

**2 September 2024**

The Municipal Manager  
Beaufort West Municipality  
112 Donkin Street  
Beaufort West  
6970

Dear Mr C Wright

**Land development application: Consent use**  
***Rhino PV facility (solar energy)***

K2022578692 (SOUTH AFRICA) (Pty) Ltd., submits this land development application to obtain the land use rights to construct the *Rhino PV facility (solar energy)* on a farm property in the Beaufort West municipal area.

The property is located about 20 km east/north-east of Beaufort West, close to the N1 national road and railway line and on the southern side of both.

We are applying for:

1. Consent use to construct the *Rhino PV facility* (including appurtenant infrastructure) on Remainder of Farm 155, Rhenosterkop.
2. Municipal approval to register a lease agreement over the said property.

Please find attached to this land development application all the documents and/or information required in terms of section 38 of the municipal land use planning bylaw.

If you have any questions or require clarity on any of the issues, please do not hesitate to contact me.



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**B P Rode**  
Managing Director and Town Planner

# **Municipal Land Use Planning Bylaw**

## **Land development application (consent use)**

***Rhino PV Facility (solar energy)***

### **Location**

**On the following property:**

***Remainder of Farm 155, Rhenosterkop***  
**in the Registration Division of Beaufort West,**  
**Western Cape**

### **Applicant**

***K2022578692 (SOUTH AFRICA) (Pty) Ltd.***

### **Assisted by**

**RodePlan (Pty) Ltd.**

**Date:**

**September 2024**

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Local municipality

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6970

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## **Executive summary**

The aim of this land development application is to obtain the land use rights to allow renewable energy generation, transmission and distribution as consent use on land zoned for agriculture.

K2022578692 (SOUTH AFRICA) (Pty) Ltd., is establishing the *Rhino PV facility (solar energy)* as a renewable energy facility in the Beaufort West municipal area and within the Beaufort West Renewable Energy Development Zone.

### **Location and development proposal**

This application concerns the *Rhino PV facility* on the property known as Remainder of Farm 155, Rhenosterkop (or subject property). This titled and privately-owned property is located about 20 km east/north-east of Beaufort West, close to the N1 national road and railway line and on the southern side of both.

The land extent of the subject property is 4247 ha with about 540 ha to be used as development site. This area is in the western segment of the farm, allowing for the retention of much of the farmland and for the natural environment to remain largely unaffected.

The key components of the *Rhino PV facility* include solar photovoltaic apparatus (e.g. panels, mountings, and foundations), central inverter stations, internal and external electric grid connections, battery storage, internal gravel roads, fencing and additional building infrastructure (e.g. on-site substation, site camp offices, workshop areas, operation and maintenance (O&M) buildings). The generated power of up to 250MW will be distributed from an on-site 33/132kV substation to a newly proposed MTS substation near the project site. The MTS will loop into the existing Droërivier/Hydra 400 kV overhead powerline through a loop-in loop-out connection. Alternatively, the facility will connect to the existing Droërivier MTS via 132kV transmission lines.

### **Land ownership**

The landowner of the subject property has issued a Power of Attorney for the submission of this land development application to the Beaufort West Municipality.

### **Environmental impact assessment / basic assessment**

The *Rhino PV facility* is the subject of a basic assessment in terms of the 2014 Regulations under the National Environmental Management Act, 1998 (Act No. 107 of 1998, with amendments). An Environmental Authorisation (as amended) has been issued after a final Basic Assessment Report was submitted to the Department of Forestry, Fisheries and the Environment. During the process, Registered Interested and Affected Parties have been invited to review and provide comment on the Basic Assessment Report.

Please also note that amendments to an EA are regularly sought by a project proponent because of advances in technology and new project-specific findings. If applicable, and after any amendments to the EA, such amendments will be communicated to the Municipality as an amendment to the land development application in terms of section 52 of the bylaw, i.e. prior to the approval thereof.

## Land use rights

The development proposal of a renewable energy facility implies a non-conforming land use on land zoned as Agriculture Zone 1. Hence, as provided for in the Land Use Planning Bylaw of the Beaufort West Municipality, a land development application is being made to add the land use of 'renewable energy structure' as consent use to the current zoning of the subject property. The aim is to change the land use in accordance with the provisions made in the Zoning Scheme Bylaw.

We are also applying for municipal approval to conclude a lease agreement over the property concerned. The long-term lease will be notarially executed and registered against the title deed of the property at the Deeds Office. If required, ministerial consent to register the lease agreement in terms of the Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970) will be obtained from the national Department of Agriculture, Land Reform and Rural Development.

## Site selection

The site selection process conducted by the applicant that resulted in the siting of the solar energy facility as potential project, included the identification of other 'suitable' sites for renewable energy facilities throughout the Western Cape Province. This process was also informed by the findings in the basic assessment and by the national government's intervention to identify preferred areas for establishing large-scale wind and solar PV energy facilities, i.e. Renewable Energy Development Zones (REDZ).

The 'selection' of the site was based on several factors, including (but not limited to):

- Solar resources
- Location within a Renewable Energy Development Zone
- Site extent
- Land suitability for a development with the nature and scale of the proposed facility
- Grid access
- Local economic stimulation
- Current land use
- Existing use rights (on- and off-site)
- Landowner support.

The municipal Zoning Scheme Bylaw includes development parameters as special provisions applying to the land use of Renewable Energy Structure and *to which the proposed development adheres in full, i.e. the application does not include an application for temporary or permanent departures.*

In sum, the location of the proposed facility is appropriately justified as the highest and best use of land with no fatal flaws and no impacts of unacceptable significance expected to occur, also considering existing use rights of adjacent properties and property owners. In addition, the proposed facility is in a REDZ which provides certainty in decision making evidenced by the approval and operation of prominent renewable energy features and infrastructure in proximity.

## Solar energy facility layout

Through the basic assessment process, which, as mentioned, includes various stakeholder and specialist inputs, a number of issues relating to the design and

layout of the renewable energy facility have been identified and considered. This has led to several layout alternatives in order to balance the technical and financial objectives of maximising the output of the proposed facility with the critical environmental, topographical and social constraints.

Parts of the plans and layouts provided for the purposes of this application may be subject to amendment if required by the EA and/or technological advances. In this regard, an iteration process was and still is inevitably part of this land development application. Final layouts will be submitted to the Municipality as part of the building plans approval prior to construction.

### **Benefits of the proposed development**

Solar photovoltaics (PV) is a prime example of one of the energy solutions being considered by Government to ensure energy security and aid in efforts to move toward a carbon-free economy. Technological advances and rapid utilisation in recent years have made solar PV one of the most affordable and readily available energy generation technologies. The technology is easily integrated with battery energy storage systems and has been widely adopted by Government. In this regard, the proposed development will form part of the Renewable Energy Independent Power Producer (REIPP) Procurement Programme rolled out countrywide, or the initiative by Government to allow larger-scale power producers to generate and sell-on unlimited electricity through registration without a generation licence.

These initiatives are intended to promote the establishment of new generation and storage capacity in the national energy mix of supply that is severely constrained. It is stated that rolling blackouts are here to stay for years to come, even if Government presses ahead with the Energy Action Plan announced in 2022 and the (draft) Integrated Resource Plan 2023. In this regard, Government plans to move with speed to register and approve new renewable energy projects that can store and feed electricity into the national electricity grid.

In addition to these electricity-related benefits, the proposed development will contribute to income generation and (local) job creation, specifically in the accommodation, construction, security, and maintenance sectors.

### **Development parameters**

We believe this kind of renewable energy facility is straight-forward and almost inflexible in application, unlike a wind energy facility. In this regard, and as mentioned, we take note of the development parameters set for renewable energy structures in the Zoning Scheme Bylaw.

### **Desirability**

Government must assess renewable energy generation initiatives by considering a wider-than-normal perspective on long-term structural changes, e.g. climate change, energy security and other shifts. In this regard, impacts are certain to happen. Planners must become aware of the need to take a broader look at spatial planning and land use management by, for example, considering buffer areas around existing installations as suitable locations for renewable energy infrastructure.

In this context and when applying the principles of economies of scale and highest and best use of land, the rationale for solar energy generation on the property becomes clear. The proposed development (1) blends with the particular



type of land(scape), (2) promotes the (better) economic use of land and infrastructure and (3) conforms to the outcome of socio-political interaction. This is best demonstrated by the approval and operation of similar facilities in proximity and the location of the *Rhino PV facility* in a Renewable Energy Development Zone.

However, the proposed development will introduce a site-specific land use that is different to (but not incompatible with) the established land use of farming. We believe the proposed land use is moderately compatible with the rural landscape and conforms to past land-use conversion initiatives in the area, e.g. high-voltage power lines, substations and renewable energy infrastructure. It is foreseen that the impact on on-site and adjacent land use because of the proposed facility will be very low if mitigating measures are applied. Please note that information generated as part of the BA process informed this application considering the balance of interests within the geographical community.

It is also clear that the proposal conforms to the intention of the development principles listed in section 7 and section 58 of the Spatial Planning and Land Use Management Act, 2016 (Act 16 of 2013) and the Western Cape Land Use Planning Act, 2014 (Act 3 of 2014), respectively.

This application (i.e. motivation report and annexures) includes sufficient information regarding the criteria as listed in section 65 of the municipal bylaw and in terms of section 6(2)(e)(iii) of the Promotion of Administrative Justice Act, Act 3 of 2000, which must be considered in decision making on a land development application.

## Section I – Preamble

### 1. Introduction

National policy and implementation provide for an unprecedented optimism amongst investors and the public alike, concerning the government's commitment towards finding and supporting credible solutions in responding to South Africa's energy crisis and the transition away from coal to cleaner energy sources.

Implementation by Government includes the release of the 2019 Integrated Resource Plan (IRP), the Just Energy Transition Investment Plan, the Energy Action Plan, and more recently, the draft 2023 Integrated Resource Plan. Notably, the targets in some of these and other directives have been changed in the draft 2023 IRP, with renewables to contribute less to the country's total electricity-production capacity than envisaged in the 2019 IRP.

However, Government is still considering a set of radical actions which include the accelerated procurement of storage and new generation capacity from Independent Power Producers (IPP) as part of the (1) Battery Energy Storage Independent Power Producer (BESIPP) Procurement Programme and the (2) Renewable Energy Independent Power Producer (REIPP) Procurement Programme. The REIPP programme has outperformed all targets and is supplemented by the mapping of a preferred geographical distribution for power-generating facilities and the future electricity grid, i.e. Renewable Energy Development Zones (REDZ).<sup>1</sup>

K2022578692 (SOUTH AFRICA) (Pty) Ltd., (hereafter referred to as the Applicant) submits this report with annexures as land development application to obtain the land use rights to construct the *Rhino PV facility (solar energy)* on a farm property in the Beaufort West municipal area and, importantly, in the Beaufort West Renewable Energy Development Zone (REDZ).

This motivation report assists the decision maker in evaluating the merit of the proposed land use by providing qualitative and quantitative information and articulating outcomes.

### 2. Project proponent

K2022578692 (SOUTH AFRICA) (PTY) LTD is a special purpose vehicle ("SPV") and a subsidiary of Magnora South Africa Projects AS, incorporated in Norway. The project SPV's sole business is the development and ownership of the project, with the aim to eventually enter the construction and operational phases.

The project aims to support South Africa's transition to sustainable energy sources through the development of quality, sustainable and responsible renewable energy solutions. The SPV (K2022578692 (SOUTH AFRICA) (PTY) LTD)

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<sup>1</sup> Strategic Environmental Assessment for wind and solar photovoltaic in South Africa, 2105 as published in Government Gazette No.41445, 16 February 2018.

will hold all the permitting rights to the development of the project for commercial and legal reasons.

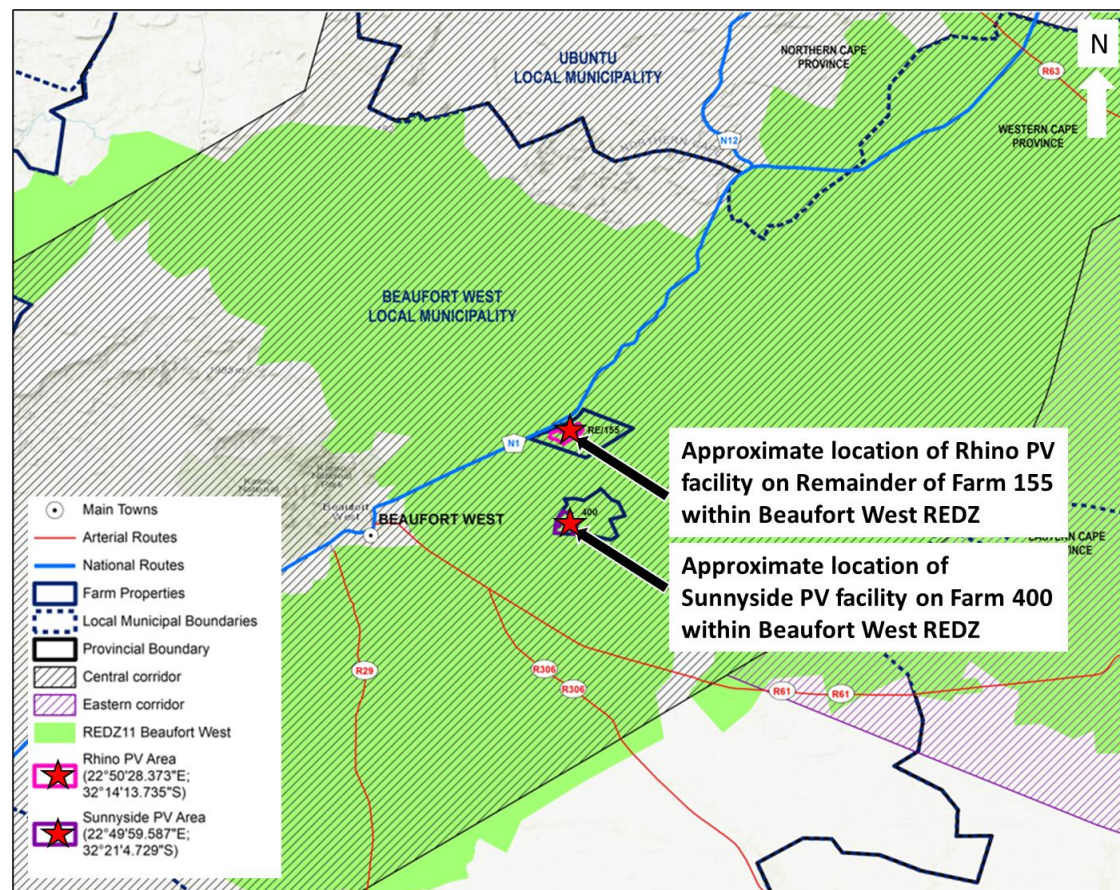
Please note that we are applying for land use rights by property and not by project name because naming tends to change.

### 3. Location and development site

#### Regional location

The proposed *Rhino PV facility* (including appurtenant infrastructure) is located within the jurisdiction area of the Beaufort West Municipality as local authority, and the Central Karoo District Municipality as category-C Municipality.

This land development application concerns the land use rights to establish the *Rhino PV facility* as consent use on the property known as Remainder of Farm 155, Rhenosterkop. The property is located about 20 km east/north-east of Beaufort West, close to the N1 national road and railway line and on the southern side of both (see **Maps 1 and 2**).



**Map 1:** Regional location

The property of which the specifics are listed in the table below, is zoned Agriculture Zone 1 with extensive grazing as the current land use.



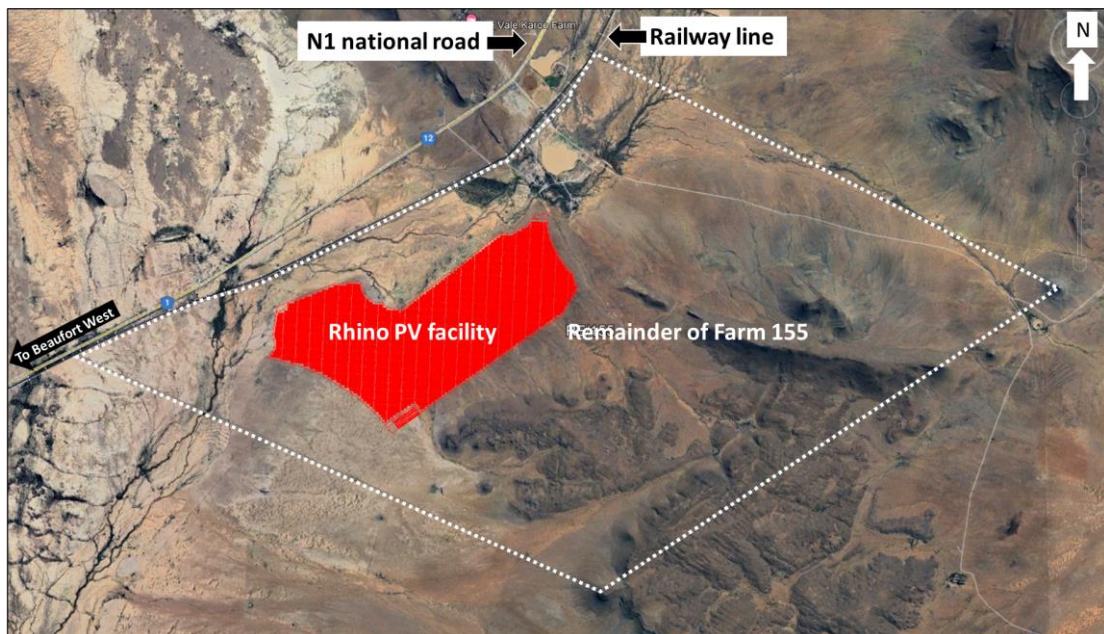
Table 1			
Property associated with the <i>Rhino PV facility</i>			
Property description	Land extent (ha)	Zoning of property	
		Current	Proposed
Remainder of Farm 155, Rhenosterkop	4247	Agriculture Zone 1	Agriculture Zone 1 with consent use
<b>Total</b>	<b>4247</b>		

### Development site

The land extent of the subject property is 4247 ha with about 540 ha to be used as development site. This area is in the western segment of the farm, allowing for the retention of much of the farmland and for the natural environment to remain largely unaffected. (see **Map 2**).

The following coordinates are the approximate central coordinates of the development site as a point in the western land segment of the subject property:

- 32°14'13.73"S and 22°50'28.37"E.



**Map 2:** Local orientation of the *Rhino PV facility*

### 4. Renewable energy rationale

The South African economy — founded upon and maintained by the burning of fossil fuels<sup>2</sup> — is faced with a medium-term low-growth scenario and confronted with, *inter alia*, disruption of essential services, business activities, and

<sup>2</sup> Currently, coal plants generate 77% of electricity in the country.

educational institutions, and the stifling of economic growth which add to the high unemployment rate and higher cost of living. The ability of Government to meet these economic, environmental and social challenges is, at best, allaying imminent fears of non-delivery. This is, however, in the face of widening socio-economic inequalities, increasing community protest action over service delivery, ever-increasing electricity tariffs, decaying and inadequate electricity infrastructure and power shortages.

The National Development Plan identifies renewable energy infrastructure as a critical component in facilitating economic growth and sustaining economic activities country-wide. It is stated by many stakeholders that by including extensive renewable energy technologies in our power mix, great opportunities are offered for local job creation and for making the best use of our natural resource base. In this regard, Government's response in the Integrated Resource Plan (IRP) – gazetted on 18 October 2019 – is appropriately focused and through its response, Government recommits to international commitments, ambitions and reporting initiatives, e.g. Millennium Development Goals. However, the (draft) IRP 2023 states that renewables will contribute less to the country's total electricity-production capacity than envisaged in the IRP 2019. This comes in the wake of a set of radical actions and measures to respond to South Africa's yearslong energy crisis and to deregulate the energy sector. These actions included (1) accelerated procurement of new generation and storage capacity and (2) the buying of surplus power from existing IPPs. Furthermore, the demarcation of the RTEDZ solidified the commitment by Government as the preferred areas for large-scale renewable energy development and the roll-out of supporting transmission and distribution infrastructure.<sup>3</sup>

#### Procurement of electricity and storage capacity from Independent Power Producers

Government's IRP, as long-term energy plan, states the scale and pace of new electricity generation capacity to be commissioned until 2050. In this regard, the IRP considers several scenarios or horizons with significant solar PV and wind capacity coming online post year 2027. This draft policy document was available for public comment until March, with a final version not yet published.

After the first four bidding windows of the national procurement programme, the total in renewable energy procured is over 6300 MW – mobilising private investment of R168 bn from about 112 producers, leaving a further 14 376 MW to be procured until 2030. A fifth window was introduced in 2021 with an allocation of 2600 MW with 25 preferred bidders while five preferred bidders were announced for bid window 6 on 8 December 2022. National Government also introduced the risk-mitigated programme in August 2020 because of the need for emergency energy supply. This programme has procured about 2000 MW of new generation capacity derived from different types of dispatchable power generation projects. Bid Window 7, with the bid submission date set for 15 August 2024, will procure 3200 MW and 1800 MW of wind and solar PV capacity respectively.

As significant as the introduction of the afore mentioned programmes, was the announcement by Government that Schedule 2 of the Electricity Regulation Act will be changed. It is now possible that larger-scale power producers can generate unlimited power (and not up to 100MW power as previously announced)

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<sup>3</sup> Government Gazette No.41445, 16 February 2018 and Government Gazette No.44191, 26 February 2021.

without having to go through a long-drawn-out licencing process, and even to sell excess power back into the grid.

## 5. Objectives

This application is submitted in terms of section 15(d) and (o) of the applicable Zoning Scheme Bylaw (Provincial Gazette 8245, 5 June 2020) and municipal land use planning bylaw (Provincial Gazette 8046, 22 February 2018). The bylaws must be read together with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) (SPLUMA) and Western Cape Land Use Planning Act, 2014 (Act 3 of 2014) (LUPA).

The application constitutes the following:

- In terms of section 15(2)(o): Obtaining the **Consent use** of 'renewable energy structure' to accommodate the *Rhino PV facility* (including appurtenant infrastructure) on Remainder of Farm 155, Rhenosterkop.
- 3. In terms of section 15(2)(d): Municipal approval to register a lease agreement in favour of K2022578692 (SOUTH AFRICA) (Pty) Ltd., over the said property.
- Request the Municipality to certify in writing that the registration of servitudes and/or lease agreements for the provision or installation of on-site electricity transmission lines are exempt from an application in terms of section 15.

The **subdivision** of the land unit is not considered.

This document must also serve as **information document** for Interested and Affected Parties.

## 6. Preparatory work

RodePlan was appointed to compile and submit to the relevant authority an application in terms of the applicable municipal bylaw read together with SPLUMA and LUPA. From experience, we believe the following actions/measures will apply:

1. Legislation: A land development application must be submitted in terms of the Beaufort West municipal land use planning bylaw and the Zoning Scheme Bylaw that regulates the appropriate land use right.
2. Key policy guidelines: Beaufort West Municipality Spatial Development Framework dated 2013.
3. Proposed land development application: A land development application to be submitted to the Beaufort West Municipality to obtain the applicable land use rights (viz. consent use of 'renewable energy structure') on the property concerned. Consent use to be considered for the (long-term) duration of the facility with the developable extent (i.e. activity and footprint) based on an approved site development plan. We propose to submit final layouts to the Municipality as part of the building plans approval prior to construction.
4. Provincial government involvement in land development application:  
*Obtaining provincial approval*: Only if the proposed activities substantially alter or impact agricultural land that has been irrigated or cultivated during the 10-year period immediately preceding the proposed land development.  
*Obtaining provincial comment on the application submitted to the Beaufort West Municipality*: Input on the completeness of the application to be

requested during the pre-application phase and comment to be requested as part of public participation.

5. Application fee: The application fee will be paid on instruction by the Municipality.
6. Submission: The application can be submitted by email to assess the completeness thereof. If complete, hard copies must be provided.
7. Application process: The Beaufort West Municipality will inform the applicant regarding responsibilities and actions related to the notification process.
8. Information required: The application must include the information required in terms of section 38 of the municipal bylaw as well as a completed pre-application form.

## 7. Fees

The application fee will be paid on instruction by the Municipality.

## 8. Advertising process

It is proposed that the municipality informs RodePlan, in writing, as to the responsibilities for notifying and advertising the application as required by the Municipality. Hence, we await written confirmation of receipt and completeness of the application and a breakdown of the notification process from the Municipality. Such letter will inform us of our responsibilities in this regard.

## 9. Report structure

This report is structured to firstly introduce the application process as well as the development proposal in the context of a rationale for renewable energy. Section II then describes the legal framework and Section III the spatial directives as parameters for the establishment of the solar energy facility. Section IV refers to the NEMA application. Sections V and VI interpret the receiving environment and provide detailed specifics of the development proposal.

Section VII provides information about the public participation process and we conclude, in Section VIII, by providing clarity on the wording of the land use change and desirability. Section IX includes reference to the annexures.

## 10. List of tables and figures

Table 1	Property associated with the <i>Rhino PV facility</i>
Table 2	Specifics of the property earmarked for the <i>Rhino PV facility</i>
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Map 3	Spatial Planning Categories
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Map 8	Central Karoo region and municipalities
Map 9	Layout of <i>Rhino PV facility</i>



## Section II – Legislative and development framework

### 11. Land use legislation

#### 11.1 Municipal Land Use Planning Bylaw and Zoning Bylaw

The Spatial Planning and Land Use Planning Act, 2013 (Act 16 of 2013) and the Western Cape Land Use Planning Act, 2014 (Act 3 of 2014) are the governing framework for spatial planning and land use management in the province; replacing Ordinance 15 of 1985. The former is effective, countrywide, since 1 July 2015 and the Provincial Act is implemented in the Beaufort West municipal area since 7 October 2015.<sup>4</sup>

In accordance with this governing framework, the Municipality approved the Municipal Land Use Planning Bylaw as published in the Provincial Gazette 8046 on 22 February 2019 — being constitutionally empowered to make and adopt detailed laws pertaining to land use management. This bylaw governs land use planning and management in the municipal area. Its purpose is to, *inter alia*, make provision for rezoning, subdivision, consent use and departure in respect of land use, decision making in this regard as well as to provide for spatial development frameworks and zoning schemes.

The development proposal of a solar energy facility implies a non-conforming land use on land zoned as Agriculture Zone I. Please note that there is no national directive regarding a land-use category to make possible the development of commercially-operated renewable energy generation facilities. Hence, this application has been structured according to previous municipal approvals and consultations with officials. In this regard, the Zoning scheme regulates the way in which land is used. The relevant zoning scheme bylaw was promulgated under Provincial Gazette 8245, 5 June 2020 and stipulates that the land use of renewable energy structure is a consent use on land zoned as Agriculture Zone 1.

### 11. Land use legislation (continued)

#### 11.2 Other relevant legislation (in the context of this application)

#### **Spatial Planning and Land Use Management Act, 2013**

The Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) was enacted by the national Department of Rural Development and Land Reform on 5 August 2013 and came into effect on 1 July 2015.

SPLUMA aims to develop a new framework to govern planning permissions and approvals, sets parameters for new developments and provides for different lawful land uses in South Africa.<sup>5</sup> SPLUMA is a framework law, which means that the law provides broad principles for a set of provincial laws that will regulate planning and clarify on how planning law interacts with other laws and policies.

<sup>4</sup> As published in Provincial Gazette No. 7509.

<sup>5</sup> <http://www.customcontested.co.za/laws-and-policies/the-spatial-planning-and-land-use-management-act-spluma/>.

The Act emerged through the Green Paper and White Paper processes to replace (mainly) the DFA as the legislative instrument to regulate spatial planning and land use management in the country. As can be expected, the Act is all-encompassing and, amongst others, addresses the issue of putting in place a uniform, recognisable and comprehensive system of land use management to ensure economic unity and equal opportunity or equal access to government services. In this regard, the development principles as described in Section 7 are a key outcome. However, SPLUMA nor any other legislation determine or translate the legislated development principles into quantifiable outcomes, e.g. setting targets to counter long-term structural changes in the context of land use management.

SPLUMA, however, requires the use of land to be in accordance with the zoning of such land, *irrespective of the user*. Complying with SPLUMA, it is stated in LUPA that 'no person may utilise or develop land unless the utilisation or land development is permitted in terms of a zoning scheme or an approval consistent with this Act and applicable bylaws'.

### **National Environmental Management Act, 1998 (Act 107 of 1998)**

See **Section IV**.

### **National Heritage Resource Act, 1999 (Act 25 of 1999)**

Heritage Western Cape supported the proposed development in a letter of 20 March 2024 (see **Annexure 22**).

### **Astronomy Geographic Advantage Act (No. 21 of 2007)**

The Astronomy Geographic Advantage Act (No. 21 of 2007) provides for the preservation and protection of areas within South Africa that are uniquely suited for optical and radio astronomy; for intergovernmental co-operation and public consultation on matters concerning nationally significant astronomy advantage areas and for matters connected thereto.

In line with this act, the Northern Cape Province, excluding the Sol Plaatjie Municipality, was declared an astronomy advantage area in Government Gazette No. 33462. The Karoo Core Astronomy Advantage Area contains the MeerKAT radio telescope and the Square Kilometre Array (SKA) radio telescope that are used for the purposes of radio astronomy and related scientific endeavours. The proposed *Rhino PV facility* falls outside any of the Core Astronomy Advantage Areas and are not subject to the various regulations and declarations protecting the SKA sites.

## **12. Policy guidelines**

### **12.1 National and provincial**

### **National**

#### **National Government's New Growth Path**

The New Growth Path (NGP) reflects Government's commitment to prioritising employment creation in all economic policies and lays out strategies to enable

South Africa to grow in a more equitable and inclusive manner in the future, fulfilling the promise of our democracy.

The centrepiece of the NGP is a massive investment in infrastructure and people through skills development, together with smart government and better coordination with the private sector and organised labour so that we can achieve our national goals. Infrastructure development is identified as a critical driver of jobs across the economy. The document identifies investments in five key physical and social infrastructure areas, namely energy, transport, communication, water and housing. The sustaining of high levels of public investment in these areas would create jobs in construction, operation and maintenance of infrastructure.

The green economy is one area for which the NGP sets out an ambitious programme to create jobs, through a series of partnerships between the state and the private sector. This includes expansions in construction and the production of technologies for solar, wind and biofuels.

The document recognises the need for a coordinated set of actions across a broad front and identifies a "development package" consisting of macroeconomic strategies, microeconomic measures and stakeholder commitments to drive employment and economic growth.

These actions include, *inter alia*, the following:

- A broad pact between business, labour and the government aimed at fostering employment creation whilst enhancing competitiveness and social equity and development goals.
- Measures to strengthen the capacity of the state and enhance the performance of the private sector to achieve the employment and growth goals, e.g. slashing unnecessary red tape, improving competition in the economy and stepping up skills development.
- Enhancing rural employment through the finalisation of a spatial perspective that sets out the opportunities available and the choices that we must make to lay the basis for aligning government spending, infrastructure and housing investment and economic development initiatives.

### **National Development Plan**

National Development Plan is a wide-ranging document that sets the tone for government thinking over the next two decades. Electricity is identified as one of the core components of a decent standard of living.

In the context of renewable energy, the plan states that, 'by 2030, South Africa will have an energy sector that provides reliable and efficient energy service at competitive rates, is socially equitable through expanded access to energy at affordable tariffs and environmentally sustainable through reduced pollution'.<sup>6</sup> In this regard, the development of additional electricity capacity would be required, i.e. roll out of additional electricity infrastructure.

### **Integrated Resource Plan**

See §4.

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<sup>6</sup> Integrated Resource Plan, August 2018.

## **Provincial**

### **Western Cape Land Use Planning Guideline: Rural Areas, 2019<sup>7</sup>**

The Western Cape Land Use Planning Guidelines: Rural Areas was prepared as part of a provincially-driven initiative to guide spatial planning and land use management in the Western Cape. However, the Rural Area Guideline is not mandatory and binding and will not be enforced. This notwithstanding, this guideline has the following objectives:

- Promote sustainable development in appropriate rural locations and to ensure that the poor share in the growth of the rural economy.
- Safeguard priority biodiversity areas and the functionality of the Province's life supporting ecosystem services (i.e. environmental goods and services).
- Maintain the integrity, authenticity and accessibility of the Western Cape's significant farming, ecological, cultural and scenic rural landscapes, and natural resources.
- Assist Western Cape municipalities to plan and manage their rural areas more effectively, and to inform the principles of their zoning schemes.
- Provide clarity to the provincial government's social partners on what kind of development is appropriate beyond the urban edge, suitable locations where it could take place, and the desirable form and scale of such development.

The following principles underpin rural development in the context of this application:

- Decisions on rural development applications should be based on the spatial principles in the PSDF.
- Accessibility should be a key consideration in all development decisions.
- No development should be permitted below the 1:100 flood line.
- Priority should be given to the re-use of previously developed sites in preference to greenfield sites.
- All development in rural areas should be in keeping and in scale with its location, and sensitive to the character of the rural landscape and local distinctiveness.
- Only activities that are appropriate in a rural context, generate positive socio-economic returns, and do not compromise the environment or ability of the municipality to deliver on its mandate is supported.
- The cumulative effect of all ancillary and non-agricultural land uses should not detract from the rural character of the landscape and the primary agricultural activities.
- Rural activities must have a focus on sustainability and be in harmony with the surrounding agricultural landscape.

The document also states that rural development should not:

- Have a significant negative impact on biodiversity and ecological system services.
- Lead to the loss or alienation of agricultural land or has a cumulative impact there upon.
- Compromise existing or potential farming activities.

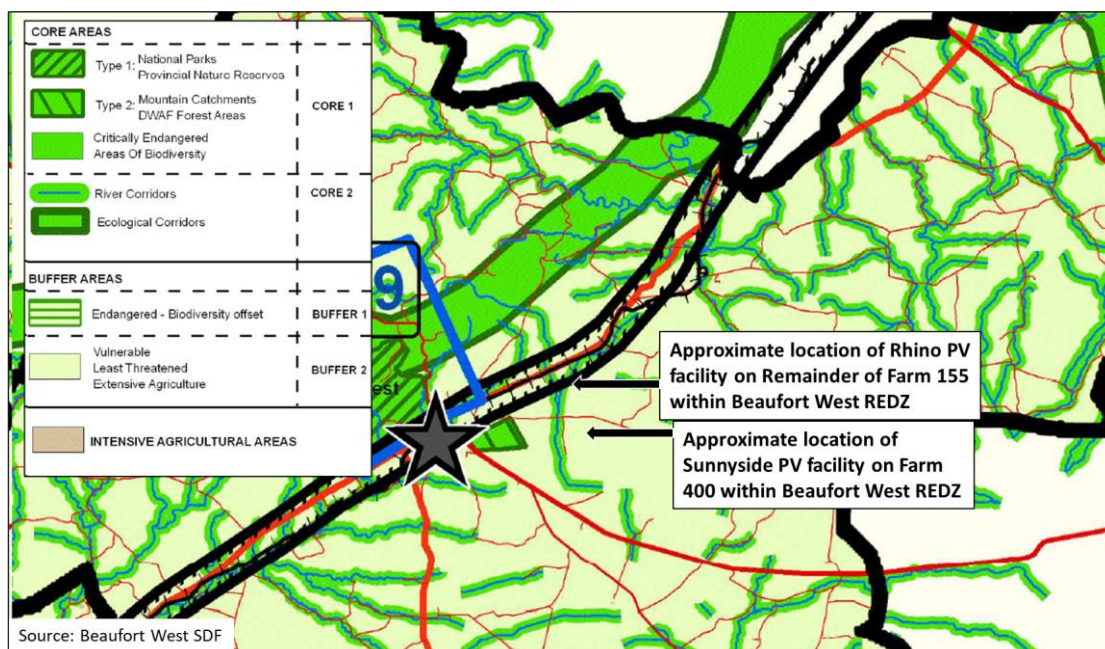
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<sup>7</sup> These guidelines received ministerial approval on 3 March 2019.

- Be inconsistent with the cultural and scenic landscape within which it is situated.
- Infringe on the authenticity of the rural landscape.

The provincial approach to managing development pressures for the rural land uses is covered in 9 categories of which we only list and discuss the application-specific category of 'infrastructure installations' – renewable energy facilities are identified as infrastructure installations and facilities that serve the broader community. This approach leads to ensuring that these essential public installations *can function effectively in suitable rural locations*.

The preferred location for infrastructure installations is within the settlement and buffer 2 spatial planning categories (SPC) with 'essential' installations to be accommodated within the agricultural SPC. The subject property is located in a buffer 2 SPC (see **Map 4**).



**Map 3:** Spatial Planning Categories

### 13. Investment directives

This application – submitted to a municipality as the authority of first instance – is guided by a suite of plans, ultimately informing decisions regarding land development. In this regard, the two most important municipality-driven 'plans' are the Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of each of the relevant category-C and B municipalities, viz. Central Karoo District Municipality and Beaufort West Municipality. The IDPs guide the municipality-wide and needs-based operations of *all three tiers of government*, whereas, an SDF is an issue-specific informant of the IDP which provides regulatory directives for land development investment (we discuss the SDFs in **§16**).

The following plans were considered but like most municipality-driven interventions, these plans do not qualify or quantify the available and/or required (local) investment offerings:

- Central Karoo District Municipality Integrated Development Plan (CKIDP), 2022-2027
- Central Karoo Local Economic Development Strategy (CKLED)
- Central Karoo Growth and Development Strategy (CKGDS)
- Beaufort West Municipal Integrated Development Plan 2022 – 2027.

### **Investment priorities**

The CKIDP states that, apart from the Karoo National Park, renewable energy generation is possibly the only noticeable and prominent economic feature in the Central Karoo area.<sup>8</sup> The document includes the 'action' by government to remove constraints on growth, investment and job creation, including energy generation. The favourable local conditions and potential economic contribution (direct and indirect linkages) of renewable energy generation are acknowledged in the context of possible changes to the composition and character of the towns (and rural areas). It is stated that at least 20 000MW of renewable energy should be contracted by 2030.

The CKLED also identifies 'renewable energy generation' as an economic opportunity. The CKGDS covers the four themes of economic development, social development, strategic infrastructure development and spatial development as catalysts for growth and development. Renewable energy generation (and associated economic opportunities) is, however, not addressed in the CKGDS.

### **Investment geography**

In the context of this application, spatial guidelines directing investment should be provided in the Central Karoo District Spatial Development Framework and the Beaufort West Municipality's Spatial Development Framework. See **Section 16** for a more detailed discussion in this regard.

## **14. Project response**

We structure our response to the section on the regulatory environment by firstly addressing the national and provincial objectives regarding renewable energy generation and secondly the land use issue. In **§17** we deal with the regional and local site selection criteria.

### National and provincial objectives

We believe that the proposed solar PV facility promotes and supports all relevant legislative requirements, policy guidelines and development objectives/targets as formulated by the government in respect of renewable energy generation. There is a high level of support for these directives in local policy. This support has, however, not yet been transformed into guidelines to direct local investment, development and spatial preferences, notwithstanding the mapping of the Beaufort West REDZ as a preferred geographical distribution area for power-generating facilities.

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<sup>8</sup> A statement that is supported in the Beaufort West Municipality Integrated Development Plan, 2022-2027.



The REDZs were 'demarcated' based on high level integrated spatial analysis of the best available environmental, technical and social data. In this context (and even if sited within a REDZ), it is still up to each developer to source (local and site-specific) data and spatial directives through planning and environmental processes.

### Land use

Land is a finite resource and the way it is used is one of the principal drivers of environmental change, with significant impacts on quality of life and ecosystems as well as on the management of infrastructure. The use of land is influenced by a number of important drivers, *inter alia*, demography, economic development, resource availability, environmental conditions, development costs, transport infrastructure and regional and local planning policies. In this regard, land users and/or owners, continually decide on the quantum, quality and location of space required to meet specific (economic) objectives. Government's goals and regulatory mechanisms also influence the incentive to develop or use land, i.e. target-setting for biodiversity conservation, land reform, renewable energy generation, economic growth and poverty alleviation.

Each one of the mentioned drivers (and targets) merits detailed research and analysis but in the interests of brevity, we discuss only some of them as well as the land-use denominator of highest and best use.<sup>9</sup> We have already referred to the need for regional and local planning policy as directives to guide renewable energy development in the (rural) landscape. In this regard, the proposed development will introduce a land use different to existing site-specific land use of sheep farming, but although structurally detached from renewable energy generation, this type of farming can continue to function optimally. The introduction of renewable energy generation is complemented by landowner support.

The area surrounding the property is a sheep farming agricultural region, with few land uses, other than renewable energy, competing for space. Please note that such area is already home to transmission networks and substations. It is also known that land uses generally conform to a regular, predictable pattern and that the conversion of land use reflects changing relations / configurations within a rural setting. This locational condition ensures the highest and best use of land, which, for large tracts of (rural) land in the surrounding area is/was extensive agriculture. It is notable that a negative change in economic and environmental conditions, can put an end to this use; signifying a volatile (economic) situation. By contrast, the proposed development will ensure a reliable income and could improve farming operations and productivity. Thus, and not surprising, current economic conditions and investment priorities point to alternative investment opportunities evidenced by the approval and operation of prominent renewable energy features and infrastructure in proximity.

We contend that, from a technical perspective, the location of the proposed facility is appropriately justified as the highest and best use of land with no fatal flaws and no impacts of unacceptable significance expected to occur, also considering existing use rights of adjacent properties and property owners.

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<sup>9</sup> The most probable use of a property that is physically possible, appropriately justified, socially just, legally permissible, financially feasible and which results in the highest value of the property.

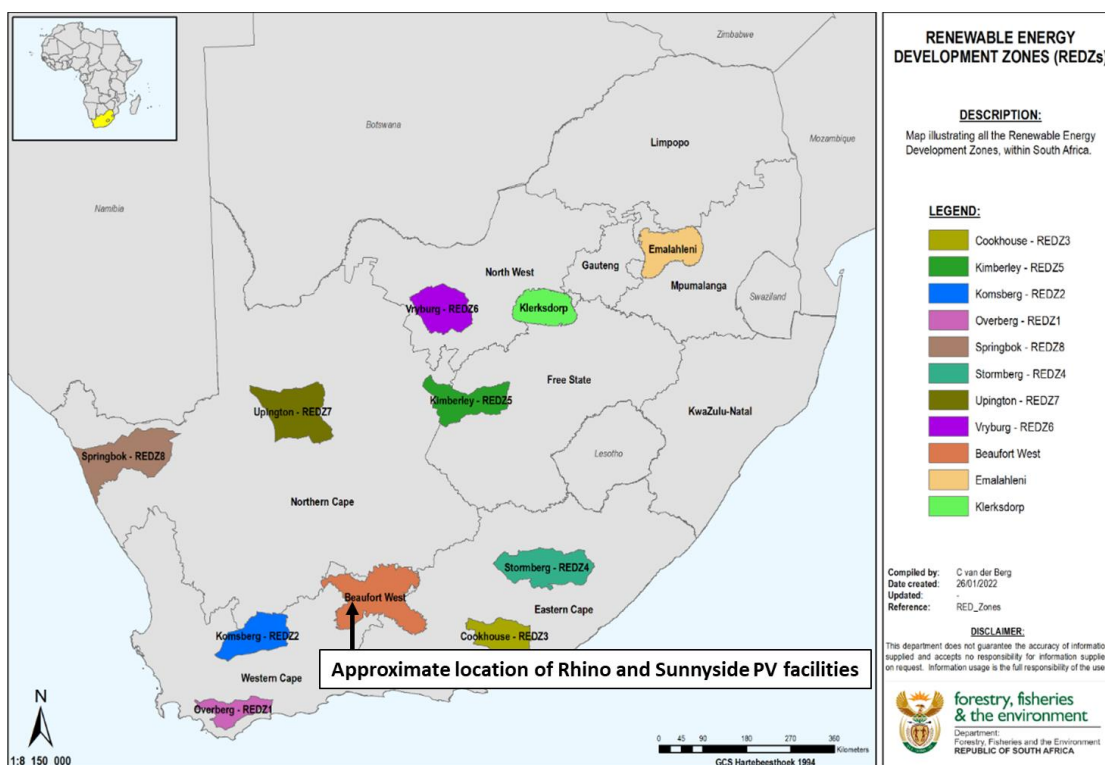
## Section III – Spatial directives

### 15. Spatial rationale

What determines the optimum location of a renewable energy facility?

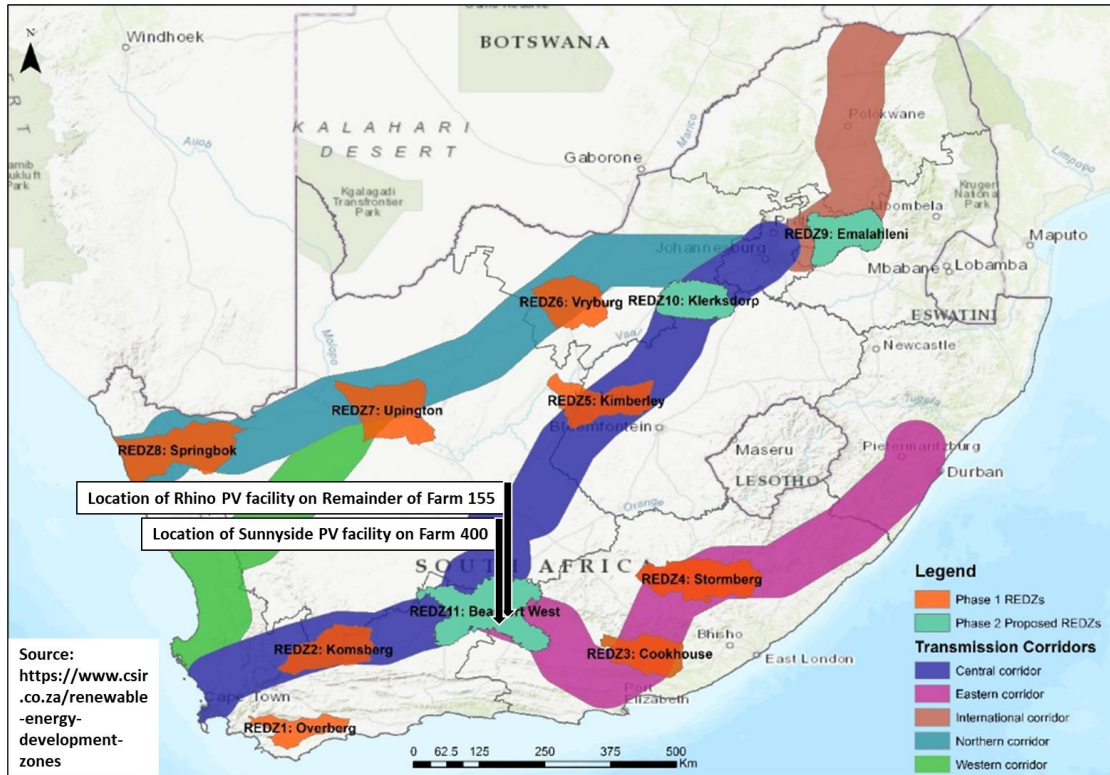
In 2018 and in 2020, the relevant national Department commissioned the Council for Scientific and Research Council (CSIR) to identify, country-wide, focus areas best suited for the roll-out of renewable energy projects and electricity grid infrastructure (see **Map 5**). Renewable Energy Development Zones were identified as focus areas, and although grid investment would be prioritised in these areas, it is stated that such investment (by government) should not be limited to these areas. In this regard, 'suitable wind and solar PV development is still promoted across the country and any proposed development must be considered on its own merits'.

The proposed *Rhino PV facility* is located within the Beaufort West REDZ and the central corridor of the proposed electricity grid infrastructure corridors (see **Maps 6 and 7**).

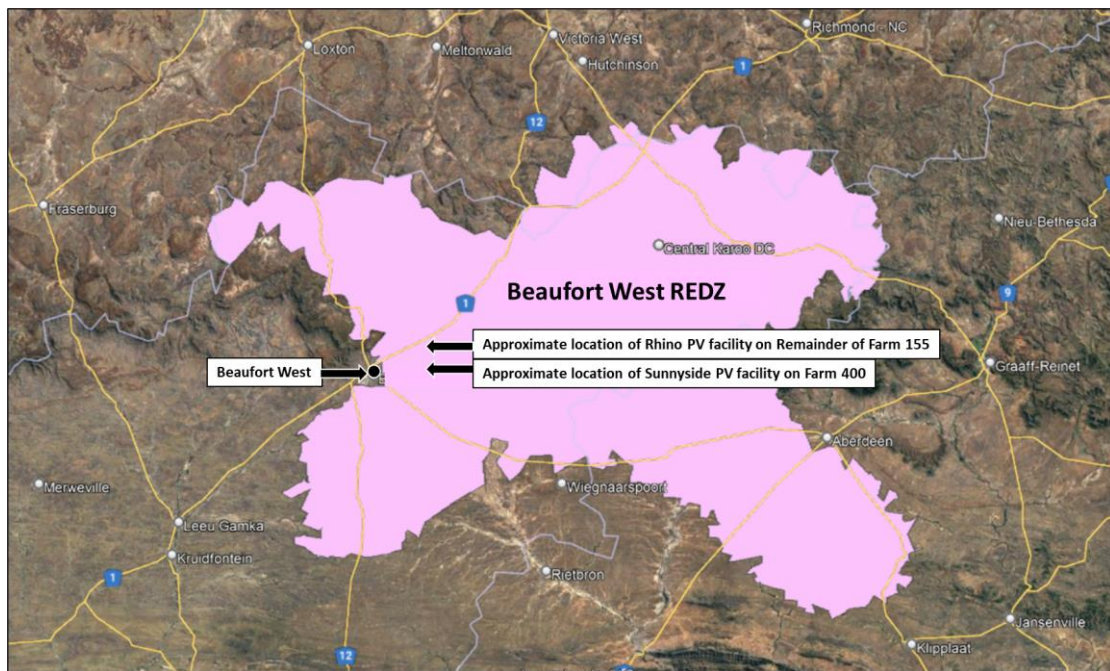


**Map 4:** REDZ in South Africa

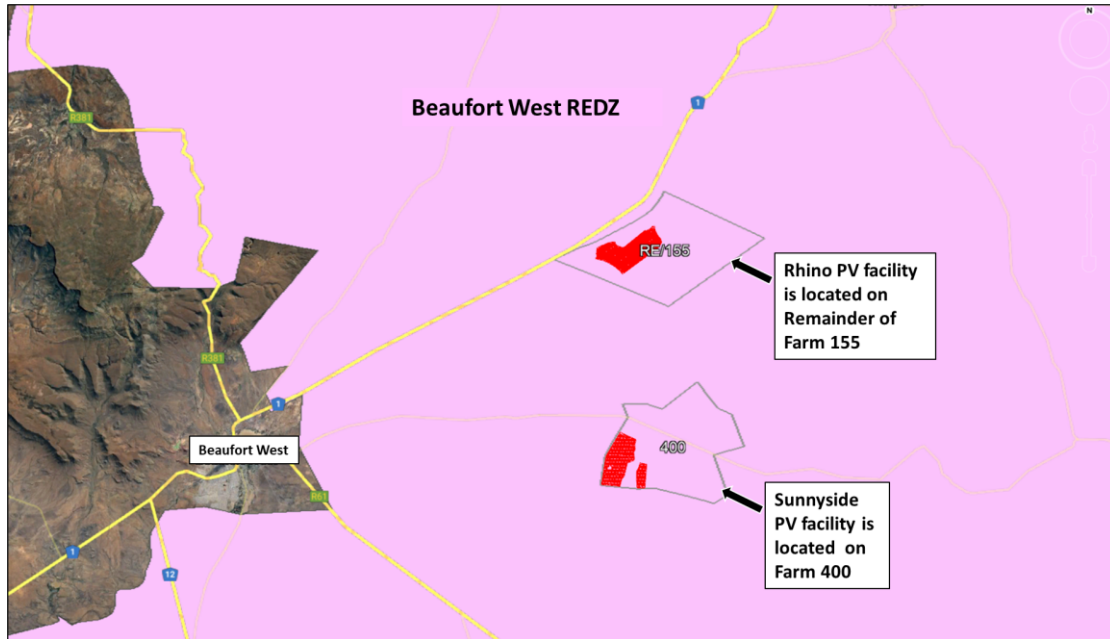




**Map 5:** REDZs and grid infrastructure corridors country wide



**Map 6:** Beaufort West REDZ



**Map 7:** Location of relevant property in relation to the Beaufort West REDZ

## 16. Spatial Development Frameworks

### Western Cape Provincial Spatial Development Framework (March 2014)

The methodology and procedure used to draft the PSDF, were based on a review of the 2009 provincial SDF and replacing it with a *transversal* Provincial framework. In this regard, three interrelated themes were used, i.e. sustainable use of spatial assets, opening up opportunities in the space-economy and developing integrated and sustainable settlements.

In taking the national and provincial agendas forward, the PSDF 2014 applies the following five spatial principles:

1. Spatial justice
2. Sustainability and resilience
3. Spatial efficiency
4. Accessibility
5. Quality and liveability.

Are these principles in line with the development principles in the Spatial Planning and Land Use Management Act as the 'rule' of how spatial planning (and land use management) should be done henceforth? Yes. However, there are slight nuanced differences in name and content. Note that, in SPLUMA, there are some additional principles and sub-principles as directives for, specifically, land use management. Basically, the same results should be achieved, if the SPLUMA and PSDF principles are 'considered' as concerns in decision making, and by using the means provided in SPLUMA.

We refrain from any further interpretation and discussion of the PSDF based on the assumption that the provincial Rural Guidelines (2019) provides detailed guidelines for rural land use management in the spatial context ordered by the PSDF.

### Central Karoo Spatial Development Framework

The district SDF divides the jurisdiction area into functional areas based on Spatial Planning Categories (SPCs) of the Bioregional Planning Framework (BPF) for the Western Cape. Basic guidelines for land use management for the SPCs are used in the District SDF as this supports alignment with the Western Cape Bioregional Planning Framework (BPF) and PSDF. The Central Karoo is structured into functional areas as follows:

- Rural areas
- Rural settlements
- Institutional settlements
- Local towns, and
- Main local towns.

It is particularly important to note, *inter alia*, the following conditions for agricultural areas, given the dominance of the sector in the Central Karoo:

- Care should be taken to maintain the rural character of non-urban areas.
- The formation of small rural towns should be avoided.
- Areas should provide for the development of alternative agricultural use, to make a positive contribution to sustainable economic growth.

Spatial provision has been made for renewable energy generation as the Central Karoo climate enables alternative energy solutions.

### Beaufort West Municipality Spatial Development Framework, 2013

It is stated in the Spatial Development Framework (SDF) of the Beaufort West Municipality that it has broadly been accepted that the Bioregional Planning Framework (BPF) will guide spatial planning and management in the Western Cape. Hence, the formulation and demarcation of Spatial Planning Categories (SPCs) in the municipal area were based on the bioregional planning principles. It is envisaged to use the ensuing classification to develop land-use management guidelines for each SPC covering the entire municipal area. The SPCs for the rural area include the following categories, viz. core, buffer, intensive agriculture and urban settlement, with a basic description and preferred 'policy' provided for each category. However, we were only able to find very coarse-scale spatially-referenced evidence of 'demarcated' SPCs in the municipal SDF (see **Map 3**).

The SDF also does not provide a site level methodology for determining location and development of renewable energy sites to assist in both the detailed preparation of proposals by private-sector developers and assisting the local authority in assessing such proposals. In this regard, this motivation report provides qualitative and quantitative (site-specific) information and articulates outcome(s) to assist government in their response to this potential investment offering.

#### 17. Project response: Site selection

The site selection process conducted by the Applicant that resulted in the siting of the solar energy facility as potential project, included the identification of other 'suitable' sites for renewable energy facilities throughout the Western Cape Province. This process was also informed by the findings in the basic assessment and by the national government's intervention to identify preferred areas for

establishing large-scale wind and solar PV energy facilities, i.e. Renewable Energy Development Zones. Please note that before the basic assessment commenced, an environmental screening process by an independent third party was conducted to identify preferred areas for development.

The 'selection' of the site was based on several factors, including (but not limited to):

- Solar resources
- Location within a Renewable Energy Development Zone
- Site extent
- Land suitability for a development with the nature and scale of the proposed facility
- Grid access
- Nature reserves
- Local economic stimulation
- Current land use
- Existing use rights (on- and off-site)
- Landowner support.

In this regard, the municipal Zoning Scheme Bylaw includes development parameters as special provisions applying to the land use of Renewable Energy Structure and *to which the proposed development adheres in full, i.e. the application does not include an application for temporary or permanent departures.*

## Section IV – NEMA application

### 18. Environmental impact assessment / basic assessment

The *Rhino PV facility* is the subject of a basic assessment in terms of the 2014 Regulations under the National Environmental Management Act, 1998 (Act No. 107 of 1998, with amendments). An Environmental Authorisation (as amended) has been issued after a final Basic Assessment Report was submitted to the Department of Forestry, Fisheries and the Environment. During the process, Registered Interested and Affected Parties have been invited to review and provide comment on the Basic Assessment Report.

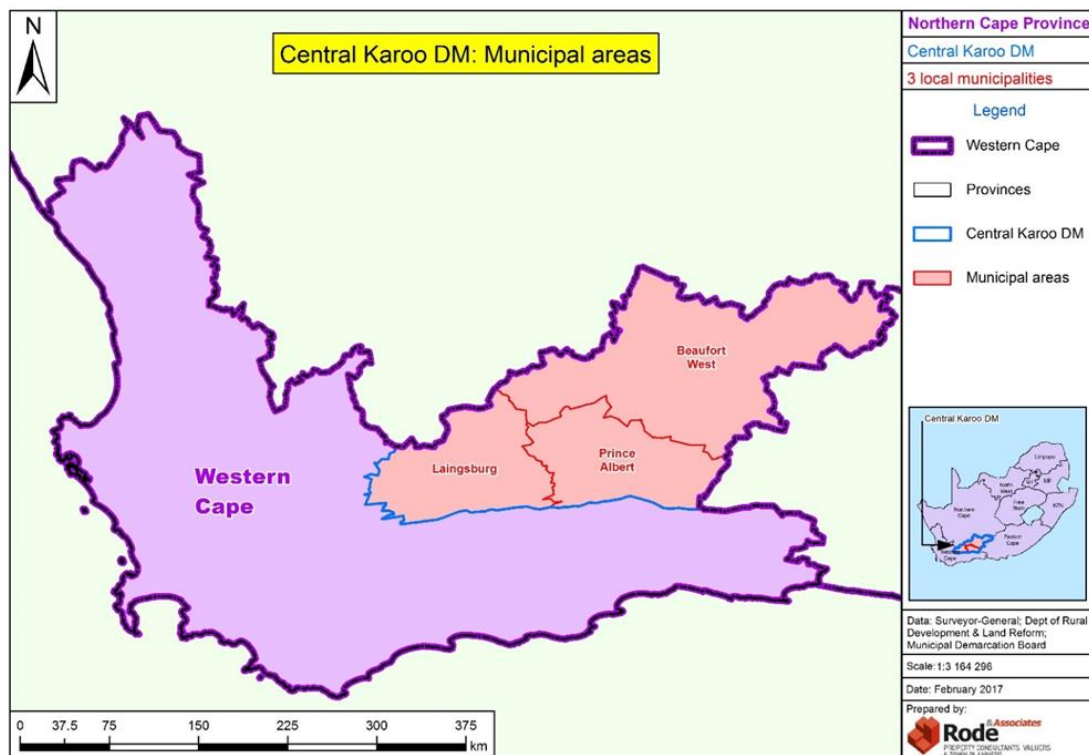
Please also note that amendments to an EA are regularly sought by a project proponent because of advances in technology and new project-specific findings. If applicable, and after any amendments to the EA, such amendments will be communicated to the Municipality as an amendment to the land development application in terms of section 52 of the bylaw, i.e. prior to the approval thereof.



## Section V – Development context

### 19. Receiving environment 19.1. Regional and local context

This land development application concerns a property in the jurisdiction area of the Beaufort West Municipality with Central Karoo District Municipality the category-C municipality (see map below).



**Map 8:** Central Karoo region with municipalities

The Central Karoo district can be described as having, *inter alia*, the following local characteristics:

- It is a small to medium-town sub-region with a low level of development despite the strategic location in terms of the road and rail national transport corridor.
- Sparsely populated towns with a number of larger towns serving as “agricultural service centres”; spread evenly throughout the district as central places.
- High rate of unemployment, poverty and social grant dependence.
- Prone to significant environmental changes owing to long-term structural changes (such as climate change, energy crises and other shifts).
- Geographic similarity in economic sectors, growth factors and settlement patterns.
- Economies of scale not easily achieved owing to the relatively small size of towns.
- A diverse road network with national, trunk, main and divisional roads of varying quality.

- Potential and impact of renewable energy resource generation.
- Potential and impact of 'fracking', i.e. the possible exploration for shale gas.

## 20. Development specifics

### 20.1. Site information

The next section includes extracts from the Basic Assessment Report to describe, in brief, site-specific elements of the development site. Please see the relevant annexures for more detailed descriptions thereof.

#### Land use

Agricultural activity in the area is restricted by the arid nature of the local climate and areas of cultivation are largely confined to relatively limited areas distributed along drainage lines. Moisture availability is very limiting to any kind of agricultural production, including grazing and is completely insufficient for rain-fed crop production on the property. The climate constraints mean that the site has low agricultural potential, and its agricultural use is limited to grazing only.

#### Climate

The development site is characterized by a hot semi-arid climate. Beaufort West receives a relatively low mean annual precipitation of 392 mm. The average lowest rainfall is received in June (15 mm) and the highest in March (57 mm), which is a seasonal variation of 42 mm. The maximum midday temperatures for Beaufort West ranges from 31.7°C in January to 18°C in July. The minimum temperatures for Beaufort West ranges from 16.6°C in February to 4.4°C in July. The average temperatures vary during the year by 12.9°C.

#### Topography and drainage

The development site is characterised being flat with a very gentle slope to the west at a gradient of less than 2 %. The site drainage is expected to occur as sheetwash and throughflow towards the east into the Renosterspruit before flowing into the Platdoring River heading south. The site exists in a maximum and minimum elevation of 1 000 and 960 metres above mean sea level (mamsl), respectively.

#### Geology and soils

The development site is underlain by Permian-aged alternating bluish-grey, greenish grey or greyish red mudrocks and grey, very fine to medium-grained lithofeldspathic sandstone of the Teekloof and Abrahamskraal Formations that form the Adelaide Subgroup of the Beaufort Group found in the Karoo Supergroup. The formations boundaries are linked to specific sandstone-rich marker units. A number of greenish chert bands, existing from a few centimetres to two metres thick, and pink tuff beds have been recorded to exist in the Abrahamskraal Formation. Calcareous nodules and concretions occur in mudstones throughout the Beaufort Group.

#### Aquatic and Fresh water

The Rhino PV site fringes on the Southern Karoo Riviere vegetation, classified as Inland Azonal Vegetation. The Southern Karoo Riviere vegetation (also least

threatened) is found on the northern boundary of the site along the Platdoring River.

### Vegetation

The site is situated within the Nama Karoo Biome, within the Lower Karoo Bioregion (Mucina and Rutherford, 2006). The Lower Karoo Bioregion is the lowest-altitude bioregion within the Nama Karoo biome, receiving less rainfall (mean annual precipitation of 203 mm per annum) and less frost than other bioregions.

The site had low plant biodiversity, as expected with the comparative low species diversity and endemism of the Nama-Karoo. No sensitive species identified by the Screening Tool were found on site. Therefore, the site as a whole was determined to be of low plant sensitivity overall.

### Heritage resources

No archaeological resources of significance were identified within the development site while some were identified in close proximity. The site is also assessed as of low palaeosensitivity.

### Visual

The basis for the visual character is provided by the topography, vegetation and land use of the area, which is a rugged rural environment characterised by the sparsely vegetated ridgelines (often) separated by wide flat expanses interspersed with farmsteads and some infrastructure (i.e., the N1, powerlines, substations, railway line routed adjacent to the north-western boundary of the Remainder of Farm Rhenosterkop 155). The local area can thus be defined as a *natural transition landscape* as it is mostly rural with few isolated farmsteads and some powerlines, roads and a railway line visible in the landscape.

The visual quality of the site is consistent with the visual quality of the region: natural, visually untransformed environment that can be experienced by receptors as barren and harsh due to the desolate nature of the landscape. The only visual receptors identified are farmstead residents, railway personnel and passengers and motorists.

## 20. Development specifics (continued)

### 20.2. Leasehold area information

The *Rhino PV facility* involves the property known as Remainder of Farm 155, Rhenosterkop, of which the details are tabled below. The landowner of the subject property has issued a Power of Attorney for the submission of this land development application to the Beaufort West Municipality.

**Table 2**

### **Specifics of the property earmarked for the *Rhino PV facility***

Farm name	Portion	Size (ha)	Title deed	Landowner
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155	Remainder	4247	T34797/1969	A Nigrini
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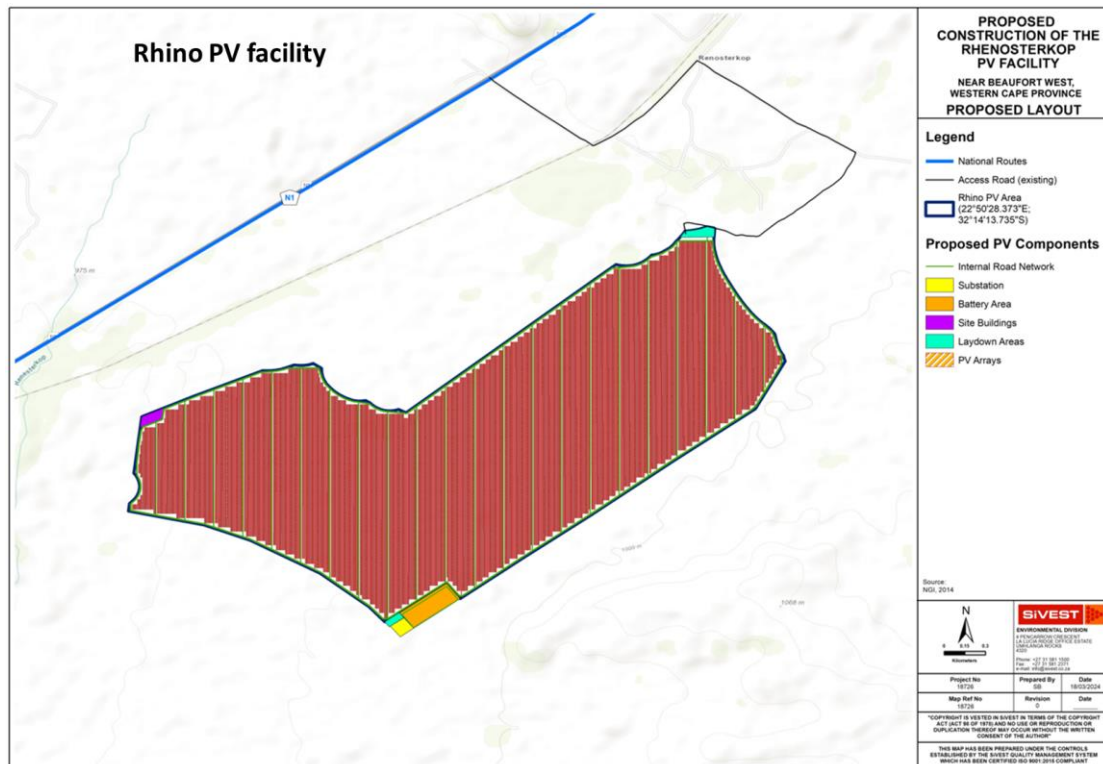
The Applicant has secured the use of the land through a long-term leasehold agreement i.e. the registration of a lease agreement against the title deed of the property concerned. If required, ministerial consent to register the lease agreement in terms of the Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970) will be obtained from the national Department of Agriculture, Land Reform and Rural Development.

## 20. Development specifics (continued)

### 20.3 Solar facility layout

We believe this kind of renewable energy facility is straight-forward and almost inflexible in application. In this regard, and as mentioned, we take note of the development parameters set for renewable energy structures in the Zoning Scheme Bylaw.

It is important to note that parts of the layout provided for the purposes of this application may be subject to amendment. In this regard, an iteration process is inevitably part of the land development application. Amended layouts and plans would be submitted once the recommendations and alternatives from the EA process have been 'reworked' into micro-siting considerations. (see **Annexure 9** and **Map 9**).



**Map 9:** Layout of *Rhino PV facility*

## 20. Development specifics (continued)

## 20.4. Infrastructure

The key components of the Rhino PV facility and the Sunnyside PV facility are described in brief below.

- PV panels:
  - Mono- or bifacial panels will be used, not thin film Panel width and height (to be confirmed during the detailed design phase) Expected panel dimensions: Width: 1 – 1.3 m; Height: 2 – 2.4 m.
- Battery Energy Storage System (BESS):
  - Area: 5 to 5.8 ha; The final BESS capacity is subject input by DMRE, NERSA and Eskom regarding the dispatchability and ancillary services to be provided by the hybrid Solar PV and BESS facility. This may range between 77 MW/ 308 MWh (in line with the latest ESIPPPP bidding round 2) and 240 MW/ 960 MWh (in line with 4 hours of rated capacity). These stated capacities are also subject to the charging, discharging and augmentation regime established during the subsequent design phases of the project.
- On-site substation:
  - One 132 kV; 21 m height; 1 ha; Substation will step up voltage from 33 to 132 kV. Various transformers will be located within the PV area. These will combine the power from multiple inverters and step up the supply voltage from 800 V to 33 kV. The expected capacity of the transformers are in the range of 2.5 megavolt ampere each. Note that the voltage levels are estimates and subject to confirmation/change during the detail design phase of the project.
- Construction camp and laydown areas:
  - One construction camp with temporary containers occupying approximately 1 ha. The 1 ha construction camp will become the operational site camp offices, workshop areas, operation and maintenance (O&M) building, permanent parking area, storage area, etc. Temporary construction laydown/staging areas will be located within development area.
- Internal roads:
  - Internal roads need to be provided to the site and between project components inclusive of stormwater infrastructure. As far as possible, internal roads should follow existing gravel roads and paths, of which some may require widening/upgrading. Further internal roads will need to be constructed with a minimum width of 4m (preferable 5m). The total length of internal roads needs to be confirmed. The site access roads recommended to provide 6-8 m width. Where/if required, for turning circle/bypass areas will need to be constructed.
- Fencing: Up to 3m height/11.5 km length per project/ triple wire electric
- Cabling/IPP/Electrical infrastructure:
  - Medium voltage cabling will link the PV installation with the grid connection infrastructure at 33 kV. The grid connection infrastructure will step up the voltage to 132 kV high voltage.
- Grid connection:
  - Both PV facilities are planned to connect to a new Main Transmission Substation (MTS), which will be established near the project sites. The new MTS will tie in via loop-in-loop-out connection to the existing Droërivier/Hydra 400 kV lines.

Alternatively, the facility will connect to the existing Droërivier MTS via 132kV transmission lines.

- Site access:

- Rhino PV Facility: Turn southward off from N1, 30 km outside Beaufort-West, between Beaufort-West and Three Sisters. This will lead to a Transnet service road used by the local population for access to farms and smallholdings. The site will be located immediately to the right at the T-junction of the road that connects the service road and the N1.
- Sunnyside PV facility: Approximately 3.2 km outside Beaufort-West on the R61, turn onto the Hopewell Road in an Eastern direction. After 24.1 km, turn right onto Farm 400 through the gate to the farm. This will be the main access point to the site.

## 20. Development specifics (continued)

### 20.5. Development impacts

The next section describes, in brief, some measures to mitigate possible impact. Also see **Annexure 9** for the Basic Assessment Report and **Annexures 10 to 19**, all of which were prepared as part of the basic assessment process and informed this application. *Based on interpretation from a land use perspective, these studies found no fatal flaws that could lead to the refusal of this land development application.*

Please note that based on, among others, these findings, the siting of the development site for the Rhino PV facility was considered and selected.

**Table 3**

### Measurement of possible impact

Potential impact	Pre-mitigation	Post-mitigation
Construction phase		
Terrestrial and aquatic / wetland	Negative medium to negative low	Negative low
Geotechnical	Negative low	Negative low
Avifaunal	Negative high	Negative medium
Traffic	Negative medium	Negative low
Socio-economic	Positive high to negative medium	Positive high to negative low
Heritage	Negative low	Negative low
Visual	Negative medium	Negative low
Risk associated with BESS	Negative high	Negative low
Operational phase		
Terrestrial and aquatic / wetland	Negative medium to negative low	Negative low
Geotechnical	Negative low	Negative low
Avifaunal	Negative high to negative low	Negative medium to negative low
Traffic	Negative low	Negative low
Socio-economic	Positive high to negative medium	Positive high to negative medium

Heritage	Negative medium to negative low	Negative low
Visual	Negative medium to negative low	Negative low
Risk associated with BESS	Negative high to negative low	Negative low

## 20. Development specifics (continued)

### 20.6 Title deed

See **Annexure 2** for the title deed of the relevant property. A detailed deeds search was not completed as part of this application, but a conveyancer's certificate is attached as **Annexure 2**.

## 20. Development specifics (continued)

### 20.7 Benefits of the proposed development

Solar photovoltaics (PV) is a prime example of one of the energy solutions being considered by Government to ensure energy security and aid in efforts to move toward a carbon-free economy. Technological advances and rapid utilisation in recent years have made solar PV one of the most affordable and readily available energy generation technologies. The technology is easily integrated with battery energy storage systems and has been widely adopted by Government. In this regard, the proposed development will form part of the Renewable Energy Independent Power Producer (REIPP) Procurement Programme rolled out countrywide, or the initiative by Government to allow larger-scale power producers to generate and sell-on unlimited electricity through registration without a generation licence.

These initiatives are intended to promote the establishment of new generation and storage capacity in the national energy mix of supply that is severely constrained. It is stated that rolling blackouts are here to stay for years to come, even if Government presses ahead with the Energy Action Plan announced in 2022 and the (draft) Integrated Resource Plan 2023. In this regard, Government plans to move with speed to register and approve new renewable energy projects that can store and feed electricity into the national electricity grid.

In addition to these electricity-related benefits, the proposed development will contribute to income generation and (local) job creation, specifically in the accommodation, construction, security, and maintenance sectors.

## Section VI – Development parameters

### 21. Land-use parameters

We believe this kind of renewable energy facility is straight-forward and almost inflexible in application, unlike, e.g. township development. Hence, there is relative simplicity in setting land use restrictions regarding, *inter alia*, built infrastructure, fencing, height, density, accessibility, safety and building lines.

Please note that the placement of the solar arrays with associated setbacks from cadastral boundaries, critical and non-critical infrastructure adhere to normal practice for this kind of facility and as regulated by environmental legislation. We also state that all the relevant development parameters as per the Zoning Scheme Bylaw (see pages 76 to 78) have been or will be considered in the final detailed design phase. Thus, and at submission of this application, a final site development plan by facility was not yet available owing to on-going on-site monitoring, design and micro-siting of panels. We propose, as a condition of approval, the submission of the final site development plans to the relevant authority as part of the building plans approval before any construction activities commence.

## Section VII – Communication and participation

### 22. Interested and Affected Parties

We request the Municipality to inform the applicant of the requirements regarding the processing and notification of the application.

## Section VIII – Conclusion

### 23. Wording of land use change

It is recommended that the decision maker grant the following land use rights:

- In terms of section 15(2)(o): Consent use of 'renewable energy structure' to accommodate the *Rhino PV facility* (including appurtenant infrastructure) on Remainder of Farm 155, Rhenosterkop.
- In terms of section 15(2)(d): Approval to register a lease agreement in favour of K2022578692 (SOUTH AFRICA) (Pty) Ltd., over the said property.
- Section 24(2) certificate that the registration of servitudes and/or lease agreements for the provision or installation of on-site electricity transmission lines are exempt from an application in terms of section 15.

## 24. Desirability

### Desirability of Rhino PV facility

Government must assess renewable energy generation initiatives by considering a wider-than-normal perspective on long-term structural changes, e.g. climate change, energy security and other shifts. In this regard, impacts are certain to happen. Planners must become aware of the need to take a broader look at spatial planning and land use management by, for example, considering buffer areas around existing installations as suitable locations for renewable energy infrastructure. Naturally, this should apply to developments in the Central Karoo district with clear signs that climate change will affect the area quite significantly, implying lower rainfall and some dampening of the current pattern of agricultural production. In this regard, we already mentioned that by developing the *Rhino PV facility* as an alternative on-site investment opportunity, a reliable income can be ensured and could improve farming operations and productivity.

In this context and when applying the principles of economies of scale and highest and best use of land, the rationale for solar energy generation on the property becomes clear. The proposed development (1) blends with the particular type of land(scape), (2) promotes the (better) economic use of land and infrastructure and (3) conforms to the outcome of socio-political interaction. This is best demonstrated by the approval and operation of similar facilities in proximity and the location of the *Rhino PV facility* in a Renewable Energy Development Zone.

However, the proposed development will introduce a site-specific land use that is different to (but not incompatible with) the established land use of farming. We believe the proposed land use is moderately compatible with the rural landscape and conforms to past land-use conversion initiatives in the area, e.g. high-voltage power lines, substations and renewable energy infrastructure. It is foreseen that the impact on on-site and adjacent land use because of the proposed facility will be very low if mitigating measures are applied. Please note that information generated as part of the BA process informed this application considering the balance of interests within the geographical community.

### Completeness of this application

We believe that this application (i.e. motivation report and annexures) includes sufficient evidence that the proposal and beneficiary/beneficiaries conform to the intention of the development principles listed in section 7 and section 58 of the Spatial Planning and Land Use Management Act, 2016 (Act 16 of 2013) and the Western Cape Land Use Planning Act, 2014 (Act 3 of 2014), respectively.

This application also includes sufficient information regarding the criteria as listed in section 65 of the municipal bylaw (see below) and in terms of section 6(2)(e)(iii) of the Promotion of Administrative Justice Act, Act 3 of 2000, which must be considered in decision making on a land development application. The relevant response to each of the section 65 criteria is stated below.

- (1) *When the Municipality considers an application, it must have regard to the following:*
  - (a) *the application submitted in terms of this Bylaw*

- This application is submitted in terms of the municipal land use planning bylaw of the Beaufort West Municipality.
- (b) *the procedure followed in processing the application*
  - The Beaufort West Municipality will inform the applicant regarding the processing of the application.
- (c) *the desirability of the proposed utilisation of land and any guidelines issued by the Provincial Minister regarding the desirability of proposed land uses*
  - The desirability of the proposed utilisation of land, viz. solar energy generation, is explained in this report.
- (d) *the comments in response to the notice of the application, including comments received from organs of state, municipal departments and the Provincial Minister in terms of section 45 of the Land Use Planning Act*
  - The Beaufort West Municipality will inform the applicant regarding the processing of the application.
- (e) *the response by the applicant, if any, to the comments referred to in paragraph (d)*
  - The applicant will respond to any comments received from any Interested and Affected Party.
- (f) *investigations carried out in terms of other laws that are relevant to the consideration of the application*
  - This report includes reference to investigations carried out in terms of 'other' laws.
- (g) *a registered planner's written assessment in respect of an application for—*
  - (i) *a rezoning*
  - (ii) *a subdivision of more than 20 cadastral units*
  - (iii) *a removal, suspension or amendment of a restrictive condition if it relates to a change of land use*
  - (iv) *an amendment, deletion or imposition of additional conditions in respect of an existing use right*
  - (v) *an approval of an overlay zone contemplated in the zoning scheme;*
  - (vi) *a phasing, amendment or cancellation of a subdivision plan or part thereof*
  - (vii) *a determination of a zoning*
  - (viii) *a closure of a public place or part thereof*
    - This is the responsibility of the Beaufort West Municipality.
- (h) *the impact of the proposed land development on municipal engineering services*
  - Municipal services will not be used.
- (i) *the integrated development plan, including the municipal spatial development framework*
  - These plans have been assessed in this report to guide the desirability of the proposed PV facility.
- (j) *the integrated development plan and spatial development framework of the district municipality, where applicable*
  - These plans have been assessed in this report to guide the desirability of the proposed PV facility.
- (k) *the applicable local spatial development frameworks adopted by the Municipality*
  - These plans have been assessed in this report to guide the desirability of the proposed PV facility.
- (l) *the applicable structure plans*
  - Not applicable.
- (m) *the applicable policies of the Municipality that guide decision making*
  - These policies have been assessed in this report to guide the desirability of the proposed PV facility.
- (n) *the provincial spatial development framework*
  - This plan has been assessed in this report to guide the desirability of the proposed PV facility.



- o) *where applicable, a regional spatial development framework contemplated in section 18 of the Spatial Planning and Land Use Management Act or provincial regional spatial development framework*
  - Not applicable.
- (p) *the policies, principles and the planning and development norms and criteria set by the national and provincial government*
  - These guidelines (where applicable) have been assessed in this report to guide the desirability of the proposed PV facility.
- (q) *the matters referred to in section 42 of the Spatial Planning and Land Use Management Act*
  - We are confident that the aspects to be considered in decision making by the relevant entity have been addressed in this report.
- (r) *the principles referred to in Chapter VI of the Land Use Planning Act*
  - We are confident that the aspects to be considered in decision making by the relevant authority have been addressed in this report.
- (s) *the applicable provisions of the zoning scheme*
  - The provisions in the zoning scheme have been adhered to.

Finally, we believe this document contains all the necessary information to enable the relevant authority to process and evaluate this consent use application.



## Section IX – Annexures

Annexure 1	Powers of Attorney
Annexure 2	Conveyancer's certificate and title deed
Annexure 3	SG diagram
Annexure 4	Application form
Annexure 5	Pre-application form
Annexure 6	Site locality
Annexure 7	Regional locality
Annexure 8	Preliminary layout
Annexure 9	Basic Assessment Report
Annexure 10	Environmental Management Programme Report
Annexure 11	Agricultural study
Annexure 12	Aquatic assessment
Annexure 13	Avifaunal assessment
Annexure 14	Geotechnical assessment
Annexure 15	Biodiversity assessment
Annexure 16	Transportation assessment
Annexure 17	Heritage assessment
Annexure 18	Socio-economic assessment
Annexure 19	Visual assessment
Annexure 20	Environmental Authorisation
Annexure 21	EA (as amended)
Annexure 22	HWC commenting letter