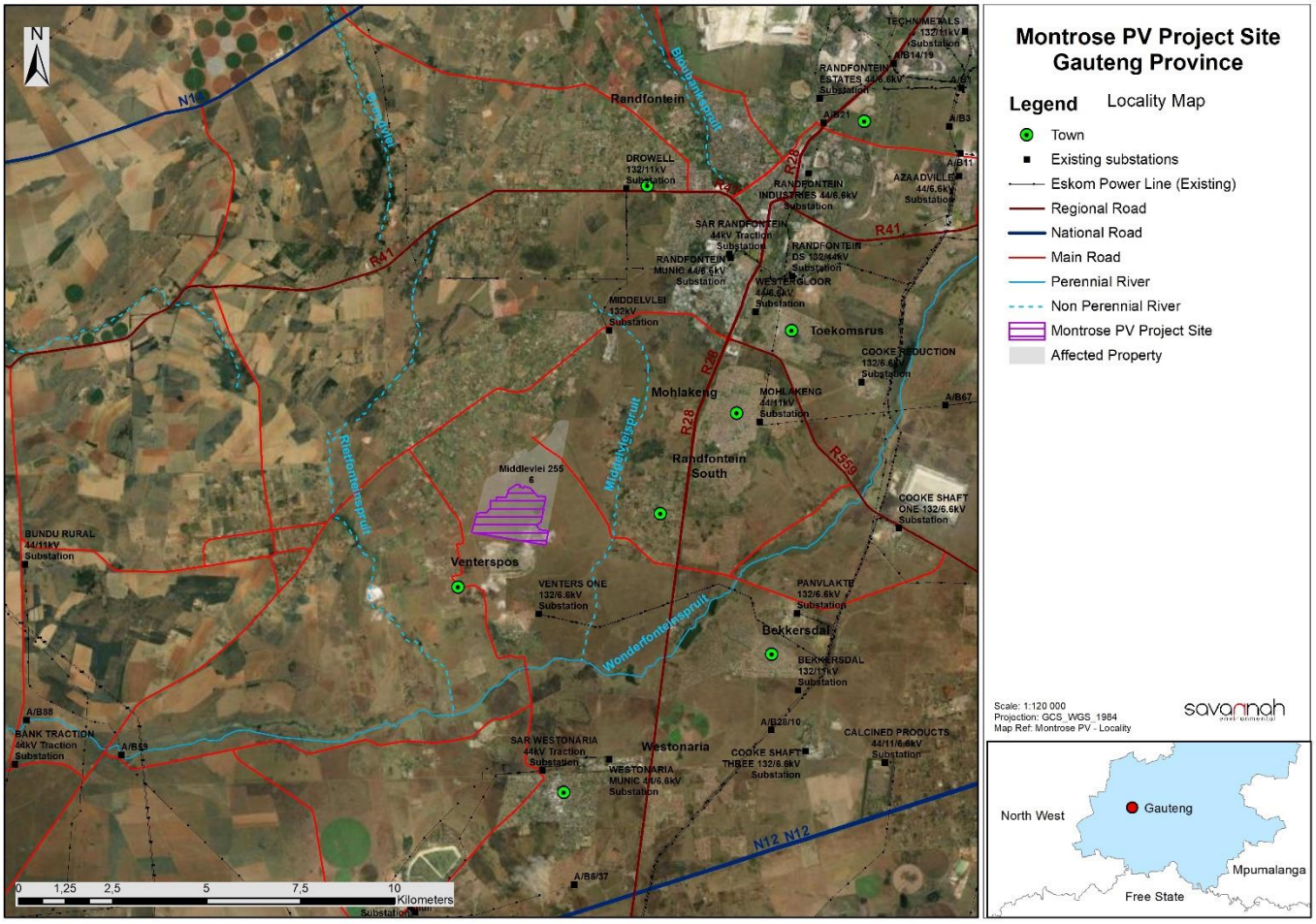


Figure 1-1 Locality map illustrating the location of the Middelvlei Solar Energy Facility, Gauteng Province

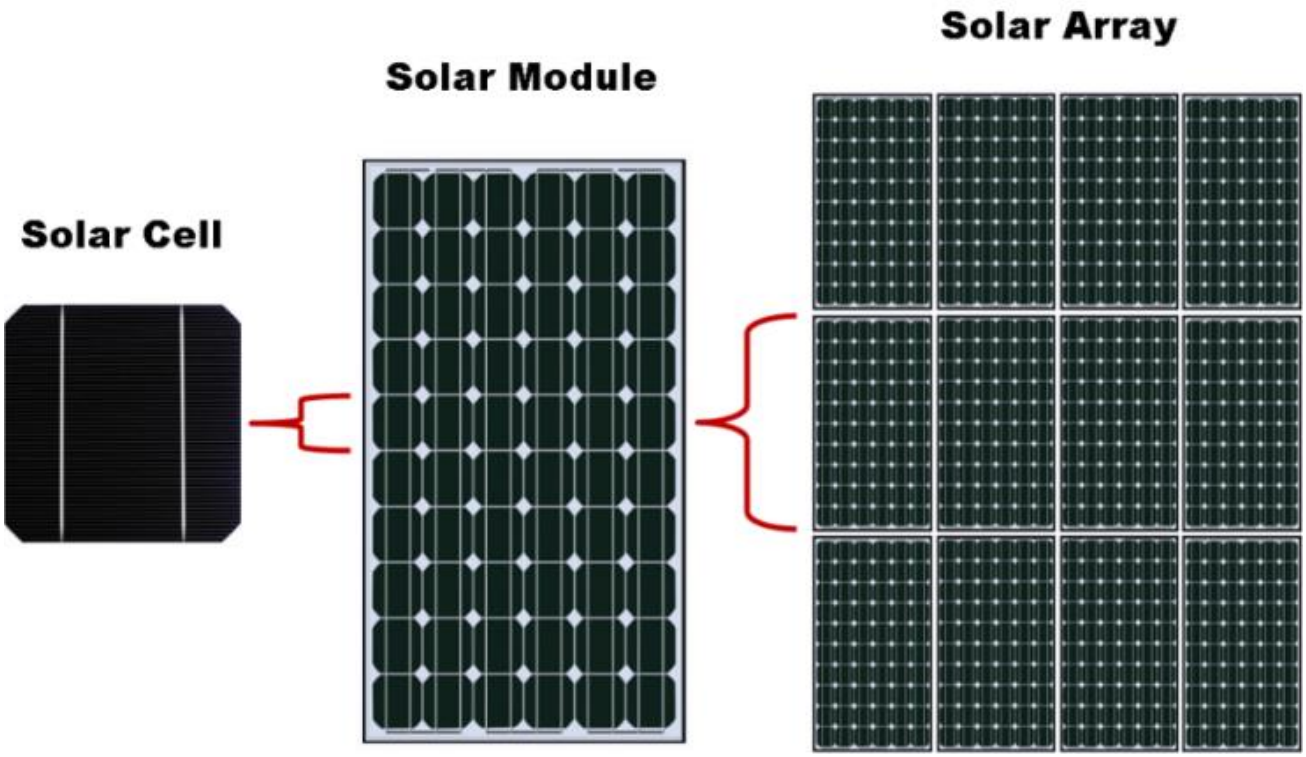
1.2 Project Description

The Project is located on Portion 132 Middelvlei 255 IQ.

The Project will occupy a development area of ~200ha and will have a capacity of up to 120MW. The proposed project will include the following infrastructure:

- Solar PV Plant comprising approximately 220000 PV panels on single axis tracking PV modules
- Inverters and transformers (up to 120MW)
- Cabling between the panels
- Onsite facility substation capacity 132kv or more to be finalised with Eskom, including Conductors and metering site +- 250 – 300 sq m.
- Cabling from the onsite substation to the collector substation (either underground or overhead)
- Electrical and auxiliary equipment required at the collector substation that serves the solar energy facility, including switchyard/bay, control building, fences, etc.
- Battery Energy Storage System (BESS)
- Site and internal access roads (up to 8m wide)
- Temporary and permanent laydown area
- Operations Building of ~180 sqm

A Development area and footprint will be defined in the EIA Phase of the process considering environmental sensitivities and technical constraints.



Photograph 1-1 Overview of a Photovoltaic Cell and array/panel (Source:pveducation.com)

1.3 Details of the Independent Specialist

This SIA Report has been undertaken by Molatela Ledwaba of Savannah Environmental. Tony Barbour has undertaken an external review of this SIA and has provided an external reviewer's letter. This letter is attached as **Appendix C.**

» **Molatela Ledwaba** – holds a BA Environmental Management and has 13 years of experience. Her key focus is on Socio-Economic Baselines, Social Impact Assessment, public participation, stakeholder engagement, project coordination and production of maps using QGIS and ArcGIS.

1.4 Structure of the SIA Scoping Report

This SIA scoping report is divided into five (5) main sections:

» Section 1: Introduction and Project Description
» Section 2: Approach to Study and Methodology
» Section 3: Related Policy and Planning Documents
» Section 4: Overview of Study area
» Section 5: Identification of key issues and
» Section 6: Summary of Key findings

This SIA Scoping 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 Scoping 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 Error! Reference source not found..

Table 1-1: Specialist report requirements

	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 1
(cA)	An indication of the quality and age of base data used for the specialist report.	Section **Error! Reference source not found.**
(cB)	A description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change.	Section **Error! Reference source not found.**
(d)	The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment.	Section **Error! Reference source not found.**
(e)	A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used.	Section **Error! Reference source not found.**

	Requirement	Location in Report
(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 alternative.	To be provided during EIA Phase
(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 **Error! Reference source not found.**
(j)	A description of the findings and potential implications of such findings on the impact of the proposed activity or activities.	Section 6
(k)	Any mitigation measures for inclusion in the EMPr.	To be provided during EIA Phase
(l)	A description of any consultation process that was undertaken during the course of preparing the specialist report.	Section **Error! Reference source not found.**
(m)	A summary and copies of any comments received during any consultation process and where applicable all responses thereto.	To be undertaken during EIA Phase
(n)	Any other information requested by the competent authority.	N/A
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. APPROACH TO STUDY AND METHODOLOGY

2.1 Approach

The research methodology used for the development of an SIA study is based on the Guidelines for Involving Social Impact Assessment Specialists in the EIA Process, which were prepared in February 2007 for the Western Cape Province of South Africa by the Department of Environmental Affairs and Development Planning. These best practice guidelines for Social Impact Assessment (SIA) development and planning are based on International Standards. These guidelines incorporate the following important SIA process Components:

- The review of demographic data from the 2011 Census Survey and relevant data as received from the identified municipalities
- The review of relevant planning and policy framework for the proposed area of intervention.
- A review of information from similar projects.
- Identification and description of social impacts, which can be associated with the proposed project.
- The formulation of key findings and recommendations based on the collected data for the proposed project

Based on the review of relevant documentation, knowledge gained from prior projects, the potential social issues related to the proposed project were identified.

2.1.1 Data Collection

To understand the socio-economic baseline conditions of the project-affected areas and the socio-economic implications of the proposed project to the receiving environment, the specialist conducted secondary desktop data collection (desktop review).

2.1.2 Desktop review

The following documents were consulted to inform the socio-economic context:

- West Rand District Municipality IDP, 2022/2023 to 2026/27 as Revised in 2022/23
- Rand West City Local Municipality, 2020/2021 Final review
- West Rand District Municipality Spatial Development Framework, 2014 & 2017 Revision

2.1.3 Consideration of information from other specialist studies

Specialist studies undertaken for the proposed Project (e.g., Visual impact assessment) focussed on impacts that might have significant, although indirect social implications. These studies were reviewed to identify any biophysical aspects which will influence the manifestation of social impacts.

2.1.4 Data analysis

Previous studies conducted were used as a means to gather data and compared with the current situation. National and Municipal statistical data and local primary data were compared for employment, economic activities, education.

2.1.5 Limitations and Assumption

This section of the report briefly describes the assumption and limitations for this SIA Scoping Study.

This Social Impact Assessment Scoping Study is based on desk research, an initial scoping exercise, client input, a literature study of pertinent policies, programs, and academic publications, as well as targeted interaction with important stakeholders. Even though the specialist made every attempt to provide a trustworthy and accurate analysis based on moral research methods, this Social Impact Assessment has certain limitations.

The Community Survey 2016 and 2011 South African Census were used to generate a baseline profile of the West Rand district municipality and the area directly surrounding the proposed project area. It should be noted that the data may no longer accurately reflect the current socio-economic profile and may be somewhat out of date.

The study was conducted using the information available to the specialist at the time of carrying out this study. The sources consulted are not all inclusive and there may be additional information which may strengthen arguments or contradict information in this report.

3. RELATED POLICY AND PLANNING DOCUMENTS

This Section of the report provides an overview of the related policy and planning documents affecting the proposed Middelvlei Solar Facility. The overview of these documents includes policy and planning documents on National, Provincial, District and Local level. The following policy and planning documents were reviewed to meet the objectives on this SIA report.

3.1 National Level

» Constitution of the Republic of South Africa, 1996
» White Paper on the Energy Policy of the Republic of South Africa (1998)
» White Paper on Renewable energy of 2003
» National Development Plan (NDP) 2030
» National Energy Act (No. 34 of 2008)
» Integrated Resource Planning for South Africa of 2010-2030

3.2 Provincial Level

» Gauteng Spatial Development Framework (GSDF).
» Gauteng 2055 Development Vision.

3.3 District Level

» West Rand District Municipality IDP, 2022/2023 to 2026/27 as Revised in 2022/23
» West Rand District Municipality Spatial Development Framework, 2014 & 2017 Revision

3.4 Local Level

» Rand West City Local Municipality, 2020/2021 Final review

Table 3-1 Relevant legislation and policies for the proposed Middelvlei Solar 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, 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.
White Paper on the Energy Policy of the Republic of South Africa of 1998	The White Paper on the Energy Policy of the Republic of South Africa of 1998 (further referred to as the White Paper) provides an overview of the South African energy sector's contribution to the country's economic sector. The White paper states that the South African Energy systems can greatly contribute to a successful development strategy and a more sustainable national growth. Therefore, this White Paper supports investment initiatives in renewable energy.

Relevant legislation or policy	Relevance to the proposed project
	Globally there has been rapid development in renewable energy technologies, due to its many advantages, including cost-effectiveness. However, in South Africa the development and the implementation hereof have been neglected. According to the White Paper approximately 10% of South Africa's primary energy resources are provided through renewable energy resources. The advantages of renewable energy applications include: the impact on the environment is kept to the minimum, more cost-effective than traditional supply technologies and higher labour intensities The disadvantages of the renewable energy applications include: higher capital costs, lower densities and level of availability (depending on specific environmental systems like the sun and wind). Despite these disadvantages, renewable energy resources still operate from an unlimited resource base, meaning that another major advantage is that renewable energy is a more sustainable energy resource on the long-term. South Africa consists of very attractive renewable energy resources, including solar. This statement according to the White Paper guides the development of South Africa's renewable energy policy. The Government policy according to the White Paper (1998:79) is still concerned with meeting the following challenges: » To ensure that the technologies and applications which are being implemented are economically feasible. » To ensure that an equitable level of national resources is invested in these renewable energy technologies; and » To address the constraints experienced on the development of the renewable energy industry. Despite the Government policy's concerns, the policy still recognise renewable energy sources as unlimited resource bases with potential sustainability for the long-term. The Government stated also its support by stating in the White Paper on the Energy Policy of the Republic of South Africa of 1998 (1998:80) that the "Government will provide focused support for the development, demonstration and implementation of renewable energy sources for both small and large-scale applications".
White Paper on Renewable Energy of 2003	The White Paper on Renewable Energy of 2003 (further referred to as the White Paper) sets out the Government's vision, goals, objectives, policies and principles with regards to promoting and implementing renewable energy in South Africa. This Paper can be considered as a supplement paper to the White Paper on Energy Policy of 1998, which recognised the significant potential of renewable energy over medium- and long-term periods. The White paper has two overarching goals, namely to inform the public and Government agencies, including the Organs of the State, and the international community, of the Government's goals and the manner in which the Government plan to achieve these goals. The Paper states that the Government recognised the emission of greenhouse gasses and the effect of climate change globally. For this reason, the Government committed in reducing the greenhouse gas footprint of South Africa. According to the White Paper the Government's vision for renewable energy is "an energy economy in which modern renewable energy increases its share of energy consumed and provides affordable access to energy throughout South Africa, thus contributing to sustainable development and environmental conservation." Besides referring to other technologies of renewable energy, this paper specifically refers to the potential of solar resources for solar water heating applications, solar photovoltaic and

Relevant legislation or policy	Relevance to the proposed project
	solar thermal power generation in South Africa, directly relating to the proposed Middelvlei Solar Energy Facility.
National Development Plan 2030	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.
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 Resource Planning for Electricity - South Africa of 2010-2030	The Integrated Resource Plan for Electricity for South Africa of 2010-2030 (further referred to as the IRP) is a "living plan" which is expected to be revised and updated continuously as necessary due to changing circumstances. According to the Summary of the plan the current IRP for South Africa, which was originally initiated by the Department of Energy (DoE) in June 2010, led to the Revised Balanced Scenarios (RBS) for the period 2010- 2030. "This scenario was derived based on the cost-optimal solution for new build options (considering the direct costs of new build power plants), which was then "balanced" in accordance with qualitative measures such as local job creation." In addition to all existing and committed power plants, the RBS included 11,4 GW of renewables, which relates to the

Relevant legislation or policy	Relevance to the proposed project
	proposed Middelvlei. In 2010 several changes were made to the IRP model. The main changes in the IRP were the disaggregation of renewable energy technologies to explicitly display solar photovoltaic (PV), concentrated solar power (CSP) and wind option The summary of the IRP further explains that traditional cost-optimal scenarios were developed based on the previously mentioned changes in the IRP. This resulted in the Policy-Adjusted IRP, which stated: » "The installation of renewables (solar PV, CSP and wind) have been brought forward in order to accelerate a local industry; » To account for the uncertainties associated with the costs of renewables and fuels, a nuclear fleet of 9,6 GW is included in the IRP; » The emission constraint of the RBS (275 million tons of carbon dioxide per year after 2024) is maintained; and » Energy efficiency demand-side management (EEDSM) measures are maintained at the level of the RBS" (IRP, 2011:6). "The Policy-Adjusted IRP includes the same amount of coal and nuclear new builds as the RBS, while reflecting recent developments with respect to prices for renewables. In addition to all existing and committed power plants (including 10 GW committed coal), the plan includes 9,6 GW of nuclear; 6,3 GW of coal; 17,8 GW of renewables; and 8,9 GW of other generation sources" (IRP, 2011:6). The IRP highlights the commitments before the next IRP. The commitments pertaining to the purpose of the proposed Middelvlei in renewable energy is: » "Solar PV programme 2012-2015: In order to facilitate the connection of the first solar PV units to the grid in 2012 a firm commitment to this capacity is necessary. Furthermore, to provide the security of investment to ramp up a sustainable local industry cluster, the first four years from 2012 to 2015 require firm commitment." » "Solar PV 2016 to 2019: As with wind, grid upgrades might become necessary for the second round of solar PV installations from 2016 to 2019, depending on their location. To trigger the associated tasks in a timely manner, a firm commitment to these capacities is necessary in the next round of the IRP at the latest. By then, the assumed cost decreases for solar PV will be confirmed" (IRP, 2011:17). In conclusion the IRP as envisage in the Policy-Adjusted IRP should pursue solar PV programmes and an accelerated roll-out renewable energy options should be allowed with regards to the benefits of the localization in renewable energy technologies.
Gauteng Spatial development Framework (GSDF)	All metropolitan, regional and local SDFs for Gauteng province jointly seek to achieve the integration of economically disadvantaged communities into the urban system, particularly those on the periphery of the system. Within Gauteng each municipality is required to prepare a SDF which must outline the spatial development within their respective jurisdictions. The GSDF is used as a tool for forward planning to direct decisions with regard to land development throughout the province. The desired outcomes of the GSDF, through infrastructural investment and the management of activity patterns, are: » Integration of the apartheid fragmented municipalities in the province and the municipalities in the wider Gauteng City Region. » Safe, affordable and sustainable public transport, in contrast with private mobility, on which the present provincial structure is focused.

Relevant legislation or policy	Relevance to the proposed project
	» Quality of life and living through proximity to, or easy and affordable access to quality open space and social and cultural facilities » Shared, sustainable and inclusive economic growth, ensuring that everyone in the province can get access to economic opportunities and contribute to, and share in the economic development of the province. » Protection and enhancement of the natural environment, ensuring the sustainability of natural systems and the fauna and flora habitats within these and their connectivity and bio-diversity. » Choice, enabling individuals and communities to decide within an overarching framework what works for them, where opportunity presents itself and where to locate in the urban system without incurring inordinate premiums and » Creativity and innovation, ensuring that the province can adapt to change in constructive ways. The Gauteng Spatial Development Framework identifies specific spatial structuring elements that were used in the development of the Sedibeng Spatial Development Framework, including the two corridors formed by the R59 and the N1.
Gauteng 2055 development Vision	Gauteng Vision 2055 provides a long-term development agenda to guide all future initiatives of the province. It aims to ensure that in 2055 "…Gauteng is liveable, equitable, prosperous and united Global City Region. Vision 2055 is based on the ideals of equitable growth, social inclusivity and cohesion, sustainable development and infrastructure, and good governance.
West Rand District Municipality Final Integrated Development Plan - Framework for 2021 – 2022.	The integrated planning approach for the WRDM is documented in the IDP which focuses on bulk service delivery as well as major and future developments in the region and the associated potential to alleviate poverty and enhance economic growth. The IDP ensures that processes at the district and local municipal levels are aligned and to provide a framework for prioritising and sequencing local municipalities' programmes and development priorities for the next five years. Mining is the leading sector in the Municipality, but its contribution has been declining since 2005. There is therefore a push towards diversification of the economy in the district, which includes increased focus on the agricultural potential of the area. The proximity to the large market in Gauteng combined with large areas with agricultural potential means agriculture has the potential to play a large role in the district economy. Mining is however still considered to be an important sector in the district and a significant provider of employment and economic opportunities. The mining sector is therefore considered to be a catalyst for developing other economic opportunities in the area. To diversify economic activities in all the Gauteng regions, the Transformation, Modernisation and Reindustrialisation (TMR) strategy identifies sectors to promote economic development in each of the province's municipalities. The WRDM has a Five Year Plan that is aligned to the National Development Plan (NDP) (the overarching policy document for the country as a whole which targets creating 11 million jobs by 2030) and the TMR, the outcomes of which are: » Basic service delivery improvement. » Accountable municipal administration. » Skilled, capacitated, competent and motivated workforce. » Ethical administration and good governance. » Safe communities. » Educated communities. » Healthy communities. » Sustainable environment.

Relevant legislation or policy	Relevance to the proposed project
	» Build spatially integrated communities. » Socially cohesive communities. » Reduced unemployment. » Economic development. » Robust financial administration and » Institutional planning and transformation.
Rand West City Local Municipality Integrated Development Plan Review for 2018 – 2019.	Rand West City Local Municipality came into existence in 2016, when the Randfontein Local Municipality and Westonaria Local Municipality were merged. The RWCLM strategic objectives are informed by the Sustainable Development Goals (SDGs), National Development Plan (NDP), National Outcomes, Back to Basic (B2B) - Ten Point Plan approach as well as the Gauteng Transformation, Modernization and Re-industrialization (TMR) Objectives. The strategic goals of the RWCLM are to: » Develop business excellence through a learning organization. » To ensure the provision of basic services to build sustainable safe communities » To promote and accelerate an inclusive growing green economy » To ensure a financially viable and sustainable municipality. » To provide a democratic, clean and accountable government for sustainable local communities and » To promote integrated sustainable development planning for the future.

4. OVERVIEW OF THE STUDY AREA

4.1 INTRODUCTION

This section of the report provides an overview of the baseline socio-economic conditions in the area that are relevant to the social assessment of the proposed Middelvlei Solar Energy Facility. The baseline was obtained through secondary data sources such as Statistics South Africa, 2020 National census, Integrated Development Plan, and Specialist studies.

4.2 GEOGRAPHICAL AND ADMINISTRATIVE CONTEXT

The Project is proposed to be located on Portion 132 Middelvlei 255 IQ, which is ~204.44ha in extent. The project site is situated approximately ~7km south-west of the town of Randfontein, within the West Rand District Municipality (WRDM) and the Rand West City Local Municipality (RWCLM) Refer to Figure 4-1).

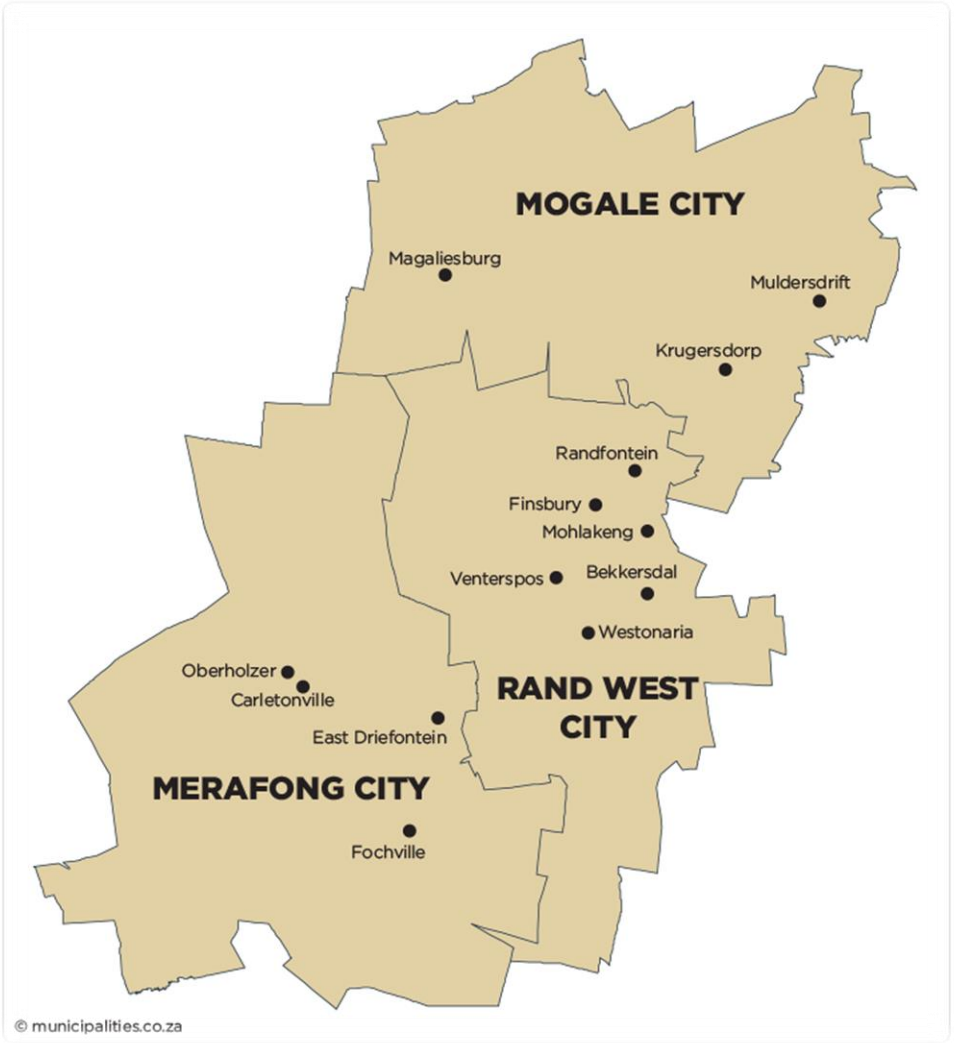


Figure 4-1 Maps indicating the location of the West Rand District Municipality and the Rand West Local Municipality (https://municipalities.co.za/)

4.3 SOCIO ECONOMIC OVERVIEW

This Section provides a general overview of the Socio-economic conditions at the district and local municipality levels, as well as a more in-depth analysis of the wards and settlements directly surrounding the proposed project

4.3.1 West Rand District Municipality

The WRDM is a Category C municipality located on the southwest edge of Gauteng Province and comprises of three local municipalities namely: Mogale City Local Municipality, Merafong City Local Municipality and RWCLM. The WRDM is well located to connect the central and outer nodes of the Global City Region (GCR) to one another, and to the major economic activity areas around Tlokwe, Lichtenburg, Rustenburg and Madibeng. However, the WRDM's urban settlements are situated on the western edge of Gauteng Province's urban conurbation, distant from the N4, N17/N2, and N3 national corridors that connect to the major import/export ports (Maputo, Richards Bay and Durban-eThekwini). The district is served by three strong corridors: the N14 to the north and the N12 to the south, as well as route R28, which functions as a north-south link through the urban areas of Mogale City and Rand West City (Randfontein and Westonaria).

4.3.1.1 District Economic Activity

The two primary industries that drive most economic activities in West Rand are agriculture and mining. In 2018, the mining industry contributed 29.2% of West Rand's economic output. Hence, a decrease in mining output would seriously affect regional growth. From a contraction of 6.3% in 2017, mining fell to a fall of 8% in 2018. As was already indicated, this undesirable result is a result of a number of reasons, including steadily growing input costs and a stable gold price.

4.3.1.2 Demographics

In 2023, the West Rand District had a population estimated at 1,105,429 people and has grown by 13,948 in the last year, which represent a 1,28% annual change World Urbanization: The 2018 Revision), accounting for 6.1% of the total population in the province. Between 2009 and 2010, the population increased by about 1%, with an increase of 1.2% in 2011. After that, the population growth rate fell by 0.1%, reaching 1% in 2015. From that year forward, the population growth rate increased by 0.1%, reaching 1.2% between 2017 and 2019. 79% of those are black Africans, 18% are white, and 3% are mixed races. The most common language used at home is Setswana (32%), then Afrikaans (17%), isiXhosa (14%) and Sesotho (10%).

4.3.1.3 Education and Employment

According to IDP data, there were 125 335 persons living below the poverty line (less than R417 per month) in 2015, up from 104 806 in 2010. 75% of those who are employed (or 49.7% of the population) work in the formal economy. Estimates of unemployment range from 18.3% (Statssa Community Survey 2016) to 28.3%. (HIS Markit, 2017 as quoted in WRDM IDP). In WRDM, over seven in ten people (73.5%) have completed Grade 9 or higher, and 44.1% have finished Matric.
or better. This is just a little below Gauteng's average.

4.3.1.4 Household Utilities

In the WRDM, there are 330 573 households, of which 61% are formal homes and 22.6% are informal abodes. This is almost 25% more than the Gauteng region's average. The typical household's yearly income is R29 400. 39% of households, however, make less than this amount, and 16% make no money at all. Only 59% of households have taps inside their homes, despite the fact that 91.9% of households receive their water from a local or regional provider. The remaining rely on communal or backyard faucets. taps. 13.7% of households lack access to electricity, which is almost twice as many as in Gauteng.

4.3.2 Rand West City Local municipality

The Rand West City LM has an area of 1 094 km2 in total. There were 149 286 people living in the RWCLM in 2016. (Statssa 2016). Vacant municipal land is dispersed across the urban area, while the majority of the land in municipalities is privately owned and large tracts are owned by mining firms. The RWCLM is primarily rural, with open land and agricultural purposes. Additionally, a provincial agricultural hub includes these districts. Areas in RWCLM are thought to have excellent to moderate agricultural potential. However, the agricultural sector is currently the municipality's smallest contributor to the economy, contributing just 1% of the municipality's Gross Value Added (GVA).

4.3.2.1 Economic Activity

The primary sector, which includes agriculture and mining, contributes the least to the provincial economy, but it is critical for ensuring food security in the province. According to the RWCLM IDP mining accounts for over half (54%) of the economic share of the RWCLM economy, followed by manufacturing and community services at 10% each, finance at 7.3%, and transport at 4.8%. There is just 1% in agriculture. 22% of persons are employed in mining. Similar to the district, RWLCM has seen an increase in the number of economically active people, with the number of EAP rising from 35 324 in 2010 to 40 166 in 2015. To prevent rising unemployment, this rise must be followed by an increase in employment possibilities. A downturn in the mining industry has occurred, and this is having a detrimental socioeconomic impact on the municipality, according to the RWCLM IDP.

4.3.2.2 Demographics

According to the Statssa Community Survey (2016), RWCLM has a population of 265 886 people and a population density of 238 people per m^2. 79% are black Africans, 14% are white, and 6% are coloured. Setswana (32%), Afrikaans (19%), isiXhosa (15%), and Sesotho (12%) are the most widely spoken languages. Approximately 33% of the people in the area have relocated from other South African provinces.

4.3.2.3 Education and Employment

The IDP reports that RWCLM's unemployment rate is 37.8%. This is significantly greater and may be caused by in-migration of job seekers and slow economic activity growth as a result of the RWCLM's weak mining industry (WRDM IDP, 2018). Estimates of unemployment in the region, however, differ. Since 2001, Randfontein's unemployment rate has decreased, according to the Census 2011. In 2001, 36% of people in Randfontein were unemployed; by the 2011 census, that number had dropped to 27.1%. On the other side, the Statssa Community Survey (2016) predicts that 22% of persons are unemployed. 49% of the population is employed, with 77% of those jobs being in the formal economy and 11% in the unorganized sector.

4.3.2.4 Household Utilities

In RWCLM, there are about 103 584 households. Of this, 25.9% are shacks or other unofficial structures, which is about 20% more than the district average. 54 percent of households have a formal home as their primary residence. The district's average annual household income of R29 400 applies. However, 17% of households make no money at all, and 30% of households make less than this. More than half of households (59%) have indoor plumbing, while another 30% have access to shared water sources. Due to the predominance of agricultural operations within RWCLM, a small fraction of homes (5%) relies on borehole water, which is higher than the average for the district as a whole. Almost a quarter of households (19.9%) have no access to electricity, which is higher than the average for the district.

4.3.3 Ward 2

Middelvlei Solar Energy Facility is located within Ward 2 of the RWCLM which covers Finsbury, Kocksoord, Peace Haven, Middelvlei (Montrose) & Ten Acres along R559. The population in ward 2 is estimated to be 11 794. Of this, 69% are black African. The ward has equal gender ratio at 50%. Afrikaans and Setswana are the predominant languages (29%), followed by IsiXhosa(10%), Sesotho(9%), IsiZulu(7%), English(6%) and other languages (10%). Majority of people in ward 2 were born in Gauteng (60%), while the reminder have moved to the area from other provinces. Over 91% of the people in ward 2 were born in South Africa.

There are estimated to be 3464 household in Ward 2, the majority of households are formal dwellings, 4.6% of households are informal dwellings. This is significantly lower than the average for Gauteng province, which is 18.92%. the majority of households in Ward 2 own their houses (48.5%) and the monthly average income is R4,800, which is the same as the amount in West Rand District Municipality and Gauteng Province. 74.1% of the households has electricity and 58.1% have access to water of which is provided by the local service provider, 38% rely on borehole water and 89% have flush toilets. According to the RWCLM IDP, there have been substantial improvements in the delivery of law-cost housing in Ward 2.

Approximately 50.5% of people are employed, of which 71% are employed in the formal sector.
Unemployment is 12%, which is higher than the provincial average of 10%.

5. IDENTIFICATION AND EVALUATION OF KEY ISSUES

5.1 INTRODUCTION

This section focuses on the identification of the key social issues associated with the construction, operation and decommissioning of the proposed Middelvlei Solar Energy Facility. The identification of these key issues was identified based on the following:

» The review of project baseline information.
» Review of specialist studies.
» Experience with similar projects.

5.2 Social Impacts during the Construction Phase

The positive and negative social impacts identified and evaluated for the **construction phase** include:

» Creation of employment opportunities
» Increased opportunities and Multiplier effects for local businesses
» In- migration or potential influx of job seekers
» Potential impacts of heavy and construction related activities
» Increase Traffic

5.2.1 Potential Positive Impact: Creation of local employment and business opportunities, skill development and training

Table 5-1 Scoping evaluation of creation of local employment and business opportunities, skills development and training

Impact Creation of local employment and business opportunities, skill development and training			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Creation of local employment and business opportunities, skill development and training associated with construction phase	Direct impacts: » Creation of temporary employment opportunities » Creation of business procurement opportunities Indirect impacts: » Creation of skill and development opportunities » Support the local economy	Local - Regional	N/A
Description of expected significance of impact The Middelvlei Solar Energy Facility construction phase will extend over a period of less than 26 months. The majority of the labour force is expected to come from the local area and would be in a position to qualify for most of the low skilled and semi-skilled opportunities. The business-related opportunities will be linked to hospitality (accommodation) and services sector (catering, security, transport etc.). This will result in a benefit to the local communities, the significance of which is expected to be medium in the short-term.			
Gaps in knowledge & recommendations for further study » Collection of information on local skills, educational levels, and service sectors **Recommendations with regards to general field surveys**			

» Site visit and further interviews with Landowners and other relevant stakeholders

5.2.2 Potential Negative Impact- In-migration or potential influx of job seekers

In the case of large construction projects, job seekers tend to migrate to the development area in search of work. In some cases, the job seekers' families accompany them. Whether or not the job seekers find work, they and their families may become economically stranded in the surrounding area. The influx of job seekers has no direct social impact, but their presence and behaviours can have an impact on community structures and social networks, competition for housing and jobs, which can lead to xenophobia and crime.

Table 5-2- Scoping evaluation of potential in migration or potential of job seekers

Impact Potential impacts on family structures, social networks and community services associated with the influx of job seekers			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Safety and security	Direct impacts: » Anti -Social behaviour of construction workers » Disruption of social networks Indirect impacts: » Resentment of outsiders and tension with local communities	Local	N/A
Description of expected significance of impact Evidence from other renewable energy projects indicates that the construction phase can result in the influx of jobseekers to the area and that this has the potential to impact negatively on local communities. Impacts can be of Moderate significance but can be reduced with the implementation of mitigation measures.			
Gaps in knowledge & recommendations for further study » Gathering of data on the existing community and needs **Recommendations with regards to general field surveys** » Site visit and interviews with representatives from the local municipality, community representatives and landowners.			

5.2.3 Potential Negative Impact: Potential impacts of heavy construction vehicles and increase in traffic

There may be an increase in traffic because trucks will be required to transport materials and equipment to the area that may cause traffic to slow down which may cause impatience and reckless behaviour in other road users.

Table 5-3- Scoping evaluation of potential impacts of heavy vehicles associated with construction activities

Impact			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Potential, traffic, noise, dust and safety impacts associated with construction related activities	Direct impacts: » Dust impacts, and impact on the local communities living closer to the construction site » Noise impacts caused by moving construction vehicles » Damage on the gravel road that is leading to the project site	Local	N/A

	Indirect impacts: » Limited indirect impacts		
Description of expected significance of impact Evidence from other renewable energy projects suggests that the construction-related activities do have an impact on the local communities in terms of dust, noise, and safety. Impacts could be of moderate significance in the short-term but can be effectively reduced through the implementation of appropriate management measures. Traffic impacts are expected during the construction phase. This can result in impacts on local roads and daily movement patterns. Impacts could be of moderate significance in the short term but could be effectively reduced through appropriate management measures.			
Gaps in knowledge & recommendations for further study » Gathering of information on existing farming activities and operations **Recommendations with regards to general field surveys** » Site visit and interviews with community representatives and farmers			

5.3 Social Impacts during the Operation Phase

The positive and negative social impacts identified and evaluated for the **operational phase** include:

» Creation of local employment and business opportunities, skills development, and training
» The development of infrastructure for the generation of renewable energy
» Visual impacts and associated impacts on the sense of place

5.3.1 Potential Positive Impact: Creation of local employment and business opportunities, skill development and training.

Low educational levels in the Rand West City Municipality make it beneficial for the community in the long run to execute a capacity building and skills development training program. As people receive training, their income will rise, and their material and economic well-being will advance. The majority of individuals in the area work in mining, agriculture, and then community services. Since the energy industry is new to the area, the available talent pool is small. Members of the community will be able to work at other similar projects in the region with the help of their acquired skills.

Table 5-4- Scoping evaluation of potential impacts of Creation of local employment and business opportunities, skill development and training.

Impact			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Creation of local employment and business opportunities, skill development and training associated with construction phase	Direct impacts: » Creation of employment opportunities. » Creation of business and procurement opportunities. Indirect impacts: » Creation of training and skills development opportunities. » Support for local economy.	Local- Regional	N/A
Description of expected significance of impact The operational phase of renewable energy projects offers a comparatively small number of direct employment possibilities. Reviewing similar projects, however, reveals that there are other advantages to operating renewable			

energy plants that go beyond just creating employment opportunities. Although limited in number, the job opportunities provided will have a high positive impact for those individuals affected.
Gaps in knowledge & recommendations for further study
» Collection of information on local skills, educational levels and service sectors
Recommendations with regards to general field surveys
» Site visit and interviews with community representatives and other relevant stakeholders

5.3.2 Potential Positive Impact: The development of infrastructure for the generation of renewable energy

Most South Africa's energy requirements are now satisfied by coal, according to an analysis of prior projects. Although the projected Middelvlei will only make a relatively small contribution to South Africa's overall electricity grid, it will help offset the country's overall carbon emissions from the energy generation sector. The projected Middelvlei will benefit the energy sector in this regard as an Independent Power Producer (IPP) for renewable energy.

Table 5-5- Scoping evaluation of potential impacts of development of infrastructure for the generation of renewable energy

Impact			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Enhance the security of SA's energy supply and decrease coal dependence	Direct impacts: » Improve energy security » Support renewable energy » Reduce reliance on coal Indirect impacts: » Limited indirect impacts	Local - International	N/A
Description of expected significance of impact Due to supply shortages, South Africa's prolonged energy crisis, which began in 2007, has led to widespread rolling blackouts (also known as load shedding). The load shedding has significantly affected investor confidence as well as other economic sectors. In addition to addressing environmental problems related to climate change and the consumption of finite water resources, renewable energy facilities also create significant socio-economic opportunities and benefits, particularly for historically underprivileged rural communities. Although the project will only contribute up to 120MW to the electricity grid, this will aid in achieving government's planned shift in the energy mix to include renewable energy.			
Gaps in knowledge & recommendations for further study » collection and reviewing of information from previous similar projects **Recommendations with regards to general field surveys** » Desktop review on previous similar projects			

5.3.3 Potential Negative Impact: Visual impact and impact on sense of place.

The proposed development is located near the R559 and R28 route as well as nearby small holdings and housing developments. The visual exposure for the Middelvlei Solar energy facility would largely be concentrated on adjacent housing developments including the adjacent small holdings, the informal settlement, and a new housing area to the north of the site that was under construction at the time of reporting. The lightning and glare will affect the adjacent housing and the small holdings.

Table 5-6- Scoping evaluation of potential visual impact and impact on sense of place

Impact			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Impact on sense of place	Direct impacts: » Change in sense of place. Indirect impacts: » Limited indirect impacts	Local	N/A
Description of expected significance of impact Renewable energy projects do have the potential to impact on an area's sense of place in some instances, this can impact on the landscape of the surroundings. The findings of Visual Impact Assessment scoping report indicates that the impacts will be on primarily observers situated within a 3km radius of the facility and are expected to be moderate to high significance and can be mitigated.			
Gaps in knowledge & recommendations for further study » Collection of data on potential sensitive land uses and activities. » Review of Visual Impact Assessment **Recommendations with regards to general field surveys** » Site visit and interviews with local communities, officials from the municipality and landowners in the area.			

5.4 Social Impacts during the Decommissioning Phase

The key potential negative impact which is associated with the decommissioning phase of the proposed Middelvlei Solar Energy Facility relates to the loss of employment and income for those people employed at the facility.

5.4.1 Potential Negative Impact: Loss of local employment and income

The most likely negative impact of the decommissioning phase is the loss of employment and income, which has a direct impact on the employees' households and the communities in which they live. The identified impacts associated with the decommissioning phase can be managed through the implementation of downscaling programs and retrenchment packages.

Table 5-7-Impact assessment of Loss of income and employment

Impact: Decommissioning may result in the layoff of the people who worked during the operational phase.			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Impact of loss of employment and income	Direct impacts: » Loss of employment and income Indirect impacts: » impact on the local economy and other business	Local - Regional	N/A
Description of expected significance of impact Given the relatively small number of people expected to be employed during the operation phase, the social impacts associated with decommissioning are likely to be limited/minimal. Impacts on individuals are however expected to be of high significance but can be managed through the implementation of downscaling programs and retrenchment packages.			
Gaps in knowledge & recommendations for further study » N/A **Recommendations** » N/A			

5.5 Cumulative Impacts

The cumulative impact assessment considers the project in the context of other similar land uses in the local study area. Operational and historical mining features are within sighting distance of the proposed solar energy facility.

5.5.2 Cumulative Impact on Local Economy

The development of renewable energy facilities and associated infrastructure, such as the proposed solar energy facility, will create a number of socioeconomic opportunities for the Rand West City Local municipality. Positive cumulative opportunities include job creation, skill development and training, and downstream business opportunities. The potential cumulative benefits for the local and regional economies are thus associated with both the construction and operational phases of renewable energy projects and associated infrastructure and span a 25-year period. However, steps must be taken to increase employment opportunities for members of the surrounding communities and to support skill development and training programs.

Table 5-8- Cumulative impacts on Local economy

Impact: The establishment of renewable energy facilities and associated projects, such as the solar energy facility, in the RWCLM will generate jobs, opportunities for skill development and training, and the creation of downstream business opportunities.			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Cumulative benefits in terms of creating employment, business, and skill development opportunities for the local municipality	Direct impacts: » opportunities for employment, business and skill development for the local municipality Indirect impacts: » Promote local economic development	Local	N/A
Description of expected significance of impact The establishment of the proposed Middelvlei solar energy facility has the potential to create a number of socio economic opportunities for the Rand West City Local Municipality which in turn will result in a positive social benefit. The cumulative impact includes the creation of employment, skills development, training opportunities and creation of downstream business opportunities.			
Gaps in knowledge & recommendations for further study » Collection of data on the number of solar energy facilities proposed and the timing of construction phase and likely job opportunities. **Recommendations with regards to general field surveys** » interviews with local municipality and site visit			

5.5.1 Potential Negative Impact: Cumulative Impact on Sense of and the landscape

The potential cumulative impacts on the area's sense of place will be largely linked to potential visual impacts. The cumulative visual impact resulting from additional changes to the landscape caused by the proposed development, in combination with existing developments, is therefore considered to be minimal as the sense of place of the area is already one of mixed residential, agriculture and mining. This will be confirmed during the assessment phase.

Table 5-9- Cumulative impacts on sense of place and the landscape

Impact: Visual impacts associated with the establishment of more than one solar energy facility and the potential impact on the area sense of place and character of the landscape			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Cumulative impact on sense of place	Direct impacts: » Change in sense of place Indirect impacts: » Limited indirect impacts	Local	N/A
Description of expected significance of impact Renewable energy projects have the potential to have a cumulative impact on a community's sense of place. The potential sensitive visual receptors include the observers travelling along the secondary road traversing near the proposed development and residents of homesteads and farm dwellings within the 3km radius.			
Gaps in knowledge & recommendations for further study » Collection of data on location of sensitive visual receptors » Visual impact assessment to inform impact of sense of place **Recommendations with regards to general field surveys** » Site visit and interviews with local farmers, officials from the municipality and landowners in the area.			

5.7 "No Development" Alternative

The option of no-development poses a lost opportunity for South Africa to provide its consumers with renewable energy. This has a negative social cost for the nation. At a local level, this alternative would result in a lost opportunity in terms of job creation and socio-economic upliftment. However, it should be emphasized that the development of the suggested Middelvlei Solar Energy Facility is not a unique development. A significant number of renewable energy facilities are proposed in the Gauteng Province and already established renewable energy facilities are already operational in certain parts of South Africa. Therefore, adopting the no development alternative would not comprise the renewable energy development across the Gauteng Province and South Africa, but the socio-economic benefits to the West Rand City Local Municipality and the communities will be lost. The impacts associated with this alternative will be assessed in the EIA Phase of the process.

Table 5-10- Scoping evaluation of potential impacts of the do nothing alternative

Impact: The no-development option would result in the lost opportunity for South Africa to improve energy security and assist to support with the development of clean, renewable energy.			
Issue	**Nature of Impact**	**Extent of Impact**	**No-Go Areas**
Lost opportunity to produce clean, renewable energy and enhance energy security	Direct impacts: » No creation of employment business and skill development for the local municipality. » Potential impact on energy security Indirect impacts: » Limited indirect impacts	Local - National	N/A
Description of expected significance of impact The development of renewable energy project will increase energy security and have positive effects on the economy, employment, and chances for skill development. If Middelvlei Solar Energy facility is not developed these benefits will be lost.			
Gaps in knowledge & recommendations for further study			

» Assessment of impacts associated with the proposed development of the project in order to inform the significance of the do nothing alternative.

Recommendations with regards to general field surveys

» None

5.6 Plan of study for SIA

In the absence of a protocol for social impact assessment at a national level, the proposed approach for the detailed SIA is based on the Guidelines for SIA, which the Western Cape Provincial Environmental Authorities (DEA&DP) approved in 2007. The Guidelines are based on acknowledged international best practices, such as IAIA Guidance for Assessing and Managing Social Impacts and the Inter-organizational Committee on Guidelines and Principles for Social Impact Assessment's (1994) Guidelines and Principles for Social Impact Assessment (2015). The study approach will involve:

» Gathering information and reviewing of reports and baseline socio-economic data on the area.
» Identification of the elements involved in the construction and operational phase of the project, such as an estimate of total capital expenditure, number of employments created and breakdown of the employment opportunities in terms in skill levels.
» Review from key findings of specialist studies that have an impact on SIA, such as the Visual Impact Assessment (VIA), Soils and Agricultural Potential Impact Assessment and Heritage Impact Assessment.
» Undertake a site visit and interviews with key stakeholders and landowners.
» The project's construction, operational, and decommissioning phases all have potential implications, both positive and negative, which should be identified and evaluated.
» Identification and assessment of key issues, as well as assessment of potential impacts (both positive and negative) associated with the project's construction, operational and decommissioning phases.
» Identifying and assessing cumulative impacts (positive and negative).
» Identifying appropriate measures to avoid, mitigate, enhance and compensate for potential social impacts.
» Compilation of Social Impact Assessment (SIA) Report.

6. CONCLUSION AND RECOMMENDATIONS

6.1 Key findings and Recommendations

This section presents the final key findings and recommendations of the SIA. The key findings and recommendations are based on a review of the basic information identified during the EIA Scoping process, as well as a review of the policy and planning documents relating to the proposed Middelvlei Solar Energy Facility. A review of selected specialist studies, as well as similar projects and literature, was conducted. This section was compiled based on the results of the tasks that were completed during this study.

6.2 Key Findings

The main findings of the review of policy documents at all levels of government indicated that renewable energy, specifically solar energy, received strong support. The Republic of South Africa's White Paper on Energy Policy of 1998 stated that because renewable energy resources operate from an infinite resource base, such as the sun, renewable energy can increasingly contribute to long-term sustainable energy for future generations. This policy also emphasizes that, due to South Africa's unlimited renewable energy resource base, renewable energy applications such as solar and wind energy are more sustainable in terms of social and environmental costs.

Renewable energy applications are supported by policy documents at the provincial, district, and local levels. The use of renewable energies is not explicitly addressed in policy documents at the provincial, district, and local levels; however, the transition to low-carbon economies and the reduction of municipal areas' carbon footprint, as well as their support for alternative energies as an LED program, are mentioned. More employment opportunities are being created to reduce community vulnerabilities in order to ensure more resilient communities and a more sustainable economy.

According to a review of relevant policies and documents related to the energy sector, renewables such as solar energy and the establishment of these facilities are supported at all levels of government. The author of this SIA report believes that the establishment of the Middelvlei solar Energy Facility is supported by the policies and planning documents reviewed in this section at all levels of government.

6.3 Recommendations

The Social Impact Assessment conducted as part of the Scoping phase of the EIA process led to the following recommendations. To minimize the negative effects and maximize the beneficial effects, the suggested mitigation actions should be put into practice. The recommendations below are provided in light of the social assessment:

» In terms of the impacts on employment, it is important to consider that there are not many chances for unskilled and semi-skilled workers in the project area, which could lead to rivalry among the local unemployed. Therefore, bringing in outside labour is likely to make it harder for locals to find work, cause unrest, and put demand on the services that are already provided. To maximize the beneficial effects of job development in the area, local labour should be used. Wherever possible, local firms should be involved in the construction process. To make sure that the local communities benefit, it is essential to use local workers as far as possible. Thus, it is preferable to engage local labour whenever possible during the project's construction and operation phases.

- The environmental authorities should take into account the potential visual consequences of the project, which were covered in the Visual Impact Assessment (VIA).
- Identified impacts should be assessed in detail in the EIA Phase of the process and appropriate mitigation and enhancement measures recommended.

The findings of this report took into consideration the proposed project activities, the project's location, the socioeconomic environment's state at the time of the report's completion, and the project's eventual impact on this environment. Nevertheless, it should be highlighted that this analysis was exclusively desktop-based and excluded any use of source data (i.e. stakeholder participation or site investigations). During the impact assessment phase, it is likely that the identified impacts will change (including the significance of impacts and associated mitigation/enhancement measures) as more information becomes available from both the client's side and through the collection and assessment of primary data.

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