
Environmental Scoping and Management Report



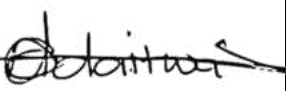
The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) within the Dundee Precious Metals Tsumeb's (DPMT) License Area Boundary in the Tsumeb Town, Oshikoto Region

JULY 30

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For Submission**

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ECC Application Reference number	APP-006164	
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Declaration of authorship

APPLICATION NUMBER: APP-006164

Project Title:

The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) within the Dundee Precious Metals Tsumeb's (DPMT) License Area Boundary in the Tsumeb Town, Oshikoto Region

I Lawrence Tjatindi (full name of Environmental Assessment Practitioner - EAP)

understand and agree that the information I have furnished in this submission will be reviewed by the Office of the Environmental Commissioner (OEC). I accept that the Environmental Commissioner, will hold me accountable in terms of Section 43(1)(b) of the Environmental Management Act, Act No. 7 of 2007 for any inaccurate or misleading information knowingly provided in the following documentation.

Tick the box (es) applicable to your submission:

- ☐ Pro Forma Environmental Contract for Prospecting Claim(s)
- ☐ Environmental Questionnaire for Prospecting
- ☒ Scoping report
- ☐ Environmental Impact Assessment (EIA)
- ☒ Environmental Management Plan (EMP)
- ☐ Consent from Relevant Authority

I certify, and, acknowledge that the provision of such information will impede the lawful carrying out of the duties, responsibilities and functions of the Environmental Commissioner. I declare that the information submitted is my own work. All direct or indirect sources used are acknowledged as references.

Consultancy Name: Enviro-Leap Consulting cc

EAP Signature: 

Date: 24/02/2025

NB- To be submitted jointly with Scoping Report, EIA, and EMP documents to the Office of the Environmental Commissioner

executive summary

Project Overview

Massaus and Titan Energy Solutions (Pty) Ltd (herein referred to as Massaus, the proponent), is a Namibian registered and owned company that ventures into capital project development with a focus on green solutions for power generation. Massaus is in the process of obtaining a license / approval from the Electricity Control Board of Namibia, and collaborating with the Dundee Precious Metals Tsumeb (DPMT) to develop a 20 MW Photovoltaic Solar generating plant that will augment the DPMT's power needs and or feeding the surplus generated energy into the national grid. The proposed solar park shall be located within the Dundee License Area (boundaries) in the Tsumeb Townland, in the Oshikoto Region.

Massaus aims to develop the solar energy project using PV technology (Figures 1) to generate electricity at its proposed Solar Park, which shall consist of approximate 15 000 – 20 000 panels. The project will help to decrease the country's dependency on traditional forms of energy by increasing the availability and use of solar energy. The generated electricity will be injected into the national grid, to support the country in meeting its renewable energy target.

Potential impacts may vary in terms of scale (locality), magnitude and duration e.g. minor negative impacts in the form of dust and noise pollution, and biodiversity disturbance i.e. clearing of vegetation especially during the construction phase (land preparation, leveling and installation of beams / stands and solar panels) will be experienced.

Need for the Project

Namibia, with its abundant sunlight and vast expanses of uninhabited land, stands at a pivotal juncture in the pursuit of sustainable energy alternatives. The need for clean, renewable energy sources has become increasingly urgent globally, driven by the escalating impacts of climate change and the imperative to transition away from fossil fuel dependence. As a semi-arid country, Namibia is particularly vulnerable to the adverse effects of climate change, including erratic weather patterns, water scarcity, and threats to agricultural productivity.

There are around 1 million Namibians ($\pm 54\%$) that lack access to electricity, which means that almost half of the country is without access, as the country has a population of approximately 2.45 million people (Tracking SDG7, 2020).

Critically, Namibia has the highest average theoretical PV Power Potential in the world. This immense potential in combination with the known environmental benefits of solar power (reduction of; CO₂ emissions; carbon footprints; and over reliance on fossil fuels) is an important driver for the proposed solar park development. Subsequently, this initiative aligns with Namibia's commitment to embracing renewable energy sources as a means to address the dual challenges of energy security and climate change.

Project Description

Massaus and Titan Energy Solutions (Pty) Ltd aims to develop the solar energy project using PV technology to generate electricity in Namibia. The project will help to decrease the country's dependency on traditional forms of energy by increasing the availability and use of solar energy. The generated electricity will be injected into the national grid, to support the country in meeting its renewable energy target. This project entails the transformation of relatively undeveloped piece of land in a proposed Solar Power Park, associated infrastructure and services. The proponent intends to install an approximate of a hundred and thirty thousand (~130 000) solar panel field on a maximum land area of 40 Hectares area to generate about 20 Mega Watt (MW) green energy. The infrastructure proposed for the entire Solar Power Plant (project) includes but is not limited to the following:

- Side-of-Pole Mount for Solar Panel and PV Modules.
- Administration Block.
- Storage and Security Rooms.
- Transmission line connected to NamPower.

The project works involve the construction and operation of a solar PV plant which includes:

- Planning and Design of Project Work – this compasses land acquisition; preliminary site investigations e.g. geotechnical assessments and topographical surveys; permit and other authorizations processes, planning and mobilization of logistics / materials.
- Site Preparation – this entails grading, landscaping, building roads and siding of project areas in order to make the sites free of obstruction prior to construction. It may also involve utilization of heavy machinery/equipment to fully prepare the landscape. This includes physically removing vegetation, any pre-existing concrete foundations.
- Building Foundation - this encompasses location of conduits into concrete shelters, placing rock in foundation bed to provide a firm surface for concrete, placing of rebar and pouring of concrete.
- Installation and Operation of plan – this entails the installation of all electrical and grounding equipment / material needed to run the plant, and continuous maintenance - it is necessary to determine plant and install all necessary electrical and grounding materials needed to power the project areas.

Need for an Environmental Impact Assessment

While increased economic activities can stimulate demographic changes and alter social, economic and environmental practices in many ways. Adverse environmental and socio-economic impacts have become a major area of concern for the business community, their customers, and other key stakeholders. As a result, companies seek to manage these impacts as part of their ethical and sustainable business conduct. Similarly, identifying, avoiding, mitigating and managing impacts, is a necessary condition for Massaus to undertake its operation in compliance with the environmental legislative requirements in Namibia.

Therefore, Massaus appointed Enviro-Leap Consulting cc to conduct an environmental assessment and facilitate the process of obtaining an Environmental Clearance Certificate.

Approach to the EIA Process

The assessment process consisted of a site visit to the project location and public consultation meetings with the Interested and Affected Parties (I&APs). An environmental scoping and management plan (EMP) were compiled and constitute the application for an Environmental Clearance Certificate submitted to the Ministry of Environment and Tourism (Office of Environmental Commissioner).

Overall Recommendation

Based on the findings of the environmental scoping assessment, which concludes that all potential negative impacts associated to the proposed Massaus energy generation operations are minimal and practical mitigation measures are available. Equally, the positive impacts can be harnessed to increase the net marginal benefits relating to the socio-economic aspects of the operations.

The proposed operations is considered to have an overall low negative environmental impact and an overall moderate positive socio-economic impact (with the implementation of respective mitigation and enhancement measures).

Based on this, it recommended that the proponent must upon obtaining their Environmental Clearance Certificate (ECC), implement all appropriate management and mitigation measures and monitoring requirements as may be stipulated in their EMP and or as condition of the ECC. These measures must be undertaken to promote and uphold good practice environmental principles and adhere to relevant legislations by avoiding unacceptable impacts to the receiving environment.

The following is a summary of the likely negative impacts that have been assessed for the different phases of the proposed energy generation activities:

- i. Land use (Likely impacts are negligible; the project area and site are distant from settlements, and conservation zones).
- ii. Noise (Likely impacts are low as the site is far from residential areas).
- iii. Ecological and biodiversity loss (Likely impacts are localized and low).
- iv. Health and safety (Overall likely impacts are low with correct PPE).
- v. Solid and hazardous waste management (Likely impacts are low with a solid waste management plan and minimal hydrocarbon fuel use).
- vi. Socioeconomic (Likely negative impacts are low)

Taking into consideration the findings of the environmental scoping assessment process and given the national and regional strategic requirements for infrastructure development and economic growth, it is the opinion of the EAP that the project benefits outweigh the costs and that the project will make a positive contribution towards steering Namibia on its pathway of meeting its renewable energy target.

Provided that the specified mitigation measures are applied effectively, it is recommended that Massaus are issued with an ECC in terms of the Section 32 of the EMA No. 7 of 2007 and it's EIA Regulations of 2012.

glossary

AfDB	African Development Bank
BID	Background Information Document
BoN	Bank of Namibia
CA	Competent Authority
CdTe	Cadmium Telluride
CIGS	Copper Indium Gallium Diselenide
CLO	Community Liaison Officer
DEAF	National Department of Environmental Affairs and Forestry
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
ECC	Environmental Clearance Certificate
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EPC	Engineering Procurement and Construction
GPS	Geographical Positioning System
KWh	Kilowatts Hour
KWp	Kilo Watts Peak
MME	Ministry of Solar plants and Energy
MEFT	Ministry of Environment, Forestry and Tourism
PV	Photovoltaic
PPP	Public Participation Process
SHE	Safety Health and Environment
UN	United Nations

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1. INTRODUCTION

The Environmental Management Act No. 7 of 2007 (also referred to as the EMA) and its Regulations promulgated in the Government Gazette No. 4878 of 2012, stipulates that for each developmental activity, which is listed as those that may not be undertaken without obtaining an Environmental Clearance Certificate (ECC), an Environmental Assessment (EA) must be conducted. The establishment, installation and operation of the proposed solar energy generation development triggers some listed activities in terms of the EMA.

Therefore, an environmental assessment must be conducted with an aim to identify, assess and ascertain potential environmental impacts that may arise as a result of undertaking the proposed operations. Hence, the environmental assessment is a process by which the potential impacts, whether positive or negative are predicted / identified, findings interpreted and communicating to interested and affected parties (I&APs) for inputs.

Additionally, this report presents findings of an environmental scoping process that evaluates the likely socio-economic and environmental effects the proposed operation, and further identifies suitable mitigation measures for avoiding or minimizing the predicted impacts. The envisioned EIA process was undertaken in a holistic approach encompassing different elements as shown in **Figure 1**.



Figure 1: Anticipated Environmental Assessment Timeline

1.1. PROJECT APPLICANT AND PROJECT OVERVIEW

Massaus and Titan Energy Solutions (Pty) Ltd (herein referred to as Massaus, the proponent), is a Namibian registered and owned company that ventures into capital project development with a focus on green solutions for power generation. Massaus is in the process of obtaining a license / approval from the Electricity Control Board of Namibia, and collaborating with the Dundee Precious Metals Tsumeb (DPMT) to develop a 20 MW Photovoltaic Solar generating plant that will augment the DPMT's power needs and or feeding the surplus generated energy into the national grid. The proposed solar park shall be located within the Dundee License Area (boundaries) in the Tsumeb Townland, in the Oshikoto Region.

Massaus aims to develop the solar energy project using PV technology (**Figures 1**) to generate electricity at its proposed Solar Park, which shall consist of approximate 15 000 – 20 000 panels.

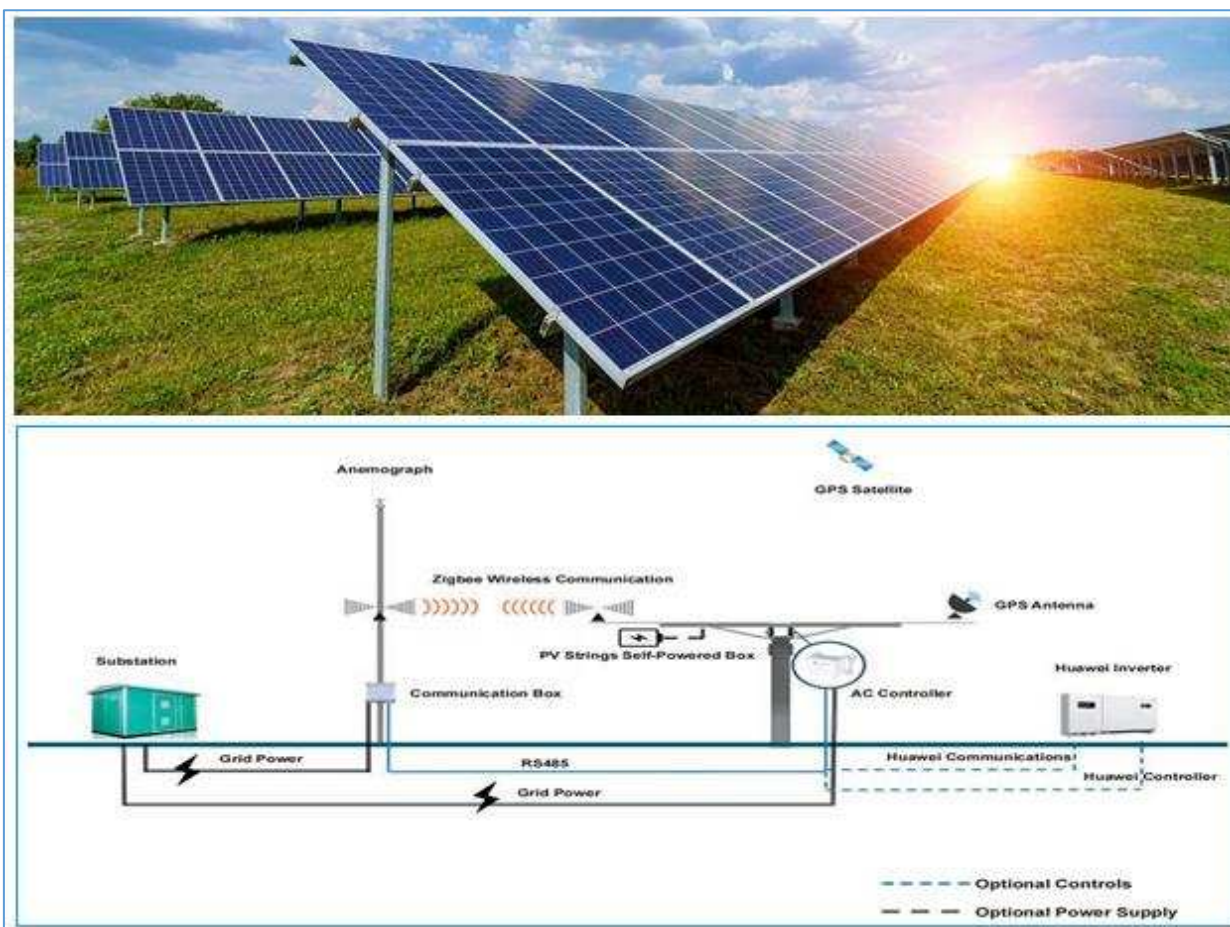


Figure 1: Illustration of a Grid linked PV Solar generating system (Source: internet, 2025)

The project will help to decrease the country's dependency on traditional forms of energy by increasing the availability and use of solar energy. The generated electricity will be injected into the national grid, to support the country in meeting its renewable energy target.

1.2. PROJECT MOTIVATION (INCLUDING NEED AND DESIRABILITY)

Namibia, with its abundant sunlight and vast expanses of uninhabited land, stands at a pivotal juncture in the pursuit of sustainable energy alternatives. The need for clean, renewable energy sources has become increasingly urgent globally, driven by the escalating impacts of climate change and the imperative to transition away from fossil fuel dependence. As a semi-arid country, Namibia is particularly vulnerable to the adverse effects of climate change, including erratic weather patterns, water scarcity, and threats to agricultural productivity.

There are around 1 million Namibians ($\pm 54\%$) that lack access to electricity, which means that almost half of the country is without access, as the country has a population of approximately 2.45 million people (Tracking SDG7, 2020).

Critically, Namibia has the highest average theoretical PV Power Potential in the world. This immense potential in combination with the known environmental benefits of solar power (reduction of; CO₂ emissions; carbon footprints; and over reliance on fossil fuels) is an

important driver for the proposed solar park development. Subsequently, this initiative aligns with Namibia's commitment to embracing renewable energy sources as a means to address the dual challenges of energy security and climate change.

1.2.1. Need and Desirability

Namibia's average consumption rate surpasses 3000GWh/year, while its generation capacity is around 1305GWh/year. The supply gap is covered by imports from South Africa, Zambia and Mozambique. Namibia's generated electricity is mainly from:

- 260 MW hydro-electric power plant on the Kunene river in Ruacana;
- 120 MW van Eck coal-powered plant north of Windhoek;
- Paratus 24 MW heavy fuel-oil powered plant in Walvis Bay;
- 5.78 MW solar plant in Trekkopje in the Erongo region;
- 22 MW ANIXAS diesel power station at Walvis Bay;
- 20 MW Omburu PV Power plant in Omaruru; and
- 45.5MW solar park in Mariental.

Equally, the National Climate Change strategy and action plan 2013-2020 addresses actions on reducing current and future emissions including renewable energy sources and energy efficient technology. Thus Namibia has committed itself to increase the share of renewable energy to about 70 % of electricity by 2030.

Further, going ahead with the proposed activity creates potential for the following marginal net benefits:

- Contribution to Taxes and Royalty
- Technological Skill and Knowledge transfer
- Creates the most needed employment opportunities
- Attainment of the SDGs 1 and 8 in Namibia

1.3. REQUIREMENTS FOR AN ENVIRONMENTAL IMPACT ASSESSMENT

While increased economic activities can stimulate demographic changes and alter social, economic and environmental practices in many ways. Adverse environmental and socio-economic impacts have become a major area of concern for the business community, their customers, and other key stakeholders. As a result, companies seek to manage these impacts as part of their ethical and sustainable business conduct. Similarly, identifying, avoiding, mitigating and managing impacts, is a necessary condition for Massau's Investment cc to undertake its operation in compliance with the environmental legislative requirements in Namibia.

To ensure that development activities are undertaken in an economic, social and environmental sound / sustainable manner, the Namibian Constitution and Environmental Management Act No. 7 of 2007 provides for an environmental assessment process.

The purpose of the environmental assessment and therefore this report are to ensure compliance of the proposed operations with the environmental legislation in respect to

managing potential impacts associated with the proposed Massaus Investment cc Energy generation operations:

- Identifying potential socio-economic and environmental impacts
- Proposing management measures to avoid, prevent and of mitigate these
- Compile an Environmental Management for compliance monitoring and reporting on the implementation of the Environmental Clearance Certificate conditions

Table 1: List of activities identified in the EIA Regulations which apply to the proposed project

EMA No. 7 of 2007 Aspect	Description of activity	Relevance to Massaus Solar Plant Activities
Activity 1: Energy Generation, Transmission and Storage Activities	The construction of facilities for - (a) the generation of electricity; (b) the transmission and supply of electricity;	The proposed development entails the construction of facilities for the purpose of carrying out a listed activities i.e. installation of a solar plant and other associated linear infrastructure i.e. power line and substation upgrades.
Activity 4: Forestry Activities	4. The clearance of forest areas, deforestation, afforestation, timber harvesting or any other related activity that requires authorization in term of the Forest Act, 2001 (Act No. 12 of 2001) or any other law.	The proposed development will require a portion of the land area to cleared of vegetation in order to create a levelled surface on which the solar panel field will be installed
Activity 9: Hazardous Substance Treatment, Handling and Storage	9.4 The storage and handling of a dangerous goods, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic meters at any one location.	The proposed development shall include activities for which during construction a back-up generator may be needed that necessitate the storage of fuel on-site, although less than 30 cubic meters
Activity 10: Infrastructure	10.1 The construction of- (b) public roads; (f) cableways;	The proposed development may include the construction or laying of powerlines

Therefore, Massaus appointed Enviro-Leap Consulting to conduct an environmental assessment and facilitate the process of obtaining and Environmental Clearance Certificate.

1.4. EIA TEAM

As previously noted, Enviro-Leap Consulting (see **Table 2** for the composition of ELC's team for this EA) has been appointed by Massaus to undertake the environmental assessment required for the proposed project. A public participation process (PPP) forms an integral part of the Environmental Assessment Process to aid in identifying issues and possible alternatives for consideration. Details on the PPP are included in section 4 of this Scoping Report.

Table 2: The EIA Management Team

NAME	ORGANISATION	ROLE/ SPECIALIST STUDY UNDERTAKEN
Environmental Assessment Practitioners		
Lawrence Tjatindi	Enviro-Leap Consulting cc	Environment Practitioner
Shadrack Tjiramba	Enviro-Leap Consulting cc	Internal Reviewer

1.5. DETAILS AND EXPERTISE OF THE EAP

Over the past four years the Enviro-Leap Consulting has been involved in a multitude of Environmental Assessment projects across SADC and within Namibia. The Environmental Practitioners of Enviro-Leap Consulting has a combined of more than 35 years' experience in the environmental sector (management and policy), ecological research and stakeholder engagement. Consequently, the team offers a wealth of experience and appreciation of the environmental and social priorities and national policies and regulations in Namibia.

1.6. OBJECTIVES OF THE ENVIRONMENTAL SCOPING ASSESSMENT

The primary objective of this EA Report is to present stakeholders, I&APs and the Competent Authority, the DEA, with an overview of the predicted impacts and associated management actions required to avoid or mitigate the negative impacts; or to enhance the benefits of the proposed Massaus development.

In broad terms, the 2012 EMA EIA Regulations (GG 4878) stipulates that an EIA Process must be undertaken providing to determine plant the potential environmental impacts, mitigation and closure outcomes, as well as the residual risks of any listed activity. Therefore, based on these (EIA Regulations), the objectives of the Environmental Assessment (EA) Process is to:

- determine plant the policy and legislative context within which the activity is located and note how the proposed activity complies with and responds to the policy and legislative context;
- describe the need and desirability of the proposed activity, including the need and desirability of the activity in the context of the preferred location;
- identify the location of the development footprint within the preferred site based on an impact and risk assessment process inclusive of cumulative impacts and a ranking process of all the identified development footprint alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects of the environment;
- determine plant the nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives; and the degree to which these impacts (a) can be reversed; (b) may cause irreplaceable loss of resources, and (c) can be avoided, managed or mitigated; and
- identify suitable measures to avoid, manage or mitigate identified impacts;

In terms of legal requirements, a crucial objective of the Environmental Scoping or EIA Report is to satisfy the requirements of EIA Regulations in respecting to obtaining an Environmental Clearance Certificate. This section regulates and prescribes the content of the Scoping Report and specifies the type of supporting information that accompany the submission of the ECC application to the Competent Authority.

2. PROJECT DESCRIPTION

This section provides an overview of the conceptual overview of the Massaus proposed solar energy project using PV technology to generate electricity, sites and technology selection process for identifying the most suitable energy generation techniques to be adopted.

2.1. OVERVIEW OF THE PROPOSED SOLAR ENERGY GENERATION ACTIVITIES

Massaus and Titan Energy Solutions (Pty) Ltd aims to develop the solar energy project using PV technology to generate electricity in Namibia. The project will help to decrease the country's dependency on traditional forms of energy by increasing the availability and use of solar energy. The generated electricity will be injected into the national grid, to support the country in meeting its renewable energy target. Below is a brief description of the proposed main project components.

2.1.1 PV Modules, Inverters and Trackers

The PV module is the main element that composes the generator or solar field. It transforms the received solar radiation into usable electricity (DC, direct current) by means of the photovoltaic effect through its several silicon cells that form the module. The project shall consist of 13 inverters (with a 25 MW capacity), the power plant controller shall be installed in order to manage all the inverters and Grid Requirements.

To enhance optimum solar uptake, the proposed plant may explore a tracking system such as the Axone horizontal single-axis tracker, which aims at minimizing the angle of incidence between the incoming irradiance and the panel, rotating on its axis back and forth in a single direction, with an inclination range of +45 to -45 degrees.



Figure 2: Illustrate the typical installation of solar panel filed, similar to which Massaus envisage to install

Equally, it is imperative for the PV Solar to connect to the existing grid. This will require transformation of the voltage from 240V to 33kV to 66kV. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 240 V and this is fed into step up transformers to 66 kV. An onsite substation might be required to step the voltage up to 132kV, after which the power will be transmitted into the national grid.

2.1.1 Connection Boxes, Wiring and Grounding / Lightning Protection

For Massaus to produce up to 20 MW, the proposed facility will require numerous linked cells placed behind a protective glass sheet to form a panel. Multiple panels will be required to form the solar PV arrays which will comprise the PV facility. The PV panels will be tilted at a northern angle in order to capture the most sun. The solar field presents two association levels:

- Solar panels fixed mounted 24240 x 550w Canadian solar panels
- Parallel association of strings (modules connected in series);
- Parallel association of buses.

The parallel association of strings will be made directly throughout the tracker by means of technology specialized for this purpose; both string poles shall be connected to their corresponding bus. All materials will be of high conductivity copper with the sufficient section to assure the required Safety principles, in compliance with local standards.

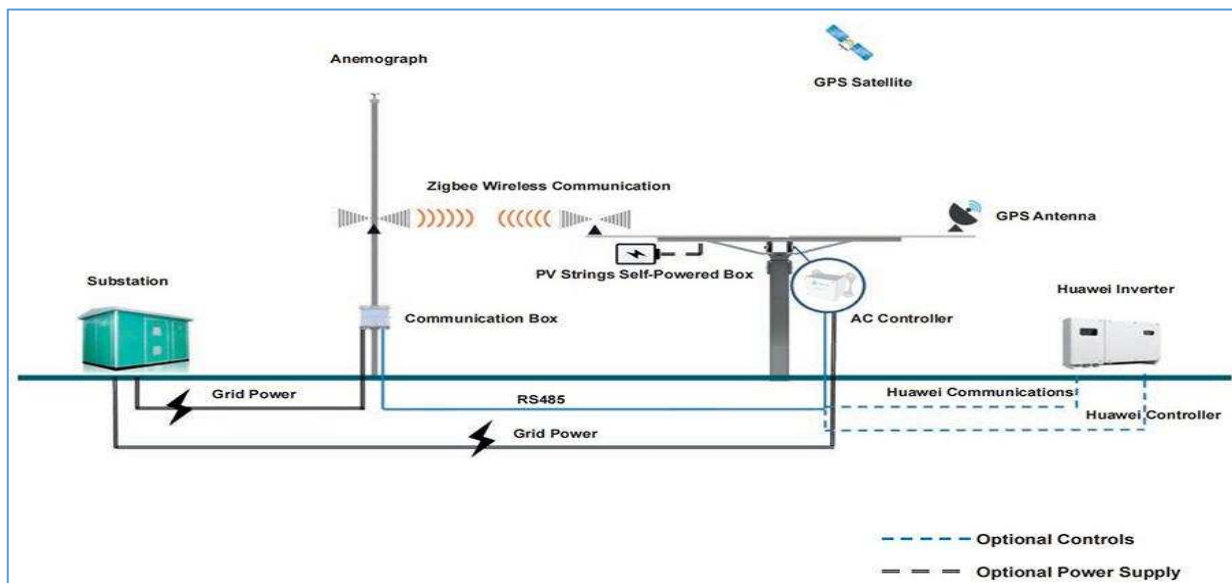


Figure 3: Schematic illustration of a complete solar park circuit layout and associated infrastructure

Table 3: Technical details for the proposed facility

Component	Description / dimensions
Height of fencing	Approximately 2.5 meters
Height of PV panels	1,5 meters
Area of PV Array	40 Hectares
Area to be occupied by laydown areas	<ul style="list-style-type: none">• Permanent Laydown Area: 250 Hectares• Construction Laydown Area: ~1500 m²
Other possible buildings	<ul style="list-style-type: none">• Security Room: ~40 m²• Office: ~200 m²• Staff Locker and Changing Room: ~200 m²
Number of inverters required	Minimum 13
Area occupied by inverter / transformer station/ substations	<ul style="list-style-type: none">• Inverter Transformer Station: ~250 m²• Substation: 15 400 m²
Capacity of on-site substation	132kV
Proximity to grid connection	Approximately 2.5 kilometres

2.1.1 Monitoring and Control System / Station

The Monitoring and Control System shall be composed of a SCADA application (Supervisory Control and Data Acquisition), hosted in a local server installed in the Control Station of the plant and several Remote Terminal Units (RTU), installed in each inverter area, that acquire data generated by inverters, field metering, solar tracker and protection devices to an estimated value of N\$612,000,000.00.

In addition, the control station shall be equipped with the necessary equipment according to Occupational Risks Prevention national normative and to Fire Protection Standards.

2.1.1 Civil Works and Security System

All construction activities shall occur within the site boundary limits with the exception of those activities related to the interconnections between the site and the common infrastructures i.e. powerlines connecting to the NamPower Substation situated about 2.5 km south of the proposed plant. Foundations and site conditioning shall be made according to the requirements, local and or national civil construction standards, Topographical and Geotechnical study of the site. All the foundations shall endure any load or combination of loads due to wind.

A boundary fence systems designed to prevent the intrusion of outsiders and provide protection against theft and vandalism, shall be installed around the premises. This system is structured in different areas; the anti-intrusion system and camera system, which are continuously in operation and under surveillance. The system shall cover the strategic locations and sensitive areas of the project, for comprehensive surveillance and monitoring from central control room. A fence shall be installed in the perimeter of the site according to local standards. It shall be covered with the necessary number of cameras, maintaining the capability of anti-intrusion detection.

2.2. PROJECT LOCATION

The Dundee Precious Metals Tsumeb, is located with the Tsumeb Townlands north-eastern part of the town, and is directly accessible via the B1 (Trans-Oranje Highway), and then we serviced on-site access roads. This means for logistical supplies, the project site is positioned well within reach of a well-developed road network. Other section of the project will only be accessed by foot to ensure minimum impacts on the receiving environment.

Table 4: Corner coordinates of the proposed development site

Corner point	Latitude	Longitude
A – Site Corner point 1	19°14'18.41"S	17°43'24.49"E
B – Site Corner Point 2	19°14'2.01"S	17°43'31.23"E
C – Site Corner Point 3	19°14'9.78"S	17°43'57.23"E
D – Site Corner Point 4	19°14'25.20"S	17°43'47.92"E



Figure 4: Shows the location and extent (40 Hectares) of the proposed Massaus PV Solar Park on Tsumeb, Oshikoto Region

2.3. SUPPORTING INFRASTRUCTURE

2.3.2 Water supply

Adequate water provision for the whole development is required for domestic as well as for the construction of foundation mainly for mixing concrete and cement mixture. Fortunately the Tsumeb Town is connect to a NamWater Water Supply Scheme pipeline, thus there shall be sufficient water to meet the requirements for the proposed project. The demand of water expected to be approximately 15m³ per month during construction and approximately less than 50m³ per month average over the period of operation. This demand can be supplied through the existing village water supply system. The majority of this usage is for the cleaning of the solar panels.

2.3.3 Power supply

Electricity use will be limited and will primarily be related to the lighting of the facility and domestic use. Design measures such as the use of energy saving light bulbs would be considered by the developer. During the day, electricity will be sourced through the photovoltaic plant, stored with the appropriate systems (batteries) of the plant itself, which shall then partially used to power-up the plant's premises at night.



Figure 5: Shows key NamPower energy infrastructure within the proximity of the site

However, only during the construction phase that power shall be sourced from the nearby grid lines. As the proposed plant site is located well with reach of the NamPower grid infrastructures (Substation and powerlines, **Figure 5**). These power infrastructure will form a pivotal component of the proposed solar plant, as both a storage and distribution platform.

2.3.4 Access roads / tracks

Massaus site within the Dundee Precious Metals Tsumeb, is located with the Tsumeb Townlands north-eastern part of the town, and is directly accessible via the B1 (Trans-Oranje Highway), and then we serviced on-site access roads. This means for logistical supplies, the project site is positioned well within reach of a well-developed road network. Other section of the project will only be accessed by foot to ensure minimum impacts on the receiving environment.

Other section of the Project will only be accessed by foot to ensure minimum impacts on the receiving environment.

2.3.5 Waste (Domestic / Hazardous) Management

Domestic Waste: Different waste containers will be provided onsite for waste sorting and safe disposal of waste generated onsite. These will be collected on a weekly basis and sent to nearest approved waste management facility in the area such as Tsumeb waste disposal / landfill site. To further enhance, environmental protection, the proponent may consider use of delivery trucks as secondary transport vehicle for the collection and delivery of waste from the site to the disposal site. This is key considering that usually delivery vehicles returns without load after delivery of materials to project sites, this shall aid in the reduction of traffic and consequently reducing traffic associated impacts i.e. dust plumes and accidents.

Sanitation: Portable ablution facilities with septic tanks will be put up for sanitation purposes for the solar power generation teams and will be emptied in good time according to manufacturers' instructions.

2.4. DECOMMISSIONING AND CLOSURE PHASE

Taking into consideration that the proposed project does not involves major construction activities but limited to fences and concrete beams / stands, decommissioning might only be necessary after the 25 year life-span of the panels and only in case they are not to be replaced with new ones that they be operated for another similar period.

Consequently, any impacts associated by default with this phase of a project are not assessed in details at this stage. Although the following may apply:

- The PV facility would be disconnected from the NamPower grid
- The inverters and PV modules would be disconnected and disassembled
- Concrete foundations (if used) would be removed and the structures would be dismantled
- The underground cables would be unearthed and removed and buildings would be demolished and removed
- The fencing would be dismantled and removed.
- The roads can be retained should the landowner choose to retain them, alternatively the roads will be removed and the compaction will be reversed.
- Most of the wires, steel and PV modules are recyclable and would be recycled to a reasonable extent. The Silicon and Aluminium in PV modules can be removed and reused in the production of new modules.

3. DESCRIPTION OF THE AFFECTED ENVIRONMENT

This chapter of the Scoping Report provides an overview of the affected environment for the proposed energy generation activities. The receiving environment is understood to include biophysical, socio-economic and heritage aspects which could be affected by the proposed development or which in turn might impact on the proposed development.

3.1 BIOPHYSICAL ENVIRONMENT

Namibia is characterized by four land type systems, the Namib, which runs along the entire west coast from the port town of Lüderitz, northwards into southern Angola; the Succulent Karoo which lies south of Lüderitz and extends across the Orange River into South Africa; the Nama Karoo which occurs immediately to the east of the previous two desert systems and covers most of the southern third of Namibia, tapering to a narrow belt from central Namibia northwards; and the Southern Kalahari which extends eastwards across to Botswana. However, the Trans-Zambezi route only crosses through three of these, namely the Namib Desert, Nama Karoo and the tree and shrub savannah.

3.1.1 Climatic Conditions

About 22% of Namibia's land is classified as desert (hyper-arid), 70% is classified as arid to semi-arid and the remaining 8% is classed as dry sub-humid (Mendelsohn et al. 2003). Most of the country receives an annual average of more than nine hours of sunlight per day. The north and south of the country experience the highest temperatures with the average maximum for the hottest month being over 34°.

At Tsumeb, the summers are long and hot; the winters are short, cool, and windy; and it is dry and mostly clear year round (**Figure 6**). The average annual temperature of the area is between 20 – 22°C, with an average maximum of 32 - 34°C and minimum of 4 - 6°. The hottest month usually being December and coolest month being July, with an average of 1 to 5 frost days per year (Mendelsohn et al. 2003).

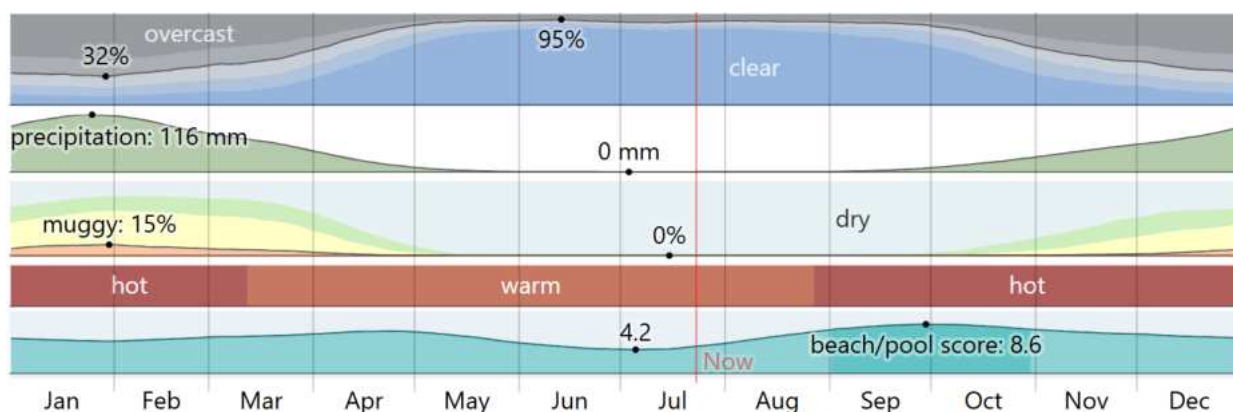


Figure 6: The summary of the climate at Tsumeb by month, Oshikoto Region

The hot season lasts for 4.3 months, from November 11 to March 21, with an average daily high temperature above 32°C (**Figure 7**). The hottest month of the year in Tsumeb is *January*, with an average high of 35°C and low of 21°C.

The cool season lasts for 2.8 months, from May 25 to August 18, with an average daily high temperature below 24°C. The coldest month of the year in Tsumeb is *July*, with an average low of 8°C and high of 22°C.

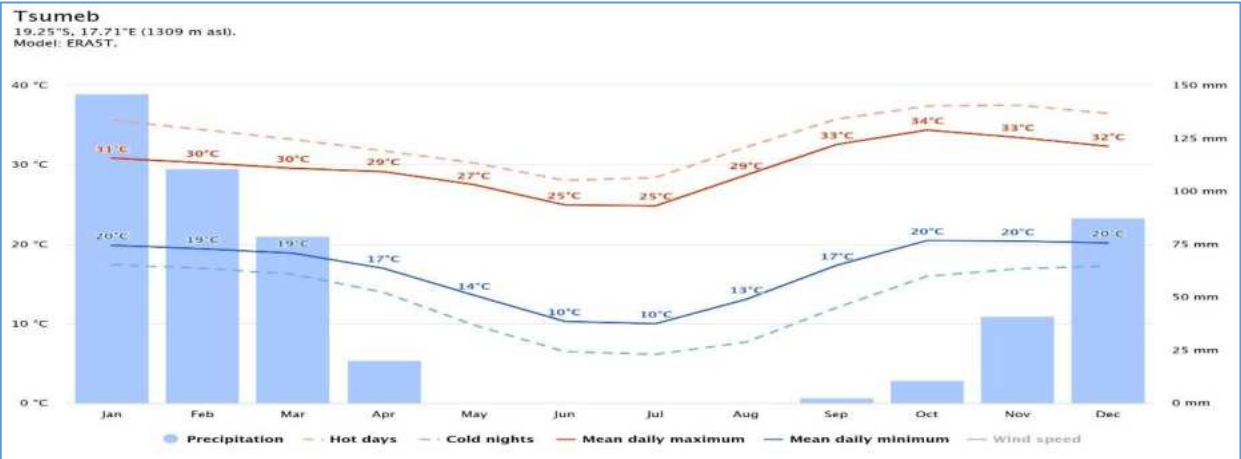


Figure 7: The summary of average temperatures, with daily average high (red line) and low (blue line) temperature, with 25th to 75th and 10th to 90th percentile bands. The thin dotted lines are the corresponding average perceived temperatures.

Below is the total daily incident shortwave solar energy reaching the surface of the ground over a wide area, taking full account of seasonal variations in the length of the day, the elevation of the Sun above the horizon, and absorption by clouds and other atmospheric constituents. Shortwave radiation includes visible light and ultraviolet radiation. The average daily incident shortwave solar energy experiences significant seasonal variation over the course of the year.

The brighter period of the year lasts for 3.9 months, from September 17 to January 14, with an average daily incident shortwave energy per square meter above 7.0 kWh. The brightest month of the year in Tsumeb is *October*, with an average of 7.4 kWh. (**Figure 8**).

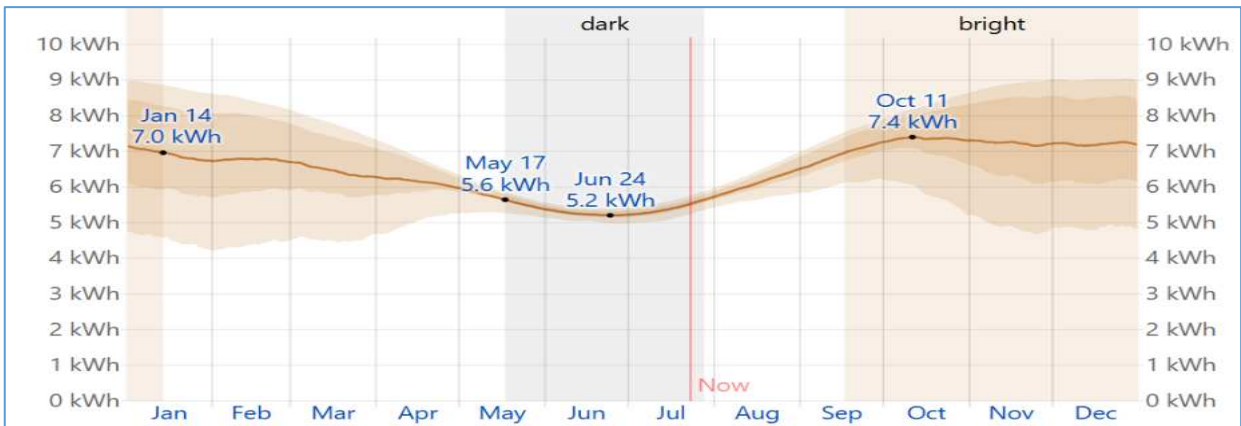


Figure 8: The summary of average daily incident shortwave solar energy, with average daily shortwave reaching the ground per square meter (orange line), with 25th to 75th and 10th to 90th percentile bands.

The darker period of the year lasts for 2.3 months, from May 17 to July 28, with an average daily incident shortwave energy per square meter below 5.6 kWh. The darkest month of the year in Tsumeb is June, with an average of 5.3 kWh.

Rainfall is highly erratic and unpredictable with an inter-annual coefficient of variation that ranges from about 30% in the north-east to over 100% in the driest areas. A wet day is one with at least 1.00 millimeters of liquid or liquid-equivalent precipitation. The chance of wet days in Kalkrand varies throughout the year.

The rainy period of the year lasts for 4.9 months, from November 29 to April 25, with a sliding 31-day rainfall of at least 13 millimetres. The month with the most rain in Tsumeb is February, with an average rainfall of 33 millimetres. The rainless period of the year lasts for 7.1 months, from April 25 to November 29. The month with the least rain in Tsumeb is August, with an average rainfall of 0 millimetres.

The wetter season lasts 3.3 months, from January 2 to April 12, with a greater than 9% chance of a given day being a wet day. The month with the most wet days in Tsumeb is February, with an average of 4.6 days with at least 1.00 millimetres of precipitation (**Figure 9**).

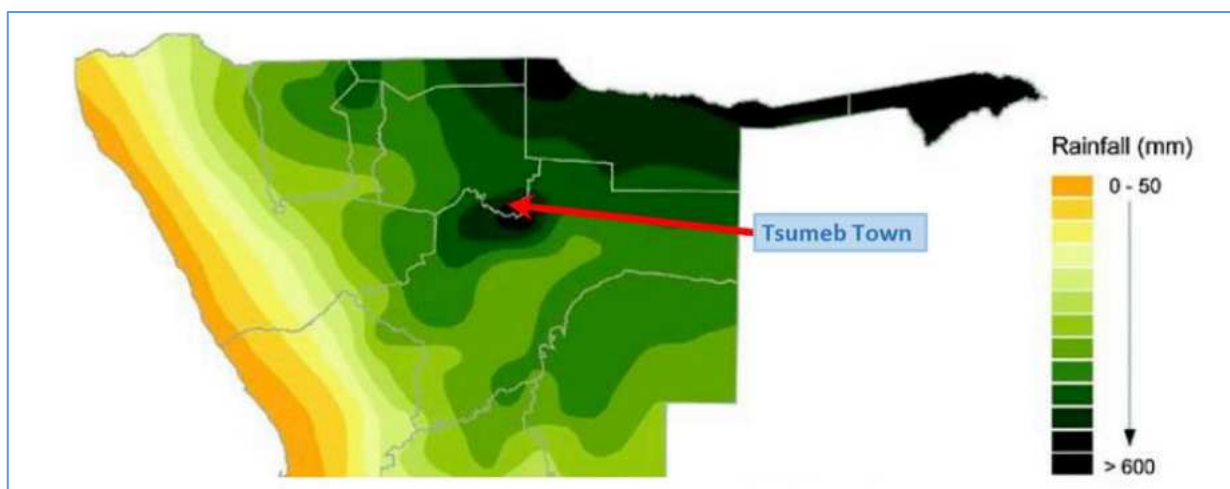


Figure 9: The summary rainfall, with average rainfall at site ranging between 450 and 550 ml pa.

The drier season lasts 8.7 months, from April 12 to January 2. The month with the fewest wet days in Tsumeb is August, with an average of 0.1 days with at least 1.00 millimetres of precipitation. Based on this categorization, the most common form of precipitation throughout the year is rain alone, with a peak probability of 22% on January 26.

On Tsumeb, the predominant average hourly wind direction varies throughout the year. Although the prominent winds blows from the north for 5.6 months, from May 18 to November 5, with average wind speeds of more than 3.9 meters per second (**Figure 10**). The windiest month of the year in Tsumeb is September, with an average hourly wind speed of 4.5 meters per second. The calmer time of year lasts for 6.4 months, from November 5 to May 18. The calmest month of the year in Tsumeb is February, with an average hourly wind speed of 3.2 meters per second (Robertson et. al, 2012).

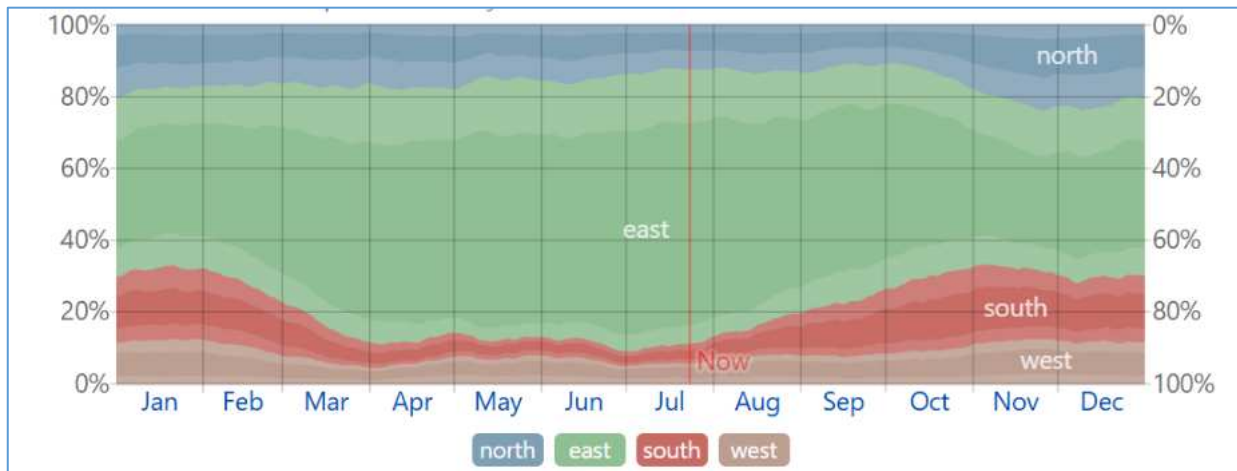


Figure 10: The summary of the windrose (speed and direction), the mean wind direction is from each of the four cardinal wind directions, and the lightly tinted areas at the boundaries are the percentage of hours spent in the implied intermediate directions (northeast, southeast, southwest, and northwest).

3.1.2 Geology and Topography

The geology of the Tsumeb area is characterized by dolomites of the Otavi Group (composed entirely of shallow marine deposits), which is a subgroup of the Damara Supergroup and Gariep Complex⁶. The smelter is located on the dolomites of the Huttenburg Formation. These dolomites house the Tsumeb deposits which contain an extraordinary diversity of ores. The Tsumeb area is considered as being in a high soil fertility zone, however high fertility soil may not cover the whole of the area and varies in quality from very fertile red loam through black turf to chalky clay and loam. Tsumeb is located at the end of a seam of soil which is dominant in Chromic Luvisols soil; soils with bright colours which has good water-holding capacity and is well drained. Luvisols typically comprise an accumulation of clay that has settled some depth below the surface⁷.

The topography within 3 kilometers of Tsumeb contains significant variations in elevation, with a maximum elevation change of 160 meters and an average elevation above sea level of 1,301 meters. Within 16 kilometers contains significant variations in elevation (503 meters). Within 80 kilometers contains very significant variations in elevation (1,020 meters).

3.1.3 Terrestrial Ecology and Sensitivity

Namibia's vegetation and biomes are classified into five major types, shown in (Figure 12). These are, the Namib Desert, Nama Karoo, Succulent Karoo and the Trees and Shrub savannah. The area within 3 kilometres of Kalkrand is covered by grassland (99%), within 16 kilometres by grassland (93%), and within 80 kilometres by grassland (84%) and sparse vegetation (15%).

Overall terrestrial diversity of plants and animals is highest in the north-eastern parts of Namibia (Figure 11, green map indicator), because of the higher rainfall and presence of wetlands and forest habitats that are not found elsewhere in the country. Many species in the north are also more tropical, with ranges that extend into neighbouring countries to the

north and north-east. Species richness is highest in Namibia's mesic wetlands and woodlands in the vertebrate classes particularly (Barnard 1998). The area within 3 kilometers of Tsumeb is covered by grassland (51%) and artificial surfaces (42%), within 16 kilometers by grassland (54%) and trees (23%), and within 80 kilometers by grassland (62%) and trees (22%).

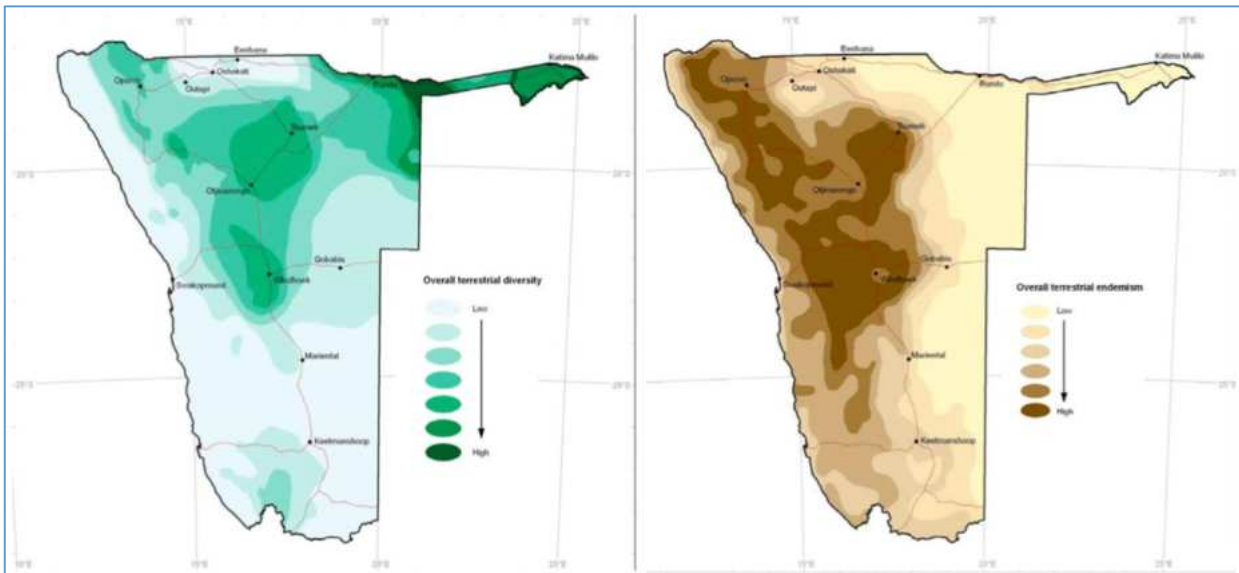


Figure 11: Shows a comparison of overall terrestrial species diversity (green) against overall endemism (brown), with the most endemism observed within operations route resulting in a “Red Flag” in terms of environmental risks.

The study area is located within the Dolomite Karstveld vegetation type, which is classified as woodland. The Dolomite Karstveld vegetation type is fairly represented in the protected area network of Namibia as it extends into the Etosha National Park. Generally, the area around Tsumeb provides suitable habitat for species of conservation concern such as the damara dik-dik, Namibian dwarf python, leopard tortoise and possibly endemic birds such as Carp’s black tit and Ruppel’s parrot.

Although the habitat is suitable, the sighting of wildlife around the mine is not common and species such as kudu, steenbok, and ground squirrels are observed occasionally. The vegetation structure around the smelter comprises of a diverse plant community and can be described as a savannah thicket. The site is dominated by tall tree species such as *Terminalia prunoides*, *Sclerocarya birrea*, *Berchemia discolor*, *Spyrostachys africanum*, *Combretum apiculatum*, *Commiphora glaucescens* and *Kirkia acuminata*. The tree canopy is supported by a shrub layer, which comprises of species such as *Grewia bicolor*, *Croton gratissimus*, *Rhigozum brevispinosum* and *Catophractes alexandri*.

3.2 SOCIO-ECONOMICAL ENVIRONMENT

3.2.1 Demographic Profile

The Oshikoto Region is one of Namibia’s thirteen regions. The capital of the region is Omuthiya Town. The region borders Ohangwena in the north, Kavango in the east, Otjozondjupa in the southeast, Kunene in the southwest, and Oshana in the west and consists of ten constituencies, namely: Eengondi, Guinas, Okankolo, Olukonda, Omuntele,

Omuthiyagwiipundi, Onayena, Oniipa, Onyaanya, and Tsumeb. The main economic activities are farming and mining. Tourism also plays an important role.

Key sectors in terms of employment in the Oshikoto region are agriculture (49%), followed by administration and support services (7%), education (6%), activities of private households (6%) and manufacturing (3%). In 2012, unemployment within the Oshikoto Region was estimated at 26.4 % and in Tsumeb at 36 %¹⁰.

The population of the Oshikoto Region increased from 181 973 in 2011 to 257 302 in 2023. Of this total, males make up 49.5% of the population in the region (NSA, 2023)¹¹. Population growth since 2011 has also been robust according to municipal officials and other sources. Though not based on official statistics, the Tsumeb community needs assessment conducted for DPM Tsumeb in 2015 found it likely that Tsumeb's population has grown by at least 25% since 2011 to over 25 000 inhabitants driven primarily by the growth of informal settlements (Yarmoshuk, 2015).

The migration of people from rural to urban areas is generally a trend being experienced across the country. In this regard, a 2015 Country Profile report by the International Organization for Migration (IOM) indicated that the urban population of Namibia grew by a staggering 49.7% between 2001 and 2011, with this trend continuing. Urbanization is noted as an important phenomenon in Namibia with major implications in terms of access to land and health, and development challenges¹².

The town of Tsumeb has experienced a fair share of migration which resulted in establishment of Kuvukiland in 2009, an informal settlement on the outskirts of town. The establishment of Kuvukiland as an informal settlement presented (and to some extent still presents) the opportunity of cheap land to settle on irrespective of a particular migrant's perception of the employment potential of general Tsumeb area.

3.2.2 Heritage and Culture Profile

In Namibia, archaeological resources are often vulnerable to developmental and mining impacts. Typical sites do not only include those found in the mountains, hills and outcrops but also those generally found in the flat areas (Namib Desert) and or in riverbeds.

Some of these site types are might be obvious to some observer, such as rock art or historical solar plants. Others are quite ambiguous and might appear less significant than they are, such as pre-colonial stone features.

Tsumeb (Otjiherero: Okavisume, Khoekhoe: ‡Aixorobes) is a city of around 35,000 inhabitants and the largest town in the Oshikoto region in northern Namibia. The town was founded in 1905 by German colonial power and celebrated its 100th year of existence in 2005.

The name Tsumeb is generally pronounced "SOO-meb". The name is not a derivative of German, Afrikaans, or English. It has been suggested that it comes from Nama and means either "Place of the moss" or "Place of the frog". Perhaps this old name had something to do with the huge natural hill of green, oxidized copper ore that existed there before it was mined out.

4. APPROACH TO EIA PROCESS AND PUBLIC PARTICIPATION

This chapter presents the approach to the Environmental Scoping Assessment process, for the proposed Massaus energy generation activities and gives particular attention to the legal context and guidelines applicable to this assessment. The assessment approach and the steps in the Public Participation component of this scoping report were undertaken in accordance with Regulations 29 and 30 of Government Notice No. 30 of 2012. Overall, this section highlights information including the approach to stakeholder engagement, identification of issues, overview of relevant legislation, and key principles and guidelines that provide the context for this scoping assessment process. Hence, in a nutshell, the purpose of the environmental assessment is to:

- Address issues that have been identified through the Scoping Process;
- Assess alternatives to the proposed activity in a comparative manner;
- Assess all identified impacts and determine the significance of each impact; and
- Recommend actions to avoid/mitigate negative impacts and enhance benefits.

4.1 APPROACH ADPTED FOR COMPILING THE SCOPING AND EMP REPORTS

The objectives of the environmental scoping assessment are noted in Section 1 of this Report. Section 6 of this Scoping Report includes a summary of the findings, the overall conclusions and the recommendations. The Scoping Report was made available for a 30-day I&AP and authority review period, as outlined in the EMA Regulations of 2012. Although adverts were put in local newspapers i.e. **Confidente newspaper** on the **14th – 20th March 2025**, on **4th – 10th April 2025** and **11th – 17th April 2025**, and then in **The Villager newspaper** on the **19th March 2025** and **28th April 2025** in order to notify and inform the public of the proposed projects and invite I&APs to register, there were no particular responses or inputs received but registration by one I&AP (see **Appendix A** for detailed report).

As previously noted, the Scoping Report includes an Environmental Management Plan (EMP, **Appendix B**). The EMP is based broadly on global environmental management principles and embodies an approach of continual improvement and mitigation actions.

These are drawn primarily based on the identified potential impacts for both the construction and operational phases of Massaus proposed operations. If the project components are decommissioned or re-developed, this will need to be done in accordance with the relevant environmental standards and clean-up / remediation requirements applicable at the time.

4.2 LEGAL CONTEXT FOR THIS EIA

In accordance with the provisions of the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazette and the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007), the activity to be undertaken by Massaus may not be undertaken without an Environmental Clearance Certificate.

4.3 LEGISLATION AND GUIDELINES PERTINENT TO THIS ENVIRONMENTAL ASSESSMENT

As the main source of legislation, the Namibian constitution makes provision for the creation and enforcement of applicable legislation. In this context and in accordance with its constitution, Namibia has passed numerous laws (those of relevant to this project are listed in Table 2) intended to protect the natural environment and to mitigate adverse environmental impacts.

Namibia's policies provide the framework to the applicable legislation. Whilst policies do not often carry the same legal recognition as official statutes, policies can be and are used in providing support to legal interpretation when deciding cases. Below are several of the key legislations applicable to the governance of certain component / aspects of the proposed operation activity. Key acts and policies currently in force include:

- Namibia's Environmental Assessment (EIA) Policy for Sustainable Development and Environmental Conservation (1995)
- Environmental Management Act (No. 7 of 2007);
- Environmental Impact Assessment Regulations (Government Notice No. 30 of 2012)
- Namibia Agriculture Policy of 2015
- Namibia Vision 2030, and other national development plan e.g. Harambee Prosperity Plan
- Social Security Act, 1994 (Act No. 34 of 1994) and the Affirmative Action (Employment) Act, 1998 (Act No. 29 of 1998)

4.3.1 Environmental Management Act No. 7 of 2007

The environmental management act No.7 of 2007 aims to promote the sustainable use of natural resources and provides the framework for the environmental and social impact assessment, demands precaution and mitigation of activities that may have negative impacts on the environment and provision for incidental matters. Furthermore, the act provides a list of activities that may not be undertaken without an environmental clearance certificate.

The purpose of the Environmental Management Act is:

- a) to ensure that people carefully consider the impact of developmental activities on the environment and in good time
- b) to ensure that all interested or affected people have a chance to participate in environmental assessments
- c) To ensure that the findings of environmental assessments are considered before any decisions are made about activities which might affect the environment see

Figure 12.

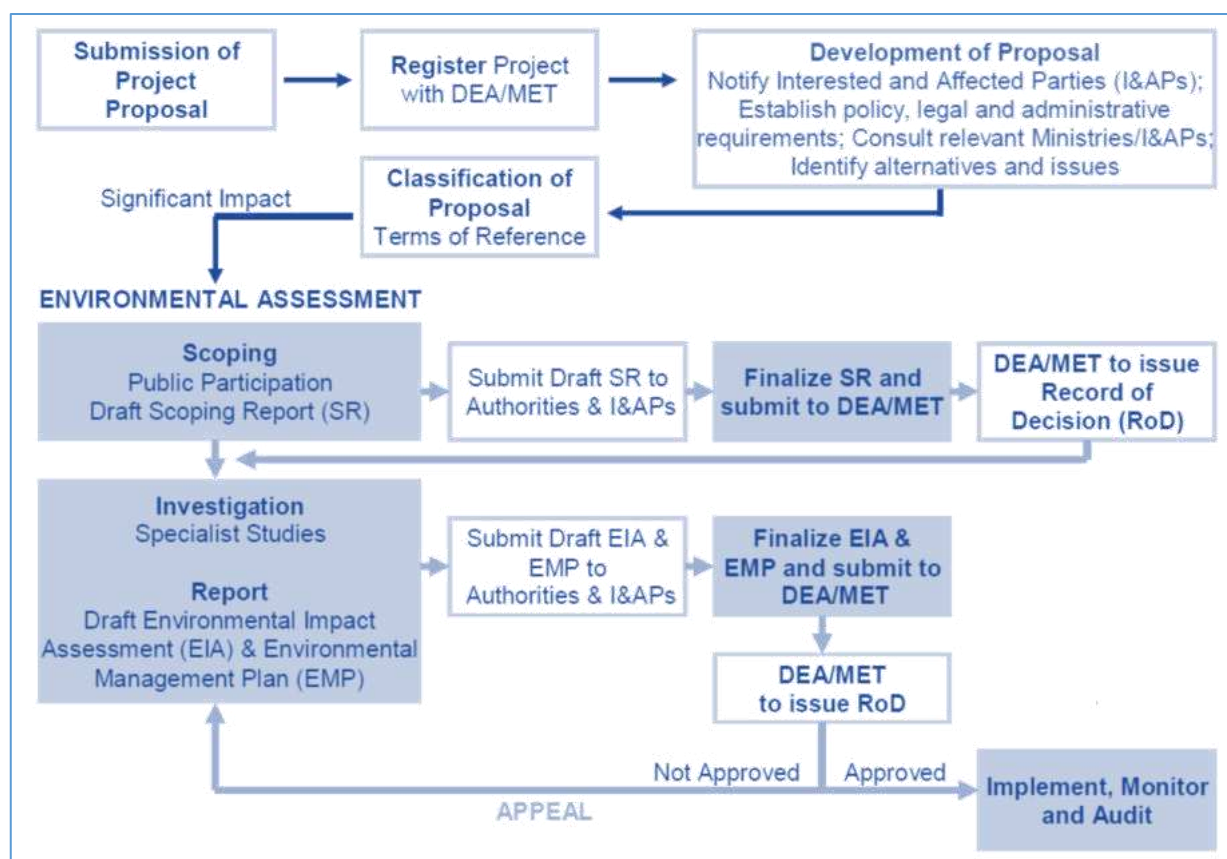


Figure 12: Illustration of the environmental assessment process in Namibia (Source: Risk Based Solution)

4.3.2 Environmental Assessment Policy (1995)

The Environmental Assessment Policy for Sustainable development and Environmental Conservation emphasize the importance of environmental assessments as a key tool towards implementing integrated environmental management. Sets an obligation to Namibians to prioritize the protection of ecosystems and related ecological.

The policy subjects all developments to environmental assessment and provides guideline for the Environmental Assessment. The policy advocates that Environmental Assessment take due consideration of all potential impacts and processes mitigations measures should be incorporated in the project design and planning stages (as early as possible).

4.3.3 Public and Environmental Health Act (Act No. 1 of 2015)

To provide a framework for a structured uniform public and environmental health system in Namibia; and to provide for incidental matters

4.3.3 Hazardous Substances Ordinance (No. 14 of 1974)

The Ordinance applies to the manufacture, sale, use, disposal and dumping of hazardous substances, as well as their import and export and is administered by the Minister of Health and Social Welfare. Its serves to prevent hazardous substances from causing injury, ill-health or the death of human beings.

4.3.4 Other Legal Requirements and relevance to the proposed activity

In addition to the EMA and the Environmental Assessment Policy, there exist other regulatory frameworks that Massaus must comply with. This is due to the supporting infrastructure that are needed to compliment the proposed logistics hub. As such, Massaus will be required to obtain additional specific permits for the supporting infrastructure as listed in **Table 5** below. The process of obtaining the additional permits can be undertaken concurrently to the EIA process.

Furthermore, the proponent has the responsibility to ensure that the project activities conform to all other relevant legal documents and guidelines as listed in **Table 5** below).

Table 5: Other relevant legislation and applicability thereof (Source: Risk Based Solution)

Legislation	Relevance
Electricity Act, 2000 (Act No.2 of 2000)	<ul style="list-style-type: none"> The aim of the act is for the establishment the Electricity Control Board and provide for its powers and functions; to provide for the requirements and conditions for obtaining licences for the provision of electricity; to provide for the powers and obligations of licensees; and to provide for incidental matters.
Labour Act, 1992, (Act No. 6 of 1992) and Regulations Related to Health and Safety of Employees	<ul style="list-style-type: none"> Labour matters, rights and duties of employees. Health and Safety of Employees Construction safety; Electrical safety; Machinery safety; Hazardous substances; Physical hazards and general provisions;
Namibia's Green Plan, 1992	<ul style="list-style-type: none"> Namibia's Green Plan provides for the analysis of the main environmental challenges Facing Namibia and specified actions required to address them. This included a strategic plan for integrated and sustainable environmental management, which outlines key focus areas for sustainable development.
The Forest Act	<ul style="list-style-type: none"> Declaration of protected areas in terms of soils and water resources Proclamation of protected species of plants and the conditions under which these plants can be disturbed, conserved, or cultivated.
Nature Conservation Amendment Act	<ul style="list-style-type: none"> Declaration of protected areas and protected species.
National Heritage Act	<ul style="list-style-type: none"> Protection and conservation of places and objectives of significance, as all archaeological and paleontological objects belong to the state
National Climate Change Strategy & Action Plan 2013 – 2020	<ul style="list-style-type: none"> The climate change action plan which identifies Climatic Change as a critical threat to sustainable development. Therefore, it must be addressed in a holistic manner.

4.3.5 Precautionary and Polluter Pays Principles

The Precautionary Principle is worldwide accepted when there is a lack of sufficient knowledge and information about proposed development possible threats to the environment. Hence if the anticipated impacts are greater, then precautionary approach is applied.

Equally, the Polluter Pays Principle ensures that the proponent takes responsibility of their actions. Hence in cases of pollution, the proponent bears the full responsibility and cost to clean up the environment.

4.4 PRINCIPLES FOR PUBLIC PARTICIPATION / CONSULTATION

The PPP for this Scoping Process was driven by a stakeholder engagement process that includes inputs from authorities, I&APs and the project proponent. In respect to provisions of the EIA Regulations, “Public Consultation” means a process referred to in regulation 21, in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters. This stems from the requirement that people have a right to be informed about potential decisions that may affect them and that they must be afforded an opportunity to influence those decisions. Effective public participation also improves the ability of the Competent Authority (CA) to make informed decisions and results in improved decision-making as the view of all parties are considered.

Contrary, it is important to recognize and highlight two key aspects of public participation which must be considered at the outset:

- There are practical and financial limitations to the involvement of all individuals within a PPP. Hence, public participation aims to generate issues that are representative of societal sectors, not each individual. Consequently, the PPP is designed to be inclusive of a broad range of sectors relevant to the proposed activity.
- The PPP will aim to raise a diversity of perspectives and will not be designed to force consensus amongst I&APs. Certainly, diversity of opinion rather than consensus building is likely to enrich ultimate decision-making. Therefore, where possible, the PPP will aim to obtain an indication of trade-offs that all stakeholders (i.e. I&APs, technical specialists, the authorities and the development proponent) are willing to accept with regard to the ecological sustainability, social equity and economic growth associated with the project.

4.5 PUBLIC PARTICIPATION PROCESS

The key steps and or approach adopted for this particular Scoping assessment has been confirmed with the DEA through the registration of the proposed activity / operations on their Online EA system. All advertisements, notification letters and emails etc. served to notify the public and organs of state, on both the call for registration as I&APs and of the availability of the Scoping and EMP reports for an opportunity to comment or provide input

on the reports. Although adverts were put in local newspapers i.e. the **Confidente newspaper on the 14th – 20th March 2025, on 4th – 10th April 2025 and 11th – 17th April 2025, and then in The Villager newspaper on the 19th March 2025 and 28th April 2025** in order to notify and inform the public of the proposed projects and invite I&APs to register, there were no particular responses or inputs received but registration by one I&AP (see **Appendix A** for detailed report).

The correspondence sent to or received from I&APs and other competent authorities during the Scoping Phase were incorporated into the stakeholder engagement report appended to this report (**Appendix A**).

4.6 AUTHORITY CONSULTATION DURING THE EIA PHASE

Authority consultation is integrated into the PPP, with additional one-on-one meetings held with the lead authorities, where necessary. It is proposed that the Competent Authority (DEA) as well as other lead authorities be consulted as necessary and at various stages during the application review process of the DEA. During the Scoping phase, the following authorities were identified and consulted (see **Appendix C**) for the purpose of consultation:

4.7 APPROACH TO IMPACT ASSESSMENT

Potential environmental impacts were identified through both desktop literature review and consultation with I&APs, regulatory authorities, specialist and Enviro-Leap Consulting. In case of social impacts, the assessment focused on third parties only (third parties include members of the public and other local and regional institutions) and did not assess health and safety impacts on workers because the assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

The impacts are discussed under issue headings in this section. The discussion and impact assessment for each sub-section covers the construction, operational, decommissioning and closure phases where relevant. This is indicated in the table at the beginning of each sub-section. Included in the table is a list of project activities that could cause the potential impact per phase. The activities that are summarized in this chapter, link to the description of the proposed project (see Section 5 of the EIA report).

Mitigation measures to address the identified impacts are discussed in this section and included in more detail in the EMP report that is attached in **Appendix B**. In most cases (unless otherwise stated), these mitigation measures have been taken into account in the assessment of the significance of the mitigated impacts only.

Both the criteria used to assess the impacts and the method of determining the significance of the impacts is outlined in **Table 6**. This method complies with the method provided in the Namibian EIA Policy document and the draft EIA regulations. **Part A** provides the approach for determining impact consequence (combining severity, spatial scale and duration) and impact significance (the overall rating of the impact). Impact consequence and significance are determined from **Part B** and **C**. The interpretation of the impact significance is given in **Part D**. Both mitigated and unmitigated scenarios are considered for each impact.

Table 6: Criteria for Assessing Impacts

PART A: DEFINITION AND CRITERIA		
Definition of SIGNIFICANCE	Significance = consequence probability	
Definition of CONSEQUENCE	Consequence is a function of severity, spatial extent and duration	
Criteria for ranking of the SEVERITY/NATURE of environmental impacts	H	Substantial deterioration (death, illness or injury). Recommended level will often be violated. Vigorous community action. IrrProjectaceable loss of resources.
	M	Moderate/measurable deterioration (discomfort). Recommended level will occasionally be violated. Widespread complaints. Noticeable loss of resources.
	L	Minor deterioration (nuisance or minor deterioration). Change not measurable/will remain in the current range. Recommended level will never be violated. Sporadic complaints. Limited loss of resources.
	L+	Minor improvement. Change not measurable/will remain in the current range. Recommended level will never be violated. Sporadic complaints.
	M+	Moderate improvement. Will be within or better than the recommended level. No observed reaction.
	H+	Substantial improvement. Will be within or better than the recommended level. Favorable publicity.
Criteria for ranking the DURATION of impacts	L	Quickly reversible. Less than the project life. Short-term
	M	Reversible overtime. Life of the project. Medium-term
	H	Permanent beyond closure – Long-term.
Criteria for ranking the SPATIAL SCALE of Impacts	L	Localized-Within the site boundary.
	M	Fairly widespread-Beyond the site boundary. Local
	H	Widespread – Far beyond site boundary. Regional/national

PART B: DETERMINING CONSEQUENCE

SEVERITY = L					
DURATION	Long-term	H	Medium	Medium	Medium
	Medium term	M	Low	Low	Medium
	Short-term	L	Low	Low	Medium
SEVERITY = M					
DURATION	Long-term	H	Medium	High	High
	Medium term	M	Medium	Medium	High
	Short-term	L	Low	Medium	Medium
SEVERITY = H					
DURATION	Long-term	H	High	High	High
	Medium term	M	Medium	Medium	High
	Short-term	L	Medium	Medium	High
			L	M	H
			Localized Within site boundary Site	Fairly widespread Beyond site boundary	Widespread Far beyond site boundary
			SPATIAL SCALE		

PART C: DETERMINING SIGNIFICANCE

	Definite/Continuous	H	Medium	Medium	High
	Possible/frequent	M	Medium	Medium	High
	Unlikely/seldom	L	Low	Low	Medium
			L	M	H
			CONSEQUENCE		

PART D: INTERPRETATION OF SIGNIFICANCE

Significance	Decision guideline
High	It would influence the decision regardless of any possible mitigation.
Medium	It should have an influence on the decision unless it is mitigated.
Low	It will not have an influence on the decision.

*H = high, M = medium and L = low and + denotes a positive impact.

This section outlines the assessment methodology and legal context for specialist studies, as recommended by the DEA 2006 Guideline on Assessment of Impacts. In addition to the above, the impact assessment methodology includes the following aspects:

Spatial extent – The size of the area that will be affected by the impact/risk:

- Site specific;
- Local (<10 km from site);
- Regional (<100 km of site);
- National or International (e.g. Greenhouse Gas emissions or migrant birds).

Consequence – The anticipated consequence of the risk/impact:

- Extreme (extreme alteration of natural systems, patterns or processes, i.e. where environmental functions and processes are altered such that they permanently cease);
- Severe (severe alteration of natural systems, patterns or processes, i.e. where environmental functions and processes are altered such that they temporarily or permanently cease);
- Substantial (substantial alteration of natural systems, patterns or processes, i.e. where environmental functions and processes are altered such that they temporarily or permanently cease);
- Moderate (notable alteration of natural systems, patterns or processes, i.e. where the environment continues to function but in a modified manner); or
- Slight (negligible alteration of natural systems, patterns or processes, i.e. where no natural systems/environmental functions, patterns, or processes are affected).

Duration – The timeframe during which the impact/risk will be experienced:

- Short term (less than 1 year);
- Medium term (1 to 10 years);
- Long term (the impact will cease after the operational life of the activity (i.e. the impact or risk will occur for the project duration)); or
- Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient (i.e. the impact will occur beyond the project decommissioning)).

Probability – The probability of the impact/risk occurring:

- Very likely or Likely;
- Unlikely or Very unlikely; and
- Extremely unlikely

5. ASSESSMENT OF ALTERNATIVES AND IMPACTS

5.1 ASSESSMENT OF IMPACTS AND MITIGATION

This chapter discusses the alternatives, as well as the selection process of the preferred alternatives that have been considered and assessed as part of the Scoping Phase. The 2012 EIA Regulations (GG4878) define “alternatives”, in relation to a proposed activity, “as different means of meeting the general purpose and requirements of the activity, which may include alternatives to the:

- property on which or location where the activity is proposed to be undertaken;
- type of activity to be undertaken;
- design or layout of the activity;
- technology to be used in the activity; or
- operational aspects of the activity; and
- Includes the option of not implementing the activity”.

The Scoping Report therefore provided a full description of the process followed to reach the proposed preferred activity, site and location within the site. It further includes the following as a minimum:

- The consideration of the no-go alternative as a baseline scenario;
- A comparison of the reasonable and feasible alternatives; and
- Providing a methodology for the elimination of an alternative.

5.2. NO-GO ALTERNATIVE

The no-go alternative assumes that the proposed project will not go ahead i.e. the proposed Massaus proposed energy generation development does not realize. This alternative entails that the operations would not drive any environmental change and result in no additional environmental impacts on the project site.

It favors the *status quo* or baseline against which other alternatives are compared and will be considered throughout the report. However, the likely negative environmental impacts of other current and future user that may still happen in the absence of the proposed activities includes: Natural dust and generation of particulate matter during windy event particularly resulting from other regional economic activities such as construction, mining and tourism, pollution and environmental degradation associated with current land use along and around the proposed project route and sites.

Therefore, in terms of the “No-go Alternative”, potential economic gains that may never be realized if the proposed activities do not go-ahead include: loss in income for both the developer and investors, unemployment and the loss of socio-economic benefits derived from current and future export and import trading opportunities. Most importantly, is the reduced regional integration in terms of trade and investment, loss of direct and indirect contracts and employment opportunities, export earnings, foreign direct investments and various taxes payable to the Government.

5.3. TECHNICAL ALTERNATIVES

The technical alternatives relate to the power lines and the option of including a battery storage facility on the site.

5.1.2.1 Power lines

The proposed solar PV facility is situated in close proximity (Approx... 10.2 km) to NamPower Oshikoto substation and will the proponent prefers to rather feed the generated energy into the Sinomine Tsumeb Smelter operations, thus eliminating the need for installing a powerline to the Oshikoto Substation and therefore, further mitigating potential avifauna impacts associated with powerlines.

5.1.2.1 Battery storage facility

It is proposed that a nominal up to 40 MWh Battery Storage Facility for grid storage would be housed in stacked containers, with a maximum height of 5m and a maximum area of 50m² of batteries and associated operational, safety and control infrastructure. Three types of battery technologies are being considered for the proposed project: Lithium-ion, Sodium-sulphur or Vanadium Redox flow battery. The preferred battery technology is Lithium-ion.

Battery storage offers a wide range of advantages to Namibia including renewable energy time shift, renewable capacity firming, electricity supply reliability and quality improvement, voltage regulation, electricity reserve capacity improvement, transmission congestion relief, load following and time of use energy cost management.

5.1.2.2 Technology alternatives

There are several types of semiconductor technologies currently available and in use for PV solar panels. Two, however, have become the most widely adopted, namely Cadmium Telluride (CdTe) and Copper Indium Gallium Diselenide (CIGS).

Further, the best solar panels have come a long way in the last decade or so, with innovations to boost their performance and efficiency. Below (**Table 7**), are three generations and seven types of solar panels, including monocrystalline, polycrystalline, perovskite, bi-facial, half cell and shingled. Below is a summarized comparison of the benefits and drawbacks of each, along with a rundown of where each different type of solar cell shall thrive.

Table 7: Consideration of alternative solar Technology, with summarized comparison of the benefits and drawbacks of each

Gen	Type of solar cell	Efficiency rate	Advantages	Disadvantages	Best for
1st	Monocrystalline	15 to 20%	Highly energy-efficient, very well performing in low-light conditions and more adaptable to hotter temperatures	Expensive	Small, domestic solar arrays, homeowners with bigger budgets and homes in the south of England
	Polycrystalline	13 to 16%	Affordable, simple and about as durable as monocrystalline panels	Less energy- and space-efficient than monocrystalline panels and not as temperature-agnostic	Homeowners on tighter budgets; homes in lower-temperature areas, such as Scotland or the north of England
2nd	Thin-film silicon (a-Si)	7 to 10%	Affordable and adaptable to a wide range of construction needs and building types	Low energy- and space-efficiency and not long lasting	Larger, industrial-scale commercial solar arrays
3rd	Dye-sensitised	11 to 14%	Cost-effective, visually appealing, tolerant of higher temperatures and well performing in low-light conditions	Less efficient than traditional silicon-based solar cells	Homes in areas with low light or frequent cloud cover and houses in warmer or less predictable climates
	Perovskite	25 to 27%	Highly efficient (this quality is swiftly improving)	Difficult to mass produce, prone to current-voltage hysteresis and not as durable as other solar solutions	Domestic and commercial solar arrays in emerging and developing countries (less frequently seen in the UK)
	CPV and HCPV	Up to 41%	Extremely efficient	Expensive and requiring costly equipment, such as tracking systems, to secure near-constant access to sunlight	Large-scale solar farms, regions with high solar irradiance and remote and off-grid applications
Future	HJT	24 to 26%	Highly efficient, sleek and inconspicuous in design and very well performing in high temperatures	Expensive and harder to find and purchase than traditional silicon-based solar panels	Domestic urban environments where available space is at a premium and homes in hotter climates
	Bifacial	16 to 22%	Energy-efficient, versatile, and very well performing in diffuse and low-light conditions	Requiring more careful positioning, placement and installation and more expensive than most alternatives	Areas with high surface reflectivity, such as sandy or snowy environments
	Shingled	Around 22%	More energy efficient and better at producing energy than traditional solar cells	Expensive, limited in market availability, complex to manufacture and potentially more prone to hot spots	Homes with limited roof space and partially shaded urban environments

5.4. CONCLUDING STATEMENT ON ALTERNATIVES

Namibia's industrial ambition is articulated in Vision 2030, which stipulates that the country should be an industrialized nation with a high income by the year 2030. In terms of the production and export structure, Namibia aspires to build the bridge from producing and exporting predominantly primary commodities to offering value added and service-orientated products. The production and export structure would also be more diverse, enabling the economy to better withstand exogenous shocks.

Namibia's average consumption rate surpasses 3000 GWh/year, while its generation capacity is around 1305 GWh/year. The supply gap is covered by imports from South Africa, Zambia and Mozambique. Equally, the National Climate Change strategy and action plan 2013-2020 addresses actions on reducing current and future emissions including renewable energy sources and energy efficient technology. Thus Namibia has committed itself to increase the share of renewable energy to about 70 % of electricity by 2030.

In case of social impacts, the assessment focused on third parties only (third parties include members of the public and other local and regional institutions) and did not assess health and safety impacts on workers because the assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

The No-Action Alternative comparative assessment, suggests that environmental impacts of a future in which the proposed activities do not take place, may be good for the receiving environment because there will be no potential negative or positive environmental impacts associated with the proposed activities (solar energy/power generation).

5.5. ASSESSMENT OF IMPACTS AND MITIGATION

Mitigation measures to address the identified impacts are discussed in this section and included in more detail in the EMP report that is attached in **Appendix B**. In most cases (unless otherwise stated), these mitigation measures have been taken into account in the assessment of the significance of the mitigated impacts only

5.2.1 IMPACTS ON THE BIOPHYSICAL ENVIRONMENT

Potential impacts in respect to the Biophysical environment involves particularly the terrestrial ecology (**Table 8**) environment and relate mainly to energy generation and storage activities within the proposed development's area and receiving environment.

Potential impacts in respect to the Biophysical environments (**Table 8 - 10**) involves, given that the proposed activity entails earthworks (ground preparation and levelling) activities limited rather to the construction phase only, and which mainly results in secondary potential impacts. At this stage, the development could create an opportunity for the project staff members to access otherwise reserved farm areas and thus temptations for poaching and collection of natural resources. Details of the potential impacts are demonstrated in the following tables:

Table 8. Impact on the Biophysical Environment – Project site Access for Construction and operation

Impact Event	Disturbances on Biodiversity					
Description	During the construction of the proposed Solar PV Power Plant, access roads to the construction site would have to be established. Also, the access roads to the site established during the construction of the Solar PV Power Plant would be fully operational and would have to be managed during the operational phase.					
Nature	Tracks leave scars that can remain for centuries, affecting the aesthetic qualities of the dunes and the surrounding gravel plains, reducing the attractiveness of the area as a recreational destination. Littering of the beaches and the desert due to increasing tourism is a general problem. Camping outside of designated areas occurs during peak holiday periods.					
Phases: Phases during which the project has implications of accessing the project area are highlighted below; Significance assessment was carried out on the use of access tracks which presents a short-term risk.						
Construction Phase	Operational Phase			Decommissioning Phase	Post Closure	
<ul style="list-style-type: none">Accessing of project area for delivery / supply of materialsLand preparation and leveling and construction of foundations prior to installation of panels	<ul style="list-style-type: none">Accessing of project area for delivery of supplies, undertaking of maintenance (cleaning of panels and replacement as may be needed) works and security patrols			N/A	N/A	
Severity	Taken together, the disturbances will have a minimum to medium severity given that limited number of vehicles will be used and no new access track will be created, these can be drastically minimized to very low with mitigation measures.					
Duration	The Significance of the potential impacts is very high given the project location i.e. near a settlement					
Spatial Scale	Low, localized if activities are restricted to the pre-identified project area and use of existing access routes thus limiting potential impacts spatially					
Probability	Low to Medium, especially considering that the project site is located within an already developed environment					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L-M	L	L	H	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	L	L	H
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">Planning of access roads or any changes to the existing access roads needs to be done in consultation with the Local Authorities as well as the Roads Authority of NamibiaPlanning of access roads should be mindful of limiting gradients in order to reduce run-off induced erosion.Existing roads that link the site to neighbouring areas should not be obstructed or damaged through construction endeavours.Transportation through community areas should be discouraged by all means. Operators of vehicles used during construction, particularly heavy equipment (Graders and trucks etc.) should be mindful of their limited fields of view and be on the lookout for possible pedestrians.The proponent should also restrict access to the site with a focus on high risk structures or areas depending on the site-specific situations through interventions such as; fencing, signage, and communication of risks to the local community.					

Table 9. Impact on the Biophysical Environment – Ground preparation and levelling

Impact Event	Disturbances on Biodiversity in respect to ground works (leveling etc.)					
Description	During the construction of the proposed Solar PV Power Plant, impacts on fauna, flora, social and cultural heritage are likely to be expected and may emanate from the following: Site clearing and Grading that may cause dust and habitat loss; Establishment of a temporary construction camp and mobile site office; Community grievances; Archaeological Discoveries on site.					
Nature	Important fauna and flora habitats, including displacement of associated biota such as birds and their food sources. Removal or reduction in function of ecosystem services, i.e. the drainage lines as water conduits, providing natural run-off and water to habitats.					
Phases: Phases during which the project has implications of construction and operation apply are highlighted below; Significance assessment was carried out on the construction phase which presents a long term risk.						
Construction Phase	Operational Phase			Decommissioning Phase	Post Closure	
<ul style="list-style-type: none">Accessing for delivery of materials and construction of foundations prior to installation of panelsUpgrading of access tracks (e.g. grading)	<ul style="list-style-type: none">Accessing of project area by earth-moving equipment, to undertaking ground works consisting of land preparation, levelling and pouring of concrete foundationsInstallation of solar panels and associated support infrastructures.			N/A	N/A	
Severity	Taken together, the disturbances will have a medium severity given that limited number of vehicles will be used and no new access track will be created					
Duration	The Significance of the potential impacts is very high given the project location i.e. private property or within a town					
Spatial Scale	localized if activities are restricted to the pre-identified project area and considering that the project site is located within an already developed environment					
Probability	Low to Medium, especially considering that the project site is located within an already developed environment					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	M	L	L	H	L	M
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	L	L	M
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">Strict compliance with the Forestry Act and Regulations in respect to vegetation clearing and EMP is recommended in respect to managing incidental eventsIt is recommended that Site clearing and Grading should be done with guidance of an environmental specialist so as to avoid habitat destruction and with possible non-toxic dust suppression measures.Soil erosion may be caused by exposed surfaces and can be reduced by scheduling earthmoving works in a manner that avoids heavy rainfall periods as well as contouring and minimizing length and steepness of slopes as well as mulching to stabilize exposed areas.In the unlikely event of any heritage or archaeological discoveries during the construction phase of the, the Local Authority and National Heritage Council (NHC) should be contacted immediately for guidance regarding the discovery.					

Table 10. Impact on the Biophysical Environment – Waste Management (Effluent, Solid and Hydrocarbons)

Impact Event	Waste generation and disposal					
Description	During the day-to-day activities of the construction of the proposed Solar PV Power Plant, different kinds of waste are expected to be generated. These include: general domestic waste, building rubble, site clearing debris, packaging, chemical/mobile toilets etc.					
Nature	Dealing with hazardous substances that may be kept and/or handled onsite, presents a pollution and fire risk that the proponent should not neglect and should take responsibility for and manage accordingly. These hazards include: paints, solvents, gases and hydrocarbons (non-exhaustive list).					
Phases: Phases during which the project has implications of waste generation are highlighted below; Significance assessment was carried out on the construction phase which requires on-site stays.						
Construction Phase	Operational Phase		Decommissioning Phase		Post Closure	
<ul style="list-style-type: none">No Construction envisaged at this stage	<ul style="list-style-type: none">Lodging is envisaged at existing homes in Tsumeb		N/A		N/A	
Severity	Taken together, waste generation in respect to the proposed activities presents impacts that are of very-low severity as in general little is generated.					
Duration	The duration of the potential impacts is bound to the duration of the proposed operations thus short-term in nature					
Spatial Scale	Low, waste generation shall be limited mainly to the lodging areas and subject to property owners and thus not entirely influence by the proposed project					
Probability	Very Low, shall be limited mainly to the lodging areas and subject to property owners and thus not entirely influence by the proposed project					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	M	L	L
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	L	L	L
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">Initially, the proponent should develop a site specific Emergency Response Plan that is to be followed in the event of emergencies that may arise from the handling and storage of hazardous substances onsite.All domestic waste onsite should be disposed of in receptacles that promote good housekeeping and can hold all waste until such a time that the waste is to be removed from the site without causing any pollution.All waste is to be removed from the site on a regular basis and should under no circumstances be allowed to accumulate to uncontrollable levels.Waste from site clearing shall have to be disposed of in a manner that is in line with national laws and to the satisfaction of the Tsumeb Town Council.Contaminated products that cannot be re-used and domestic waste should be disposed of in accordance with Local Authority Requirements. Chemical/Mobile toilets to be used onsite should comply with applicable national and local authority requirements.Chemical/Mobile toilets that are to be used onsite should complement the number of people that would make use of them in accordance with national laws. No waste should be buried or burned onsite and littering should be strictly prohibited.					

5.2.2 IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT

Table 11. Environmental Impact: Human Health and Safety

Impact Event	Disturbances to the social environments					
Description	All construction phase related activities require human labour, directly or indirectly, and thus pose an inherent health and safety risk to construction personnel.					
	The proposed development is expected to employ a large number of people (project staff as well as contractors). Should those recruited (particularly contractors) relocate to Kalkrand from other towns, it could contribute to the spread HIV/AIDS infections.					
Nature	It is the responsibility of the proponent to comply with the provisions set forth in the Labour Act 11 of 2007, with special attention to Chapter 4 that primarily outlines Health and Safety in the work place, as well as all other national legislations in this regard.					
Phases: Phases during which sources of social (health and safety) impacts apply are highlighted below;						
Construction Phase	Operational Phase			Decommissioning Phase		Post Closure
<ul style="list-style-type: none">• Accessing for delivery of materials and construction of foundations prior to installation of panels• Upgrading of access tracks (e.g. grading)	<ul style="list-style-type: none">• Use of the lodging and other social facilities, as well as other social interactions			N/A		N/A
Severity	In the unmitigated scenario, the potential risk for transmission of contagious / infectious diseases is High					
Duration	The Significance of the potential impacts is subject to the compliance with national health protocols, however given the minimal interaction of project staff and the local community impacts are classified as incidental and short-term.					
Spatial Scale	Medium, in case of near-miss incidents (were cases are not detected) the risk may be medium to high but localized if for instance project staff undergo regular testing for occupational health related conditions.					
Probability	Low, especially given that there are clear guideline and protocols governing health and safety of both contagious diseases and if they are well observed					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	H	M	M	H	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	M-L	L	L	M	L	H
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">• Strict compliance with the EMP is recommended in respect to managing incidental events;• Recommended mitigating measures include, but not limited to (Non-exhaustive list) - Periodic internal safety compliance audits. Health and Safety training and specialty programs should be provided as needed to ensure workers are oriented to the specific hazards of individual work assignments and all other present hazards, Hazard Risk Identification within Job Profiles/Machinery/Equipment/Work Areas and Tasks that are to be performed• Appointment of Safety Officers as custodians of safety within the workplace. In addition to these, Peer Educators and Health and Safety Representatives can also be nominated in constituent working teams in order to foster a culture of health and safety at the construction site.					

Table 12. Impact on the Social Environment – Air and Noise Pollution

Impact Event	Disturbances to the social environment					
Description	The proposed development is expected to make use of earthmoving equipment and various kinds of machinery that may generate noise. The proponent should limit working hour's onsite to 07h00 to 19h00 and coordinate working high noise generating tasks in such a manner that provides the least nuisance to neighboring land users. No employee should be exposed to a noise level greater than 85Db for a duration of more than 8 hours per day without hearing protection, and the use of hearing protection should be enforced actively.					
Nature	Depending on the scale of groundworks activity (intensity), potential noise impacts relating to the use of large vehicles such as a tipper trucks and or excavator may be generated. Consequential impacts therefore are: <ul style="list-style-type: none">Noise from construction machineries may be anticipated					
Phases: Phases during which sources of social (Air and Noise Pollution) impacts apply are highlighted below;						
Construction Phase	Operational Phase		Decommissioning Phase		Post Closure	
<ul style="list-style-type: none">Land preparation and levelingSetting-up Base-camp for project staff	<ul style="list-style-type: none">Accessing of project area for delivery and construction with project vehiclesUpgrading of access tracks (e.g. grading)		<ul style="list-style-type: none">Structure demolition and ground leveling activitiesTemporary lodging for decommissioning staff		N/A	
Severity	Taken together, the disturbances will have a high severity in the unmitigated scenario. In the mitigated scenario, many of these disturbances can be prevented or mitigated to acceptable levels, which reduces the severity to low.					
Duration	The Significance of the potential impacts is subject to the proposed operation's life-time, however the identified impact's duration is incidental and short-term.					
Spatial Scale	Low, localized although - the noise aspect is mainly limited to the construction phase and site which far from residential areas.					
Probability	Very Low, the only noisy activities associated with the proposed operation are limited to the construction and decommissioning					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	M	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	L	L	H
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">Strict compliance with the EMP is recommended in respect to managing incidental events;Noise complaint register must be kept and maintained regularly with mitigation measures adopted accordingly.All excessive noise generating activities must be strictly carried out during the day between 08h00 (am) and 17h00 (pm) week days only.Conditions of the Environmental Clearance Certificate and Surface-use Agreement (with the relevant Property owner or local authorities) must be accordingly adhere to.As much as possible, it is recommended that vehicles with the most minimum footprint are used such as smallest trucks, excavators and graders					

Table 13. Impact on the Social Environment – Culture, Heritage and Scenic values

Impact Event	Disturbances to the heritage and scenic value of the environment					
Description	The rapid on-ground survey and desktop review for cultural and heritage sites, reveals that generally there were low/no occurrence of known cultural heritage or archaeological sites, hence the assumption is that the occurrence of undiscovered sites within the project area is low. However, evidence cultural heritage were observed at Tsumeb.					
Nature	Any sites that did exist here would either have been discovered already during previous investigations (due to the accessibility of the site to archaeologists) or have been destroyed during previous solar power generation operations and or other land-uses such farming and tourism undertaken in the area.					
Phases: Phases during which sources of social (cultural, heritage and scenic values) impacts apply are highlighted below;						
Construction Phase	Operational Phase		Decommissioning Phase		Post Closure	
<ul style="list-style-type: none">Land preparation and construction activitiesTemporary lodging for construction staff	<ul style="list-style-type: none">Maintenance works, replacement of solar panels, electrical wiring and cleaning of panels		<ul style="list-style-type: none">Structure demolition and ground leveling activitiesTemporary lodging for decommissioning staff		N/A	
Severity	Severity is Low, disturbances relating to field-based will be low with extremely unlikely probability of occurrence without mitigations					
Duration	The significance of the potential impacts is subject to the proposed operation's life-time (in this case short-term), hence potential impacts is incidental in nature					
Spatial Scale	Localized, although chances of damaging artifacts are very high when encountered, the probability of finding these on the project area are low and may be limited to certain rock outcrops and along river valleys.					
Probability	Very Low, the nature of operation significantly limits energy generation activities to one known pegmatite belt that falls within the project site					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	M	H	L	H
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	L	L	H	L	M
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">Strict compliance with the EMP is recommended in respect to managing incidental eventsContractors working on the site should be made aware that under the National Heritage Act, 2004 (Act No. 27 of 2004) any items protected under the definition of heritage found in the course of development should be reported to the National Heritage CouncilThe chance finds procedure as outlined in the EMP must be implemented at all times, and.Detailed field survey should be carried out if suspected archaeological resources or major natural cavities / shelters have been unearthed during the proposed energy generation operations.A stakeholder complaint register must be kept and maintained regularly with mitigation measures adopted accordingly, recording all concerns relating impacts of the proposed energy generation activities on the cultural and scenic value of the environment which may be reported by interested and affected parties.					

Table 14. Impact on the Economic Aspect

Impact Event	Disturbances on social and economic aspects					
Description	Potential economic gains that may never be realized if the proposed project activities does not go-ahead include: loss in potential alternative income for the town, unemployment and the loss of socio-economic benefits derived from future development opportunities.					
Nature	However, it is imperative that the community is made aware that a major possible impact of energy generation is the unrealistic expectations of job-creation. It’ s important for local communities to bear in mind that most energy generation activity only employment opportunities for a short-term particularly during the construction phase only.					
Phases: Phases during which sources of social (potential social and economic gain) impacts apply are highlighted below;						
Construction Phase	Operational Phase		Decommissioning Phase		Post Closure	
<ul style="list-style-type: none">Land preparation and construction activities	<ul style="list-style-type: none">Use of the lodging and other social facilities, as well as other social interactionsConstruction of concrete platform / stand for the solar panels	<ul style="list-style-type: none">Structure demolition and ground leveling activities		<ul style="list-style-type: none">Retrenchments, retirement and job losses due to closure		
Severity	In the unmitigated scenario, this implies in the case where the activity take not take effect, no economic benefits shall realize hence, the severity in respect to unemployment shall be very high. However, with the implementation of the proposed operations, the severity of unemployment shall be reduced to medium.					
Duration	The Significance of the potential impacts is subject to the proposed operation’s life-time, with a long-term potential					
Spatial Scale	Low, localized and only limited to the Tsumeb Settlement community					
Probability	Low – Medium, probability in respect to job creation on both the temporary (during construction) and long-term (plant operation) phases					
Unmitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L-M	L	L	L	L	L
Mitigated	Severity	Duration	Spatial Scale	Consequence	Probability of Occurrence	Significance
	L	M+	M+	H+	H+	H+
Conceptual Description of Mitigation Measures	<ul style="list-style-type: none">It is critical that timely and continuous communication and dissemination of information with the local community is ensured to alleviate potential sense of social marginalization, drive gender equality and enhance the understanding and perception of the benefits associated with Massaus activitiesTo enhance the positive impacts relating to marginal net benefits for the micro-economy (local residence of Tsumeb Settlement and Oshikoto Region at large) and national economy at larger, legislative provisions to Affirmative Action and Labour Welfare must be observedIt is strictly recommended that Massaus negotiates and signs a Surface Use Agreement detailing aspects of conduct and benefit distribution with all key stakeholder i.e. local community, local authority / council and other Operators or support institutions e.g. NGOs / CSOs)					

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

Namibia's industrial ambition is articulated in Vision 2030, which stipulates that the country should be an industrialized nation with a high income by the year 2030. In terms of the production and export structure, Namibia aspires to build the bridge from producing and exporting predominantly primary commodities to offering value added and service-orientated products. The production and export structure would also be more diverse, enabling the economy to better withstand exogenous shocks.

Namibia's average consumption rate surpasses 3000 GWh/year, while its generation capacity is around 1305 GWh/year. The supply gap is covered by imports from South Africa, Zambia and Mozambique. Equally, the National Climate Change strategy and action plan 2013-2020 addresses actions on reducing current and future emissions including renewable energy sources and energy efficient technology. Thus Namibia has committed itself to increase the share of renewable energy to about 70 % of electricity by 2030.

While increased economic activities can stimulate demographic changes and alter social, economic and environmental practices in many ways. Adverse environmental and socio-economic impacts have become a major area of concern for the business community, their customers, and other key stakeholders. Therefore, to ensure that development activities are undertaken in an economic, social and environmental sound / sustainable manner, the Namibian Constitution and Environmental Management Act No. 7 of 2007 provides for an environmental assessment process.

In case of social impacts, the assessment focused on third parties only (third parties include members of the public and other local and regional institutions) and did not assess health and safety impacts on workers because the assumption was made that these aspects are separately regulated by health and safety legislation, policies and standards.

The No-Action Alternative comparative assessment, suggests that environmental impacts of a future in which the proposed activities do not take place, may be good for the receiving environment because there will be no potential negative or positive environmental impacts associated with the proposed activities (solar park development).

Overall, potential impacts may vary in terms of scale (locality), magnitude and duration e.g. minor negative impacts in the form of visual intrusion, dust and noise pollution especially during the field-based activities i.e. construction and operations.

Below is a summary of the likely positive impacts that have been assessed for the different phases of the proposed Massaus solar energy generation activities:

- Socio-economic development and capacity building through partnering with foreign operators / investors, skills transfer and training on the solar energy sector shall be achieved (Likely impacts are high).
- Creation of employment opportunities and strengthening/expansion of SME business
- Consequential Infrastructure development e.g. powerlines, roads and operational infrastructure such as security rooms, storerooms and offices buildings

The following is a summary of the likely negative impacts that have been assessed for the different phases of the proposed soar plant project:

- Ambient Air Quality and Noise Pollution (Likely impacts are Low).
- Ecological and biodiversity loss (Likely impacts are localized and low).
- Health and safety (Overall likely impacts are low with the adoption and compliance of appropriate mitigation measures).
- Accidental Spill of Hazardous substance (Likely impacts are low with proper implementation of the environmental management plan in place).
- Cultural Heritage, Archaeological and Scenic value (Likely impacts are low with proper implementation of the environmental management plan in place).

6.2 RECOMMENDATIONS

Enviro-Leap environmental practitioner confidently recommends that the proposed project can proceed and should be authorized by the DEAF. The proposed operations is considered to have, overall low negative environmental impacts and potential for the enhancement of socio-economic benefits provided all protocols including the proposed mitigation measures are adhered to.

Based on this, it recommended that the proponent must upon obtaining their Environmental Clearance Certificate (ECC), implement all appropriate management and mitigation measures and monitoring requirements as stipulated in the Scoping Report and or as condition of the ECC. These measures must be undertaken to promote and uphold good practice environmental principles and adhere to relevant legislations by avoiding unacceptable impacts to the receiving environment.

6.3 STAKEHOLDER ENGAGEMENT AND MONITORING

It is important that channels of communication are maintained over the life-time of the proposed energy generation project, and with all key stakeholders, members of the general public (including I&APs), as well as the local and traditional authorities, **Table 13** shows the stakeholders engagement recommendations.

Table 13: Actions relating to stakeholder communication

Issue	Management commitment	Phase
Development and maintenance of a Stakeholder engagement plan	On obtaining the Environmental Clearance Certificate and other relevant authorization it is recommended that the proponent undertakes a stakeholder engagement process to develop a Communication and Monitoring Plan for continuous reporting and feedback	All
Understanding who the stakeholders are	Maintain and update the stakeholder register, including stakeholders' needs and expectations. Ensure that all relevant stakeholder groups are included building on pre-identified and registered I&APs.	All
	A representative database would include all relevant local government, service providers and contractors, indigenous populations, local communities, Local Authorities, NGOs, shareholders, the investment sector, community-based organizations, suppliers and the media.	All
	Ensure that marginalized and vulnerable groups are also considered in the stakeholder communication process.	All
	Record partnerships as well as their roles, responsibilities, capacity and contribution to development.	All
Liaising with interested and affected parties at all phases of the development	Devise and implement a stakeholder communication and engagement strategy.	All
Responsibility	Massaus and Enviro-Leap Consulting (On-contract)	

A stakeholder engagement plan is an important tool in ensuring that a good working relationship is maintained between the proponent and the community within which the activities are undertaken. It is crucial that this plan is developed in the same transparent manner and approach as the environmental assessment, and that it remains a living document which allows the stakeholder to engage with throughout the duration of the proposed activity.

Equally, it must be at all time readily available on request to all interested and affected parties for review and must provide clear procedures for how and where it can be accessed.

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APPENDIX A: ENVIRONMENTAL MANGEMENT PLAN

Environmental Manaaement Plan

The Proposed Establishment
and Operation of a 20 MW
PV Solar Park (40 Ha) within
the Dundee Precious Metals
Tsumeb's (DPMT) License
Area Boundary in the
Tsumeb Town, Oshikoto
Region


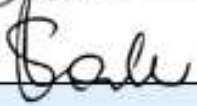
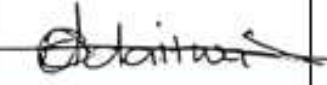
JULY 23

Compiled for: Mr. Tate Nande Ndaitwah
Massaus Investment cc
P.O. Box 80875,
Windhoek, Khomas, 9000
Mobile: +264 81 845 9688

Authored by: Mr. Lawrence Tjatindi

 **ENVIROLEAP CONSULTING cc**
P.O. Box 75834, Windhoek +264 81 137 8542 enviroleap@gmail.com

Final Version 1
For Submission

DOCUMENT INFORMATION AND APPROVAL		
Title	The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) within the Dundee Precious Metals Tsumeb's (DPMT) License Boundary	
ECC Application Reference number	APP-00	
Location	Tsumeb Townlands, Oshikoto Region	
Proponent	Mr. Tate Nande Ndaitwah Massaus Investment cc P.O. Box 80875, Windhoek, Khomas, 9000 Mobile: +264 81 845 9688	
Author:	Signature	Date
Mr. Lawrence Tjatindi (EAP) 1		28 March 2025
Mr. Shadrack Tjiramba (EAP - Reviewer) 2		28 March 2025
Approval - Client 2		
Mr. Tate Nande Ndaitwah		31 March 2025
Copy Right: "This document is the intellectual property of Enviro-Leap Consulting (ELC) and may only be used for the intended purpose. Unauthorized use, duplication, plagiarism or copying without referencing is prohibited"		

OVERALL OBJECTIVES OF THE EMP

The following overall environmental objectives have been set for the Massaus solar power generation development project:

- To comply with national legislation and standards for the protection of the environment.
- To limit potential impacts on biodiversity through the minimization of the footprint (as far as practically possible) and the conservation of residual habitat within the solar plant area.
- To keep surrounding communities informed of farming activities through the implementation of forums for communication and constructive dialogue.
- To develop, implement and manage monitoring systems to ensure good environmental performance in respect of the following: ground and surface water, air quality, noise and vibration, biodiversity and rehabilitation.

KEEPING EMPS UP TO DATE

This Environmental Management Plan (EMP) document is designed to meet legal requirements and avoid or minimize the impacts associated with the implementation of Massaus solar power generation development. It is the intention that this EMP should be seen as a “living document” which will be amended during the operation, as the activities might change or new ones be introduced.

Should a listed activity(s) as defined in the Environmental Impact Assessment Regulations: Environmental Management Act, 2007 (Government Gazette No. 4878) be triggered (as a result of future modifications/changes at the solar plant), this EMP will be updated as a result of another EIA process as stipulated in the regulations.

IMPACTS MANAGEMENT / MITIGATION MEASURES

Table 14. Impact on the Community Social Environment – Overall Project Activities (All Phases)

Issue	Management commitment	Phase
Understanding who the stakeholders are	<ul style="list-style-type: none"> • Maintain and update the stakeholder register, including stakeholders' needs and expectations. • A representative database would include all relevant local government, service providers, indigenous populations, Local Authorities / Council, NGOs or community-based organizations • Ensure that marginalized and vulnerable groups are also considered in the stakeholder communication process. • Record partnerships as well as their roles, responsibilities, capacity and contribution to development. 	All
Liaising with interested and affected parties at all phases in the solar plant life	Devise and implement a stakeholder communication and engagement strategy.	All
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 15. Impact on the Biophysical Environment – Project site Access for Construction and operation

Impact Event	Disturbances on Biodiversity in respect to access tracks	
Desired mitigation outcome	The objective of the mitigation in respect to impacts on biodiversity is to ensure that as much as possible, disturbance on biodiversity is avoided and prevented while the proposed prospecting activities is undertaken.	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Planning of access roads or any changes to the existing access roads needs to be done in consultation with the Local Authorities as well as the Roads Authority of Namibia • Planning of access roads should be mindful of limiting gradients in order to reduce run-off induced erosion. • Existing roads that link the site to neighboring areas should not be obstructed or damaged through construction endeavors. • Transportation through community areas should be discouraged by all means. Operators of vehicles used during construction, particularly heavy equipment (Graders and trucks etc.) should be mindful of their limited fields of view and be on the lookout for possible pedestrians. • The proponent should also restrict access to the site with a focus on high risk structures or areas depending on the site-specific situations through interventions such as; fencing, signage, and communication of risks to the local community. 	All
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 16. Impact on the Biophysical Environment – Ground preparation and levelling

Impact Event	Disturbances on Biodiversity in respect to ground works	
Desired mitigation outcome	The objective of the mitigation in respect to impacts on biodiversity is to ensure that as much as possible, disturbance particularly the ecosystem functions and services is reduced and or prevented.	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Strict compliance with the Forestry Act and Regulations in respect to vegetation clearing and EMP is recommended in respect to managing incidental events • It is recommended that Site clearing and Grading should be done with guidance of an environmental specialist so as to avoid habitat destruction and with possible non-toxic dust suppression measures. • Soil erosion may be caused by exposed surfaces and can be reduced by scheduling earthmoving works in a manner that avoids heavy rainfall periods as well as contouring and minimizing length and steepness of slopes as well as mulching to stabilize exposed areas. • In the unlikely event of any heritage or archaeological discoveries during the construction phase of the, the Local Authority and National Heritage Council (NHC) should be contacted immediately for guidance regarding the discovery. 	All
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 17. Impact on the Biophysical Environment – Waste Management (Effluent, Solid and Hydrocarbons)

Impact Event	Waste generation and disposal	Phase
Desired mitigation outcome	The objective respect to waste generation is to ensure that the best scenic value and integrity of the affected environment is maintained and or enhanced by reducing littering through proper use of waste management facilities	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Environmental awareness is an important aspect of environmental management, therefore all project staff and service providers must be educated of the environmental compliance requirements and urged to comply accordingly on induction with the project site. • Given that lodging is recommended to be at existing camp-sites and or lodges, this aspect shall be managed as part of the current property owners compliance requirements • In the field, hydrocarbon waste shall be contained (in spill kits) and stored in appropriate heavy-duty plastic cabbage , transported to the nearest waste-oil recycling / solid waste disposal facility in Mariental or Tsumeb • A sufficient number of spill kits shall be acquired and strategically placed, particularly near every storage areas to ensure that timely response to any potential fuel and lubricant spills is conducted (should the project require construction activities to be undertaken). These shall include an on-site used oil disposal bin(s) • Equally, effluent waste shall be managed in compliance with the lodging host's requirements, although during construction activities – temporary dry-pit toilet facility must be provided at every site. 	All
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

5.2.2 IMPACTS ON THE SOCIO-ECONOMIC ENVIRONMENT

Table 18. Environmental Impact: Human Health and Safety

Impact Event	Prevention and mitigation of any health and safety hazards / risks	Phase
Desired mitigation outcome	The objective of the mitigation in respect to health and safety hazards is to ensure that the health, safety and protection of both the project staff and community receive priority in terms of budgetary provision and compliance	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Strict compliance with the EMP is recommended in respect to managing incidental events; • Recommended mitigating measures include, but not limited to (Non-exhaustive list) - Periodic internal safety compliance audits. Health and Safety training and specialist programs should be provided as needed to ensure workers are oriented to the specific hazards of individual work assignments and all other present hazards, Hazard Risk Identification within Job Profiles/Machinery/Equipment/Work Areas and Tasks that are to be performed • Appointment of Safety Officers as custodians of safety within the workplace. In addition to these, Peer Educators and Health and Safety Representatives can also be nominated in constituent working teams in order to foster a culture of health and safety at the construction site. 	All
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 19. Impact on the Social Environment – Air and Noise Pollution

Impact Event	Disturbances to the social environment	Phase
Desired mitigation outcome	The objective of the mitigation in respect to ambient air quality and sense of place / noise and chance is to ensure that all possible receptors are identified and practical measures are put in place to reduce these impacts and or respond with appropriate mitigation to complaints	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Strict compliance with the EMP is recommended in respect to managing incidental events; • Noise complaint register must be kept and maintained regularly with mitigation measures adopted accordingly. • All excessive noise generating activities must be strictly carried out during the day between 08h00 (am) and 17h00 (pm) week days only. • Conditions of the Environmental Clearance Certificate and Surface-use Agreement (with the relevant Traditional Authority and Town) must be accordingly adhere to. <p>As much as possible, it is recommended that vehicles with the most minimum footprint are used such as smallest excavator and or graders, trucks etc....</p>	
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 20. Impact on the Social Environment – Culture, Heritage and Scenic values

Impact Event	Disturbances to the heritage and scenic value of the environment	Phase
Desired mitigation outcome	The objective of the mitigation in respect to impacts on cultural and archaeological heritage integrity is to ensure that at all times, project staff are vigilant of the potential to intrude, disturb and or damage important artifacts and therefore must avoid wandering onto any protected and or sensitive known or identified site.	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Strict compliance with the EMP is recommended in respect to managing incidental events • A stakeholder complaint register must be maintained regularly with mitigation measures adopted accordingly, recording all concerns relating impacts of the proposed energy generation activities on the cultural and scenic value of the environment which may be reported by interested and affected parties. • Contractors working on the site should be made aware that under the National Heritage Act, 2004 (Act No. 27 of 2004) any items protected under the definition of heritage found in the course of development should be reported to the National Heritage Council • The chance finds procedure as outlined in the EMP must be implemented at all times, and detailed field survey should be carried out if suspected archaeological resources or major natural cavities / shelters have been unearthed during the proposed energy generation operations. 	
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 21. Impact on the Economic Aspect

Impact Event	Disturbances on social and economic aspects	Phase
Desired mitigation outcome	The objective of the mitigation in respect to economic impacts relating to the proposed activity, is to ensure that potential negative economic impacts on other and existing land-use are prevented, reduced and or mitigated and the positive ones enhanced.	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • It is critical that timely and continuous communication and dissemination of information with the local community is ensured to alleviate potential sense of social marginalization, drive gender equality and enhance the understanding and perception of the benefits associated with Massaus 's activities • To enhance the positive impacts relating to marginal net benefits for the micro-economy (local residence of Mariental or Tsumeb Settlement and the region at large) and national economy at larger, legislative provisions to Affirmative Action and Labour Welfare must be observed • It is strictly recommended that Massaus negotiates and signs a Surface Use Agreement detailing aspects of conduct and benefit distribution with all key stakeholder i.e. local community, local authorities and other Operators or support institutions e.g. NGOs / CSOs) 	
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

Table 22. Site Closure and Rehabilitation

Impact Event	Disturbances on social and economic aspects	Phase
Desired mitigation outcome	The Proponent will commit to establishing a rehabilitation plan as part of the solar plant closure plan. A conceptual solar plant closure plan with costing is under development must be compiled by Massaus in association with Enviro-Leap and forms part of the environmental compliance and monitoring programme.	
Proposed Mitigation Measures	<ul style="list-style-type: none"> • Massaus shall submit regular (bi-annual or annual Environmental Reports) to the relevant Ministry stating the energy generation activities and environmental performance of the project. • Staff of the MET or Ministry of Mines and Energy may at any time inspect the energy generation area. Internal and external monitoring should involve Massaus safety and environmental officer and members of the MEFT. • Should the decision be taken that the project is not economically viable the area will be rehabilitated. The rehabilitation measures that are set out in the Rehabilitation Plan (to be compiled and approved by MEFT) are binding to all personnel on site including the crew and contractors. 	Closure
Responsibility	Massaus and Enviro-Leap Consulting (On contract basis)	

APPENDIX B: PUBLIC CONSULTATION

11 April - 17 April 2025

CONFIDENTE | *Lifting the lid*

Page | 17

CLASSIFIEDS

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NOTICE

Take notice that HARMONIC TOWN PLANNING CONSULTANTS CC, Town and Regional Planners, on behalf of the owner of the respective Erf, intend to apply to the Outapi Town Council and the Urban and Regional Planning Board for the:

- Rezoning of Erf No. 3215, Extension 15, Outapi from "Local Authority" to "Civic" and
- Consent to commence with the proposed development while the rezoning is in Progress.

Erf 3215, Extension 15 measures 14569 m² in extent and is zoned "Local Authority" as per Outapi Zoning Scheme. The owner wishes to rezone the erf from "Local Authority" to "Civic" to align the zoning designation with the existing use of the property, which currently accommodates an operational electric robotation. The client prefers rezoning the erf to "Civic" due to its size and intends to use the rest of the erf for a public institution. Sufficient parking for the development will be provided in accordance with the requirements of the Outapi Zoning Scheme.

Further take notice that the plan of the erf lies for inspection on the town planning notice board at the Outapi Town Council, Erf 376, Tuandu Main Road, Outapi and at Harmonic Town Planning Consultants, 76B Pasteur Street, Windhoek West. Publication of this notice

Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Outapi Town Council and with the Applicant in writing within 14 days of the last publication of this notice (final date for objections is Tuesday, 13 May 2025).

Contact: Harold Kiring
 Harmonic Town Planning Consultants CC
 Town and Regional Planners
 P.O. Box 3216 Windhoek
 Cell 081 127 5879
 Fax 0886 66401
 Email: hskiring@namibnet.com



NOTICE

Take notice that HARMONIC TOWN PLANNING CONSULTANTS CC, Town and Regional Planners, on behalf of the owner of the respective Erf, intend to apply to the City of Windhoek for the:

- CONSENT FOR A GENERATOR SALE OF MOTOR VEHICLE PARTS AND ACCESSORIES TO OPERATE ON "INDUSTRIAL" ERF NO. 8199, NGUNI STREET, WINDHOEK, EXTENSION 4

Erf No. 8199, Nguni Street, Windhoek measures approximately 11950 m² in extent and is zoned "Industrial" with a bulk of 1 as per the Windhoek Zoning Scheme. The owner intends to operate a General Dealer "Sale of Motor Vehicle Parts and Accessories" on the erf. Sufficient parking for the development is provided in accordance with the requirements of the Windhoek Zoning Scheme.

Further take notice that the plan of the erf lies for inspection on the town planning notice board at the City of Windhoek and at Harmonic Town Planning Consultants, 76B Pasteur Street, Windhoek West. Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the City of Windhoek and with the Applicant in writing within 14 days of the

Contact: Harold Kiring
 Harmonic Town Planning Consultants CC
 Town and Regional Planners
 P.O. Box 3216 Windhoek
 Cell 081 127 5879
 Fax 0886 66401
 Email: hskiring@namibnet.com



PUBLIC NOTICE



MUNICIPALITY OF HENTIES BAY

INTENTION TO ALIENATE PORTION 105 (SITUATED NORTH DUNE) OF THE FARM OF HENTIESBAAI TOWNLAND NO. 133 MESSRS VIGOR BIOTECHNOLOGY PTY LTD

By virtue of Council Resolution CO18/24/02/2025/C2nd/2025 and in terms of Section 63 (2)(b) of the Local Authorities Act, (Act 23 of 1992) as amended, read in conjunction with Section 30 (1)(c) of the Local Authorities Act 1992 (Act 23 of 1992) as amended, notice is hereby given that the Municipal Council of Hentiesbaai intends to alienate portion 105 of The Farm Of Hentiesbaai Townland no. 133, measuring 25,7201 hectares (Equivalent to 257,201 m²) at a cost rate of N\$ 5.00 per m² amounting to a total purchase price of N\$ 1,286 005 (One Million, Two Hundred and Eighty-Six Thousand and Five Namibian Dollars) by way of private treaty to Messrs Vigor Biotechnology Pty Ltd for the purpose of establishing a Seal Oil & Seal Products Processing Plant.

Further take note that the locality and the layout plan of the property lies open for inspection during office hours at the offices of the Municipality Council situated at the corner of Jakobsplatz Road and Nickay Yambo Avenue.

Any person(s) having objection(s) to the intended alienation of the portion may lodge such objection(s) fully motivated to the undersigned, within fourteen (14) days after the second placement of the advert.

Acting Chief Executive Officer
 P.O. Box 51
 Henties Bay

PUBLIC NOTICE

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ENVIRONMENTAL CLEARANCE FOR THE PROPOSED 20 MW PV SOLAR PARK (40 HA) WITHIN THE DPMT LICENSE BOUNDARIES IN TSUMEB, OSHKOTO REGION

1. PROJECT SITE AND DESCRIPTION

Massaus Investment cc (the Proponent), intends to apply to obtain an Environmental Clearance Certificate proposed The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) within the Dundee Precious Metals Tsumeb (DPMT) boundary, Oshkoto Region. The key component of the proposed activity entails the fencing off, construction of the proposed plant, operations and feeding the generated energy into the DPMT operations.

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all interested and Affected Parties (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are hereby requested to register by writing to us at the address below no later than 25 April 2025.

Please register and direct all comments, queries to:
 Environmental Assessment Practitioner
 Email: eap.trigen@gmail.com



PUBLIC NOTICE

Venue: CPP Quarry Site (17km east of Walvis Bay)
 Date: Thursday, 17 April 2025
 Time: 11:00 to 13:00

The public consultation meeting is scheduled as follows;

Notice is hereby given to all interested and Affected Parties (I&AP), that an application for an Environmental Clearance Certificate will be submitted to the Competent Authority and the Ministry of Environment, Forestry and Tourism (MEFT) for the following activities:

Project title: Proposed quarrying activities on Mining Claims 73147, 73148, 73149 & 73150
 Project location: Walvis Bay District, Erongo region

Proposed: Coastal Protection and Mining (CPP) or Development Green Gain Grants as has been approved to conduct an EIA for the proposed quarrying activities on four new mining claims 73147, 73148, 73149 & 73150.

The Mining Claims are located about 17km east of Walvis Bay surrounding the existing CPP Quarry.

The quarry operational activities involve removal of overburden and crushing of bedrock material into aggregate of different sizes and gravel by-products that are used in the construction industry. I&APs are hereby invited to register, request the Background Information Document (BID), attend the public meeting, and submit comments/input to info@greengain.com.na. The last day to submit input is 25 April 2025.

Green Gain Consultants
 Inquiries

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New Basic Education Policy to Tackle Funding Gaps

...22% of Namibia's annual government spending goes into the education sector

 Dwight Links

A newer basic education policy is being installed to address the funding issues that persist within the basic education realm of the country.

Anna Nghipondoka, Minister of Basic Education, introduced the School Grant Policy 2021-2030 at the start of February in the National Assembly before the term of the current parliament ends this week (20 March swearing in).

Nghipondoka outlines that the reason for the policy's introduction into the current 10 year space is to deal with the distribution of funding and resource allocation in the public basic education realm.

"School funding remains an important issue in Namibia for several reasons. In the first place, it is the number of persistent educational historical inequities among schools and learners countrywide that negatively impact the performance of most learners," Nghipondoka explains.

The spending that the government commits to the education industry has been applauded by the international development agency UNESCO, which has motivated in literature that Namibia has to maintain its plan on ensuring access to education for whole generations across Pre-primary, Primary, Secondary and lastly Tertiary.

The last is not so greatly represented in the overall assessment as this field is under the auspices of the higher Education ministry.

On the aspect of true expenditure by the state on education, Nghipondoka indicates that there is a constant 20% allocation every financial year to the sector.

Secondly, the inequity in the distribution of financial resources among schools is in contention with our Constitution (Article 20) which demands that "all persons shall have the right to education."

"On average 22% of Namibia's annual government spending goes into the education sector, which does not necessarily translate into the realisation of the principles of equality, equity, efficiency, effectiveness, accountability and transparency in pre-primary, primary and secondary education," the minister indicates.

INPUTS

The new policy is based on research that was conducted through stakeholder consultation between 2018 and 2019.

These consultations were the basis upon which the funding model would be formulated that is contained within the policy.

The disease has led to extended quarantine periods, further limiting market supply.

"Farmers need to vaccinate their cattle and avoid unnecessary movement to control the spread," Shivandu warned.

Despite the slow market, Shivandu remains optimistic about an upward trend in the coming months.

"I visited some auctions, and prices are starting to recover. By February and March, we should see more improvement," he stated.

Farmer Martin Indongo echoed these concerns, noting that good grazing conditions have lessened the urgency to sell.

"Right now, demand is low. If someone slaughters cattle, they may struggle to find buyers," he said.

She said national and regional consultations were conducted to inform the development of a funding model that is current and addresses the already established principles, especially the principle of equity.

This consultation process resulted in the development of the School Grant Policy.

"The aim of which is to reduce existing inequities through an efficient and equitable funding mechanism that ensures that schools and their learners from different socio-economic backgrounds access adequate resources required to participate fully in education, despite their past historical material or social disparities," Nghipondoka explained.

FUNDING APPROACH

The government will be primary support for the funding model.

The policy notes that this will be based on four tributaries that feed the overall goals of the education sector in Namibia.

"To achieve the policy goal and objectives the Government shall apply a four-objective funding formula that allows for flexibility in times of severe fiscal stress, and at the same time addresses the basic education curriculum needs in the different phases of education," the policy outlines.

The motivation is that schools and learners with lesser resources at their disposal will

be able to improve their performance in the sector and that the funding is to be allocated as extensively as possible.

"While this funding formula ensures that all schools and learners have access to matching teaching and learning resources, schools that are disadvantaged in terms of educational resources and infrastructure shall be allocated additional funding in order to bring them up to par with well-resourced schools," she stated.

This representation still persists in the Namibian education landscape as there are schools and learners with minimal resources and infrastructure. The formula is also based on the weighted cost of resource spring to each learner in the classroom per school.

"The total allocation per school shall be determined by the weighted cost for each learner enrolled based on curriculum attainment needs, unique individual learner needs, co-curricular and extracurricular/extramural needs plus the school characteristics factor," highlighted Nghipondoka.

The school characteristics factors are based on four factors.

These are the category of remoteness of the school; the socio-economic status of the community in which the school is located. The the asset index which is determined through analysis of the Namibia Household Income and Expenditure Survey data.

The operational cost; and the relief teacher salaries and transport costs for School Board members.

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ENVIRONMENTAL CLEARANCE FOR THE PROPOSED 20 MW PV SOLAR PARK (40 HA) AND THE ASSOCIATED 30 km long 66 kV POWERLINE OSHANA REGION

1. PROJECT SITE AND DESCRIPTION

Maseus Investment, as (the Proponent), intends to apply to obtain an Environmental Clearance Certificate proposed 20 MW PV Solar Park (40 Ha) on Farm Maseus No. 880 and the Associated 30 km long 66 kV Powerline (from the plant to the Oshana Substation) in Tsumeb, Oshana Region. The key component of the proposed activity entails the fencing off, construction of the proposed plant, and operations thereof (i.e. energy generation and transmission into the national grid via the Oshana Substation).

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are hereby requested to register by writing to us at the address below no later than 18 April 2025.

Please register and direct all comments, queries to:
Environmental Assessment Practitioner
Email: esp@trigen.com

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 • T: +264 (61) 246 136 E: fransina@confidentenambibia.com C: +264 81 231 7332

PUBLIC NOTICE



ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED CONSTRUCTION OF ACCESS ROAD UPGRADING TO GRAVEL STANDARDS OF ACCESS ROAD TO OKOKOLA CLINIC AND SCHOOL IN THE OMUSATI REGION (8KM)

Environam Consultants Trading (ECT) hereby gives notice to all potential interested and affected parties (I&APs) that an application will be made to the Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 of 6 February 2012).

Project Description: Construction of Gravel Access Road to Okokola Clinic and School (8km) in the Omusati Region. Upon the detail design of the Engineering Infrastructure by Ekwebi Consulting Engineers (ECE) and obtaining the Environmental Clearance Certificate from the Environmental Commissioner, the Client (Ministry of Works and Transport) through their consultants and contractors will commence with the construction of the gravel access road totalling a length of 8km from D0608 (along Engela Road) covering the Etayi Constituency. Other project elements and activities includes: mining of gravel from borrow pits, minor drainage structures, realignment of sharp curves and water supply to site routes.

Project Location: The Access Road starts from the intersection with the D3608 (along the Engela Road) to Okokola Clinic and Combined School.

Date & Venue: 11 April 2025 @ 10h30-12h30 (Venue: Mikotla pay point, Okokola Village, Omusati Region)

Proponent: Ministry of Works and Transport.

Registration of Interested and Affected Parties (I&APs) and Submission of Comments: All I&APs are therefore invited to register and submit their comments, concerns or questions in writing on or before Friday 18 April 2025 to:



Contact Person: Mr. Colin P. Marense (Environmental Consultant)
 Email: colin@environam.com
 Contact: +264 81 480 4297

PUBLIC NOTICE

MUNICIPALITY OF HENTIES BAY
 NOTICE



INTENTION TO ALIENATE PORTION 105 (SITUATED NORTH DUNE) OF THE FARM OF HENTIESBAAI TOWNLAND NO. 133 MESSERS VIGOR BIOTECHNOLOGY PTY LTD

By virtue of Council Resolution CO162462/2025/02nd/2025 and in terms of Section 63 (2)(b) of the Local Authorities Act (Act 23 of 1992) as amended, read in conjunction with Section 30 (1)(f) of the Local Authorities Act 1992 (Act 23 of 1992) as amended, notice is hereby given that the Municipal Council of Hentiesbaai intends to alienate portion 105 of The Farm Of Hentiesbaai Townland no. 133, measuring 25,7201 hectares (Equivalent to 257,201m²) at a cost rate of N\$ 5.00 per m² amounting to a total purchase price of N\$ 1,286,005 (One Million, Two Hundred & Eighty-Six Thousand and Five Hundred Dollars) by way of private treaty to Messrs Vigor Biotechnology Pty Ltd for the purpose of establishing a Seal Oil & Seal Products Processing Plant.

Further take note that the locality and the layout plan of the property lies open for inspection during office hours at the offices of the Municipal Council situated at the corner of Jakkelsdorp Road and Nickerly Jambou Avenue.

Any person(s) having objection(s) to the intended alienation of the portion may lodge such objection(s) fully motivated to the undersigned, within fourteen (14) days after the second placement of the advert.

Acting Chief Executive Officer
 P.O. Box 51
 Henties Bay

PUBLIC NOTICE

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ENVIRONMENTAL CLEARANCE FOR THE PROPOSED 20 MW PV SOLAR PARK (40 HA) WITHIN THE DPMT LICENSE BOUNDARIES IN TSUMEB, OSHIKOTO REGION

1. PROJECT SITE AND DESCRIPTION

Massus Investment on (the Proponent), intends to apply to obtain an Environmental Clearance on Certificate proposed The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) within the Dundee Precious Metals Tsumeb (DPMT) boundary, Oshikoto Region. The key component of the proposed activity entails the fencing off, construction of the proposed plant, operations and feeding the generated energy into the DPMT operations.

2. PUBLIC PARTICIPATION PROCESS

EnviroLeap Consulting invites all interested and affected parties (I&APs) to register and receive Environmental Assessment (EIA), Scoping and EMP documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and affected parties are herewith requested to register by writing to us at the address below no later than 25 April 2025.

Please register and direct all comments, queries to:
 Environmental Assessment Practitioner
 Email: sap.trigen@gmail.com



NOTICE

REPUBLIC OF NAMIBIA
 MINISTRY OF INDUSTRIALIZATION AND TRADE, LIQUOR ACT, 1998
 NOTICE FOR APPLICATION TO A COMMITTEE IN TERMS OF LIQUOR ACT 1998

REGULATIONS 14, 26 AND 28
 Notice is given that an applicant in terms of Liquor act, 1998 particulars of which appear below will be made to the regional Liquor Licensing committee, region OTJOZONDJUPA

Name and postal address of applicant
 ADOLPHINE URIPEKE RUPINGENA
 P.O. BOX 63091, WANAHEDE

1. Name of business or proposed business to which applicant relates. URI'S BAR
2. Address/ Location of premises to which applicants relates ONDJOMBOJOKUNE, OKONDJATU
3. Nature and details of application APPLICATION FOR A SHABEEN LICENSE
4. Clerk of the court with whom applicant will be lodged OKAKARARA
5. Date which application will be lodged 12-30 April 2025
6. Date of meeting of committee at which application will be heard 11 JUNE 2025

Any objection or written submission in term of section of the act in relation to the application must be sent or deliver r to the secretary of the committee, to reach the security not less than 21 days before the date of meeting of the committee at which the application will be heard.

PUBLIC NOTICE

REPUBLIC OF NAMIBIA
 MINISTRY OF INDUSTRIALIZATION AND TRADE, LIQUOR ACT, 1998
 NOTICE FOR APPLICATION TO A COMMITTEE IN TERMS OF LIQUOR ACT 1998
 REGULATIONS 14, 26 AND 28

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New N\$50 Million Housing Project for Divundu



 Annakita Haikara

Divundu will begin a new N\$50 housing development, this year to meet the growing demand for urban, modern infrastructure in the Mukwe Constituency, Kavango East Region.

Announced on Thursday by Mukwe Constituency Councillor Damian Maghambayi, the project will see the construction of 110 modern homes by El-Shaddai Trading Enterprise.

The construction is also expected to boost the constituency and Divundu economy and growth prospects through the spill effect and multiplier effect.

Maghambayi emphasised that the development would not only address the long-standing housing demand in the area but also create job opportunities for local youth, contributing to poverty reduction and fostering a sense of pride within the community.

"People from all walks of life can now begin preparing to secure bank pre-approvals and arrange their subsidies in order to purchase these modern homes," he said.

Maghambayi explained that the project and the investments are a critical step in supporting Divundu's expanding businesses, schools, and tourism sector, positioning the town as a key player in the region's economic development.

"These new homes represent more than just infrastructure; they symbolise a future of economic growth and improved living standards for the people," Maghambayi added.

Divundu, which already houses several lodges, supermarkets, and a growing blueberry farm, continues to thrive with key institutions like the Divundu Correctional Facility, Army Base, and Agricultural Research Centre contributing to the region's development.

"This infrastructure project is key to strengthening Namibia's presence in the region and global markets," Maghambayi stated.

Dinyando Tjitho, a Divundu resident, expressed the excitement of the local community.

*For years, we have hoped for Divundu to grow into a significant area, second only to Rundu.

With this new development, we are eager to purchase the homes and look forward to further improvements in the area," Tjitho said.

In an additional boost to the project, El-Shadai Trading has partnered with MTC to provide internet connectivity through MTC's Spectra Home service, marking the first such connection in Divundu.

This partnership will bring transformative digital access to the town, enhancing connectivity for residents.

Maghambayi concluded by noting that the government's commitment to affordable housing would ensure a bright future for Divundu, contributing to the continued flourishing of its economy and positioning the town as a catalyst for broader regional growth.

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ENVIRONMENTAL
CLEARANCE FOR THE PROPOSED 20 MW PV SOLAR PARK (40 HA) AND THE
ASSOCIATED 30 KM LONG 66 KV POWERLINE OSHIKOTO REGION

1. PROJECT SITE AND DESCRIPTION

Masaus Investment Co. (the Proponent), intends to apply to obtain an Environmental Clearance Certificate proposed The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) on Farm Masaus No. 865 and the Associated 30 km long 66 kV Powerline (from the plant to the Oshikoto Substation in Tsumeb), Oshikoto Region. The key component of the proposed activity entails the fencing off, construction of the proposed plant, and operations thereof i.e. energy generation and transmission into the national grid via the Oshikoto Substation.

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA, Scoping and EMP) documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are herewith request to register by writing to us at the address below no later than **18 April 2025**.

Please register and direct all comments, queries to:
Environmental Assessment Practitioner
Email: eap.trigen@gmail.com



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 T: +264 (61) 246 136 E: fransina@confidentenambila.com C: +264 81 231 7332

PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR THE PROPOSED 8KM ACCESS GRAVEL ROAD OFF MR 124 (C34) ROAD, OKATUMBA TO OTJANI VILLAGE, KUNENE REGION, NAMIBIA.

EnviroPlan Consulting cc hereby gives notice to all potential interested and Affected Parties (I&APs), that an application for Environmental Clearance Certificate will be made to the Environmental Commissioner in terms of the Environmental Management Act (No. 7 of 2007) as follows:

Proponent: Ministry of Works and Transport

Environmental Assessment Practitioner: EnviroPlan Consulting cc

Project Description: Ministry of Works and Transport hereby referred to as the project proponent intends to establish an 8 km access gravel road off C34 road Okatumba to Otjani village, Kunene Region, Namibia. The proposed access road came into consideration after the Kunene regional council raised concerns over the accessibility to newly established rural constituency office, Otjani Clinic and Primary school. These amenities offer a very vital social and economic benefits to the community and the region at large. With the increase in lucrative business opportunities in the region, tourism activities and administrative services.

Project Location: Off C34 road Okatumba to Otjani Village, Kunene Region, Namibia. Otjani village is located approximately 80km from Opuwo along the C43 road to Sesfontein. The proposed 8km access gravel road coordinates are as follows:

Point number	Latitude	Longitude
Starting point	-18, 57291	-13, 72089
Point 2 - Proposed route	-18, 57304	-13, 71242
Point 3 - Alternative route	-18, 57091	-13, 71168
Point 4 - Alternative and proposed meet with existing track road	-18, 57332	-13, 70496
Point 5 - Access to shopping Centre	-18, 56688	-13, 67833
Point 6 - Opuwo rural constituency offices	-18, 56359	-13, 67562
Point 7 - Primary school	-18, 56309	-13, 67851
Point 8 - Clinic	-18, 56179	-13, 67921

Public participation process: Interested and Affected Parties are hereby notified that public consultations are ongoing and a meeting will be held on the 25th March 2025 at the Rural constituency offices in Otjani village

DATE AND TIME	ACTIVITY	VENUE - VILLAGE
29.03.25, 10:00 AM - 12:00 PM	CONSULTATIVE MEETING	OTJANI RURAL CONSTITUENCY OFFICES

The participation and commenting period are effective until 30 MARCH 2025.

To register or request for documents submit your details in writing to the Environmental Consultant and contact details given:

EnviroPlan Consulting
 Environmental Consultant
 Contact person: Talent Nyunyu
 Phone: +264 814 087462
 Info@enviroplanconsulting.com

PUBLIC NOTICE

SCOPING ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MINERAL EXPLORATION ACTIVITIES ON MINING CLAIMS 75514-46 AND 75120-23, OMUSATI REGION

THE PROPONENT proposes to undertake exploration activities for Base and Rare Metals on Mining Claims (75554, 75553, 75552, 75551 and 75550) in Kunene region.

ENVIRONMENTAL COMPLIANCE: Before undertaking these activities, there is a need for compliance to requirements under the Environmental Management Act (No. 7 of 2007) and its EIA Regulations (GN. 4876 of 06 February 2012). For this reason, Consultants were appointed to support application for the Environmental Clearance Certificate (ECC).

PUBLIC NOTICE: This Public Notice is published in terms of Regulation 21(a) in the EIA Regulations.

INVITATION TO PARTICIPATE: Interested & Affected Parties (I&APs) are notified to register in order to receive information about this proposed project by contacting the below.

Lead Environmental Assessment Practitioner

Envirodru Consulting & Training Solutions cc

P.O. Box 4120, Swakopmund

Email: ecotac@gmail.com or leadap@ecutenambila.com

Website: www.ecutenambila.com



PUBLIC NOTICE

SCOPING ENVIRONMENTAL IMPACT ASSESSMENT FOR THE PROPOSED MINERAL EXPLORATION ACTIVITIES ON MINING CLAIMS 75554, 75553, 75552, 75551 AND 75550 AT FARM DORSLAAN 621 AND FARM KAMDESCH 624, KHORIXAS, KUNENE REGION

KIRIN FRIENDSHIP INVESTMENTS cc proposes to undertake exploration activities for Base and Rare Metals on Mining Claims (75554, 75553, 75552, 75551 and 75550) in Kunene region.

ENVIRONMENTAL COMPLIANCE: Before undertaking these activities, there is a need for compliance to requirements under the Environmental Management Act (No. 7 of 2007) and its EIA Regulations (GN. 4876 of 06 February 2012). For this reason, Consultants were appointed to support application for the Environmental Clearance Certificate (ECC).

PUBLIC NOTICE: This Public Notice is published in terms of Regulation 21(a) in the EIA Regulations.

INVITATION TO PARTICIPATE: Interested & Affected Parties (I&APs) are notified to register in order to receive information about this proposed project by contacting the below.

Lead Environmental Assessment Practitioner

Envirodru Consulting & Training Solutions cc

P.O. Box 4120, Swakopmund

Email: ecotac@gmail.com or leadap@ecutenambila.com

Website: www.ecutenambila.com



PUBLIC NOTICE

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ENVIRONMENTAL CLEARANCE FOR THE PROPOSED 20 MW PV SOLAR PARK (40 HA) AND THE ASSOCIATED 30 KM LONG 66 KV POWERLINE OSHKOTO REGION

1. PROJECT SITE AND DESCRIPTION

Masau Investment cc (the Proponent), intends to apply to obtain an Environmental Clearance Certificate proposed The Proposed Establishment and Operation of a 20 MW PV Solar Park (40 Ha) on Farm Masau No. 805 and the Associated 30 km long 66 kV Powerline (from the plant to the Oshkoto Substation in Taubeb), Oshkoto Region. The key component of the proposed activity entails the fencing off, construction of the proposed plant, and operations thereof (i.e. energy generation and transmission into the national grid via the Gibeon Substation).

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA, Scoping and EMP) documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are herewith request to register by writing to us at the address below no later than 18 April 2025.

Please register and direct all comments, queries to: Environmental Assessment Practitioner
 Email: eap.trigen@gmail.com



PUBLIC NOTICE

CALL FOR REGISTRATION AS INTERESTED AND AFFECTED PARTIES

ENVIRONMENTAL ASSESSMENT FOR AN APPLICATION FOR ENVIRONMENTAL CLEARANCE FOR MINERAL EXPLORATION AND SMALL-SCALE MINING ON MINING CLAIMS 71707, ERONGO REGION

1. PROJECT SITE AND DESCRIPTION

Mr. Ipheusa Muenje (the Proponent), intends to apply to obtain an Environmental Clearance Certificate proposed Base and Rare Metals (Copper) mineral right on Mining Claim 71707 totalling an area of 17.7 Hectares. The Mining claims are situated near Omas Village, Opuwo District of the Kunene Region. The key component of the proposed activity entails mining of Marble and continued exploration activities. Access to the sites will be by existing tracks and on foot where vehicle access is limited.

2. PUBLIC PARTICIPATION PROCESS

Enviro-Leap Consulting invites all Interested and Affected Party (I & AP) to register and receive Environmental Assessment (EIA, Scoping and EMP) documents relating to the proposed project for their comments and input.

3. COMMENTS AND QUERIES

Interested and Affected Parties are herewith request to register by writing to us at the address below no later than 18 April 2025.

Please register and direct all comments, queries to: Environmental Assessment Practitioner Email: eap.trigen@gmail.com



ENVIRONMENTAL CLEARANCE NOTICE

Public Participation Notice in terms of Regulation No. 25, Section 21 under the Environmental Management Act (Act No. 7 of 2007)

Project Activity / Project Name:
 • Subdivision - Dividing Portion X from Farm Henteebaal Townlands No. 133, which is currently zoned "Undetermined"
 • Rezoning - Changing the zoning of Portion X (1.47 hectares) from "Undetermined" to "Public & Private Parking Space"
 • Consolidation - Merging Portion X (1.47 hectares) with an 8,000 square meter plot that has already been approved for the development of a boutique hotel.

REPORT TITLE:
 EIA for Subdivision of Farm Henteebaal Townlands No. 133 into Portion 144 and Remainder, Rezoning of Portion 144 (1.47 Hectares) from "Undetermined" to "Parking," and Consolidation of Portion 144 with Portion 132 of Farm Henteebaal Townlands No. 133, Erongo Region

Project Location:
 • Portion 144 of Farm Henteebaal Townlands No. 133, Erongo Region, Namibia

Proponent: Continuum HB Property Investments (Pty) Ltd

EAP: Erongo Consulting Group (Pty) Ltd

Reviewer: Ministry of Environment, Forestry & Tourism (MEFT)

The EIA for the boutique hotel development in Henteebaal will evaluate the environmental effects of the subdivision, rezoning, and consolidation of land. It will assess impacts on local ecosystems, water management, traffic, and the community. The EIA will also propose mitigation measures to minimize negative effects, ensuring sustainable development while protecting the environment.

We invite Interested and Affected Parties (I&APs) to join the public consultation process. Comments are welcome until 14th March 2025. A public meeting will be held based on stakeholder interest.

Contact Information:
 • Tel / WhatsApp: +264 (0) 81 878 66 76
 • Email: info@erongoconsultinggroup.co.za

We value your input and look forward to your contributions to ensure high environmental standards and sustainability.



PUBLIC NOTICE

PUBLIC NOTICE: EIA FOR THE PROPOSED EXPLORATION ACTIVITIES ON EPL NO: 10141 OKAHANDJA, OTJOZONDJUPA REGION.

In accordance with the Environmental Management Act No. 7 of 2007 and its 2012 EIA regulations, the proposed exploration activities on EPL no 10141 require an Environmental Clearance Certificate before commencement.

The proponent, Ludi Namibia Mining and Investment (PTY) LTD, is proposing to conduct exploration activities on EPL no: 10141 in Okahandja district, Otjozondjupa region.

Consultant: Kalahari Geological and Environmental Solutions

Members of the public are invited to register as I&APs for comments/inputs in order to receive further information on the EIA process on, and before the 28th of March 2025 at kalaharigeoenviro@gmail.com

For more information please contact:
 Mr Joseph Kawina
 Mobile: +264 813997277



PUBLIC NOTICE

ENVIRONMENTAL IMPACT ASSESSMENT PROPOSED SAND MINING (GRAVEL), OHAMEVA VILLAGE, OKONGO CONSTITUENCY, OHANGWENA REGION & INVITATION TO A PUBLIC MEETING

Tortoise Environmental Consultants (TEC) hereby notifies all Interested and Affected Parties (I&APs) that an application for an Environmental Clearance Certificate will be submitted to the Environmental Commissioner, in accordance with the provisions of the Environmental Management Act (No. 7 of 2007) and EIA Regulations (GN 30 of 2012) as follows:

Proponent: Napukwa Investment CC

Project Location: Ohameva, Okongo Constituency

Public meeting venue: Ohameva village Headman's house

Date: 22nd March 2025

Time: 12H00 pm - 14H00 pm

Deadline for Comments: 9th April 2025

Register as I&APs @

Email: info@tec.com.na

Postal Address: P.O. Box 35473,

Cell phone: +264811220114 or

+264814077616



ENVIRONMENTAL CLEARANCE NOTICE

Public Participation Notice in terms of Regulation No. 25, Section 21 under

Report Title: Environmental Impact Assessment (EIA) for Prospecting Activities under Exclusive Prospecting Licence (EPL) 10173, Opuwo Magisterial District, Kunene Region, Namibia

Project Location: EPL 10173, Kunene Region, Opuwo Magisterial District, near the southwestern border of Angola. Coordinates: 17°07'32.28" S, 15°15'44.50" E

Proponent: Frangion Investment CC

EAP: Erongo Consulting Group (Pty) Ltd

Competent Authority: Ministry of Mines & Energy (MME)

Reviewer: Ministry of Environment, Forestry & Tourism (MEFT)

Local Authority: Opuwo Town Council, Kunene Region, Namibia

The EIA for EPL 10173 in the Opuwo Magisterial District will assess environmental and social impacts, including land disturbance, water resources, biodiversity, air quality, noise, and socio-economic factors. Mitigation measures will ensure sustainable exploration while protecting the environment and communities.

Interested and Affected Parties (I&APs) are invited to participate. Submit comments by 25 March 2025. A public meeting will be held if there is interest.

Contact Information:

• Tel / WhatsApp: +264 (0) 81 878 66 76

• Email: info@erongoconsultinggroup.co.za / erongoconsulting@gmail.com

How to Participate:

• **Register as an I&AP:** To receive project updates and documents, including the Draft EIA Scoping Report and Draft Environmental Management Plan (EMP), please contact Erongo Consulting Group using the details above.

• **Submit Comments:** Written comments can be submitted via email or post to the address provided.

• **Public Meetings:** Details of public meetings (if applicable) will be communicated to registered I&APs.

Note: All comments received during the commenting period will be reviewed and addressed in the final EIA report. Your participation is vital to ensuring that the project is conducted in an environmentally and socially responsible manner.



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APPENDIX C: RESUME OF EAP

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PROFESSIONAL PROFILE

Mr. LAWRENCE TJATINDI
Project Manager and Environmental Practitioner

ID Number :	82110710012	EMAIL:	eap.trigen@gmail.com
Country of Residence :	Namibia	Cell:	+264-81-486-9948
Nationality:	Namibian		

PROFESSIONAL OVERVIEW

Experience Internationally:

Countries worked: Namibia

Languages: English (*fluently written, spoken and read*);
Otjiherero (*fluently spoken, written and read*)
Afrikaans (*well spoken, fairly written and read*)

Languages: Project Management
Tailings Risk and water balance
Waste water treatment technologies
Feasibility studies – Mining Projects
Water Supply and reticulation design

ACADEMIC QUALIFICATIONS:

2009	University of Stellenbosch	Senior Management Development Program (Business School)
2007	University of Cape Town	Bachelor of Science in Chemical Engineering

EMPLOYMENT RECORD:

May 2022 - Current: Enviro-Leap Consulting Cc

Position: Project Management and Environmental Practitioner

- Update stakeholder register and manage engagement plan
- Conduct environmental compliance inspections and audits
- Represent Enviro-Leap at stakeholder engagement meetings
- Coordinate closure and rehabilitation of mining development projects
- Attend site visits for new projects
- Meet with clients to align requirements with Enviro-Leap's output. Compile and review environmental policies and audits

January 2018 – April 2022 (fixed-term 4 plus years)

Position: Senior Engineer – Water and Tailings Risk Management: Dundee Precious Metal Tsumeb Smelter

Responsibilities:

- Waste water treatment and effluent quality compliance monitoring
- Ensure compliance with water abstraction permit
- Internal auditing of Tailings compliance with corporate standards and international good practice
- Operationalization of recommendations from Expert reviews and mandatory audits.
- Ensure tailings operation is in line with design specifications
- Provide specifications that feeds into the tailings design tables



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April 2015 – December 2017

Position: Senior Metallurgist – Product Recovery Section: Langer Heinrich Uranium Mine

Responsibilities:

- Technical advisor to the recovery section – Setting metallurgical Operating parameters
- Test work lead for Membrane technology – Nano Filtration, Ultra Filtration, Reverse Osmosis
- Test work lead for Ion exchange separation efficiency – NIMCIX and Fixed Bed ion exchange

August 2010 to July 2014

Position: Technical Metallurgist – Water Management and Tailings Planning: Rössing Uranium Mine

Responsibilities:

- Technical advisor to the tailings management team
- Recommend improvement initiatives for return dam solution
- Formulation of 5 year deposition planning

Position: Process Control Metallurgist

Responsibilities:

- Technical advisor for the recovery section of the refinery

Position: Test work Lead – Pre-feasibility study for heap leaching of low grade Uranium ore

Responsibilities:

- Lead the test work team for the feasibility study for Heap Leaching
- Write up of study findings
- Design test work program for the study

February 2007 – July 2010

Position: Graduate Metallurgist – Sulphuric acid and water treatment plant: Skorpion Zinc mine

- Completed graduate development program
- Junior area metallurgist for the acid and water section of the plant
- Custodian of water balance of the plant
- Metal accountant for the refinery section

CERTIFICATION

I, the undersigned, Shadrack Tjiramba, hereby certify to the best of my knowledge that the information provided herein correctly describe me, my qualifications and experience.

Date: 20 January 2024

Signature: 



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