




***ENVIRONMENTAL IMPACT ASSESSMENT  
FOR THE CONSTRUCTION AND  
OPERATION OF A 5MW PHOTOVOLTAIC  
PLANT, STORAGE FACILITIES AND  
UNDERGROUND POWERLINES ON  
PORTION A OF PORTION 237 OF FARM  
FINKENSTEIN NO. 526, WINDHOEK***

***2023***

***App - 230630001643***

<p><b>Project Name:</b></p>	<p><b><i>ENVIRONMENTAL IMPACT ASSESSMENT FOR THE CONSTRUCTION AND OPERATION OF A 5MW PHOTOVOLTAIC PLANT, STORAGE FACILITIES AND UNDERGROUND POWERLINES ON PORTION A OF PORTION 237 OF FARM FINKENSTEIN NO. 526, WINDHOEK</i></b></p>
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## EXECUTIVE SUMMARY

Spiranti Investments (Pty) Ltd, the proponent, intends to purchase a portion of ±10ha (Portion A) of Portion 237 of Farm Finkenstein No. 526, Windhoek for **the construction and operation of a 5MW Photovoltaic Plant with battery storage facilities**. The proposed PV Plant will supply electricity to a data colocation center/data warehouse to be constructed on Erf 1 of Farm Finkenstein No. 526.

In terms of the Regulations of the Environmental Management Act (No 7 of 2007) an Environmental Impact Assessment must be done to address the following 'Listed Activities':

### ***ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES***

1. *The construction of facilities for -*
  - (a) *the generation of electricity.*
  - (b) *the transmission and supply of electricity.*

*Green Earth Environmental Consultants* were appointed by the Proponent, Spiranti Investments (Pty) Ltd, to conduct an Environmental Impact Assessment to **obtain an Environmental Clearance for the construction and operation of a 5MW Photovoltaic Plant with Battery Storage** on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek.

Other Acts, Regulations and Policies will also be consulted to ensure that the proposed project is in legal compliance.

The key characteristics/environmental impacts of the proposed project are as follows:

<b>Activity</b>	<b>Impact</b>
±10ha area must be cleared of small trees and bushes to accommodate the Photovoltaic Plant, batteries, and transfer station.	Low impact – area already partly cleared in the past, mainly covered by intruder bush and impacted by human activities and grazing interference.
5 MW PV Plant to be constructed.	Medium impact during construction and low impact during operations.
± 200 PV modules to be fitted on aluminium/steel racks ± 1.2m above ground for reduced heat reflection.	Positive impact – improved efficiency of operation of the PV Plant.
PV Plant area to be fenced off with a security fence to prevent human and animal interference.	Low impact as fence does not interfere with animal, human or vehicular tracks.
±1,5km of underground power lines to be constructed to link PV Plant with existing substation.	Low impact – lines to be aligned with existing servitudes and roads.
Topography of the site require the minimum civil/groundworks and natural contours and surface drainage to be maintained.	Low impact – existing surface drainage system to be used.

Cable trenches 1m deep and be backfilled and compacted to standard to prevent erosion.	Low impact – soil erosion to be minimized.
Electricity storage with lithium-ion (Li-ion) batteries.	Low impact - batteries to be enclosed in a steel container on concrete basis.
Powerline bird interaction.	None – power lines to be underground.
Road and powerline crossings to be approved by the necessary authorities based on actual site survey data and profiling.	Low impact – line to be underground through sleeves under the roads to be done in accordance with specification and requirements with approval of affected authorities.
The PV Plant and transfer station area will be maintained and kept clean from bush/shrub/tree regrowth by application of environmentally friendly herbicides and hand clearing.	Low impact - a systemic, broad-spectrum glyphosate-based herbicide, glyphosate-based herbicides do have a significant risk for human or environmental health when the product label is not properly followed.
Renewable source of energy which will reduce operation costs.	Positive impact.
Less pressure on NamPower network.	Positive impact.

The environmental impacts during the operational phase of the proposed project:

<b>IMPACTS DURING OPERATIONAL PHASE</b>			
<b>Aspect</b>	<b>Impact Type</b>	<b>Significance of impacts Unmitigated</b>	<b>Significance of impacts Mitigated</b>
Ecology Impacts	-	M	L
Dust and Air Quality	-	M	L
Groundwater Contamination	-	M	L
Waste Generation	-	M	L
Failure of Reticulation Pipeline	-	M	L
Fires and Explosions	-	M	L
Safety and Security	-	M	L

<b>IMPACT EVALUATION CRITERION (DEAT 2006):</b>		
<b>Criteria</b>	<b>Rating (Severity)</b>	
<b>Impact Type</b>	+	Positive
	O	No Impact
	-	Negative
<b>Significance of impacts</b>	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)



Some of the positive impacts associated with the proposed solar plant that is intended are the generation of energy, making use of a renewable source of energy and the creation of employment through the construction of infrastructure and operations.

The type of activities that will be carried out on the site will not negatively affect the amenity of the locality and the activities will not adversely affect the environmental quality of the area. None of the potential impacts identified are regarded as having a significant impact to the extent that the proposed project should not be allowed. However, the operational activities further on need to be controlled and monitored by the assigned managers and the proponent. Mitigation measures will be provided that can control the extent, intensity, and frequency of these named impacts in order not to have substantial negative effects or results.

It is believed that the overall cumulative impact on the biophysical environment will be low and there will be a positive impact on the socio-economic environment.

The Environmental Impact Assessment which follows upon this paragraph was conducted in accordance with the guidelines and stipulations of the Environmental Management Act (No 7 of 2007) meaning that all possible impacts have been considered and the details are presented in the report.

Based upon the conclusions and recommendations of the Environmental Impact Assessment Report and Environmental Management Plan, the Environmental Commissioner of the Ministry of Environment, Forestry and Tourism is herewith requested to:

1. Accept the Environmental Impact Assessment;
2. Approve the Environmental Management Plan;
3. Issue an Environmental Clearance for the construction and operation of a 5MW photovoltaic plant, storage facilities and underground powerlines on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek and for the following "listed activities":

***ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES***

1. *The construction of facilities for -*
  - (a) *the generation of electricity.*
  - (b) *the transmission and supply of electricity.*

# TABLE OF CONTENTS

LIST OF FIGURES .....	8
LIST OF ABBREVIATIONS.....	9
1. INTRODUCTION .....	10
2. TERMS OF REFERENCE .....	10
3. NEED AND DESIRABILITY .....	12
4. SITE INFORMATION AND PROJECT DESCRIPTION.....	16
4.1. LOCALITY, SIZE AND USE .....	16
5. BULK SERVICES AND INFRASTRUCTURE .....	25
5.1. ACCESS.....	25
5.2. WATER SUPPLY / REQUIREMENTS.....	26
5.3. ELECTRICITY.....	26
5.4. SEWAGE DISPOSAL.....	26
5.5. STORM WATER AND DRAINAGE .....	26
5.6. SOLID WASTE .....	27
5.7. FIRE PROTECTION .....	27
6. APPROACH TO THE STUDY .....	27
7. ASSUMPTIONS AND LIMITATIONS.....	28
8. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS .....	28
9. AFFECTED RECEIVING ENVIRONMENT.....	39
9.1. BIODIVERSITY AND VEGETATION.....	39
9.2. GEOLOGY AND SOILS .....	40
9.3. SOCIO ECONOMIC ENVIRONMENT .....	41
9.4. CLIMATE .....	41
9.5. HYDROLOGICAL COMPONENT.....	42
9.6. CULTURAL HERITAGE .....	42
10. IMPACT ASSESSMENT AND EVALUATION.....	42
10.1. IMPACTS DURING THE CONSTRUCTION ACTIVITY .....	43
10.1.1. WATER USAGE.....	44
10.1.2. ECOLOGICAL IMPACTS.....	44
10.1.3. DUST POLLUTION AND AIR QUALITY.....	44
10.1.4. NOISE IMPACT.....	45
10.1.5. HEALTH, SAFETY AND SECURITY .....	45
10.1.6. CONTAMINATION OF GROUNDWATER .....	46

10.1.7.	SEDIMENTATION AND EROSION.....	46
10.1.8.	GENERATION OF WASTE.....	47
10.1.9.	CONTAMINATION OF SURFACE WATER.....	47
10.1.10.	TRAFFIC AND ROAD SAFETY.....	48
10.1.11.	FIRES AND EXPLOSIONS.....	48
10.1.12.	SENSE OF PLACE.....	48
10.2.	IMPACTS DURING THE OPERATIONAL PHASE.....	49
10.2.1.	ECOLOGICAL IMPACTS.....	49
10.2.2.	DUST POLLUTION AND AIR QUALITY.....	49
10.2.3.	CONTAMINATION OF GROUNDWATER.....	49
10.2.4.	GENERATION OF WASTE.....	50
10.2.5.	FAILURE IN RETICULATION PIPELINES.....	50
10.2.6.	FIRES AND EXPLOSIONS.....	50
10.2.7.	HEALTH, SAFETY AND SECURITY.....	51
10.3.	CUMULATIVE IMPACTS.....	51
11.	ENVIRONMENTAL MANAGEMENT PLAN.....	52
12.	CONCLUSION.....	52
13.	RECOMMENDATION.....	53
	APPENDIX A: NEWSPAPER NOTICES.....	55
	APPENDIX B: NOTICE AT MUNICIPALITY.....	59
	APPENDIX C: NOTICE ON SITE.....	60
	APPENDIX D: INTERESTED AND AFFECTED PARTIES.....	61
	APPENDIX E: EMAILS RECEIVED FROM I&APs.....	62
	APPENDIX F: COMMENTS RECEIVED FROM I&APs.....	66
	APPENDIX G: RESPONSE TO QUESTIONS.....	83
	APPENDIX H: CURRICULUM VITAE OF CHARLIE DU TOIT.....	91
	APPENDIX I: CURRICULUM VITAE OF CARIEN VAN DER WALT.....	93
	APPENDIX J: ENVIRONMENTAL MANAGEMENT PLAN.....	94

## LIST OF FIGURES

<i>Figure 1: Generation Capacity</i> .....	12
<i>Figure 2: The Harambee Prosperity Plan II (2021-2025)</i> .....	13
<i>Figure 3: Location of Portion 237 of Farm Finkenstein No. 526, Windhoek</i> .....	17
<i>Figure 4: Subdivision Plan of Portion 237</i> .....	20
<i>Figure 5: Subdivision Plan of Portion 237 with image</i> .....	21
<i>Figure 6: Inova Renewable Energy (1)</i> .....	22
<i>Figure 7: Inova Renewable Energy (2)</i> .....	23
<i>Figure 8: Example of Solar Panels (Electricity Distributers, 2018)</i> .....	23
<i>Figure 9: Lithium-ion Battery layout</i> .....	24
<i>Figure 10: Illustration of Solar Panel to Energy (Origins of Solar Energy, 2012)</i> .....	25
<i>Figure 11: Site showing access road</i> .....	26
<i>Figure 12: Flowchart of the Impact Process</i> .....	38
<i>Figure 13: Biomes in Namibia (Atlas of Namibia, 2002)</i> .....	39
<i>Figure 14: Photo of Project Site area (1)</i> .....	39
<i>Figure 15: Photo of Project Site area (2)</i> .....	40
<i>Figure 16: Geology of Namibia (Atlas of Namibia Project, 2002)</i> .....	40
<i>Figure 17: Average annual temperatures in Namibia (Atlas of Namibia Project, 2002)</i> . 42	



## **LIST OF ABBREVIATIONS**

CAN	Central Area of Namibia
EC	Environmental Clearance
ECO	Environment Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
I&APs	Interested and Affected Parties
MEFT	Ministry of Environment, Forestry and Tourism
SQM	Square Meters

# 1. INTRODUCTION

Spiranti Investments (Pty) Ltd, the proponent, intends to purchase a portion of ±10ha (Portion A) of Portion 237 of Farm Finkenstein No. 526, Windhoek for **the construction and operation of a 5MW Photovoltaic Plant with battery storage facilities**. Spiranti Investments (Pty) Ltd appointed Du Toit Town Planning Consultants to attend to the town planning procedures to subdivide Portion 237 of Farm Finkenstein No. 526 to create a portion (portion A) for the establishment of the PV Plant and supporting infrastructure. The Proposed PV Plant will supply electricity to a data colocation center/data warehouse to be constructed on Erf 1 of Farm Finkenstein No. 526.

In terms of the Regulations of the Environmental Management Act (No 7 of 2007) an Environmental Impact Assessment must be done to address the following 'Listed Activities':

## ***ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES***

*1. The construction of facilities for -*

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*Green Earth Environmental Consultants* were appointed by the Proponent, Spiranti Investments (Pty) Ltd, to conduct an Environmental Impact Assessment to **obtain an Environmental Clearance for the construction and operation of a 5MW Photovoltaic Plant with Battery Storage** on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek.

Other Acts, Regulations and Policies will also be consulted to ensure that the proposed project is in legal compliance.

The Environmental Impact Assessment below contains information on the proposed project and the surrounding areas, the proposed activities, the applicable legislation to the study conducted, the methodology that was followed, the public consultation that was conducted, and the receiving environment's sensitivity and any potential ecological, environmental, and social impacts.

# 2. TERMS OF REFERENCE

To be able to implement the proposed project, an Environmental Impact Assessment and Environmental Clearance is required. For this environmental impact exercise, Green Earth Environmental Consultants followed the terms of reference as stipulated under the Environmental Management Act.

The aim of the environmental impact assessment is:

- To ascertain existing environmental conditions on the site to determine its environmental sensitivity.
- To inform I&APs and relevant authorities of the details of the proposed development and to provide them with an opportunity to raise issues and concerns.
- To assess the significance of issues and concerns raised.
- To compile a report detailing all identified issues and possible impacts, stipulating the way forward and identify specialist investigations required.
- To outline management guidelines in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.
- To comply with Namibia's Environmental Management Act (2007) and its regulations (2012).

The tasks that were undertaken for the Environmental Impact Assessment included the evaluation of the following: climate, water (hydrology), vegetation, geology, soils, socio economic impact, cultural heritage, groundwater, sedimentation, erosion, biodiversity, sense of place, socio-economic environment, health, safety and traffic.

The EIA and EMP from the assessment will be submitted to the Environmental Commissioner for consideration. The Environmental Clearance will only be obtained (from the DEA) once the EIA and EMP has been examined and approved for the listed activity.

The public consultation process as per the guidelines of the Act has been followed. The methods that were used to assess the environmental issues and alternatives included the collection of data on the project site and surrounding area, info obtained from the proponent and the Ministry of Environment, Forestry and Tourism and identified and affected stakeholders. Consequences of impacts were determined in five categories: nature of impact, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity.

All other permits, licenses or certificates that are further on required for the operation of the proposed project still needs to be applied for by the proponent.

### 3. NEED AND DESIRABILITY

The characteristics of the Namibian Energy Sector is summarised in the paragraph below from information provided by USAID. In terms of this overview, the power sector in Namibia has undertaken several reforms aimed at attracting Independent Power Producers (IPPs) by providing a stable investment environment. Such reforms include the horizontal consolidation of more than 70 distributors into five regional electricity distribution companies (REDs) and the establishment of transparent tariff setting procedures, all overseen by the sector regulator, the Electricity Control Board (ECB). While the country's generation mix utilizes primarily hydropower, thermal power from burning coal and solar, most of the electricity is imported (about 60% of the total electrical energy requirement), primarily through bilateral contracts from South Africa's Eskom and the Southern Africa Power Pool (SAPP) including countries like Zambia and Zimbabwe (obtained from: <https://www.usaid.gov/powerafrica/namibia>).

The current generation capacity (18 November 2021, as per USAID) is summarized below:

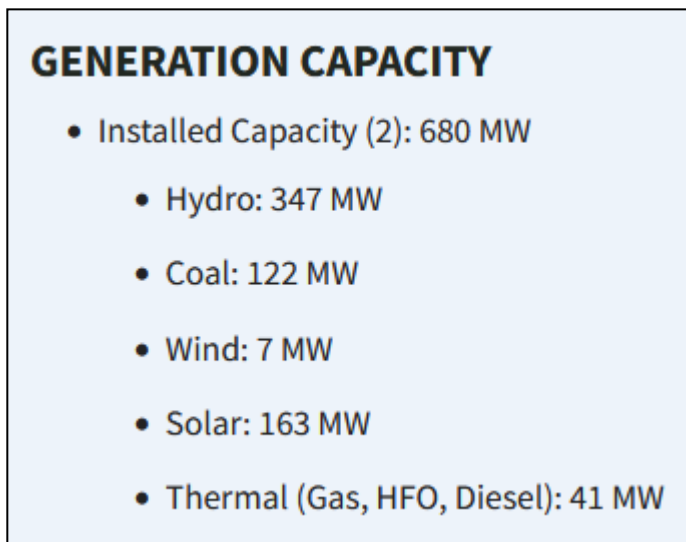


Figure 1: Generation Capacity

## Need (On the National Level)

President Hage Geingob introduced the second part of the Harambee Prosperity Plan (HPP II) on 18 March 2021, covering the period from 2021 to 2025. The plan aims at implementing policy programs which enhance service delivery, economic recovery such as inclusive growth and to strengthen Namibia in terms of socioeconomic challenges and preparing it for global opportunities in relation with the Covid 19 pandemic. The “Namibian Government’s Action Plan towards Prosperity for All” is based on five pillars which is summarised in the Figure below:

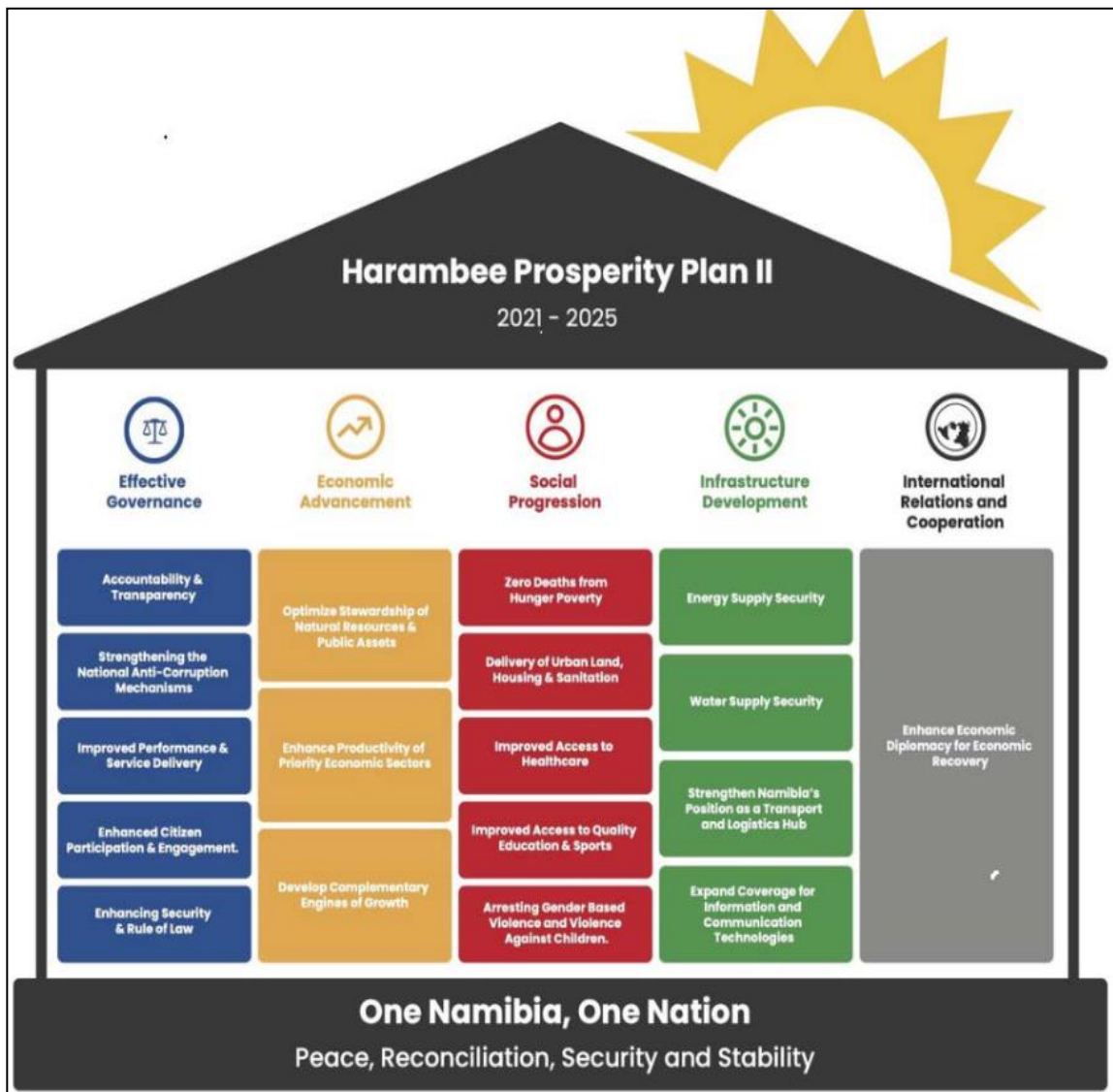


Figure 2: The Harambee Prosperity Plan II (2021-2025)

The fourth pillar (Infrastructure Development) identifies the development of infrastructure as an important catalyst for economic growth, which will contribute to employment creation, attract investment, and will improve local and international trade and Namibia's global competitiveness. Energy supply security forms one of the four Goals of this pillar together with the strengthening of Namibia's position of a transport and logistics hub as well as the expansion coverage for information and communication technologies. The proposed PV Plant is thus in line with the priorities of the Harambee Prosperity Plan.

Namibia is importing about 60% of its electricity requirements which is an indication that there is a need for additional Photovoltaic Plants.

### **Need (on the specific site)**

Finkenstein Township is currently supplied by NamPower. The current supply is under pressure and struggle to maintain continues supply to the township as the demand exceeds the supply specially during the winter months. This was confirmed during the public consultation procedures from both the Finkenstein Development Company and the I & APs that registered and commented on the project. The current NamPower supply must be upgraded and negotiations between NamPower and the Finkenstein Development Company in this regard is in process. The situation is to an extent that no further electricity connections to businesses or industries will be allowed in the township without the upgrading of the Finkenstein Transmitter station by NamPower and the Finkenstein Development Company.

The expected electricity requirements of the proposed data colocation centre/data warehouse to be construction of Erf 1, Finkenstein will be 900kW per month when in full capacity. This electricity will be supplied from the solar installation with battery storage to be constructed on Portion 237 of Farm Finkenstein. This plant will be linked via underground cable to Erf 1. The solar system will be backed up with silent standby generators in case of interruptions due to maintenance or short supply from the solar plant.

### **Desirability (On the National Level)**

The construction and operation of more solar plants in Namibia is desirable because of the following reasons:

Solar power is low emission. Solar panels produce no pollution, although it imposes environmental costs through manufacture and construction. These environmental tolls are negligible, however, when compared with the damage inflicted by conventional energy sources, the burning of fossil fuels releases roughly 21.3 billion metric tons of carbon dioxide into the atmosphere annually.

Raw materials are renewable and unlimited. The amount of available solar energy is staggering, roughly 10,000 times that currently required by humans and it's constantly replaced. A mere 0.02% of incoming sunlight, if captured correctly, would be sufficient to replace every other fuel source currently used.

Solar power provides green jobs. Production of solar panels for domestic use is becoming a growing source of employment in research, manufacture, sales and installation.

Solar panels contain no moving parts and thus produce no noise. Wind turbines, by contrast, require noisy gearboxes and blades.



In the long run, solar power is economical. Solar panels and installation involve high initial expenses, but this cost is soon offset by savings on generation costs.

Solar power conserves foreign energy expenditures. In many countries like Namibia, a large percentage of earnings is used to pay for imported electricity or coal for power generation.

Solar power is suitable for remote areas that are not connected to energy grids.

### **Desirability (on this specific site)**

Portion 237 of Farm Finkenstein No. 526, from which Portion A for the solar plant will be created, currently accommodates the Finkenstein Wastewater Treatment. Due to environmental and safety requirements, no residential or commercial development is allowed within a radius of 500m of the plant. It is thus the intention to create Portion A for the PV Plant which will form a buffer between the wastewater treatment plant and the residential areas. The slope of the site is northeast facing and thus ideal for the placement of the solar panels.

**From the above it is concluded that there is a need for the construction of the proposed Photovoltaic Plant and that the use of solar for electricity generation on this site is desirable.**

Determining what the impact of the operations would be are broken down into different categories and environmental aspects and dealt with in the Environmental Management Plan (EMP). As per the ISO 14001 definition: *an environmental aspect is an element of an organization's activities, products and/or services that can interact with the environment to cause an environmental impact e.g., land degradation or land deterioration among others, that will cause harm to the environment.*

All concerns and potential impacts raised during the public participation process and consultative meetings were evaluated. Predictions were made with respect to their magnitude and an assessment of their significance was made according to the following criteria:

The Nature of the activity: The possible impacts that may occur are that water will be used in the construction and operational phases, wastewater will be produced that will be handled by the proponent, land will be used for the proposed activities, a sewage system will be constructed, and general construction activities will take place, namely the building of infrastructure.

The Probability of the impacts to occur: The probability of the above-named impacts to occur and have a negative or harmful impact on the environment and the community is small since the Environmental Management Plan will also guide these activities. Water will still be used, and wastewater produced, however guidelines will be set that will ensure the impact is minimum.

The Extent of area that the project will affect: The specific project will most likely only have a small impact on the proposed project site itself and not on the surrounding or

neighbouring land except for noise, traffic, roads, electricity and dust and there may be a visual impact because of the size of the proposed development. Therefore, the extent that the project will have a negative impact on is not extensive.

The Duration of the project: The duration of the project is uncertain. Water will still be used, and waste produced on a continuous basis and the structures that were constructed will remain and may be visually unpleasing to surroundings.

The Intensity of the project: The intensity of the project is mostly limited to the site however for the above-named items/processes where the intensity of the project will be felt outside the borders of the project site.

According to the information that was present while conducting the Environmental Impact Assessment for the construction and operation of the project, no high-risk impacts were identified and therefore it is believed that the operations will be feasible in the short and long run. Most of the impacts identified were characterized as being of a low impact on the receiving and surrounding environment and with mitigation measures followed, the impacts will be of minimum significance or avoided.

## **4. SITE INFORMATION AND PROJECT DESCRIPTION**

### **4.1. LOCALITY, SIZE AND USE**

The proposed PV Plant and supporting infrastructure will be located on a ±10ha portion (Portion A) to be created from the subdivision of Portion 237 of Farm Finkenstein No. 526, Windhoek. Portion 237 of Farm Finkenstein is 53,4287ha in extent and located in the Finkenstein Township which is located ±15km east of Windhoek. The Finkenstein Township is included in the Municipal Boundaries of City of Windhoek.

Portion 237 currently accommodates the wastewater treatment plant which is treating the waste generated from the residential and other uses in the Township to special standards. Due to environmental and safety requirements, no residential or commercial development is allowed within a radius of 500m of the plant. It is thus the intention to create Portion A for the PV Plant which will form a buffer between the wastewater treatment plant and the residential areas. See below locality maps showing where Portion 237 is located:

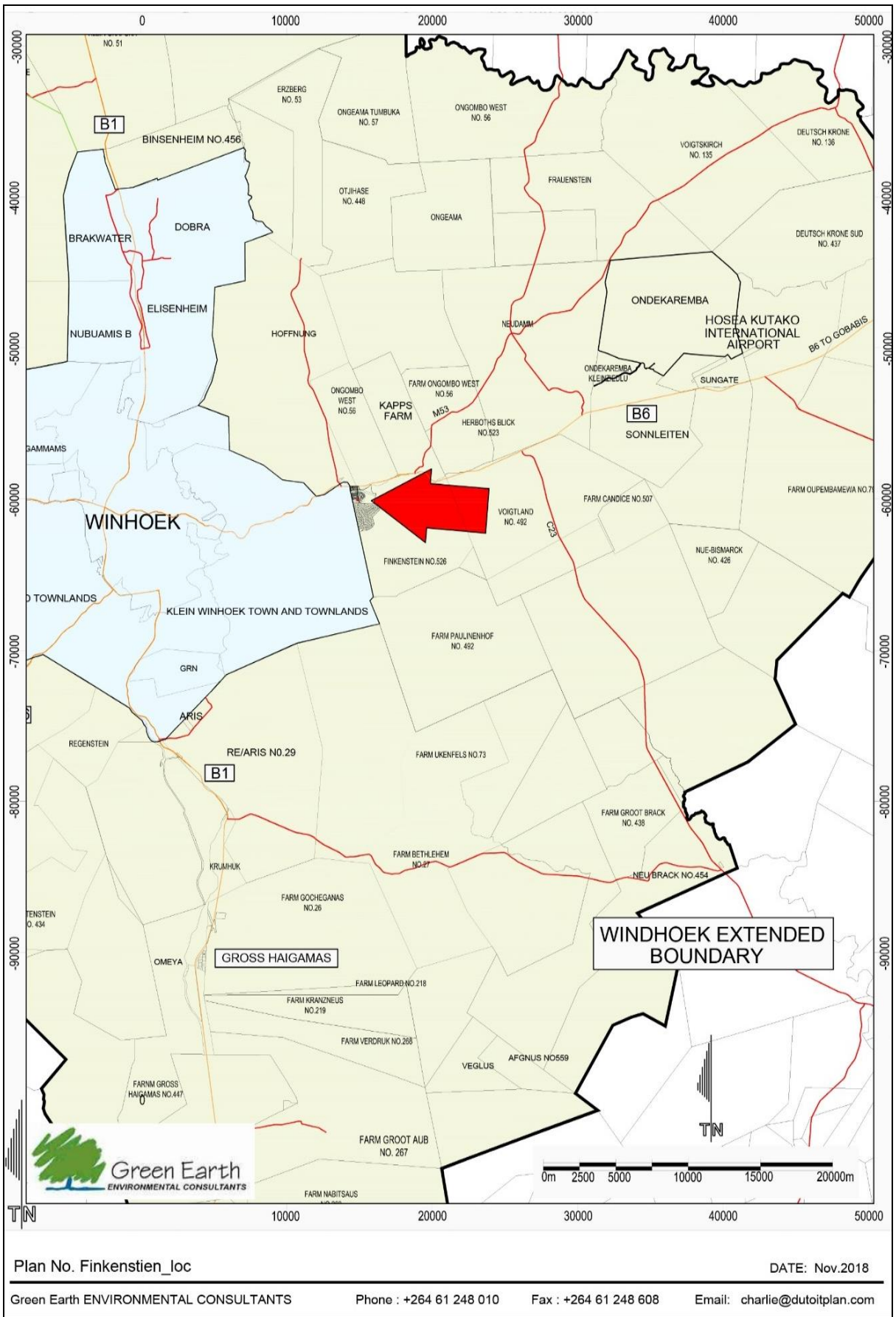


Figure 3: Location of Portion 237 of Farm Finkenstien No. 526, Windhoek



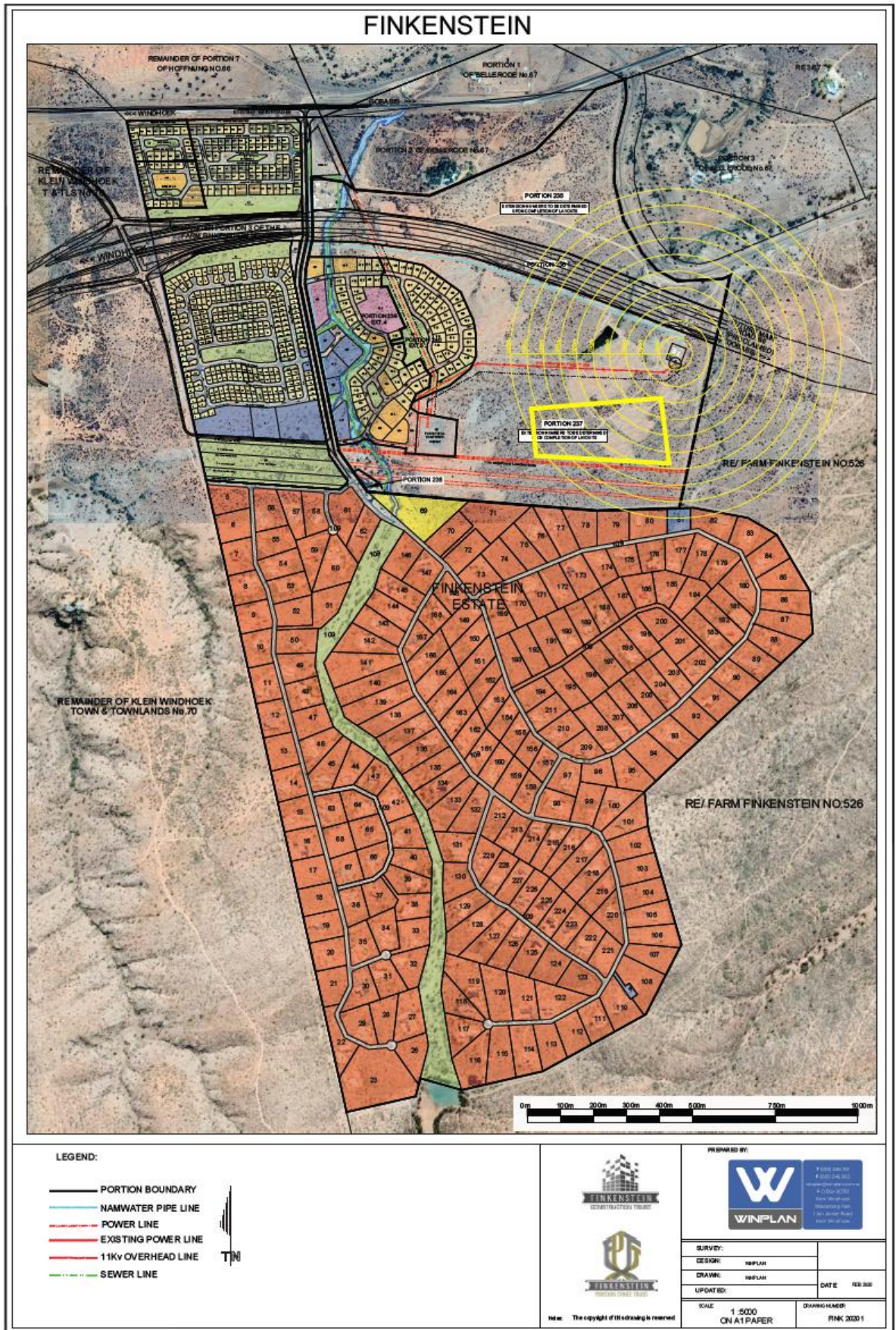


Figure 2: Location of Portion 237 of Farm Finkenstein No. 526, Windhoek with image

## 4.2. THE PROPOSED PROJECT

It is the intension to construct a data colocation centre/data warehouse on Erf 1 of Portion 233 (a portion of Portion 3) of Farm Finkenstein No. 526, Windhoek. The operation of the proposed facility is dependent on reliable/uninterrupted electricity supply. The facility cannot be connected to the NamPower/Finkenstein electricity grid as they have no electricity available for additional users and such stable supply cannot be guaranteed through this network and source of supply. It is thus the intention of the Proponent to construct and operate a 5MW photovoltaic plant,  $\pm 2,5$ MW battery storage facilities and underground powerlines on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek which will supply the data colocation centre/data warehouse which will be located on Erf 1, Finkenstein.

The Proponent signed a purchase agreement with the Trustees for the Time Being of the Finkenstein Portion Five Trust, the registered owner of Portion 237 of Farm Finkenstein No. 526 to purchase a portion of  $\pm 10$ ha for the purposes of the construction and operation of the PV Plant and supporting infrastructure. Portion 237 of Farm Finkenstein will be subdivided to create a portion of  $\pm 10$  ha (Portion A) upon which the PV Plant and supporting infrastructure will be located. The Proponent appointed Du Toit Town Planning Consultants to attend to the statutory procedures to create Portion A. The Town Planning Consultants will submit applications to the relevant authorities (City of Windhoek and the Urban and Regional Planning Board) for the approval of the subdivision.

See below plan showing how Portion 237 of Farm Finkenstein No. 526 will be subdivided to create Portion A as well as the locality of Portion A:



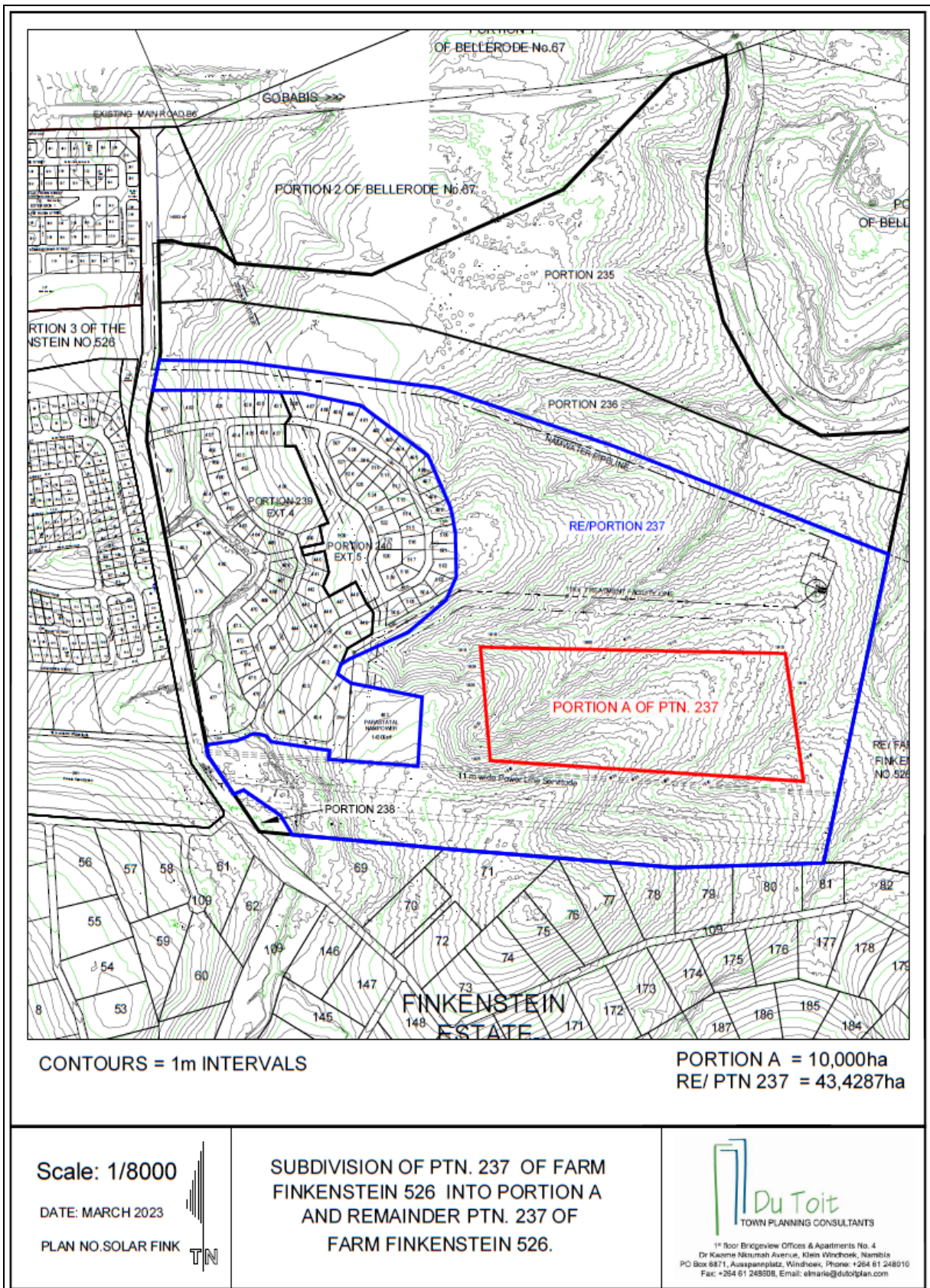


Figure 4: Subdivision Plan of Portion 237



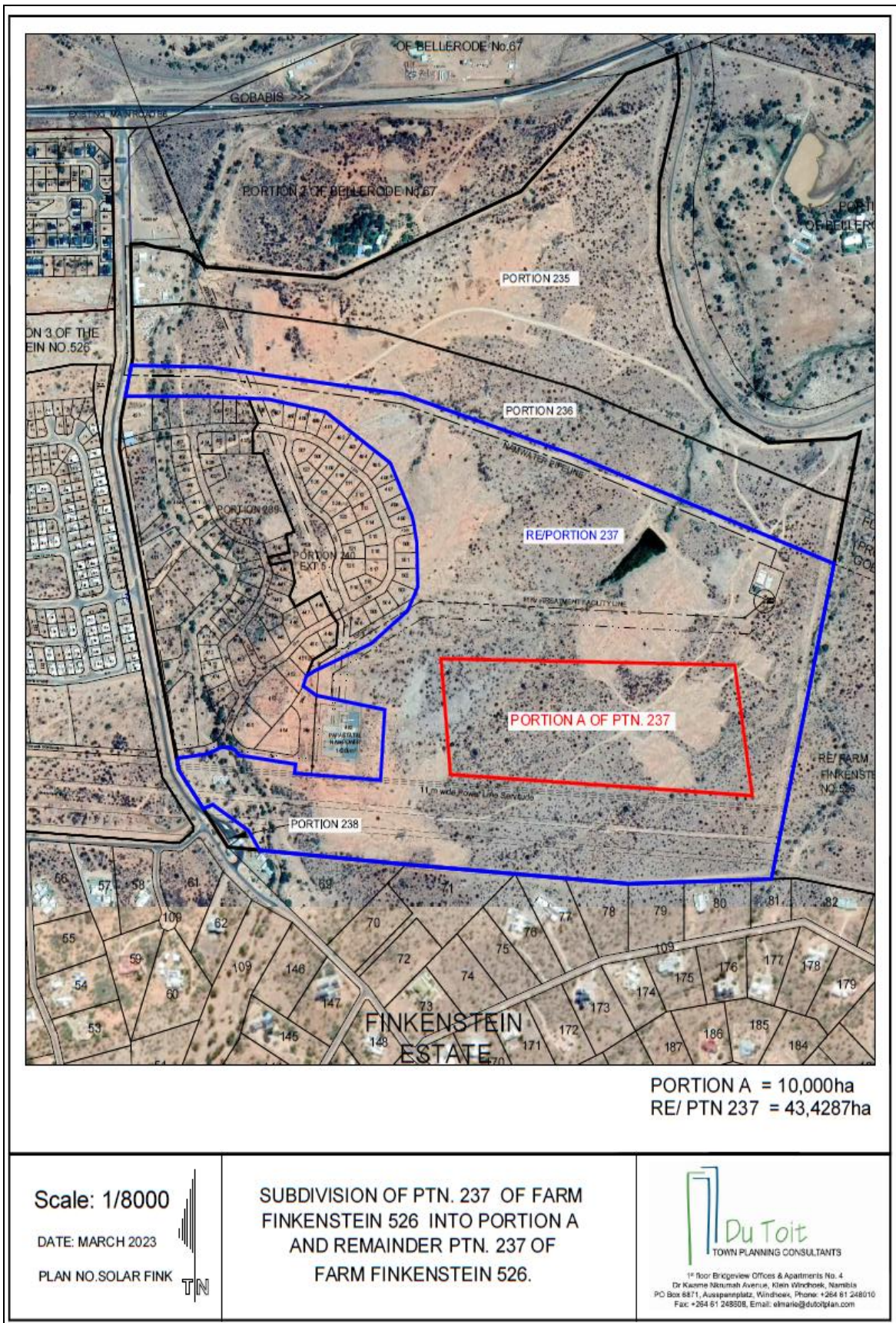


Figure 5: Subdivision Plan of Portion 237 with image

The PV Plant will be installed and set up by a professional registered renewable energy supplier. See below details with regards to the proposed solar plant to be constructed as received from Inova Renewable Energy (Wynand Steenkamp, 2023):

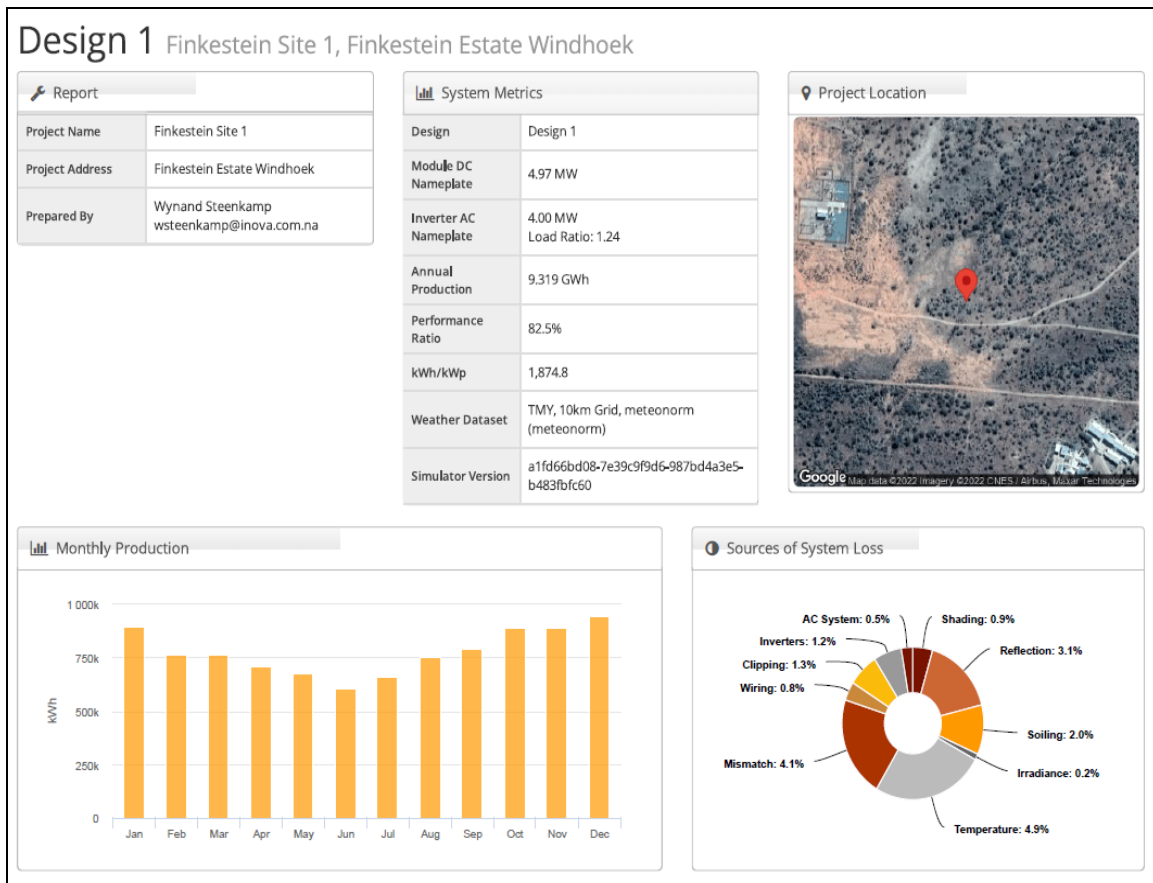


Figure 6: Inova Renewable Energy (1)



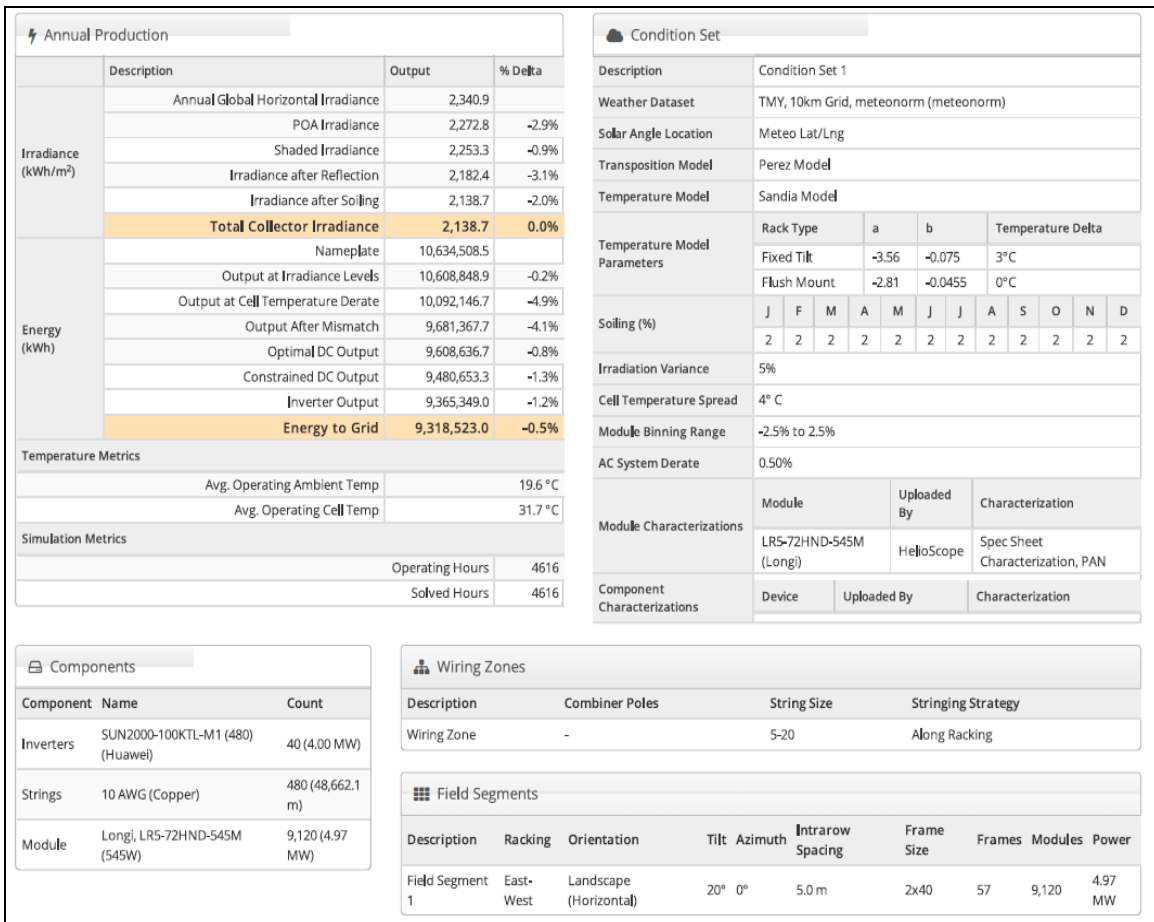


Figure 7: Inova Renewable Energy (2)

Solar panels capture light energy from the sun to generate electricity through a process known as the PV effect, where light energy energizes electrons to produce electricity. Conventional PV technology generates electricity by converting solar radiation energy into a direct current which needs to be converted to an alternating current to connect to the grid (*Origins of Solar Energy, 2012*).



Figure 8: Example of Solar Panels (*Electricity Distributors, 2018*)

A lithium-ion (Li-ion) battery is an advanced battery technology that uses lithium ions as a key component of its electrochemistry. During a discharge cycle, lithium atoms in the anode are ionized and separated from their electrons. The lithium ions move from the anode and pass through the electrolyte until they reach the cathode, where they recombine with their electrons and electrically neutralize. The lithium ions are small enough to be able to move through a micro-permeable separator between the anode and cathode. In part because of lithium's small size (third only to hydrogen and helium), Li-ion batteries have a very high voltage and charge storage per unit mass and unit volume (*Clean Energy Institute of the University of Washington*).

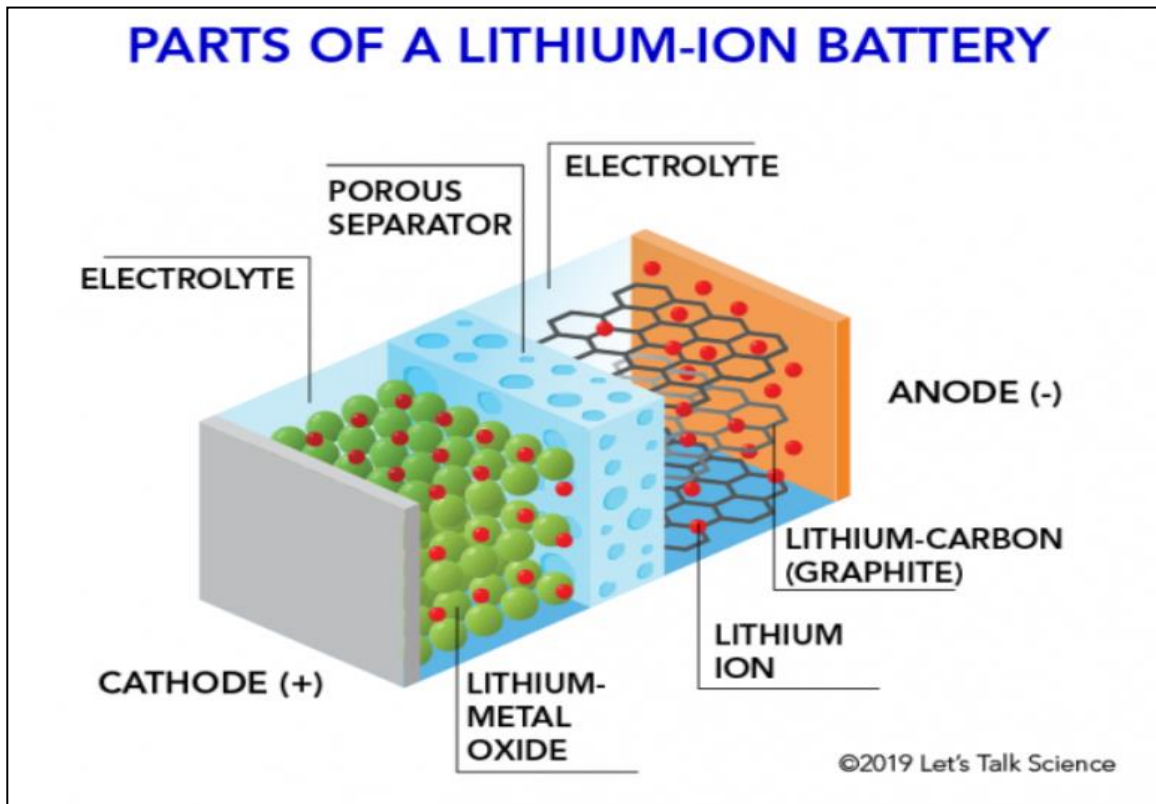


Figure 9: Lithium-ion Battery layout

Surplus electricity is stored in a battery system for utilization in situations where demand is higher than supply and at night when light from the sun is not available.

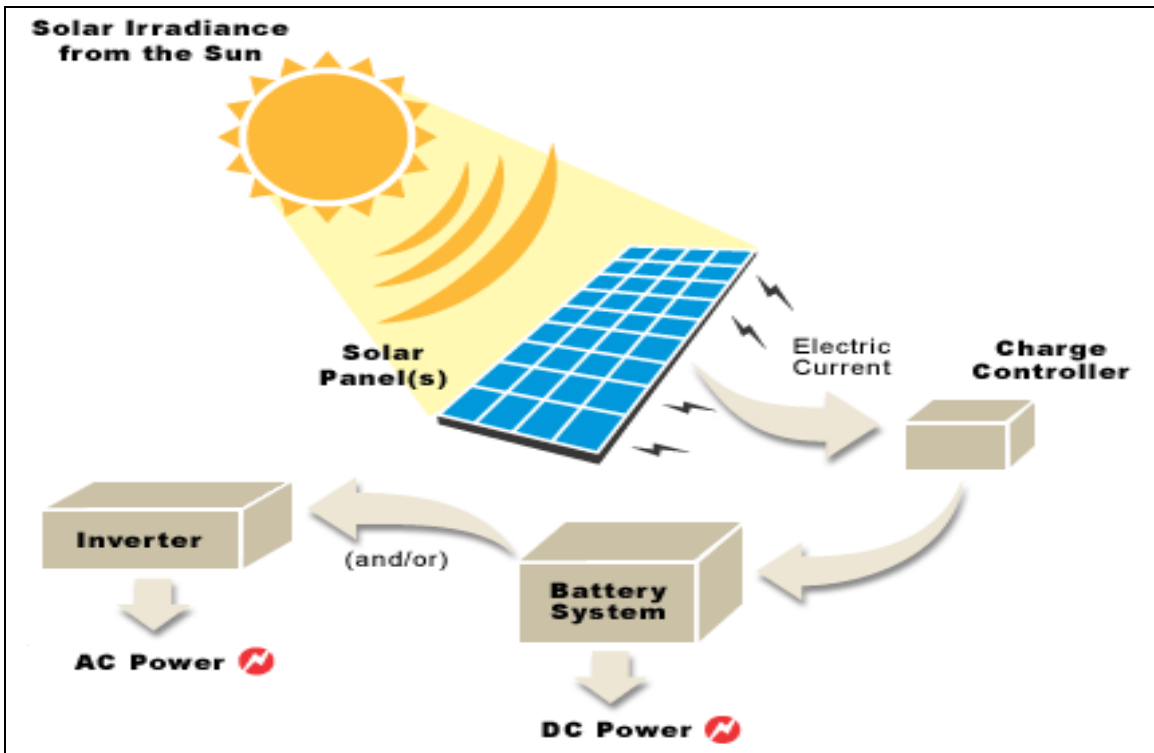


Figure 10: Illustration of Solar Panel to Energy (Origins of Solar Energy, 2012)

## 5. BULK SERVICES AND INFRASTRUCTURE

The bulk services will be provided as follows:

### 5.1.ACCESS

The site will take access from the existing road north of the site which is currently used as access to the water treatment plant. The following map shows the proposed road access and powerline connection to the solar site:



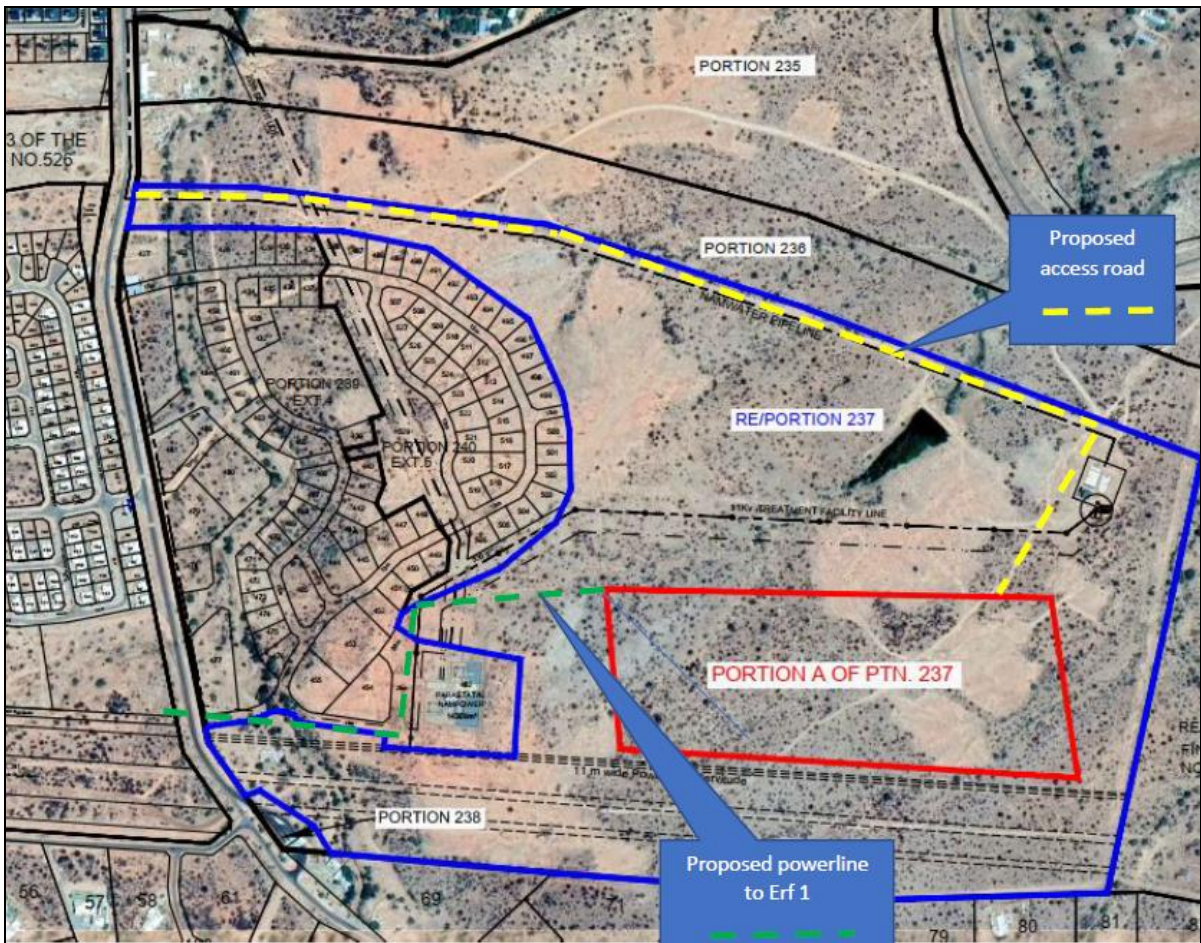


Figure 11: Site showing access road

## 5.2. WATER SUPPLY / REQUIREMENTS

The site will obtain water from the existing water reticulation network of the township. Water is required for the guardhouse operator.

## 5.3. ELECTRICITY

Electricity to the site will be obtained from the proposed PV Plant (solar) and battery storage.

## 5.4. SEWAGE DISPOSAL

Only normal household sewer will be generated at the guardhouse/caretaker facility on site. The structures on site will link up with the existing sewer network of the township and be processed by the Finkenstein water treatment plant.

## 5.5. STORM WATER AND DRAINAGE

The natural flow of storm water and drainage must be minimally disturbed, and the natural flow accommodated where possible. The architect and project engineer must design and construct the structures to accommodate surface water/stormwater and



ensure that it does not endanger neighbouring structures. It is also advised that the 1:50 year flood risk area is identified, and that no infrastructure development is done in the flood risk area.

## **5.6. SOLID WASTE**

No noxious waste will be generated on site. Building waste generated during site preparation and construction must be removed by the contractor and disposed of at an approved building rubble site in Windhoek. Other waste generated during the normal operations of the site will be sorted and stored on site to be collected under the normal waste collection and management program of Finkenstein Township.

## **5.7. FIRE PROTECTION**

The Proponent will put in the necessary fire protection infrastructure / extinguishers as per requirements. It is advised that a specialist Fire Protection Specialist is contracted to introduce a proper fire protection plan with the required infrastructure and to oversee the annual auditing and maintenance of the infrastructure.

## **6. APPROACH TO THE STUDY**

The assessment included the following activities:

### a) Desktop sensitivity assessment

Literature, legislation and guidance documents related to the natural environment and land use activities available on the portion and area in general were reviewed to determine potential environmental issues and concerns.

### b) Site assessment (site visit)

The proposed project site and the immediate neighbourhood and surrounding area were assessed through several site visits to investigate the environmental parameters on site to enable further understanding of the potential impacts on site.

### c) Public participation

The public was invited to give input, comments and opinions regarding the proposed project. Notices were placed in the Namibian and New Era (see Appendix) on two consecutive weeks (16 and 23/24 March 2023) inviting public participation and comments on the proposed project. Notices were also displayed on the Municipal notice board of the City of Windhoek (see Appendix). A notice was also placed at the project site (see Appendix). Emails were sent to the neighbouring land owners and other Interested and Affected Parties inviting them to comment on the development. The closing date for any questions, comments, inputs or information was 6 April 2023. The comments / inputs that were received from the affected neighbours or any other parties are in the Appendix.

#### d) Scoping

Based on the desk top study, site visit and public participation, the environmental impacts were determined in five categories: nature of project, expected duration of impact, geographical extent of the event, probability of occurring and the expected intensity. The findings of the scoping have been incorporated in the environmental impact assessment report below.

#### e) Environmental Management Plan (EMP)

To minimize the impact on the environment, mitigation measures have been identified to be implemented during planning, construction, and implementation. These measures have been included in the Environmental Management Plan to guide the planning, construction and operation of the development which can also be used by the relevant authorities to ensure that the project is planned, developed, and operated with the minimum impact on the environment.

## **7. ASSUMPTIONS AND LIMITATIONS**

It is assumed that the information provided by the proponent (Spiranti Investments (Pty) Ltd) is accurate. No alternative erven / portions / land was considered as the site was already purchased / owned by the proponent. The site was visited several times and any happenings after this are not mentioned in this report. (The assessment was based on the prevailing environmental conditions and not on future happenings on the site.) However, it is assumed that there will be no significant changes to the proposed project, and the environment will not adversely be affected between the compilation of the assessment and the implementation of the proposed activities.

## **8. ADMINISTRATIVE, LEGAL AND POLICY REQUIREMENTS**

To protect the environment and achieve sustainable development, all projects, plans, programs and policies deemed to have adverse impacts on the environment require an EIA according to Namibian legislation. The administrative, legal and policy requirements to be considered during the Environmental Assessment for the rezoning of Portion 31 of Farm Dobra No. 49 are the following:

- The Namibian Constitution
- The Environmental Management Act (No. 7 of 2007)
- The Kapps Farm Town Planning Scheme and Council's Policies
- Other Laws, Acts, Regulations and Policies

## **THE NAMIBIAN CONSTITUTION**

Article 95 of Namibia's constitution provides that:

"The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the following:

Management of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future; in particular, the Government shall provide measures against the dumping or recycling of foreign nuclear and toxic waste on Namibian territory." This article recommends that a relatively high level of environmental protection is called for in respect of pollution control and waste management.

Article 144 of the Namibian Constitution deals with environmental law and it states:

"Unless otherwise provided by this Constitution or Act of Parliament, the general rules of public international agreements binding upon Namibia under this Constitution shall form part of the law of Namibia". This article incorporates international law, if it conforms to the Constitution, automatically as "law of the land". These include international agreements, conventions, protocols, covenants, charters, statutes, acts, declarations, concords, exchanges of notes, agreed minutes, memoranda of understanding, and agreements (Ruppel & Ruppel-Schlichting, 2013). It is therefore important that the international agreements and conventions are considered (see section 4.9).

In considering these environmental rights, Spiranti Investments (Pty) Ltd (the Proponent) should consider the following in devising an action plan in response to these articles:

- Implement a "zero-harm" policy at that would guide decisions.
- Ensure that no management practice or decision result in the degradation of future natural resources.
- Take a decision on how this part of the Constitution will be implemented as part of the Proponent's Environmental Control System (ECS).

## **ENVIRONMENTAL MANAGEMENT ACT (NO. 7 OF 2007)**

The Environmental Impact Assessment Regulations (GN 30 in GG 4878 of 6 February 2012) of the Environmental Management Act (No. 7 of 2007) that came into effect in 2012 requires/recommends that an Environmental Impact Assessment and an Environmental Management Plan (EMP) be conducted for the following listed activities to obtain an Environmental Clearance Certificate:

### ***ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES***

1. *The construction of facilities for -*
  - (a) *the generation of electricity.*
  - (b) *the transmission and supply of electricity.*

Cumulative impacts associated with the development must be included as well as public consultation. The Act further requires all major industries and mines to prepare waste management plans and present these to the local authorities for approval.

The Act, Regulations, Procedures and Guidelines have integrated the following sustainability principles. These need to be given due consideration, particularly to achieve proper waste management and pollution control:

### **Cradle to Grave Responsibility**

This principle provides that those who handle or manufacture potentially harmful products must be liable for their safe production, use and disposal and that those who initiate potentially polluting activities must be liable for their commissioning, operation and decommissioning.

### **Precautionary Principle**

It provides that if there is any doubt about the effects of a potentially polluting activity, a cautious approach must be adopted.

### **The Polluter Pays Principle**

A person who generates waste or causes pollution must, in theory, pay the full costs of its treatment or of the harm, which it causes to the environment.

### **Public Participation and Access to Information**

In the context of environmental management, citizens must have access to information and the right to participate in decisions making.

### **CONCLUSION AND IMPACT**

Some of the surrounding erven / portions have been cleared from vegetation and structures have been constructed on the sites or are in the process of being constructed. The proposed activity will thus fit in with the surrounding activities and not have a negative impact on the prevailing environment. It will be ensured that all protected trees and plant species will be retained where possible.

### **THE KAPPS FARM TOWN PLANNING SCHEME AND COUNCIL'S POLICIES**

The Kapps Farm Town Planning Scheme (promulgated 15 February 2007) applies to the area as indicated on the scheme maps and corresponds with the Townlands Diagram for Windhoek Town and Townlands.

The general purpose of this Scheme is the coordinated and harmonious development of the area of Kapps Farm and Windhoek (including, where necessary, the reconstruction

and redevelopment of any part which has already been subdivided whether there are buildings on it or not) in such a way as will most effectively tend to promote health, safety, order, amenity, convenience and general welfare as well as efficiency and economy in the process of development and improvement of communications, and where it is expedient in order to promote proper planning or development, may provide for the suspending the operation of any provision of law or any bylaw or regulation made under such law, in so far as such provision is similar to or inconsistent with any of the provisions so the Scheme.

The activity intended can be accommodated under the stipulations of the Kapps Farm Town Planning Scheme.

### CONCLUSION AND IMPACT

The proposed development has been considered under the stipulations of the Kapps Farm Town Planning Scheme and the Local Authorities Act. The project can be accommodated under the current zoning of the Erf.

### OTHER LAWS, ACTS, REGULATIONS AND POLICIES

The laws, acts, regulations, and policies listed below have also been considered during the Environmental Assessment.

*Table 1: Laws, Acts, Regulations and Policies*

<b>Laws, Acts, Regulations &amp; Policies consulted:</b>		
<b>Electricity Act (No. 4 of 2007)</b>	In accordance with the Electricity Act (No. 4 of 2007) which provides for the establishment of the Electricity Control Board and provide for its powers and functions; to provide for the requirements and conditions for obtaining licenses for the provision of electricity; to provide for the powers and obligations of licenses; and to provide for incidental matters: the necessary permits and licenses will be obtained.	The Proponent must abide to the Electricity Act.
<b>Pollution Control and Waste Management Bill (guideline only)</b>	The <b>Pollution Control and Waste Management Bill</b> is currently in preparation and is therefore included as a guideline only. Of reference to the mining, Parts 2, 7 and 8 apply. Part 2 provides that no person shall discharge or cause to be discharged, any pollutant to the air from a process except	The Proponent must adhere to the Pollution Control and Waste Management Bill.

	<p>under and in accordance with the provisions of an air pollution license issued under section 23. Part 2 also further provides for procedures to be followed in license application, fees to be paid and required terms of conditions for air pollution licenses. Part 7 states that any person who sells, stores, transports or uses any hazardous substances or products containing hazardous substances shall notify the competent authority, in accordance with sub-section (2), of the presence and quantity of those substances. The competent authority for the purposes of section 74 shall maintain a register of substances notified in accordance with that section and the register shall be maintained in accordance with the provisions. Part 8 provides for emergency preparedness by the person handling hazardous substances, through emergency response plans.</p>	
<p><b>Water Resources Management Act</b></p>	<p>The <b>Water Resources Management Act (No. 11 of 2013)</b> stipulates conditions that ensure effluent that is produced to be of a certain standard. There should also be controls on the disposal of sewage, the purification of effluent, measures should be taken to ensure the prevention of surface and groundwater pollution and water resources should be used in a sustainable manner.</p>	<p>The Act must be consulted. Fresh water abstraction and waste-water discharge permits should be obtained when required.</p>
<p><b>Solid and Hazardous Waste Management Regulations: Local Authorities 1992</b></p>	<p>Provides for management and handling of industrial, business and domestic waste.</p>	<p>The Proponent must abide to the solid waste management provisions.</p>
<p><b>Hazardous</b></p>	<p>The <b>Ordinance</b> applies to the</p>	<p>The Proponent must abide to</p>

<b>Substances Ordinance (No. 14 of 1974)</b>	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 primary purpose is to prevent hazardous substances from causing injury, ill-health or the death of human beings.	the Ordinance's provisions.
<b>Atmospheric Pollution Prevention Ordinance of Namibia (No. 11 of 1976)</b>	Part 2 of the <b>Ordinance</b> governs the control of noxious or offensive gases. The Ordinance prohibits anyone from carrying on a scheduled process without a registration certificate in a controlled area. The registration certificate must be issued if it can be demonstrated that the best practical means are being adopted for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.	The proponent should adhere to the stipulations of the Atmospheric Pollution Prevention Ordinance.
<b>Nature Conservation Ordinance</b>	The <b>Nature Conservation Ordinance (No. 4 of 1975)</b> covers game parks and nature reserves, the hunting and protection of wild animals, problem animals, fish and indigenous plant species. The Ministry of Environment, Forestry and Tourism (MEFT) administer it and provides for the establishment of the Nature Conservation Board.	The proposed project implementation is not located in a demarcated conservation area, national park or unique environments.
<b>Forestry Act</b>	The <b>Forestry Act (No. 12 of 2001)</b> specifies that there be a general protection of the receiving and surrounding environment. The protection of natural vegetation is of great importance, the Forestry Act especially stipulates that no living tree, bush, shrub or indigenous plants within 100m from any river, stream or watercourse, may be removed without the necessary license.	No removal of protected tree species or removal of mature trees should happen. The Ministry of Environment, Forestry and Tourism should be consulted when required.
<b>EU Timber Regulation:</b>	Forest Stewardship Council (FSC) came into effect in March 2013,	The Proponent is advised to adhere to the regulation.



<b>FSC (2013)</b>	with the aim of preventing sales of illegal timber and timber products in the EU market. Now, any actor who places timber or timber products on the market for the first time must ensure that the timber used has been legally harvested and, where applicable, exported legally from the country of harvest.	
<b>Labour Act</b>	The <b>Labour Act (No. 11 of 2007)</b> contains regulations relating to the Health, Safety and Welfare of employees at work. These regulations are prescribed for among others safety relating to hazardous substances, exposure limits and physical hazards. Regulations relating to the Health and Safety of Employees at Work are promulgated in terms of the Labour Act 6 of 1992 (GN156, GG1617 of 1 August 1997).	The proponent and contractor should adhere to the Labour Act.
<b>Communal Land Rights</b>	Communal land is land that belongs to the State and is held in trust for the benefit of the traditional communities living in those areas. Communal land cannot be bought or sold, but one can be given a customary land right or right of leasehold to a part of communal land in accordance with the provisions of the <b>Communal Land Reform Act (No. 5 of 2002)</b> and <b>Communal Land Reform Amendment Act (No. 13 of 2013)</b> . The Communal Land Reform Act provide for the allocation of rights in respect of communal land to establish Communal Land Boards to provide for the powers of Chiefs and Traditional Authorities and boards in relation to communal land and to make provision for incidental matters. Consent and access to land for the proposed project should be requested from the relevant traditional authority	Consent should be obtained from Traditional Authorities, Communal Boards, Chiefs, Kings, Queens etc. if required.

	through the Regional Council and Regional Communal Land Boards.	
<b>Traditional Authorities Act (No. 17 of 1995)</b>	The <b>Traditional Authorities Act (No. 17 of 1995)</b> provide for the establishment of traditional authorities, the designation and recognition of traditional leaders; to define their functions, duties and powers; and to provide for matters incidental thereto.	Traditional Authorities should be consulted when required.
<b>Public and Environmental Health Act</b>	The Public and Environmental Health Act (No. 1 of 2015) provides with respect to matters of public health in Namibia. The objects of this Act are to: (a) promote public health and wellbeing; (b) prevent injuries, diseases and disabilities; (c) protect individuals and communities from public health risks; (d) encourage community participation in order to create a healthy environment; and (e) provide for early detection of diseases and public health risks.	The proponent and contractor should adhere to the Public and Environmental Health Act.
<b>Coronavirus (Covid-19) Pandemic</b>	The current global <b>Coronavirus (Covid-19)</b> pandemic and the associated State of Emergency and health restrictions globally may result in some delays and logistic disruptions. The pandemic might have an impact on obtaining equipment, specialist workforce mobilisation and implementation of the project. The health restrictions may have an impact on campsite set-up, traveling of personal/workers and building of the infrastructure. The proponent, contractor and subcontractors should adhere to all the international, regional and local Covid-19 health restrictions and protocols.	The proponent, contractor and workforce should adhere to the restrictions and regulations.
<b>National Heritage Act (No. 27 of 2004)</b>	All protected heritage resources discovered need to be reported immediately to the National Heritage Council (NHC) and require a permit from the NHC	The National Heritage Council should be consulted when required.

	before it may be relocated. This should be applied from the NHC.	
<b>National Monuments Act of Namibia (No. 28 of 1969) as amended until 1979</b>	<p>No person shall destroy, damage, excavate, alter, remove from its original site or export from Namibia:</p> <p>(a) any meteorite or fossil; or</p> <p>(b) any drawing or painting on stone or a petroglyph known or commonly believed to have been executed by any people who inhabited or visited Namibia before the year 1900 AD; or</p> <p>(c) any implement, ornament or structure known or commonly believed to have been used as a mace, used or erected by people referred to in paragraph; or</p> <p>(d) the anthropological or archaeological contents of graves, caves, rock shelters, middens, shell mounds or other sites used by such people; or</p> <p>(e) any other archaeological or palaeontological finds, material or object; except under the authority of and in accordance with a permit issued under this section.</p>	The proposed site for development is not within any known monument site both movable or immovable as specified in the Act, however in such an instance that any material or sites or archeologic importance are identified, it will be the responsibility of the developer to take the required route and notify the relevant commission.
<b>Public Health Act (No. 36 of 1919)</b>	Under this act, in section 119: "No person shall cause a nuisance or shall suffer to exist on any land or premises owned or occupied by him or of which he is in charge any nuisance or other condition liable to be injurious or dangerous to health."	The proponent will ensure that all legal requirements of the project in relation to protection of the health of their employees and surrounding residents is protected and will be included in the EMP. Relevant protective equipment shall be provided for employees in construction. The development shall follow requirements and specifications in relation to water supply and sewerage handling and solid waste management so as not to threaten public health of future residents on this piece of land.
<b>Soil Conservation</b>	The objectives of this Act are to: Make provisions for the combating	Only the area required for the operations should be cleared

<b>Act (No. 76 of 1969)</b>	and prevention of soil erosion; Promote the conservation, protection and improvement of the soil, vegetation, sources and resources of the Republic;	from vegetation to ensure the minimum impact on the soil through clearance for construction.
<b>Air Quality Act (NO. 39 of 2004)</b>	The <b>Air Quality Act (No. 39 of 2004)</b> intends to provide for national norms and standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto.	The proponent and contractor should adhere to the Air Quality Act.
<b>Vision 2030 and National Development Plans</b>	Namibia's overall development ambitions are articulated in the Nation's Vision 2030. At the operational level, five-yearly national development plans (NDP's) are prepared in extensive consultations led by the National Planning Commission in the Office of the President. Currently the Government has so far launched a 4th NDP which pursues three overarching goals for the Namibian nation: high and sustained economic growth; increased income equality; and employment creation.	The proposed project is an important element in employment creation.

## CONCLUSION AND IMPACT

It is believed the above administrative, legal and policy requirements which specifically guide and governs development will be followed and complied with in the planning, implementation and operations of the activity.

A flowchart indicating the entire EIA process is shown in the *Figure* below.



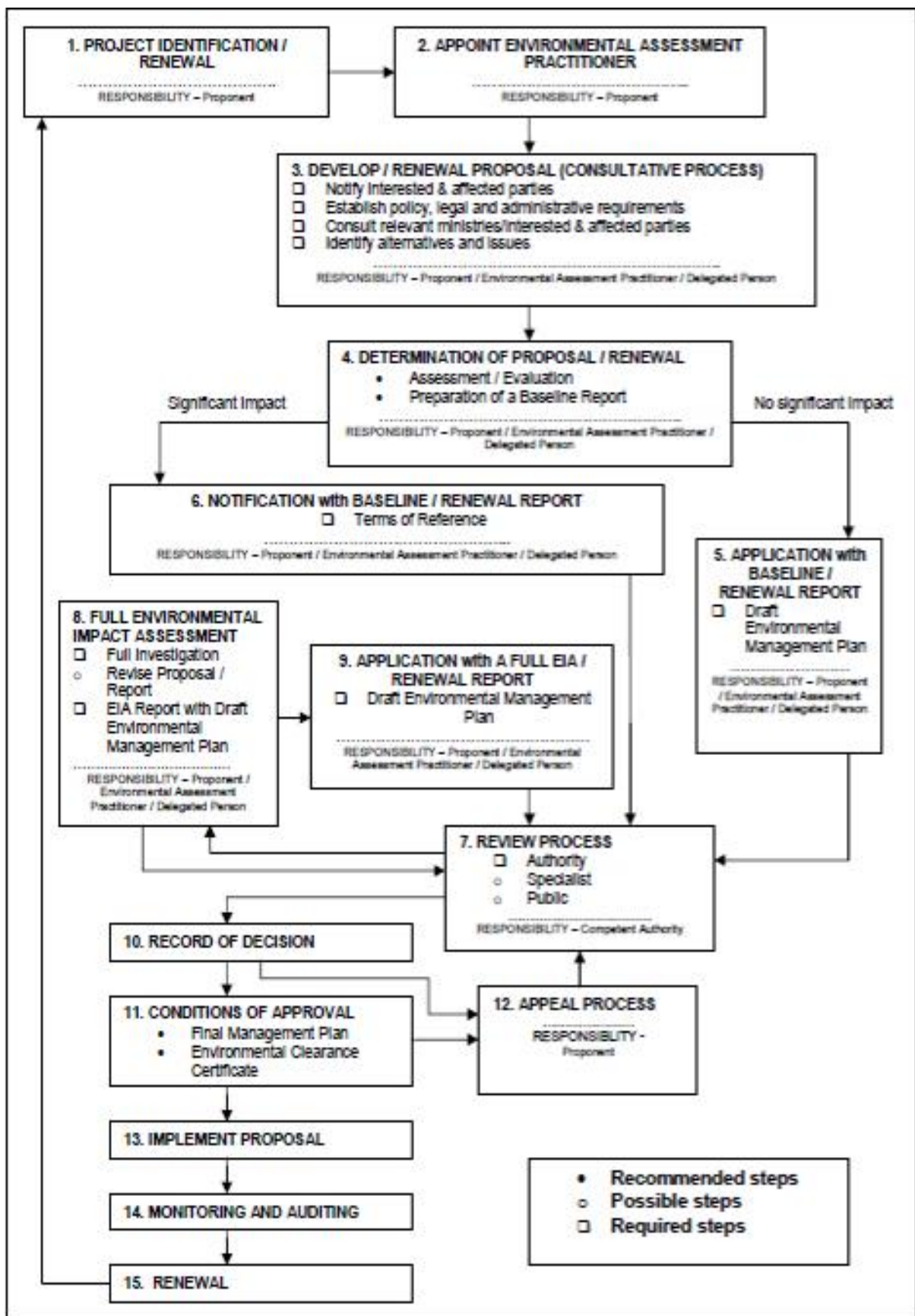


Figure 12: Flowchart of the Impact Process

## 9. AFFECTED RECEIVING ENVIRONMENT

### 9.1. BIODIVERSITY AND VEGETATION

Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek forms part of the Tree and Shrub Savannah Biome (specifically the Highland Savannah). The project site is showing evidence of some human interference namely informal tracks are present and vegetation was cleared on some areas of the site and a few gravel roads are present on the site.

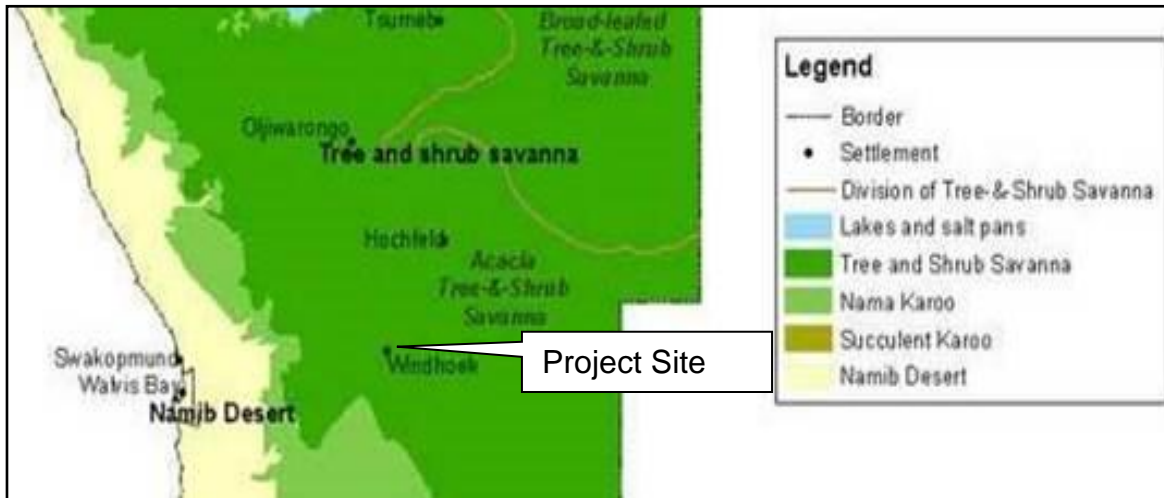


Figure 13: Biomes in Namibia (Atlas of Namibia, 2002)



Figure 14: Photo of Project Site area (1)





Figure 15: Photo of Project Site area (2)

Only the necessary plants/vegetation will be removed for the construction phase. The natural characteristics of the project site namely the vegetation clearance and the destruction of habitats is expected to further on have a low impact on the environment before the mitigation measures are taken and after the mitigation measures are taken, the impact will be very low.

## 9.2.GEOLOGY AND SOILS

Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek is located in the Khomas Trough on a geological area classified as Damara Supergroup and Gariep Complex. See Map below:

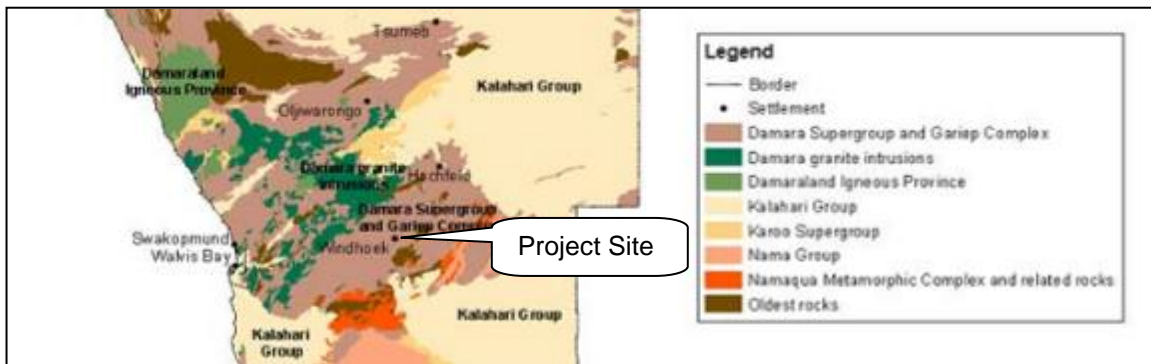


Figure 16: Geology of Namibia (Atlas of Namibia Project, 2002)

The Khomas Trough was formed during sedimentation of the Late Proterozoic Damara Sequence. The basin that was filled by a thick sequence, now preserved as metagreywackes and pelites of the Kuiseb Formation, which were subsequently multiply deformed and thrust during the Damaran Orogeny. Minor lithologies included are graphite schists, calc-silicates and scapolite schists (Grunert, 2003).

The project site is generally even with some higher areas at places. Natural slopes are seen near natural drainage courses on the project site. The soil is suitable for development however the soil is also erodible and should not be cleared unnecessarily from vegetation if not required for the placement of buildings or roads. Unnecessary clearing of soil will lead to erosion (*Grunert, 2003*).

### **9.3.SOCIO ECONOMIC ENVIRONMENT**

The proposed development will have a positive impact on the socio-economic environment. Apart from the developer's intention to make a profit out of the proposed development, advantages to the area are numerous. The proposed development will create the need for more business activities such as medical care, building maintenance, vehicle maintenance, electrical and additional support for schools and other existing businesses etc.

The proposed project will create jobs during construction and there will also be permanent employment opportunities for people after completion. The development will give the area an economic injection which will have a multiplier effect in the community regarding sales and services. The development will also bring in investments and buying power. During construction stages, the building industry will be well supported.

### **9.4.CLIMATE**

No specific climate data is available for Portion A of Portion 237 of Farm Finkenstein No. 526 however Windhoek and surroundings in general is characterized with a semi-arid highland savannah climate typified as extremely hot in summer and moderate dry in winter. The highest temperatures are measured in December with an average daily temperature of maximum 31°C and a minimum of 17°C. The coldest temperatures, conversely, are measured in July with an average daily maximum of 20°C and minimum 6°C (*Weather - the Climate in Namibia, 1998 – 2012*). The area therefore has low frost potential.

Rainfall in the form of thunderstorms is experienced in the area during the summer months between October and April. The annual average rainfall for Windhoek and surroundings is 350mm to 400mm however the average evaporation rate is 3 400mm a year (*Weather - the Climate in Namibia, 1998 – 2012*). Over 70% of the rainfall occurs in the in the summer months' period between November and March. Rainfall in the area is typically sporadic and unpredictable however the average highest rainfall months are January to March.

The prevailing wind direction is expected to prevent the spread of any nuisance namely noise and smell. The predominant wind in the region is easterly with westerly winds from September to December (*Weather - the Climate in Namibia, 1998 – 2012*). Extreme winds are experienced in the months of August and September and thus significant wind erosion on disturbed areas is visible.

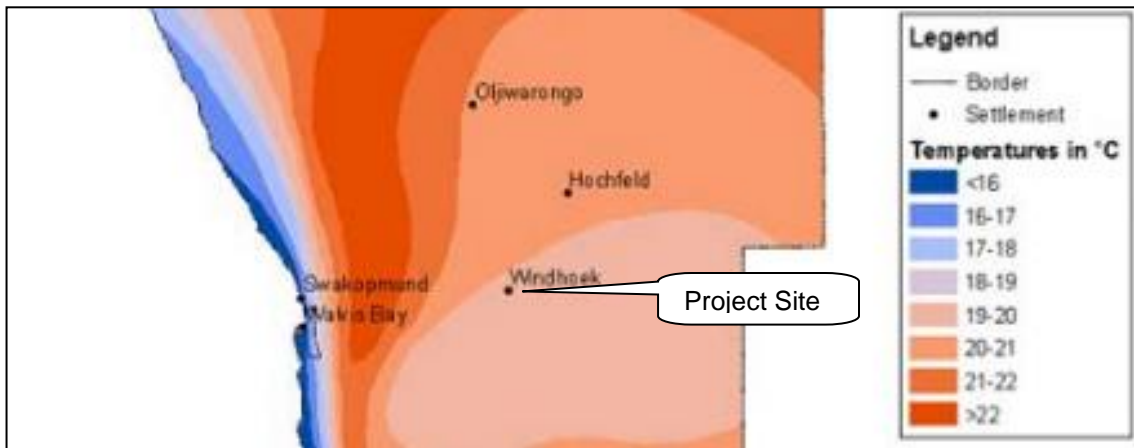


Figure 17: Average annual temperatures in Namibia (Atlas of Namibia Project, 2002)

## 9.5. HYDROLOGICAL COMPONENT

The area where the project site is located has generally an average groundwater potential from a permeability and yield perspective (Grunert, 2003). However, groundwater is one of the important water sources and the protection thereof should be regarded as a high priority. The main uses of water in the area are for business, industrial and domestic purposes.

Although most of the surface water evaporates, runoff can be expected due to the impermeability of soils (Grunert, 2003). The storage and accumulation of substances, which might pollute river courses or basins because of surface water drainage, should be prevented. No potential pollutants should be channelled or directed towards any rivers.

From the hydrological assessment perspective, no major geological structures that will enhance groundwater recharge or flow are evident on the proposed project site and the development that will take place will not pose any long-term negative effects on the hydrological cycle (Grunert, 2003).

## 9.6. CULTURAL HERITAGE

The proposed project site is not known to have any historical significance prior to or after Independence in 1990. The specific area does not have any National Monuments and the specific site has no record of any cultural or historical importance or on-site resemblance of any nature. No graveyard or related article was found on the site.

## 10. IMPACT ASSESSMENT AND EVALUATION

The Environmental Impact Assessment sets out potential positive and negative environmental impacts associated with the proposed project site which is located on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek. The following assessment methodology will be used to examine each impact identified, see Table below:



Table 1: Impact Evaluation Criterion (DEAT 2006)

Criteria	Rating (Severity)	
Impact Type	+	Positive
	O	No Impact
	-	Negative
Significance of impact being either	L	Low (Little or no impact)
	M	Medium (Manageable impacts)
	H	High (Adverse impact)

Probability:	Duration:
5 – Definite/don't know	5 - Permanent
4 – Highly probable	4 – Long-term (impact ceases)
3 – Medium probability	3 – Medium term (5 – 15 years)
2 – Low probability	2 – Short-term (0 – 5 years)
1 – Improbable	1 - Immediate
0 - None	
Scale:	Magnitude:
5 – International	10 – Very high/don't know
4 – National	8 - High
3 – Regional	6 - Moderate
2 – Local	4 - Low
1 – Site only	2 - Minor
	0 - None

The impacts on the receiving environment are discussed in the paragraphs below:

## 10.1. IMPACTS DURING THE CONSTRUCTION ACTIVITY

Some of the impacts that the development has on the environment includes water will be used for the construction and operation activities, electricity will be used, a sewer system

will be constructed and wastewater will be produced on the site that will have to be handled.

### 10.1.1. WATER USAGE

Water is a scarce resource in Namibia and therefore water usage should be monitored and limited in order to prevent unnecessary wastage. The proposed project might make use of water in its construction phase and operations.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Water	-	2	2	4	2	L	L

### 10.1.2. ECOLOGICAL IMPACTS

The proposed infrastructure will be constructed in a semi disturbed natural area which is partly covered with vegetation. Special care should be taken to limit the destruction or damage of the vegetation when and if these roads are constructed. However, impacts on fauna and flora are expected to be minimal. Disturbance of areas outside the designated working zone is not allowed.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology	-	1	2	4	2	L	L

### 10.1.3. DUST POLLUTION AND AIR QUALITY

Dust generated during the transportation of building materials; construction and installation of bulk services, and problems thereof are expected to be low and site specific due to the fact that most of these roads have already been constructed to be used in the management activities of the site. Dust is expected to be worse during the winter months when strong winds occur. Release of various particulates from the site during the construction phase and exhaust fumes from vehicles and machinery related to the construction of bulk services are also expected to take place. Dust is regarded as a nuisance as it reduces visibility, affects the human health and retards plant growth. It is recommended that regular dust suppression be included in the construction activities, when dust becomes an issue.

#### Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	2	2	M	L

#### 10.1.4. NOISE IMPACT

An increase of ambient noise levels at the proposed site is expected due to the construction activities. Noise pollution due to heavy-duty equipment and machinery might be generated. It is not expected that the noise generated during construction will impact any third parties due to the distance of the neighbouring activities. Ensure all mufflers on vehicles are in full operational order; and any audio equipment should not be played at levels considered intrusive by others. The construction staff should be equipped with ear protection equipment.

#### Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Noise	-	2	1	4	2	M	L

#### 10.1.5. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and general public are of great importance. Workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). A health and safety officer should be employed to manage, coordinate and monitor risk and hazard and report all health and safety related issues in the workplace.

Safety issues could arise from the earthmoving equipment and tools that will be used on site during the construction phase. This increases the possibility of injuries and the contractor must ensure that all staff members are made aware of the potential risks of injuries on site. The presence of equipment lying around on site may also encourage criminal activities (theft).

Sensitize operators of earthmoving equipment and tools to switch off engines of vehicles or machinery not being used. The contractor is advised to ensure that the team is equipped with first aid kits and that these are available on site, at all times. Workers should be equipped with adequate personal protective gear and properly trained in first aid and safety awareness.

No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises. Proper barricading and/or fencing around the site especially trenches for pipes and drains should be erected to avoid entrance of animals and/or unauthorized persons. Safety regulatory signs should be placed at strategic locations to ensure awareness. Adequate lighting within and around the construction locations should be erected, when visibility becomes an issue.

#### Impact evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

### 10.1.6. CONTAMINATION OF GROUNDWATER

Care must be taken to avoid contamination of soil and groundwater. Use drip trays when doing maintenance on machinery. Maintenance should be done on dedicated areas with linings or concrete flooring. The risk can be lowered further through proper training of staff. All spills must be cleaned up immediately. Excavations should be backfilled and sealed with appropriate material, if it is not to be used further.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater	-	2	2	2	2	M	L

### 10.1.7. SEDIMENTATION AND EROSION

The area is covered by vegetation. The vegetation is stabilizing the area against wind and water erosion. Vegetation clearance and creation of impermeable surfaces could result in erosion in areas across the proposed area. The clearance of vegetation will further reduce the capacity of the land surface to slow down the flow of surface water, thus decreasing infiltration, and increasing both the quantity and velocity of surface water runoff. The proposed construction activities will increase the number of impermeable surfaces and therefore decrease the amount of groundwater infiltration. As a result, the amount of storm water during rainfall events could increase. If proper storm water management measures are not implemented this will impact negatively on the water courses close to the site.

### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Erosion and Sedimentation	-	1	2	4	2	M	L

### 10.1.8. GENERATION OF WASTE

This can be in a form of rubble, cement bags, pipe and electrical wire cuttings. The waste should be gathered and stored in enclosed containers to prevent it from being blown away by the wind. Contaminated soil due to oil leakages, lubricants and grease from the construction equipment and machinery may also be generated during the construction phase.

The oil leakages, lubricants and grease must be addressed. Contaminated soil must be removed and disposed of at a hazardous waste landfill. The contractor must provide containers on-site, to store any hazardous waste produced. Regular inspection and housekeeping procedure monitoring should be maintained by the contractor.

### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste	-	1	2	4	2	M	L

### 10.1.9. CONTAMINATION OF SURFACE WATER

Contamination of surface water might occur through oil leakages, lubricants and grease from the equipment and machinery during the installation, construction and maintenance of bulk services at the site. Oil spills may form a film on water surfaces in the nearby streams causing physical damage to water-borne organisms.

Machinery should not be serviced at the construction site to avoid spills. All spills should be cleaned up as soon as possible. Hydrocarbon contaminated clothing or equipment should not be washed within 25m of any surface water body.

### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Surface water	-	2	2	4	3	M	L



### 10.1.10. TRAFFIC AND ROAD SAFETY

All drivers of delivery vehicles and construction machinery should have the necessary driver's licenses and documents to operate these machines. Speed limit warning signs must be erected to minimise accidents. Heavy-duty vehicles and machinery must be tagged with reflective signs or tapes to maximize visibility and avoid accidents.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Traffic	-	2	2	4	3	M	L

### 10.1.11. FIRES AND EXPLOSIONS

There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and they are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	2	4	2	M	L

### 10.1.12. SENSE OF PLACE

The placement, design and construction of the proposed project should be as such as to have the least possible impact on the natural environment. The proposed activities will not have a large/negative impact on the sense of place in the area since it will be constructed in a manner that will not affect the neighbouring erven / portions and it will not be visually displeasing.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Nuisance Pollution	-	1	1	2	2	L	L

## 10.2. IMPACTS DURING THE OPERATIONAL PHASE

### 10.2.1. ECOLOGICAL IMPACTS

Staff and visitors should only make use of walkways and existing roads to minimise the impact on vegetation. No firewood may be collected on the site. Minimise the area of disturbance by restricting movement to the designated working areas during maintenance and drives.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Ecology Impacts	-	1	2	4	2	M	L

### 10.2.2. DUST POLLUTION AND AIR QUALITY

Vehicles transporting goods and staff will contribute to the release of hydrocarbon vapours, carbon monoxide and sulphur oxides into the air. Possible release of sewer odour, due to sewer system failure or maintenance might also occur. All maintenance of bulk services and infrastructure at the project site has to be designed to enable environmental protection.

#### Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Dust & Air Quality	-	2	2	4	4	M	L

### 10.2.3. CONTAMINATION OF GROUNDWATER

Spillages might also occur during maintenance of the sewer system. This could have impacts on groundwater especially in cases of large sewer spills. Proper containment should be used in cases of sewerage system maintenance to avoid any possible leakages. Oil and chemical spillages may have a health impact on groundwater users. Potential impact on the natural environment from possible polluted groundwater also exists.

## Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Groundwater contamination	-	2	2	4	2	M	L

### 10.2.4. GENERATION OF WASTE

Household waste from the activities at the site and from the staff working at the site will be generated. This waste will be collected, sorted to be recycled and stored in on site for transportation and disposal at an approved landfill site.

## Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Waste Generation	-	1	2	2	2	M	L

### 10.2.5. FAILURE IN RETICULATION PIPELINES

There may be a potential release of sewage, stormwater or water into the environment due to pipeline/system failure. As a result, the spillage could be released into the environment and could potentially be health hazard to surface and groundwater. Proper reticulation pipelines and drainage systems should be installed. Regular bulk services infrastructure and system inspection should be conducted.

## Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Failure of Reticulation Pipeline	-	1	1	4	2	M	L

### 10.2.6. FIRES AND EXPLOSIONS

Food will be prepared on gas fired stoves. There should be sufficient water available for firefighting purposes. Ensure that all fire-fighting devices are in good working order and are serviced. All personnel have to be trained about responsible fire protection measures and good housekeeping such as the removal of flammable materials on site. Regular inspections should be carried out to inspect and test firefighting equipment by the contractor.

## Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Fires and Explosions	-	2	1	4	2	M	L

### 10.2.7. HEALTH, SAFETY AND SECURITY

The safety, security and health of the labour force, employees and neighbours are of great importance, workers should be orientated with the maintenance of safety and health procedures and they should be provided with PPE (Personal Protective Equipment). Workers should be warned not to approach or chase any wild animals occurring on the site. No open flames, smoking or any potential sources of ignition should be allowed at the project location. Signs such as 'NO SMOKING' must be prominently displayed in parts where inflammable materials are stored on the premises.

## Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Safety & Security	-	1	2	4	2	M	L

### 10.3. CUMULATIVE IMPACTS

These are impacts on the environment, which results from the incremental impacts of the construction and operation of the proposed project when added to other past, present, and reasonably foreseeable future actions regardless of what person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. In relation to an activity, it means the impact of an activity that in it may not become significant when added to the existing and potential impacts resulting from similar or diverse activities or undertakings in the area.

Possible cumulative impacts associated with the proposed project include sewer damages/maintenance, vegetation and animal disturbance, uncontrolled traffic and destruction of the natural environment. These impacts could become significant especially if it is not properly supervised and controlled. This could collectively impact on the environmental conditions in the area. Cumulative impacts could occur in both the operational and the construction phase.

## Impact Evaluation

Aspect	Impact Type	Scale	Duration	Magnitude	Probability	Significance	
						Unmitigated	Mitigated
Cumulative Impacts	-	1	3	4	3	L	L

## 11. ENVIRONMENTAL MANAGEMENT PLAN

The Environmental Management Plan (EMP) provides management options to ensure impacts of the proposed construction are minimised. An EMP is an environmental management tool used to ensure that undue or reasonably avoidable adverse impacts of the operations are prevented, and the positive benefits of the projects are enhanced.

The objectives of the EMP are:

- ✓ to include all components of the proposed project.
- ✓ to prescribe the best practicable control methods to lessen the environmental impacts associated with the project.
- ✓ to monitor and audit the performance of the project personnel in applying such controls.
- ✓ to ensure that appropriate environmental training is provided to responsible project personnel.

The EMP acts as a document that can be used during the various phases of the proposed project. The contractor as well as the management and staff should be made aware of the contents of the EMP. See Appendix for EMP.

## 12. CONCLUSION

The EIA has been completed in line with the requirements of the Environmental Management Act, 2007 and Regulations and it is concluded and recommended that the specific site identified namely Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek has the full potential to be used for the proposed activities. The identified environmental and social impacts can be minimized and managed through implementing preventative measures and sound management systems. It is recommended that the environmental performance be monitored regularly to ensure compliance and that corrective measures be taken if necessary.

In general, the construction and operation of the proposed project would pose limited environmental risks, provided that the EMP for the activity is used properly. The EMP should be used as an onsite tool during the construction and operation of the project. Parties responsible for non-conformances of the EMP should be held responsible for any rehabilitation that has to be undertaken. After assessing all information available on this project, Green Earth Environmental Consultants are of the opinion that the proposed



project site is suitable for the proposed activities. The accompanying EMP will focus on mitigation measures that will remediate or eradicate the negative or adverse impacts.

### **13. RECOMMENDATION**

It is therefore recommended that the Ministry of Environment, Forestry and Tourism through the Environmental Commissioner support and approve the Environmental Clearance for the construction and operation of a 5MW photovoltaic plant, storage facilities and underground powerlines on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek and to issue an Environmental Clearance for the following 'Listed Activities':

#### ***ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES***

*1. The construction of facilities for -*

*(a) the generation of electricity.*

*(b) the transmission and supply of electricity.*

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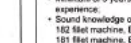
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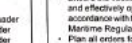
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- Stationary
- Cupboards & Lockers
- School Furniture
- White Boards
- Pinning Boards
- Industrial Handrails

**Contact:**  
061-309 018  
76 Nickel Street  
Prosperita  
Email: [peters@storetech.com.na](mailto:peters@storetech.com.na)

## Housing & Property

• For Rent •

**Housing & Property**

**For Rent**

**For Sale**

**Housing & Property**

**For Rent**

**For Sale**

**Housing & Property**

**For Rent**

**For Sale**

**Housing & Property**

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## Notices

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**DISCLAIMER** ALL PRODUCTS AND SERVICES ADVERTISED ARE SOLELY THE RESPONSIBILITY OF THE ADVERTISER. THE NAMIBIAN DOES NOT VALIDATE OR ENDORSE THE CLAIMS MADE BY ANY ADVERTISEMENT. THE OMNIS LIVES WITH POTENTIAL CUSTOMERS TO EVALUATE THE AUTHENTICITY OF SUCH PRODUCTS OR SERVICES.



Tel: (061) 208 0800/44

Fax: (061) 220 554

Email: classifieds@nepc.com.na



CHANGING OF SURNAME - THE ALIENS ACT, 1937. NOTICE OF INTENTION OF CHANGE OF SURNAME. (1) JOSEPH PAULUS reading at OKAVANGO, OSHKOTO REGION and ...

NOTICE TO CREDITORS IN DECEASED ESTATES. All persons having claims against the estates specified below, are called upon to lodge their claims with the executors concerned within a period of 30 days ...

NOTICE TO CREDITORS IN DECEASED ESTATES. All persons having claims against the estates specified below, are called upon to lodge their claims with the executors concerned within a period of 30 days ...

SUPPLEMENTARY LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION. In terms of Section 35 (5) of Act 66 of 1985 notice is hereby given that copies of the liquidation and distribution accounts (final and final, unless otherwise stated) in the estates specified below will be open for inspection of all persons interested therein for a period of 21 days ...

CALL FOR PUBLIC PARTICIPATION COMMENTS ENVIRONMENTAL IMPACT ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN TO OBTAIN AN ENVIRONMENTAL CLEARANCE FOR THE CONSTRUCTION AND OPERATION OF A SAW PHOTODUPLICATION PLANT, STORAGE FACILITIES AND UNDERGROUND POWER LINES ON PORTION A OF PORTION 237 OF FARM FAKKENSIA N° 526, WINDHOEK.

NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 8964 - 8965 LOCATED NORTH OF TALISMANS IN THE OMAHEKE REGION, NAMIBIA.

NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) 8730 LOCATED NEAR KALFELD IN THE OTJAZONDJUPA REGION, NAMIBIA.

NOTICE OF INTENTION TO APPLY FOR ELECTRICAL CONTRACTOR'S LICENSE (Electrical Wiring). I, IMMANUEL TANGENI TAAPPOI IYAMBO OF POTENTIAL INVESTMENT GROUP of (address) ERF NO. 598, CHIEF MANDUME STREET hereby give notice of my intention to apply to the CITY OF WINDHOEK for a Contractor's License in terms of paragraph 57 Part 6 of the Electricity Supply Regulations.

LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION. In terms of section 35(5) of Act 66 of 1985 notice is hereby given that copies of the liquidation and distribution accounts (final and final, unless otherwise stated) in the estates specified below will be open for inspection of all persons interested therein for a period of 21 days ...

LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION. In terms of section 35(5) of Act 66 of 1985 notice is hereby given that copies of the liquidation and distribution accounts (final and final, unless otherwise stated) in the estates specified below will be open for inspection of all persons interested therein for a period of 21 days ...

LIQUIDATION AND DISTRIBUTION ACCOUNT IN DECEASED ESTATE LYING FOR INSPECTION. In terms of section 35(5) of Act 66 of 1985 notice is hereby given that copies of the liquidation and distribution accounts (final and final, unless otherwise stated) in the estates specified below will be open for inspection of all persons interested therein for a period of 21 days ...

NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 8964 - 8965 LOCATED NORTH-EAST OF AUSSENERH, IKARAS REGION, NAMIBIA.

NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) NO. 8964 - 8965 LOCATED NORTH-EAST OF AUSSENERH, IKARAS REGION, NAMIBIA.

REPUBLIC OF NAMIBIA MINISTRY OF INDUSTRIALISATION AND TRADE, LIQUOR ACT, 1988. NOTICE OF APPLICATION FOR A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1988.

Property advertisement for 'CHENYU OSHAKATI' featuring a house with a swimming pool, 2 bedrooms, and a kitchen. Includes contact information and a 'RENT FREE' offer.

CHANGING OF SURNAME - THE ALIENS ACT, 1937. NOTICE OF INTENTION OF CHANGE OF SURNAME. (1) NESHUKU PINDA MOKHINU reading at 157 WINDHOEK, TUGELA STREET and carrying on business / employed as a (2) STUDENT.

CHANGING OF SURNAME - THE ALIENS ACT, 1937. NOTICE OF INTENTION OF CHANGE OF SURNAME. (1) FUAHAFENI EPAPRAS TUAHAFENI residing at KAMHANDJA PARK and carrying on business / employed as a (2) N/A.

CHANGING OF SURNAME - THE ALIENS ACT, 1937. NOTICE OF INTENTION OF CHANGE OF SURNAME. (1) FUAHAFENI EPAPRAS TUAHAFENI residing at KAMHANDJA PARK and carrying on business / employed as a (2) N/A.

CHANGING OF SURNAME - THE ALIENS ACT, 1937. NOTICE OF INTENTION OF CHANGE OF SURNAME. (1) ERNEST GODFRIED BEUKES residing at 588 SHILONGA STREET, CUMBURISA, WINDHOEK and carrying on business / employed as a (2) SELF EMPLOYED / MANAGING DIRECTOR.

CHANGING OF SURNAME - THE ALIENS ACT, 1937. NOTICE OF INTENTION OF CHANGE OF SURNAME. (1) ERNEST GODFRIED BEUKES residing at 588 SHILONGA STREET, CUMBURISA, WINDHOEK and carrying on business / employed as a (2) SELF EMPLOYED / MANAGING DIRECTOR.

REPUBLIC OF NAMIBIA MINISTRY OF INDUSTRIALISATION AND TRADE, LIQUOR ACT, 1988. NOTICE OF APPLICATION FOR A COMMITTEE IN TERMS OF THE LIQUOR ACT, 1988.



# Classifieds

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DEADLINE: 12H00 - 2 WORKING DAYS PRIOR TO PLACEMENT

**INDEX**

**Personal**  
 1210 Anniversaries  
 1220 Weddings  
 Announcements  
 1230 Birthday Wishes  
 1240 Reunions  
 1250 Graduations  
 1260 Special Messages  
 1270 Thank You Messages  
 1280 Valentine's Messages

**Business & Finance**  
 1410 Opportunities  
 1420 Business for Sale  
 1430 Taxi Licences

**Education & Training**  
 2610 Education & Training

**Employment**  
 2710 Wanted  
 2720 Offered

**Food & Beverage**  
 3210 Food & Beverages

**Health & Beauty**  
 3810 Wanted  
 3830 For Sale  
 3700 Auctions

**Hospitality**  
 4010 Hospitality  
(See also Travel & Tourism)

**Housing & Property**  
 4110 Wanted  
 4210 For Rent  
 4310 For Sale

**Leisure & Entertainment**  
 4610 Leisure & Entertainment

**Livestock & Pets**  
 5010 Livestock & Pets  
 5010 Auctions  
 5010 For Sale  
 5010 Lost & Missing  
 5010 Wanted

**Motoring**  
 5310 Vehicles Wanted  
 5320 Vehicles for Hire  
 5330 Vehicles for Sale  
 5340 Vehicle Auctions  
 5350 Vehicle Spares & Accessories

**Notices**  
 5610 Legal  
 5620 Public  
 5630 Tenders  
 5710 Churches  
 5620 Name Change  
 5620 Resuming

**Obituaries**  
 6000 In Memoriam  
 6010 Tombstone Unveiling  
 6020 Death & Funeral Notices  
 6030 Condolences  
 1270 Thank you messages

**Travel & Tourism**  
 7800 Travel & Tourism

**Rates and Deadlines**  
 For all advertisements, the minimum size is 10 lines of 35 characters each. The cost of advertising is calculated on the basis of the number of lines and the number of days. The rate for a single line of 35 characters for 1 day is R250.00. For longer advertisements, a special rate applies. Please contact us for more details. Deadlines: Advertisements must be received by the publisher at least 48 hours before the day of publication. Payment: All advertisements must be paid for in advance.

**Business & Finance**  
 • Business for Sale •

**CLASSIFIEDS INDEPENDENCE DAY SPECIAL 2023**  
 03 March 2023 - 31 March 2023

we offer you an  
 "INDEPENDENCE SPECIAL"

You book 2 or more classifieds advertisement in one week and get a complimentary advertisement on the Tuesday in the next week.

[janet@namibian.com.na](mailto:janet@namibian.com.na)  
[emma@namibian.com.na](mailto:emma@namibian.com.na)

**A people united for prosperity!!**

**Business & Finance**  
 • Opportunities •

**KOMBERG Senior Manager Table Grapes**

Komberg is a well-established grape, citrus and blueberry farm in the southern Karas region on the banks of the Orange River near Araniemvel, Namibia.

Application is awaited from dynamic, hard-working individual, who likes to work outdoors. The position requires the following:

- Good labour relations
- Ability to work under pressure and irregular hours
- Attention to detail and quality
- Willingness to learn and to work in a team
- Minimum 10 years blueberry experience required
- Experience handling chemical and monitoring data
- Fertilizer applications of high quality and detail
- Experience in cultivating and planting of new orchards
- Experience in technicality of Citrus
- Paddock management will be at your advantage

Namibian citizens preferred candidates. Please send resume to [kombereganoes@gmail.com](mailto:kombereganoes@gmail.com) before 07/04/2023. Reference - Blueberry Manager

**Employment**  
 • Offered •

Provet Rod Logistics has a vacancy for a Logistics Manager.

- Should have more than 4 years experience in the international logistics industry
- Should have more than 2 years of team management experience
- Proven strong business development capabilities
- Proficient in both Chinese and English

If you meet the requirements kindly forward your CV to [rodlogistics@gmail.com](mailto:rodlogistics@gmail.com). Due date 30 March 2023.

**Employment**  
 • Offered •

SAW CONSTRUCTION IS LOOKING FOR THE FOLLOWING SKILLED PERSONNEL:

- 1. PROJECTS QUANTITY SURVEYOR x1
- Degree/Diploma or Equivalent Qualification
- Owner's License + email
- At least 5 years experience
- Candidates should be able to speak Chinese.

Email CV's to: [connambe@gmail.com](mailto:connambe@gmail.com). CLAO230000962

**Hospitality**  
 • Hospitality •

**HIGHLAND GUESTHOUSE**  
 Clean, spacious rooms. Air conditioned, swimming pool, DVD, Wi-Fi on suite, bathroom. Sense parking. Family environment. Ask for small functions. 081528100. CLAO220002124

**Housing & Property**  
 • Wanted •

Looking for 2-3 bedroom house/apartment to rent Katutura, Khomasdal, Dorpsgat near NS1600. 081242191. CLAO230000976

**Housing & Property**  
 • For Rent •

TO LET: Overbuilt, Well-maintained 2 Bedroom water ret up for rent - N\$ 500 pm + deposit. Meter not on pre paid electricity. Contact person - Jacqun These - 081 124 1978, available immediately. CLAO230000891

**Employment**  
 • Offered •

**KOMBERG Blueberry Manager**

Komberg is a well-established grape, citrus and blueberry farm in the southern Karas region on the banks of the Orange River near Araniemvel, Namibia.

Application is awaited from dynamic, hard-working individual, who likes to work outdoors. The position requires the following:

- Good labour relations
- Ability to work under pressure and irregular hours
- Attention to detail and quality
- Willingness to learn and to work in a team
- Minimum 3 years blueberry experience required
- Experience handling chemical and monitoring data
- Fertilizer applications of high quality and detail
- Experience in cultivating and planting of new orchards
- Experience in technicality of blueberries
- Paddock management will be at your advantage

Namibian citizens preferred candidates. Please send resume to [kombereganoes@gmail.com](mailto:kombereganoes@gmail.com) before 07/04/2023. Reference - Blueberry Manager

**Employment**  
 • Offered •

**KOMBERG Manager Citrus**

Komberg is a well-established grape, citrus and blueberry farm in the southern Karas region on the banks of the Orange River near Araniemvel, Namibia.

Application is awaited from dynamic, hard-working individual, who likes to work outdoors. The position requires the following:

- Good labour relations
- Ability to work under pressure and irregular hours
- Attention to detail and quality
- Willingness to learn and to work in a team
- Minimum 3 years blueberry experience required
- Experience handling chemical and monitoring data
- Fertilizer applications of high quality and detail
- Experience in cultivating and planting of new orchards
- Experience in technicality of Citrus
- Paddock management will be at your advantage

Namibian citizens preferred candidates. Please send resume to [kombereganoes@gmail.com](mailto:kombereganoes@gmail.com) before 07/04/2023. Reference - Citrus Manager

**Housing & Property**  
 • For Sale •

**Oceana Village Development Phase 9**  
 Houses now available on plot and plan available and 1 ready for moving in ready to build. We pay good rental commission to the public and Agents are also welcome. Contact Rachel on 0819140941 or visit us at Oceana Village every Saturday for viewing. CLAO230000806

**For Sale**

- 1. Kine Kapper 2 bedroom flat - N\$ 500 000
- 2. Opdenbosch 2 bedroom town house, 2 bathrooms, large, kitchen - N\$ 500 000. contact Ana - 081290302, View Square Properties. CLAO230000982

**For Sale**

- 1. Kine Kapper 3 bedroom house, 3 bathrooms, kitchen, living room and scullery, pool, 2 bedrooms, backyard, flat, pool and unfinished pool, double garage, N\$ 3.2 million.
- 2. Farm 2km from Windhoek 1000+ hectares, 2 bedroom, 2 bathroom, 2 km from Windhoek. Name of proponent: Spirank Investments (Pty) Ltd. Project location and description: It is the intention of the proponent to construct and operate a 5MW photovoltaic plant, solar storage facilities and underground powerlines on Portion A of Portion 237 of Farm Frenkenstein No. 526, WINDHOEK. CLAO230000975

**Housing & Property**  
 • For Rent •

TO LET: Overbuilt, Well-maintained 2 Bedroom water ret up for rent - N\$ 500 pm + deposit. Meter not on pre paid electricity. Contact person - Jacqun These - 081 124 1978, available immediately. CLAO230000891

**Housing & Property**  
 • For Rent •

**CHWERBASA** Spacious, neat 3 bedrooms (incl) freestanding house, 2 bathroom, kitchen, garage, dining, garage, water in, electricity for NS10000.

**WANARHEDA** Spacious room for rent, kitchen, bathroom for NS2000. Kindly call 0812510620. CLAO230000958

**Suppliers of:**

- Shelving & Racking Systems
- Mezzanine Floors
- Trolleys & Pallet Jacks
- Supermarket Accessories
- Stationary Cupboards & Lockers
- School Furniture
- White Boards
- Pinning Boards
- Industrial Handrailing

**Contact: Office** 061-309 818  
 76 Nickel Street Prosperita  
 Email: [peters@storetech.com.na](mailto:peters@storetech.com.na)

**Housing & Property**  
 • For Sale •

**Oceana Village Development Phase 9**  
 Houses now available on plot and plan available and 1 ready for moving in ready to build. We pay good rental commission to the public and Agents are also welcome. Contact Rachel on 0819140941 or visit us at Oceana Village every Saturday for viewing. CLAO230000806

**For Sale**

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**Housing & Property**  
 • For Sale •

**Kine Kapper 2 bedroom house** 1 bedroom, kitchen, 2 bathrooms, 2 bedrooms, 2 bathrooms, 2 bedrooms, 2 bathrooms. Call 081242191. CLAO230000976

**Kine Kapper 3 bedroom house** 1 bedroom, kitchen, 2 bathrooms, 2 bedrooms, 2 bathrooms, 2 bedrooms, 2 bathrooms. Call 081242191. CLAO230000976

**Housing & Property**  
 • For Sale •

**Kine Kapper 2 bedroom house** 1 bedroom, kitchen, 2 bathrooms, 2 bedrooms, 2 bathrooms, 2 bedrooms, 2 bathrooms. Call 081242191. CLAO230000976

**Rocky Crest 2 bedroom house** 1 bedroom, kitchen, 2 bathrooms, 2 bedrooms, 2 bathrooms, 2 bedrooms, 2 bathrooms. Call 081242191. CLAO230000976

**Suppliers of:**

- Shelving & Racking Systems
- Mezzanine Floors
- Trolleys & Pallet Jacks
- Supermarket Accessories
- Stationary Cupboards & Lockers
- School Furniture
- White Boards
- Pinning Boards
- Industrial Handrailing

**Contact: Office** 061-309 818  
 76 Nickel Street Prosperita  
 Email: [peters@storetech.com.na](mailto:peters@storetech.com.na)

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 • For Sale •

**Oceana Village Development Phase 9**  
 Houses now available on plot and plan available and 1 ready for moving in ready to build. We pay good rental commission to the public and Agents are also welcome. Contact Rachel on 0819140941 or visit us at Oceana Village every Saturday for viewing. CLAO230000806

**For Sale**

- 1. Kine Kapper 3 bedroom house, 3 bathrooms, kitchen, living room and scullery, pool, 2 bedrooms, backyard, flat, pool and unfinished pool, double garage, N\$ 3.2 million.
- 2. Farm 2km from Windhoek 1000+ hectares, 2 bedroom, 2 bathroom, 2 km from Windhoek. Name of proponent: Spirank Investments (Pty) Ltd. Project location and description: It is the intention of the proponent to construct and operate a 5MW photovoltaic plant, solar storage facilities and underground powerlines on Portion A of Portion 237 of Farm Frenkenstein No. 526, WINDHOEK. CLAO230000975

**Housing & Property**  
 • For Sale •

**Kine Kapper 2 bedroom house** 1 bedroom, kitchen, 2 bathrooms, 2 bedrooms, 2 bathrooms, 2 bedrooms, 2 bathrooms. Call 081242191. CLAO230000976

**Kine Kapper 3 bedroom house** 1 bedroom, kitchen, 2 bathrooms, 2 bedrooms, 2 bathrooms, 2 bedrooms, 2 bathrooms. Call 081242191. CLAO230000976

**Notices**  
 • Legal •

**NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) No. 8961 LOCATED NORTH-EAST OF AUSAENHUN / KARAS REGION**

Under the Environmental Management Act No. 7 of 2007 and its 2012 EIA Regulations, the proposed prospecting and exploration activities on EPL No. 8961 require an Environmental Clearance Certificate (ECC) from the Department of Environmental Affairs and Forestry (DEAF) before commencement.

The public is hereby notified that an application for an ECC will be submitted to the Environmental Commission.

**Brief Project Description:** The environmental scoping process will identify potential positive and negative impacts of the proposed exploration activities on EPL No. 8961. The target commodities on the EPL are Base & Rare Metals, Dimensional Stone, Industrial Minerals, Non-Nuclear Fuel Minerals, Nuclear Fuel Minerals, Precious Metals and Semi-Precious Stones.

**Proposed:** Co-IR Development (Pty) Ltd  
 Environmental Consultant:  
 Excel Dynamic Solutions (Pty) Ltd  
 Members of the public are invited to register as interested and Affected Parties in order to comment/raise concerns or receive further information on the Environmental Clearance process.

Public Consultation meeting details will be communicated with all the registered MAPs.  
 Registration requests should be forwarded to Excel Dynamic Solutions (Pty) Ltd on the contact details below, before or on the 28th April 2023.  
 Email: [publicaffairs@excelsolutions.com.na](mailto:publicaffairs@excelsolutions.com.na)  
 Tel: + 264 61 299 530

**NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) No. 8978 LOCATED NEAR KALKEJELDER THE OTJONONDJUPA REGION, NAMIBIA**

Notice is hereby served to inform the public that an application for the Environmental Clearance Certificate (ECC) will be made to the Environmental Commission in terms of Environmental Management Act No. 7 of 2007 and the EIA Regulations (2012) for the following identified project:  
 Project Name: Proposed exploration activities of dimension stones, base & rare metals, industrial minerals and precious metals genesis on EPL No. 8978 near Kalkejel, Otjondjupa Region.  
 Proponent: Simed Trading CC  
 Environmental Consultant:  
 Excel Dynamic Solutions (Pty) Ltd (EDS)  
 Members of the public are invited to register as interested and Affected Parties (IAPs) to comment/raise concerns or receive further information regarding the proposed project. Public Consultation meeting details will be communicated with all the registered MAPs.  
 Registration requests should be forwarded to EDS on the contact details below, before or on 14 April 2023.  
 Contact: Mr. Tala Shwaya  
 Email: [publicaffairs@excelsolutions.com.na](mailto:publicaffairs@excelsolutions.com.na)  
 Tel: + 264 61 299 530

**NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) No. 8964 - 8965 LOCATED NORTH OF TALISMANN IN THE OMAHEKE REGION, NAMIBIA**

Under the Environmental Management Act No. 7 of 2007 and its 2012 EIA Regulations, the proposed prospecting and exploration activities on EPLs No. 8964 - 8965 require an Environmental Clearance Certificate (ECC) from the Department of Environmental Affairs and Forestry (DEAF) before commencement.

The public is hereby notified that an application for an ECC will be submitted to the Environmental Commission.

**Brief Project Description:** The environmental scoping process will

**NOTICE OF ENVIRONMENTAL SCOPING ASSESSMENT (ESA) FOR THE PROPOSED EXPLORATION ACTIVITIES ON THE EXCLUSIVE PROSPECTING LICENSE (EPL) No. 8964 - 8965 LOCATED NORTH OF TALISMANN IN THE OMAHEKE REGION, NAMIBIA**

Under the Environmental Management Act No. 7 of 2007 and its 2012 EIA Regulations, the proposed prospecting and exploration activities on EPLs No. 8964 - 8965 require an Environmental Clearance Certificate (ECC) from the Department of Environmental Affairs and Forestry (DEAF) before commencement.

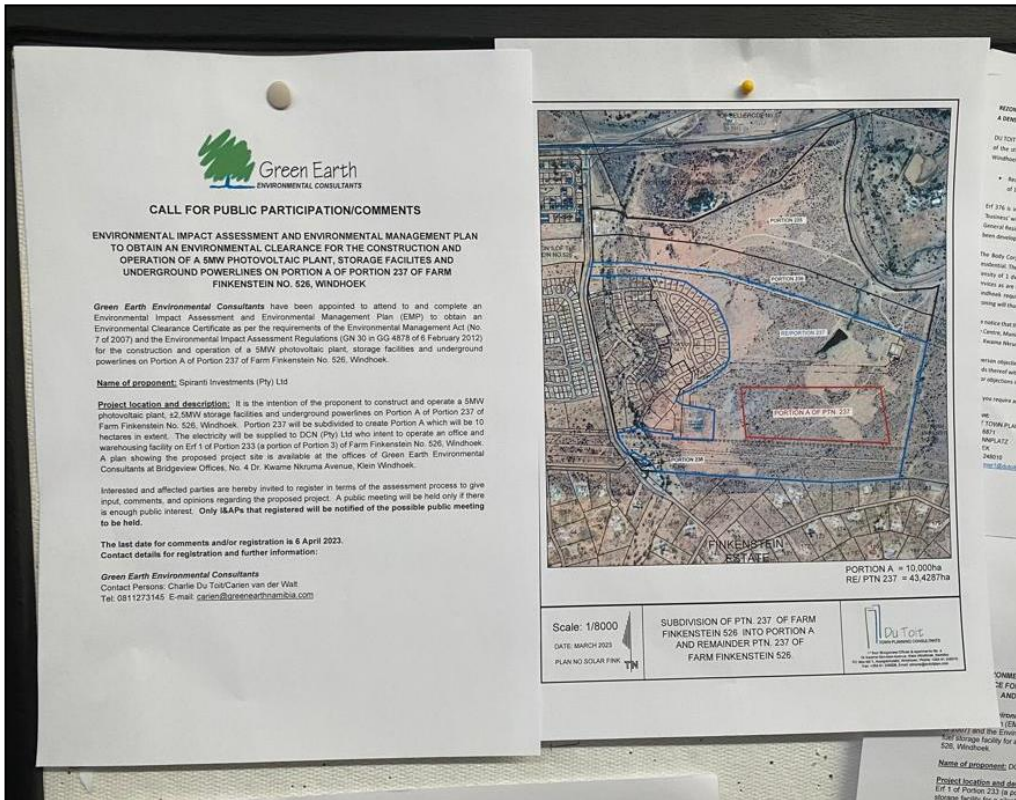
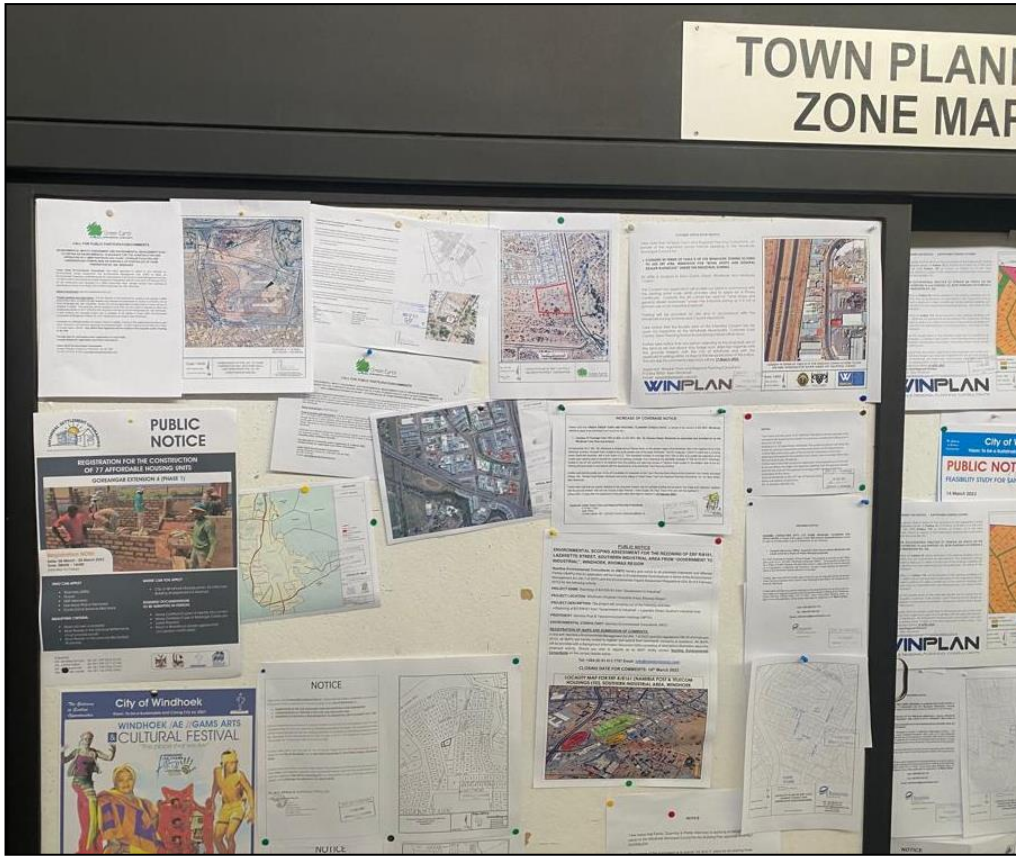
The public is hereby notified that an application for an ECC will be submitted to the Environmental Commission.

**Brief Project Description:** The environmental scoping process will

**DISCLAIMER** ALL PRODUCTS AND SERVICES ADVERTISED ARE SOLELY THE RESPONSIBILITY OF THE ADVERTISER. THE NAMIBIAN DOES NOT VALIDATE OR ENDORSE THE CLAIMS MADE BY ANY ADVERTISER. THE ONUS LIES WITH POTENTIAL CUSTOMERS TO EVALUATE THE AUTHENTICITY OF SUCH PRODUCTS OR SERVICES.



# APPENDIX B: NOTICE AT MUNICIPALITY



**APPENDIX C: NOTICE ON SITE**



## APPENDIX D: INTERESTED AND AFFECTED PARTIES

admin@finkensteinmanor.com  
andre.dejager@hotmail.com  
anriparker@gmail.com  
arno@africaonline.com.na  
bernhard@farmfinkenstein.com  
bertus@africaglass.com.na  
djf@idc.com.na  
em@finkenstein.org  
hellmut@ludwiger.com  
info@finkenstein.org  
irisgold@iway.na  
koehlerfam@iway.na  
leonbas23@gmail.com  
ndeliimonachox@gmail.com>  
Robin Thompson <basspro.robin@me.com>  
stephenvanrhyn@outlook.com  
thomas.slabbert@joseph-snyman.com.na  
Thomas@joseph-snyman.com.na  
tobiasm@optima.com.na  
trisha@africaglass.com.na

## APPENDIX E: EMAILS RECEIVED FROM I&APs

Comments
<p>Dear Carien</p> <p>I hereby request to be registered as an I&amp;AP for the EIA:</p> <p>-The Construction and operation of a 5MW Photovoltaic Plant, storage facilities, and underground powerlines on Portion A of Portion 237 of Farm Finkenstein No.526, Windhoek as issued in your public notice in The Namibian newspaper on the 16th of March 2023. Please would you also forward me the Background Information Document (BID) and the exact coordinates of the area (if not in the BID)?</p> <p>Regards Nelimona Ipinge Namibian Environment and Wildlife Society</p>
<p>Dear Nelimona</p> <p>I hereby register you as Interested and Affected Party. Please see attached the Background Information Document.</p> <p>Kind regards</p> <p>Carien</p> <div data-bbox="245 947 669 1085" data-label="Image">The logo for Green Earth Environmental Consultants features a stylized green tree with a blue base, positioned to the left of the text "Green Earth" in a large, black, sans-serif font. Below "Green Earth" is the text "ENVIRONMENTAL CONSULTANTS" in a smaller, black, all-caps, sans-serif font.</div> <hr/> <p>1<sup>st</sup> floor Bridgeview Offices &amp; Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia PO Box 6871, Aussspanplatz, Windhoek Phone: +264 61 248010 Fax: +264 61 248608, Email: carien@greenearthnamibia.com</p> <p>Carien van der Walt</p>
<p>From: <a href="mailto:bernhard@farmfinkenstein.com">bernhard@farmfinkenstein.com</a> &lt;<a href="mailto:bernhard@farmfinkenstein.com">bernhard@farmfinkenstein.com</a>&gt;</p> <p>Sent: Thursday, March 30, 2023 11:06 AM</p> <p>To: <a href="mailto:charlie@greenearthnamibia.com">charlie@greenearthnamibia.com</a></p> <p>Subject: Background Information Document for Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek</p> <p>Good morning,</p> <p>I want to register as an I&amp;AP on the Solar Project of Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek.</p> <p>Thank you</p> <p>Bernhard Finke Farm Finkenstein 081 124 7067 P.O.Box 167 Windhoek</p>
<p>Dear Bernhard</p>



We herewith confirmed that you have been registered as I&AP on the Solar Project of Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek.

We are also busy preparing a response to all comments received that will be shared with you before the EIA is finalised and submitted.

Regards

Charlie



---

1<sup>st</sup> floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia  
PO Box 6871, Ausspannplatz, Windhoek  
Phone: +264 61 248010  
Fax: +264 61 248608, Email: [charlie@greenearthnamibia.com](mailto:charlie@greenearthnamibia.com)

*Charlie du Toit*  
Mobile: +264 81 127 3145

---

From: Bertus van Niekerk <[bertus@africaglass.com.na](mailto:bertus@africaglass.com.na)>  
Sent: Monday, March 27, 2023 12:35 PM  
To: [charlie@greenearthnamibia.com](mailto:charlie@greenearthnamibia.com)  
Subject: FW: comments

Thank you  
Trisha van Niekerk

From: Etherecia van Niekerk [<mailto:trisha@africaglass.com.na>]  
Sent: Monday, 27 March 2023 12:15 pm

---

From: Arno Stein <[arno@africaonline.com.na](mailto:arno@africaonline.com.na)>  
Sent: Thursday, March 30, 2023 5:53 PM  
To: [charlie@greenearthnamibia.com](mailto:charlie@greenearthnamibia.com)  
Subject: FW: Finkenstein Manor Projects  
Importance: High

Dear Mr. Charlie Du Toit / Van Der Walt

Attached response to information document Mast and 5 MW Plant.

Keeping the best interest at heart  
A.P.Stein  
Owner No 8 Finkenstein Manor

---

Dear Mr Stein

Your comments have been received and are noted. It will be included in the EIA to be considered by the MEFT.

We are also busy preparing a response to all comments received that will be shared with you before the EIA is finalised and submitted.

Regards

Charlie



1<sup>st</sup> floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia  
PO Box 6871, Ausspannplatz, Windhoek  
Phone: +264 61 248010  
Fax: +264 61 248608, Email: charlie@greenearthnamibia.com

Charlie du Toit  
Mobile: +264 81 127 3145

Dear sir,

Please find attached the comments of Mrs Theda Koehler Erf 95 Manor and Mr Bernd Rust Erf 228 Manor .On behalf of these parties I send it to you .They are on holiday and have no computer with them.

Regards

Good afternoon Charlie

Kindly find attached response letter from the FHA (Finkenstein Homeowners Association) regarding the proposed development on PTN 237 at Finkenstein.

We look forward to feedback on all of the items listed as concerns.

Kind regards

Dewald du Plessis  
Estate Manager  
Cell: +264811469110  
E-Mail: [em@finkenstein.org](mailto:em@finkenstein.org)



Dear Sir/Madam

If you received this email, it is because you listed as Interested and Affected Party (I&AP) to the proposed construction and operation of a 5MW photovoltaic plant, storage facilities and underground powerlines on Portion A of Portion 237 of Farm Finkenstein No. 526, Windhoek.

See attached the following documents:

Summary of emails received from I&APs.  
Summary of comments received from I&APs.  
Summary of questions and response on Finkenstein Homeowners Association & Finkenstein Manor.

Please note that all comments/emails will be included in the EIA. Proposals by I&APs will be forwarded to the Proponent for consideration and feedback.

If required, a public meeting will be scheduled for further discussion of concerns raised and if and how it can be mitigated. If such meeting is required, all listed I&APs will be informed on the time and venue of the meeting.

You are requested to provide us with your final comments by 19 April 2023 whereafter a meeting will be scheduled or the EIA and EMP will be finalised for submission to the Ministry of Environment, Forestry and Tourism for consideration.

We are looking forward to your response in this regard.

Kind regards

Carien




---

1<sup>st</sup> floor Bridgeview Offices & Apartments, No. 4 Dr Kwame Nkrumah Avenue, Klein Windhoek, Namibia  
PO Box 6871, Ausspannplatz, Windhoek  
Phone: +264 61 248010  
Fax: +264 61 248608, Email: [carien@greenearthnamibia.com](mailto:carien@greenearthnamibia.com)

*Carien van der Walt*

**APPENDIX F: COMMENTS RECEIVED FROM I&APs**

**COMMENTS FROM INTERESTED AND AFFECTED PARTIES**

PERSONAL PARTICULARS	
Name and Surname: <i>Arno Stein</i>	
Organization: <i>Private</i>	
Postal Address: <i>PO Box 86254, Eros, Windhoek</i>	
Telephone Number: <i>-</i>	Email Address: <i>arno@africaonline.com.na</i>
Fax Number: <i>-</i>	Cellphone Number.: <i>+264 81 127 2361</i>
INTEREST IN PROJECT	
<i>Resident at Finkenrokin Manor, Kalkiewyn Str 8</i>	
COMMENTS ON PROJECT	
<i>I invested in an upmarket Senior Citizen Estate and do not agree to have industrial activities around me, being a 5.0 MV Solar Power Project with more than 9000 panels</i>	
Signature: 	Date: <i>30.3.2023</i>

Kindly take note that comments should reach our office by 6 April 2023.

**COMMENTS FROM INTERESTED AND AFFECTED PARTIES**

PERSONAL PARTICULARS			
Name and Surname: Iris Sanner			
Organization: Private / Finkenstein Manor.			
Postal Address: Box 80737 Olympia			
Telephone Number:		Email Address: irisgold@iway.na	
Fax Number:		Cellphone Number.: 0812449898	
INTEREST IN PROJECT			
Resident at Finkenstein Manor			
Corner of Kiewiet / Kelkiewynstr. 158			
COMMENTS ON PROJECT			
I invested a lot to come and stay on Finkenstein because			
of Nature and peace and quiet environment.			
I don't agree to have industrial activities around			
me being a 50 MW Solar Power Project with <sup>all</sup> these			
panels?			
Signature:	<i>Sanner</i>	Date:	30.03.2023.

Kindly take note that comments should reach our office by 6 April 2023.





**Electricity Control Board**

P.O. Box 2923, Windhoek, Namibia, ECB House, 35 Dr. Theo-Ben Gurirab Street  
Tel: +264 61 374 300 | Fax: +264 61 374 305  
E-mail: [info@ecb.org.na](mailto:info@ecb.org.na) | Website: [www.ecb.org.na](http://www.ecb.org.na)

Enquiries: G Nasima  
Ref: LF/23/4/1

11 November 2022

Mr. Dewald du Plessis  
Estate Manager  
Finkenstein Homeowners Association  
P. O. Box 11615  
**WINDHOEK**

Email: [em@finkenstein.org](mailto:em@finkenstein.org)

Dear Mr. du Plessis

**RE: CUSTOMER COMPLAINT SUBMITTED BY FINKENSTEIN HOME OWNERS ASSOCIATION AGAINST FINKENSTEIN DEVELOPMENT TRUST**

Your customer complaint (reference number: 10/2022/dw) submitted to the Electricity Control Board (ECB) has reference.

After an extensive analysis and careful consideration of your case, the ECB wishes to present the following outcome of the investigation.

**1. Bulk Supply Upgrade**

The Finkenstein Development is supplied by a 1 MVA, 33/11kV bulk supply point from NamPower as a dedicated customer through an 11 kV recloser. The Finkenstein MV network is at 11 KV with fuse-based protection at the incomer. From the load profiles obtained from FDT for years 2020 to 2022, the load gradually increases to 1MVA and beyond during winter seasons, with the highest demand of 1.1 MVA recorded in June 2022. With the load profile sometimes exceeding the transformer rating and the nature of the loads, residential and single-phase loads which mostly lead to phase imbalance also lead to the tripping of the recloser as an overload on all or either one of the phases.

The event register submitted by FDT on 30 June 2022 indicates that all the events trip upstream on the NamPower recloser and none are captured by the Finkenstein protection scheme. There is thus no coordination between the Finkenstein and NamPower protection schemes. The Finkenstein fuse-based protection is not ideal for protection selectivity compared to circuit breaker-based protection which offer better coordination with NamPower.

With the continuation of the sale of the erven and the incoming development of the Green township, the load is expected to grow, and the situation is expected to worsen if the bulk supply upgrade is not done.

From the design submitted, the ECB used the After Diversified Maximum Demand (ADMD) of each township provided by FDT during the meeting of 30 June 2022 to calculate the load requirements of the development. As per Table 1, the three developed townships have a load demand of 2.0569 MVA while the envisaged Green Township has a load demand of 0.676 MVA adding up to a total combined demand of 2.7329 MVA.

From the design perspective, it is evident that the designed capacity is twice the installed capacity and thus the installed transformer is very small. This issue was supposed to be addressed during the design and planning phase.

Township	Plots	ADMD Design	Load Design (kVA)
<b>Estate</b>			
Residential	226	2.75	621.5
Business	1	6	6
Pumps	2	6	12
<b>Manor</b>			
Residential	282	2.2	620.4
Business	2	100	200
<b>Village</b>			
Residential	165	1.8	297
Business	3	100	300
<b>Green</b>			
Residential	80	2.2	176
Business	5	100	500
<b>Total Load (kVA)</b>			<b>2732.9</b>

Table 1: Finkenstein Township Load Estimation

## 2. Substandard Infrastructure

The assessment of the internal medium voltage (MV) and low voltage (LV) networks was done based on the design drawings provided by FDT by email on 31 October 2022. The Estate township has 1.2 MVA transformer capacity installed.

From the voltage drop calculation performed, most of the Estate cables voltage drops are within the allowable voltage limit of 10% (NRS 034 – 1), except the longest cable (Estate MS3, K3/1, 167m, 25mm<sup>2</sup> 4C underground cable), with the voltage drop of 12.525%.

The Manor internal MV network forms a ring with the Village MV network. The Manor has 1.915 MVA transformer capacity installed. Based on the calculations, only one cable exceeds the voltage drop limits, cable MS4 – K3, with a voltage drop of 12.5%.

The Village has an installed transformer capacity of 0.715 MVA. All the LV feeders are within the allowable voltage limits, except feeder MS1 – K6 with a voltage drop of 13.125%.

The installed MV internal transformer capacity is sufficient to cater for each township and the voltage drop limits are within the allowable standards limits, except for the three

feeders highlighted above, and those limits can only be exceeded when the feeders are pulling the maximum breaker rated current of 200 A.

The LV internal reticulation is done with PVC/SWA 25mm<sup>2</sup> 4C cable with a current rating of 119 A, PVC/SWA 35mm<sup>2</sup> 4C cable with a current rating of 143 A and PVC/SWA 70 mm<sup>2</sup> 4C with a current rating of 210 A. The circuit breakers used for the entire LV network are 200 A, offering no protection to the 25 mm<sup>2</sup> and the 35 mm<sup>2</sup> cables. If the breakers are not adjustable, they need to be resized to the current ratings of the cables.

### **3. Connection Charges**

The question arose whether the properties at the Estate, Manor and Village were sold as serviced erven, which included the cost of electricity infrastructure, as the contention was that those customers had already paid for their pro rata portion of the infrastructure costs, and therefore should not be burdened by the costs of the upgrade. A perusal of samples of the deeds of sale submitted in respect of properties at the Estate, Manor and Village provided evidence that the cost of electricity distribution infrastructure was included in the purchase price, thereby confirming the opinion of the ECB that the erven were sold as serviced erven. The customers, therefore, have already contributed to the capital costs and cannot be included in the upgrade contribution as this would amount to double charging by the developer.

### **4. Tariffs**

The key issues analysed were as follows:

#### **4.1. Cross subsidization**

The ECB confirmed that the post-paid customers are subsidising the prepaid customers. Subsidies are common in the industry and the ECB was not aware that there was a dispute on subsidy included in the tariff. The opinion of the ECB was that the parties had agreed on it. The developer, therefore, should explain the reasons for such subsidy and discuss with the post-paid customers regarding its continuation. In the event that there is a deadlock the matter can be referred back to the ECB.

#### **4.2. Infrastructure upgrade**

The approved ORM indicates that 90% of the infrastructure is customer funded, which implies that the existing customers are not required to fund the upgrade.

### **5. Licensing**

The customer complaint is directly linked to the licence and the licensed activity. The current licence holder is FDT. However, the Power Supply Agreement (PSA) that normally is held by a licensee is with the FHA. All the operational issues related to the licence such as collection of monthly payment is done by the FHA. This is unusual and not in compliance with the licence conditions.



## 6. ECB Ruling

Based on the above analysis and findings the ECB made the following ruling:

- FDT to fund and upgrade the bulk supply from 1 MVA to 2 MVA to cater for the gradual load growth and winter seasons' peaks, by either replacing the existing transformer with at least a 2 MVA transformer or adding a 1 MVA transformer to operate in parallel with the existing 1 MVA. The upgrade costs will not be funded through tariffs.
- FDT to migrate from fuse-based protection to breaker-based protection to ensure protection coordination with NamPower and better selectivity.
- NamPower should immediately stop increasing protection settings to allow for overload as this shortens the lifetime of the transformer.
- FDT to replace all the minisub breakers to the rating of the cable sizes if the breakers are not adjustable.
- FDT to rectify the identified lv circuits exceeding volage limits.
- No further connections of ervens to the electricity infrastructure to be done until the main supply upgrade is done.
- To address the non-compliance of the licence, the ECB will start the process of cancelling the licence and requesting the City of Windhoek (CoW) to take over the distribution and supply at the estate including the power supply agreement. This is in line with the CoW's distribution and supply licence conditions and the CoW's boundaries that were extended.
- FDT and FHA should be called to a meeting to be briefed on the above-mentioned ruling.

In terms of the ECB complaints handling procedure you are directed to indicate to the ECB in writing whether you are satisfied with the decision within seven (7) working days of receiving the ECB's decision to conclude the first stage of the complaint.

For further information please contact Mr. Gideon Nasima on email [gnasima@ecb.org.na](mailto:gnasima@ecb.org.na) or telephone number 061 374 326.

Yours sincerely

  
Pinehas N. Mutota  
ACTING CHIEF EXECUTIVE OFFICER



CC: Ronald Kubas [rk@burmeister.com.na](mailto:rk@burmeister.com.na)

CC: Benny Hanghome [benny.hanghome@nampower.com.na](mailto:benny.hanghome@nampower.com.na)





**Electricity Control Board**

P.O. Box 2923, Windhoek, Namibia, ECB House, 35 Dr. Theo-Ben Gurirab Street  
Tel: +264 61 374 300 | Fax: +264 61 374 305  
E-mail: [info@ecb.org.na](mailto:info@ecb.org.na) | Website: [www.ecb.org.na](http://www.ecb.org.na)

Enquiries: Gideon E. Nasima  
Ref: 16/8

20 January 2023

Mr. Diekie Gous  
Trustee  
Finkenstein Development Trust  
P. O. Box 3865  
**WINDHOEK**

E-mail: [djfgous@gmail.com](mailto:djfgous@gmail.com)

Dear Mr. Gous

**RE: NOTICE OF DISSATISFACTION: ECB RULING ON FHA COMPLAINT**

Your letter dated 6 December 2022 on the above-mentioned matter refers.

The Electricity Control Board (ECB) considered the contents of your letter pertaining to your dissatisfaction with the ECB ruling on the concerns regarding the electricity supply at Finkenstein, dated 11 November 2022. We could not find any new information that warrants the review of the ECB's regulatory decision. Therefore, the ECB maintains its decision on the matter.

Henceforth, the ECB is instructing FDT to implement their relevant ruling items as follows:

- FDT must fund and upgrade the bulk supply from 1 MVA to 2 MVA to cater for the gradual load growth and winter seasons' peaks, by either replacing the existing transformer with at least a 2 MVA transformer or adding a 1 MVA transformer to operate in parallel with the existing 1 MVA. The upgrade costs will not be funded through tariffs as they form part of the development costs, which are recovered through the selling of serviced erven.
- FDT must migrate from fuse-based protection to breaker-based protection to ensure protection coordination with NamPower and better selectivity.
- FDT must immediately cease with connecting new erven to the electricity infrastructure until the main supply upgrade is done.

It was noted that the following decision items were adequately addressed hence they do not form part of this letter:

- FDT to replace all the minisub breakers to the rating of the cable sizes if the breakers are not adjustable.
- FDT to rectify the identified LV circuits exceeding voltage limits.

Take note that the ECB will commence the process of cancelling the licence and requesting the City of Windhoek (CoW) to take over the distribution and supply at the Finkenstein development including the Power Supply Agreement. This is in line with the CoW's distribution and supply licence conditions and the CoW's boundaries.

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Board Members: Gottlieb Hinda (Chairperson), Pinehas N Mutota (Acting CEO), Helene Vosloo, Evangelina P. Nailenge  
All official correspondence must be addressed to the Acting Chief Executive Officer

We hereby invite FDT and FHA to a meeting scheduled for 31 January 2023 at 14:30 at the ECB's offices. The aim of the meeting is for the ECB to explain the ruling in detail.

For further information please contact Mr. Gideon Nasima at [gnasima@ecb.org.na](mailto:gnasima@ecb.org.na) or telephone 061 - 374 300.

Yours sincerely



Pinchas N. Mutota  
ACTING CHIEF EXECUTIVE OFFICER



CC: Ronald Kubas [rlk@burmeister.com.na](mailto:rlk@burmeister.com.na)  
CC: Benny Hanghome [benny.hanghome@nampower.com.na](mailto:benny.hanghome@nampower.com.na)  
CC: Dewald du Plessis [em@finkenstein.org](mailto:em@finkenstein.org)

**COMMENTS FROM INTERESTED AND AFFECTED PARTIES**

PERSONAL PARTICULARS			
Name and Surname: <i>Theda Koehler</i>			
Organization: <i>Private</i>			
Postal Address:			
Telephone Number:		Email Address: <i>kochlerfam@iway.na</i>	
Fax Number:		Cellphone Number.: <i>+264 81 249 8068</i>	
INTEREST IN PROJECT			
<i>Resident at Finkenstein Manor, Erf 95 Kelliewyn Str.</i>			
COMMENTS ON PROJECT			
<i>I do not approve of the project as it should have been drawn up according to the Constitution and Building of the Manor.</i>			
Signature: <i>p.p. Skemmer</i>		Date:	<i>31.3.2023</i>

Kindly take note that comments should reach our office by 6 April 2023.

**COMMENTS FROM INTERESTED AND AFFECTED PARTIES**

PERSONAL PARTICULARS			
Name and Surname: <i>Bernd Rust</i>			
Organization: <i>Private</i>			
Postal Address:			
Telephone Number:		Email Address: <i>kocherfam@iway.na</i>	
Fax Number:		Cellphone Number.: <i>+264 81 249 8068</i>	
INTEREST IN PROJECT			
<i>Resident at Funkenstein Manor, Erf 228, Kiewitt Str.</i>			
COMMENTS ON PROJECT			
<i>I invested in an upmarket Senior Citizen Estate and do not agree to have industrial activities around here for a 5.0 MV Solar Power Project with more than 9000 panels.</i>			
Signature: <i>p.p. Steiner</i>		Date:	<i>31.3.2023</i>

Kindly take note that comments should reach our office by 6 April 2023.





## Finkenstein Homeowners Association

Tel: +264 81 1434820

info@finkenstein.org

www.finkenstein.org

P O Box 11615 – Klein Windhoek  
NAMIBIA

*A caring community enjoying quality of life in a tranquil nature estate*

06 APRIL 2023

### GREEN EARTH ENVIRONMENTAL CONSULTANTS

1<sup>st</sup> Floor Bridgeview Offices & Apartments

No. 4 Dr Kwame Nkrumah Avenue

Po Box 6871 Ausspannplatz

Windhoek

To whom it may concern

### CONSTRUCTION AND OPERATION OF A 5MW PHOTOVOLTAIC PLANT, STORAGE FACILITIES AND UNDERGROUND POWERLINES ON PORTION A OF PORTION 237 OF FARM FINKENSTEIN NO. 526 - FINKENSTEIN HOMEOWNERS ASSOCIATION (FHA) COMMENTS & CONCERNS

With regards to the documentation received from your office with details of the proposed development on Portion 237, the FHA would hereby like to submit the following comments and concerns regarding the proposed development as a registered IAP:

#### 1. PROPONENT

- a. *Spiranti Investments (Pty) Ltd* – Kindly provide a company profile and more information on the proponent of the proposed development.

#### 2. SOLAR PLANT

- a. *Location* – It is understood that the proposed plant will be installed directly to the north of Finkenstein Estate. Given the proximity to the Estate, existing residences along Koedoe Street inside the Estate will have views over the proposed plant. Aesthetically it might lower the value of the properties, and physically it might cause glare to existing residences. How will the above two issues be addressed?
- b. *Erf.1* – With reference to the proposed development on Erf.1 at Finkenstein Manor, item 2.1 of the Solar Plant BID document mentions that; “*The facility will thus not be connected to the Nampower/Finkenstein electricity grid as such stable supply cannot be guaranteed through this network and source of supply*”. This is in contrast with Item 3.3 of the Data Centre BID document which mentions that; “*Electricity will be obtained from the Finkenstein distribution network, solar and standby generator*”. Kindly clarify the conflicting two statements above. This is important to note as the ECB has previously ruled that no connections to new erven will be allowed until the existing transformer at the Finkenstein substation has been upgraded by the FDT.
- c. *Connection to Finkenstein Distribution Network* – It is mentioned above how the proposed plant will be directly connected to Erf.1 at Finkenstein Manor. Has the possibility been explored to connect the proposed plant to the existing Finkenstein distribution network, which might benefit

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TRUSTEES: H von Ludwiger – A Parker – S B Krügel – A de Jager – M Lubbe

stable electrical supply to the entire community? The FHA would be very interested in discussing this possibility.

### 3. STORAGE FACILITIES

- a. *Function* - Kindly confirm that the only function of the Storage Facility is to house battery storage units which will be able to supply electricity in the events of a shortage of electrical supply from the proposed Solar Plant.
- b. *Aesthetics* - Kindly share aesthetical aspects of the proposed battery storage facility

### 4. GENERATOR

- a. *Position* – The Data Centre BID refers to backup generators proposed to be placed on Erf.1 at Finkenstein Manor. Given the proximity to the existing Retirement Village, should it not be considered to move the proposed Generators to be incorporated into the proposal for Portion 237?

### 5. WATER

- a. *Supply* - Will the proposed storage facility make use of water directly from the Namwater pipeline or from the Manor/Village reservoir? How will this affect water security for Finkenstein?
- b. *Stormwater* - How will the stormwater be treated on and off-site and how will potential erosion of soil in and around the site be dealt with?

### 6. SEWERAGE

- a. *Disposal* - It is understood that the storage facility will be connected to the existing sewer infrastructure and that the waste will be treated by the existing WWTP. Does the existing WWTP have the capacity to deal with the additional waste?
- b. *Costs* - How will the addition of the new storage facility affect the current contributions by the Estate, Manor & Village towards the operational and maintenance costs of the existing WWTP?

### 7. ACCESS

- a. *Traffic* – Will the access road to the proposed plant and storage facility be resurfaced? What kind of traffic and type of vehicles are expected to and from the site and how will this affect the existing road infrastructure?

### 8. NATURE

- a. *Wildlife* – Has or will a study be done to determine what the effects of the proposed development will be on the existing wildlife?

### 9. NATURE ESTATE

- a. *Residential Estate* - Finkenstein Estate is zoned as a Nature Estate and should be treated as such. Permitted noise levels and traffic volumes should not be compared to that of any business operated in town, but permissions adapted to factor in that the surroundings are a nature estate. Thus lower noise levels are proposed, and lower traffic volumes and business hours restricted.

Homeowners in the surroundings bought into a country lifestyle which should be protected and encouraged through proposed developments.

The FHA Trustees are entrusted to protect and promote the rights of its members at Finkenstein Estate. We are of the opinion that the proposed new development will impact on our members' rights and thus we would like to receive clarity on the above-mentioned items before we can consent to the proposed development.

Kind regards



Dewald du Plessis  
Estate Manager  
Cell: +264 81 146 9110  
E-Mail: [em@finkenstein.org](mailto:em@finkenstein.org)



A caring community enjoying quality of life in a tranquil nature estate

# FINKENSTEIN MANOR

P.O. Box 11612 Klein Windhoek Tel: 083330000

The Manager  
Green Earth Environmental Consultants  
P O Box 6871  
Windhoek

3 April 2023

Dear Sir/Madam

RE: BACKGROUND INFORMATION DOCUMENT FOR THE CONSTRUCTION AND OPERAION OF A 5MW PHOTOVOLTAIC PLANT, STORAGE FACILITIES AND UNDERGROUND POWERLINES ON PORTION A OF PORTION 237 OF FARM FINKENSTEIN NO 526, WINDHOEK .

The Trustees of the Finkenstein Manor Owners Association have read the Document provided by Green Earth Environmental Consultants for the Construction and Operations of a 5 MW Photovoltaic Plant, storage facilities and underground powerlines on Portion A of Portion 237 of Farm Finkenstein. The Trustees have prepared the following comments and suggestions without consulting the members of the Finkenstein Manor Owners Association in a general meeting and it will need to do so depending on the response in the line Involvement of interested and affected parties below for which it needs to give 14 days notice.

Facts	Comment	Suggestions
Although not mentioned in the application for Erf 1 of the Township known as Finkenstein Manor it is now disclosed – that the development of Erf 1 will be an office and data warehouse	As previously asked can a data warehouse only have 8 employees but needs 2 standby generators and a 30 m mast for wireless communications with their client network.	We repeat our previous comment that you disclose the nature of business and any potential health effects on the residents in the Manor which is the major portion of the Township on Portion 223 of the Farm Finkenstein 526.

Trustees: T J Slabbert, B. Joërges, J. Mandy, L. Basson, G.J.F. Gous.



	No mention is made of electricity usage or how will it affect the current questionable supply to the Finkenstein Estate, Manor or Village	If we understand the application the client will be self-providing solar power and using batteries, then why will it be relying on the generators 24 / 7.
	If the client will construct an underground connection to Erf 1 why can't the generator diesel storage tanks and tower not be erected on Portion A of Portion 237	Please consider and provide more specific considerations
Involvement of Interested & Affected parties.	The Trustees of the Finkenstein Manor Owners Association can't commit the Association without consulting its members.	Please invite the individual property owners in Portion 233 of the Farm Finkenstein 526 or only the Finkenstein Manor Owner Association.
	Similarly, the adjoining township aka the Estate must be consulted and its members – as another tower in their vista will not be welcomed	Please invite the Finkenstein Homeowners Association to comment
What is the zoning or proposed zoning of Portion A of Portion 237 of the Farm Finkenstein	Does the zoning allow for a solar farm and private electrical cable to be constructed next to a proposed Township (the Greens) in Figure 7	Residents bought houses for retirement purposes and do not want to be located next to a commercial site.
Developer is not defined in 2.2	DCN (Pty) Ltd intends to purchase	Please disclose the beneficial owners
Erf 1 has not been included in the electric fenced area of the Manor although it is included in the registered township Title Deed 5975 / 2016 and bound by its constitution	A commercial development in a predominately residential area raises a number of questions as to the effects on property values; security; fire risks – diesel storage; radiation from the tower; further	Kindly include the evaluation of these risks.

	derogation of electricity supply; guarantee of water supply in particular during a fire; infrastructure etc.	
In 3.6 mention is made of the Finkenstein Townships		Please define
This proposal is to satisfy a single customers electricity reliability	Consider expanding the supply	
The diesel storage tanks, and the mast are shown on Erf 1 along the boundary with Erf 2 and the new road	Consider moving the diesel tanks, mast and generators to Portion A of Portion 237 of the Farm Finkenstein	Move the diesel storage tanks, mast and generator to Portion 237
Use of existing water infrastructure	Water of 60 kl per month is the estimate of usage which should not be a problem, but the existing supply is unlikely to cope with a potential fire	An onsite (237) water storage tank is recommended as intermittent water supply has been experienced twice during the past 8 months
		It is recommended that additional firefighting equipment - preferable mobile should be provided and that 24/7 security will be employed on the site to monitor the fire risk and the general security of the area in addition to that provided by the Manor
Site detail	How will the perimeter of the intended solar plant be secured as this may attract increased criminal activities.	Will they appoint own security

Yours sincerely

A handwritten signature in black ink, appearing to read 'Thomas Slabbert', written in a cursive style.

Thomas Slabbert  
Chairman of Trustees

## APPENDIX G: RESPONSE TO QUESTIONS

### ***THE CONSTRUCTION AND OPERATION OF A 5MW PHOTOVOLTAIC PLANT, STORAGE FACILITIES AND UNDERGROUND POWERLINES ON PORTION A OF PORTION 237 OF FARM FINKENSTEIN NO. 526, WINDHOEK***

Questions / Facts / Comments received from I&APs:

<b>Entity / Person</b>	<b>Questions / Facts / Comments</b>	<b>Answers / Response</b>
<b>Finkenstein Homeowners Association</b>	<p>PROPONENT</p> <p>Spiranti Investments (Pty) Ltd – Kindly provide a company profile and more information on the proponent of the proposed development.</p>	<p>Spiranti Investments (Pty) Ltd to provide company profile to FHA.</p>
<b>Finkenstein Homeowners Association</b>	<p>SOLAR PLANT</p> <p>Location – It is understood that the proposed plant will be installed directly to the north of Finkenstein Estate. Given the proximity to the Estate, existing residences along Koedoe Street inside the Estate will have views over the proposed plant. Aesthetically it might lower the value of the properties, and physically it might cause glare to existing residences. How will the above two issues be addressed?</p>	<p>Comment noted.</p> <p>The proposed solar plant will be visible from some residences. It is proposed that the vegetation surrounding the site be retained as best as possible to ‘soften’ the impact of the PV Plant on the natural ambiance of the area.</p> <p>The solar panels will be installed facing in a north-easterly direction to optimise efficiency as well as to minimise the glare affect.</p>
<b>Finkenstein Homeowners Association</b>	<p>Erf 1 – With reference to the proposed development on Erf 1 at Finkenstein Manor, item 2.1 of the Solar Plant BID document mentions that; “The facility will thus not be connected to the Nampower/ Finkenstein electricity grid as such stable supply cannot be guaranteed through this network and source of supply”. This is in contrast with Item 3.3 of the Data Centre BID document which mentions that; “Electricity will be obtained from the Finkenstein distribution network, solar</p>	<p>After issuing the BID, the Proponent confirmed that the proposed data warehouse will not be connected to the Finkenstein Electricity Network and thus not obtain electricity from the Estate. The data warehouse relies on continues / uninterrupted electricity supply which is not guaranteed by NamPower. The expected electricity requirements will be 900kW per month when in full operation.</p> <p>The electricity required for the operation of the data warehouse will thus be supplied from the PV Plant of 5 MW and battery storage with the capacity of 1.75 – 2.5 to</p>



	and standby generator”. Kindly clarify the conflicting two statements above. This is important to note as the ECB has previously ruled that no connections to new erven will be allowed until the existing transformer at the Finkenstein substation has been upgraded by the FDT.	be erected on Portion A of Portion 237 of Farm Finkenstein No 526. The standby diesel generators will be used in case of a shortfall or interruption of supply from the PV Plant and batteries.  In addition, the Proponent has started the process to apply to NamPower for a separate and autonomous 1,5MW feeder bay from the current 5MW Finkenstein Substation. The power thus drawn from / via the Finkenstein Substation will not be from the current Finkenstein Homeowners feeder bay, but from a separate feeder bay to be linked to Erf 1 via an independent powerline.
<b>Finkenstein Homeowners Association</b>	Connection to Finkenstein Distribution Network – It is mentioned above how the proposed plant will be directly connected to Erf.1 at Finkenstein Manor. Has the possibility been explored to connect the proposed plant to the existing Finkenstein distribution network, which might benefit stable electrical supply to the entire community? The FHA would be very interested in discussing this possibility.	The possibility of connecting to the Finkenstein distribution network is not an option now although it may become an option in the future. It is advised that the FHA consults directly with the Proponent in this regard. Contact person.  Stephen van Rhyn - <a href="mailto:stephenvanrhyn@outlook.com">stephenvanrhyn@outlook.com</a>
<b>Finkenstein Homeowners Association</b>	STORAGE FACILITIES Function - Kindly confirm that the only function of the Storage Facility is to house battery storage units which will be able to supply electricity in the events of a shortage of electrical supply from the proposed Solar Plant.	The storage facility referred to is lithium-ion batteries which will store surplus energy generated by the PV Plant during the day. This electricity storage facilities will be exclusively for the data warehouse use.
<b>Finkenstein Homeowners Association</b>	Aesthetics - Kindly share aesthetical aspects of the proposed battery storage facility.	The lithium-ion batteries will be stored in either 2 X 6m or 1 X 12m shipping container. The container will be painted in natural colours to lower the visual impact.
	GENERATOR Position – The Data Centre BID refers to backup	Comment noted.  To be proposed to the Proponent

	generators proposed to placed on Erf 1 at Finkenstein Manor. Given the proximity to the existing Retirement Village, should it not be considered to move the proposed Generators to be incorporated into the proposal for Portion 237?	for consideration.
<b>Finkenstein Homeowners Association</b>	<b>WATER</b> Supply - Will the proposed storage facility make use of water directly from the Namwater pipeline or from the Manor/Village reservoir? How will this affect water security for Finkenstein?	The PV Plant and battery storage do not require water for operations. It is envisaged that the facility will be under 24-hour security for which a small guardhouse with an ablution facility is required. The guardhouse and ablution facility will require a water connection to the Finkenstein Water reticulation network. The water requirement will be very low and not affect the water security of Finkenstein.
<b>Finkenstein Homeowners Association</b>	Stormwater - How will the stormwater be treated on and off-site and how will potential erosion of soil in and around the site be dealt with?	Stormwater on the site (origination from neighbouring sites as well as generated on site) will be accommodated as per the COW Building Regulations. The building plans submitted to COW will address the stormwater management of the site.
<b>Finkenstein Homeowners Association</b>	<b>SEWERAGE</b> Disposal - It is understood that the storage facility will be connected to the existing sewer infrastructure and that the waste will be treated by the existing WWTP. Does the existing WWTP have the capacity to deal with the additional waste?	The Developers confirmed that the existing WWTP has the capacity to treat the additional sewer to be generated by the guardhouse.
<b>Finkenstein Homeowners Association</b>	Costs - How will the addition of the new storage facility affect the current contributions by the Estate, Manor & Village towards the operational and maintenance costs of the existing WWTP?	The facility will be rated as per the current scale of fees (established between the Developer, Eros Manor and Village and Estate) to contribute to expenses for the operations and maintenance of shared infrastructure.
<b>Finkenstein Homeowners Association</b>	<b>ACCESS</b> Traffic – Will the access road to the proposed plant and storage facility be	Comment noted. At this stage it is not the intension to resurface the road. It is the intension to share the access road to the WWTP.

	resurfaced? What kind of traffic and type of vehicles are expected to and from the site and how will this affect the existing road infrastructure?	<p>Surfacing of the road will have to be discussed between the Developer and the Proponent.</p> <p>The operation of the PV Plant and Battery storage generates limited traffic. The main traffic will occur during the construction phase whereafter the only traffic will be for changing of guards and / or provision of support or maintenance services to the infrastructure.</p>
<b>Finkenstein Homeowners Association</b>	<p>NATURE</p> <p>Wildlife – Has or will a study be done to determine what the effects of the proposed development will be on the existing wildlife?</p>	The impact on the wildlife is covered under the EIA and the proposal on how it can be minimised or mitigated will be included in the EMP.
<b>Finkenstein Homeowners Association</b>	<p>NATURE ESTATE</p> <p>Residential Estate - Finkenstein Estate is zoned as a Nature Estate and should be treated as such. Permitted noise levels and traffic volumes should not be compared to that of any business operated in town, but permissions adapted to factor in that the surroundings are a nature estate. Thus lower noise levels are proposed, and lower traffic volumes and business hours restricted. Homeowners in the surroundings bought into a country lifestyle which should be protected and encouraged through proposed developments.</p>	<p>Noted.</p> <p>According to information obtained, Portion 237 is not part of the Finkenstein Nature Estate. As the Portion is in proximity of the Finkenstein Nature Estate and shares some infrastructure with the Estate, the concerns of the Estates' Residents are respected.</p> <p>A PV Plant and batteries are a silent operation. Traffic and associated noise will mainly occur during construction. Once in operation, the noise generated will be lower or the same as that from the WWTP currently operating from the site.</p>
<b>Finkenstein Homeowners Association</b>	The FHA Trustees are entrusted to protect and promote the rights of its members at Finkenstein Estate. We are of the opinion that the proposed new development will impact on our members' rights and thus we would like to receive clarity on the above-mentioned items before we can consent to	<p>Noted.</p> <p>As stated earlier, Portion 237 is not part of the Finkenstein Nature Estate and falls therefore outside of the jurisdiction of the Finkenstein Home Owners Association. As the Portion is in proximity of the Finkenstein Nature Estate and shares some infrastructure with the Estate, the concerns of the Estates' Residents</p>

	the proposed development.	<p>are respected and will be include in the EIA.</p> <p>As Environmental Practitioners appointed by the Proponent, we will try our best to address the environmental impacts triggered by the proposed activity although not all can be mitigated.</p> <p>If required, it is proposed that a meeting be scheduled involving the FHA and interested members, the Developers (as owners of the land) as well as the Proponent to address the issues raised as well as other concerns from affected parties.</p>
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**Finkenstein Manor Owners Association**

Facts	Comments	Suggestions	Answers / Response
Although not mentioned in the application for Erf 1 of the Township known as Finkenstein Manor it is now disclosed – that the development of Erf 1 will be an office and data warehouse	As previously asked can a data warehouse only have 8 employees but needs 2 standby generators and a 30 m mast for wireless communications with their client network.	We repeat our previous comment that you disclose the nature of business and any potential health effects on the residents in the Manor which is the major portion of the Township on Portion 223 of the Farm Finkenstein 526.	<p>We received the following feedback from the Proponent:</p> <p><i>The core nature of the business is of data storage. The facility will thus provide data networks, power, cooling as well as security to its client's data.</i></p> <p>Therefore, the facility will be a type of data centre where equipment, space, and bandwidth are available for rental to retail customers. Colocation facilities provide space, power, cooling, and physical security for the server, storage, and networking equipment of other firms and also connect them to a</p>



			variety of telecommunications and network service providers with a minimum of cost and complexity.
	No mention is made of electricity usage or how will it affect the current questionable supply to the Finkenstein Estate, Manor or Village	If we understand the application the client will be self-providing solar power and using batteries, then why will it be relying on the generators 24 / 7.	It is confirmed, no electricity is required from the Finkenstein Network. The data warehouse relies on continues / uninterrupted electricity supply which is not guaranteed by NamPower. The expected electricity requirements will be 900kW per month when in full operation. The electricity required for the operation of the data warehouse will thus be supplied from the PV Plant of 5 MW and battery storage with the capacity of 1.75 – 2.5 to be erected on Portion A of Portion 237 of Farm Finkenstein No 526.  The standby diesel generators will be used in case of a shortfall or interruption of supply from the PV Plant and batteries.
	If the client will construct an underground connection to Erf 1 why can't the generator diesel storage tanks and tower not be erected on Portion A of Portion 237	Please consider and provide more specific considerations	Proposal to move the diesel storage, generators, and mast to Portion A to be investigated by the proponent.
Involvement of	The Trustees of the	Please invite the individual	Noted. The

Interested & Affected parties.	Finkenstein Manor Owners Association can't commit the Association without consulting its members.	property owners in Portion 233 of the Farm Finkenstein 526 or only the Finkenstein Manor Owner Association.	Trustees are welcome to inform the individual landowners to provide us with their individual comments. We unfortunately do not have their contact details.
	Similarly, the adjoining township aka the Estate must be consulted and its members – as another tower in their vista will not be welcomed	Please invite the Finkenstein Homeowners Association to comment	Their comments were received.
What is the zoning or proposed zoning of Portion A of Portion 237 of the Farm Finkenstein	Does the zoning allow for a solar farm and private electrical cable to be constructed next to a proposed Township (the Greens) in Figure 7	Residents bought houses for retirement purposes and do not want to be located next to a commercial site.	According to information obtained, Portion 237 is not part of the Finkenstein Nature Estate. Portion 237 is zoned 'agriculture' as per the stipulations of the Kappsfarm Town Planning Scheme. It currently accommodates the WWTP plant as it is required to be at least 500m away from any residential development. Therefore, allowing the construction and operation of a PV Plant on Portion A will result in the more efficient use of Portion 237. Once Portion A is created, it will be zoned to an applicable zoning to accommodate the activity of the PV Plant and supporting infrastructure.  The electrical

			connection between the PV Plant and Erf 1 will be underground.
Developer is not defined in 2.2	Spiranti Investments (Pty) Ltd intends to purchase	Please disclose the beneficial owners	Spiranti Investments (Pty) Ltd will provide a company profile.
Erf 1 has not been included in the electric fenced area of the Manor although it is included in the registered township Title Deed 5975 / 2016 and bound by its constitution	A commercial development in a predominately residential area raises a number of questions as to the effects on property values; security; fire risks – diesel storage; radiation from the tower; further derogation of electricity supply; guarantee of water supply in particular during a fire; infrastructure etc.	Kindly include the evaluation of these risks.	The evaluation of these risks will be included in the EIA and EMP.
In 3.6 mention is made of the Finkenstein Townships		Please define	Defined earlier in the Answers / Response.
The diesel storage tanks, and the mast are shown on Erf 1 along the boundary with Erf 2 and the new road	Consider moving the diesel tanks, mast and generators to Portion A of Portion 237 of the Farm Finkenstein	Move the diesel storage tanks, mast and generator to Portion 237	To be proposed to the Proponent.
Use of existing water infrastructure	Water of 60 kl per month is the estimate of usage which should not be a problem, but the existing supply is unlikely to cope with a potential fire	An onsite (237) water storage tank is recommended as intermittent water supply has been experienced twice during the past 8 months	Noted.
		It is recommended that additional firefighting equipment - preferable mobile should be provided and that 24/7 security will be employed on the site to monitor the fire risk and the general security of the area in addition to that provided by the Manor	Noted.
Site detail	How will the perimeter of the intended solar plant be secured as this may attract increased criminal activities.	Will they appoint own security	Own security to be appointed.

## APPENDIX H: CURRICULUM VITAE OF CHARLIE DU TOIT

1. **Position:** Environmental Practitioner
2. **Name/Surname:** Charl du Toit
3. **Date of Birth:** 29 October 1960
4. **Nationality:** Namibian
  
5. **Education:**

Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	Hons B (B + A) in Business Administration and Management		
Date Obtained	1985-1987		
Name of Institution	University of Stellenbosch, South Africa		
Degree/Qualification	BSc Agric Hons (Chemistry, Agronomy and Soil Science)		
Date Obtained	1979-1982		
Name of Institution	Boland Agricultural High School, Paarl, South Africa		
Degree/Qualification	Grade 12		
Date Obtained	1974-1978		
  
6. **Membership of Professional Association:** EAPAN Member (Membership Number: 112)
  
7. **Languages:**

	<u>Speaking</u>	<u>Reading</u>	<u>Writing</u>
English	Good	Good	Good
Afrikaans	Good	Good	Good
  
8. **Employment Record:**

<u>From</u>	<u>To</u>	<u>Employer</u>	<u>Position(s) held</u>
2009	Present	Green Earth Environmental Consultants	Environmental Practitioner
2005	2008	Elmarie Du Toit Town Planning Consultants	Manager
2003	2005	Pupkewitz Megabuild	General Manager
1995	2003	Agra Cooperative Limited	Manager Trade
1989	1995	Namibia Development	Chief Agricultural Consultant



		Corporation	
		Ministry of	Agricultural
1985	1988	Agriculture	Researcher

**Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engaged.



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**Charl du Toit**

## APPENDIX I: CURRICULUM VITAE OF CARIEN VAN DER WALT

1. **Position:** Environmental Consultant
2. **Name/Surname:** Carien van der Walt
3. **Date of Birth:** 6 August 1990
4. **Nationality:** Namibian

5. **Education:**

Institution	Degree/Diploma	Years
University of Stellenbosch	B.A. (Degree) Environment and Development	2009 to 2011
University of South Africa	B.A. (Honours) Environmental Management	2012 to 2013

6. **Membership of Professional Associations:**

EAPAN Member (Membership Number: 113)

7. **Languages:**

Language	Speaking	Reading	Writing
English	Good	Good	Good
Afrikaans	Good	Good	Good

8. **Employment Record:**

From	To	Employer	Positions Held
07/2013	Present	Green Earth Environmental Consultants	Environmental Consultant
06/2012	03/2013	Enviro Management Consultants Namibia	Environmental Consultant
12/2011	05/2012	Green Earth Environmental Consultants	Environmental Consultant

9. **Detailed Tasks Assigned:**

Conducting the Environmental Impact Assessment, Environmental Management Plan, Public Participation, Environmental Compliance and Environmental Control Officer

**Certification:**

I, the undersigned, certify that to the best of my knowledge and belief, this CV correctly describes myself, my qualifications, and my experience. I understand that any wilful misstatement described herein may lead to my disqualification or dismissal, if engage.

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Carien van der Walt

## APPENDIX J: ENVIRONMENTAL MANAGEMENT PLAN