SPLUMA inspired
RODEPLAN (Pty) Ltd
Land development, property research, land audit

Email: berchtwald@rodeplan.co.za • Cell: 082 658 7545 • Directors: Berchtwald P Rode and Erwin G Rode

12 October 2026

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

Dear Mr C Wright

Land development application: Consent use
Padloper PV 5 facility (solar)

Padloper PV (Pty) Ltd., submits this land development application to obtain the land use rights to construct the *Padloper Solar PV 5 Facility* (hereafter *Padloper PV 5)* on Portion 3 of Farm Driefontein, No. 26, in the Beaufort West municipal area.

The subject property is located about 11 km north-east of Murraysburg and is one of several properties on which a cluster of seven solar photovoltaic (PV) facilities are proposed. Five of these PV facilities are in the Western Cape with two located in the Northern Cape Province.

We are applying for:

1. Consent use to construct the *Padloper PV 5 facility* (including associated infrastructure) on Portion 3 of Farm Driefontein, No. 26.
2. Municipal approval to register a lease agreement over the property concerned.

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.

B P Rode
Managing Director and Town Planner@ RodePlan

Municipal Land Use Planning Bylaw

Land development application (consent use)

Padloper PV 5 Facility (solar)

Location

On the following property:

Portion 3 of Farm Driefontein, No. 26

in the Registration Division of Beaufort West,

Western Cape

Applicant

***Padloper PV (Pty) Ltd*.**

Assisted by

RodePlan (Pty) Ltd.

Date:

October 2026

Applicant:

Padloper PV (Pty) Ltd
2nd Floor, Great Westerford
240 Main Road
Rondebosch, Cape Town
7725

Contact person: Ms M Bowden
Email: Michelle.Bowden@anthem.co.za

Assisted by:

RodePlan (Pty) Ltd
2 Brandwacht Street
Stellenbosch
7600

Contact person: Mr B. Rode
Cell: 082 658 7545
Email: berchtwald@rodeplan.co.za

Local municipality

Beaufort West Municipality
112 Donkin Street
Beaufort West
6970

Tel: 023.4148100

Contact person: Mr C. Wright
E-mail: christopher@beaufortwestmun.co.za

Table of Contents

Executive summary

Section I: Preamble

1. Introduction 5
2. Project proponent 5
3. Location and development site 6
4. Renewable energy rationale 8
5. Objectives 9
6. Preparatory work 9
7. Fees 10
8. Advertising process 10
9. Report structure 10
10. List of tables and figures 11

Section II: Legislative and development framework

11. Land use legislation
    - 11.1 Municipal Land Use Planning Bylaw and Zoning Bylaw 12
    - 11.2 Other relevant legislation 12
12. Policy guidelines (development)
    - 12.1 National and provincial 13
13. Investment directives 16
14. *Project response* 17

Section III: Spatial directives

15. Spatial rationale 19
16. Spatial Development Frameworks 21
17. *Project response: Site selection* 22

Section IV: NEMA application

18. Environmental impact assessment / basic assessment 24

Section V: Development context

19. Receiving environment
    - 19.1 Regional and local context 25
20. Development specifics
    - 20.1 Site information 26
    - 20.2 Leasehold area information 29
    - 20.3 Solar facility layout 29
    - 20.4 Infrastructure 30
    - 20.5 Development impacts 31
    - 20.6 Title deed 32
    - 20.7 Benefits of the proposed development 32

Section VI: Development parameters

21. Land-use parameters 33

Section VII: Communication and participation

22. Interested and Affected Parties 33

Section VIII: Conclusion

23. Wording of land use change 33
24. Desirability 34

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 Plan
Annexure 7 Regional locality Plan
Annexure 8 Site Development Plan
Annexure 9 Basic Assessment Report
Annexure 10 Environmental Authorisation
Annexure 11 Agricultural study
Annexure 12 Aquatic study
Annexure 13 Avifaunal study
Annexure 14 Geotechnical study
Annexure 15 Traffic study
Annexure 16 Heritage assessment
Annexure 17 Socio-economic assessment
Annexure 18 Visual assessment
Annexure 19 Terrestrial biodiversity study
Annexure 20 Geohydrology study
Annexure 21 Exemption of servitude
Annexure 22 Pre-application letter
Annexure 23 Proof of payment
Annexure 24 Bondholder's consent

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.

Padloper PV (Pty) Ltd., is establishing the *Padloper PV 5 facility* 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 *Padloper PV 5 facility* on the property known as Portion 3 of Farm Driefontein, No. 26 (or subject property). This titled and privately-owned property is located about 11 km north-east Murraysburg and is bisected by DR2404 as a rural gravel road and from which access will be gained to the facility.

The land extent of the subject property is 3874 ha with about 202 ha to be used as development footprint of the facility. This footprint is in the middle 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 *Padloper PV 5 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, workshop areas, operation and maintenance (O&M) buildings). The generated power of up to 150 MW will be distributed from an on-site 33/132 kV switching substation via a 132 kV power line to the proposed authorised Ishwati Emoyeni Collector Substation (near the project site) and from there connecting to the national grid at the existing Gamma Main Transmission Station.

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 *Padloper PV 5 facility* was 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 has been issued after a final Basic Assessment Report was submitted to the Department of Forestry, Fisheries and the Environment. Please note that, although not a subject of this application, the Environmental Authorisation for the associated gridline infrastructure has also been issued.

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 for 'renewable energy structure' (solar) as consent use added 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 PV 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 (REDZs).

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

- Solar resources
- Location within a REDZ
- 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.

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 on the subject property and in proximity.

Solar energy facility layout

Through the basic assessment process, which 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 plan approval process 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 (BESS) 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 will again be possible, if Government does not implement the Energy Action Plan announced in 2022 and the Integrated Resource Plan 2025. 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. 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 or approved 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 on the subject property and in proximity, and the location of the *Padloper PV 5 facility* in a REDZ.

We argue that the proposed development would be 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 facilities. 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, as well as the 2025 Integrated Resource Plan (IRP). Notably, the 2025 IRP marks a major shift in South Africa's energy mix, with hydro, nuclear, wind and solar generation expected to surpass coal-based capacity by 2039.

In this regard, Government is 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 Procurement 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. REDZ.[1]

Padloper PV (Pty) Ltd., (hereafter referred to as the Applicant) submits this motivation report with annexures as land development application to obtain the land use rights to construct the *Padloper PV 5 facility (solar)* on a farm property in the Beaufort West municipal area and, importantly, within the Beaufort West 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

Padloper PV (Pty) Ltd., is a special purpose vehicle ("SPV") and a subsidiary of African Clean Energy Developments (Pty) Ltd. 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 (Padloper PV (Pty) Ltd) will hold all the permitting rights to the development of the project for commercial and legal reasons.

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

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

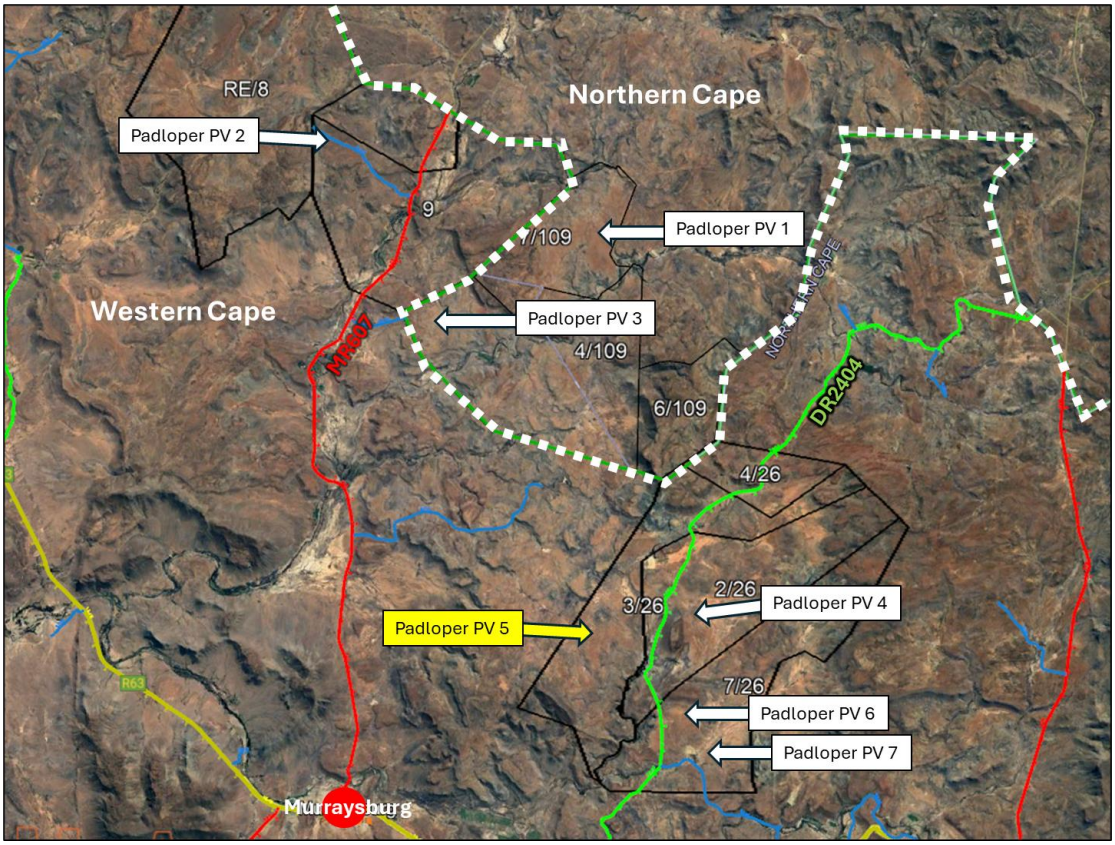
3. Location and development site

Regional location

The proposed *Padloper PV 5 facility* (including associated 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 *Padloper PV 5 facility* as consent use on the property known as Portion 3 of Farm Driefontein, No. 26 (or subject property).

The property, as one of several properties on which a cluster of seven solar photovoltaic (PV) facilities are proposed, is located about 11 km north-east of Murraysburg and is bisected by DR2404 as a rural gravel road and from which access will be gained to the facility (see **Map 1**). Five of the seven PV facilities are in the Western Cape with two located in the Northern Cape Province.



Map 1: Regional location

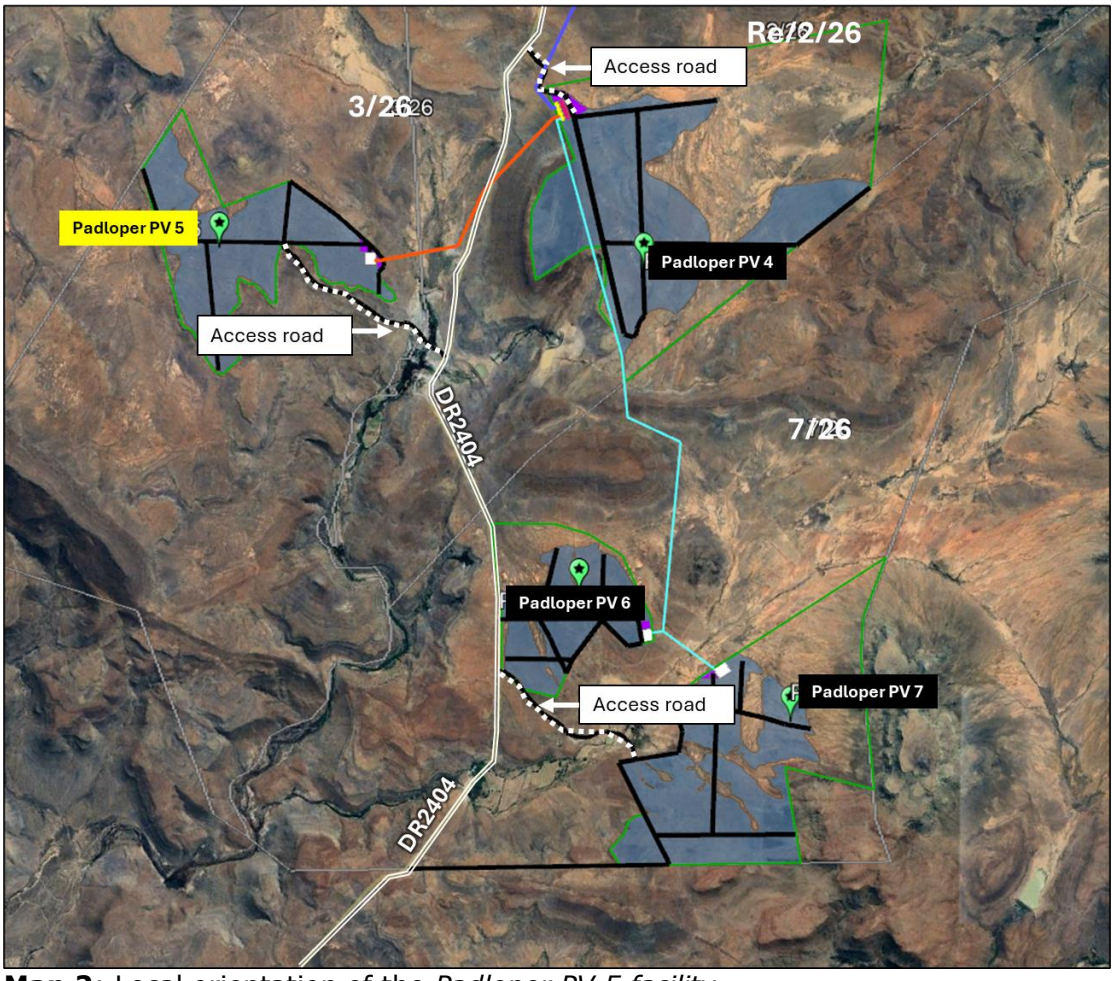
The property of which the specifics are listed in the table below, is zoned Agriculture Zone 1 with fairly low carrying capacity grazing land as the current land use.

Table 1 Property associated with the *Padloper PV 5 facility*			
Property description	Land extent (ha)	Zoning of property	
		Current	Proposed
Portion 3 of Farm Driefontein, No. 26	3874	Agriculture Zone 1	Agriculture Zone 1 with consent use (renewable energy structure)
Total	**3874**		

Development site

The land extent of the subject property is 3874 ha with about 202 ha to be used as development footprint. This footprint is in the middle 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.

- 31°53'44.13"S and 23°52'07.64"E.



Map 2: Local orientation of the *Padloper PV 5 facility*

4. Renewable energy rationale

The South African economy — founded upon and largely maintained by the burning of fossil fuels — is faced with a medium-term low-growth scenario and confronted with, *inter alia*, disruption of essential services, business activities, and 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. Regarding energy supply and on a positive note, the Government has signalled its intention to get more than half of South Africa's power from nuclear and renewable energy within the next 15 years, i.e. a transition away from coal-fired power.

The National Development Plan 2030 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 2019 Integrated Resource Plan (IRP) was appropriately focused and through its response, Government committed to international commitments, ambitions and reporting initiatives, e.g. Millennium Development Goals. This commitment by Government was also solidified by the demarcation of REDZs as the preferred areas for large-scale renewable energy development and the roll-out of supporting transmission and distribution infrastructure. Although the (draft) IRP 2023 contradicted the 2019 vision, the IRP 2025 marks a major shift in South Africa's energy mix, with hydro, nuclear, wind and solar generation expected to surpass coal-based capacity by 2039. This comes in the wake of a set of radical actions and measures to respond to South Africa's 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 as part of the (1) BESIPP Procurement Programme and the (2) REIPP Procurement Programme.

Procurement from Independent Power Producers

Government's IRP 2025, as long-term energy plan, states the scale and pace of new electricity generation capacity to be commissioned until 2039. In this regard, the IRP considers expanding new generation capacity over this period with, among others, 25 GW of solar photovoltaics, 34 GW of wind power. The aim for the next few years is new capacity of 11 GW of solar photovoltaics, 7.3 GW of wind power, 6 GW of GtP projects and 5.2 GW of nuclear.

After the first four bidding windows of the REIPP procurement programme, the total in renewable energy procured is over 6300 MW – mobilising private investment of R168 bn from about 112 producers. A fifth window was introduced in 2021 with an allocation of 2600 MW with 25 preferred bidders. Five preferred bidders (solar) were announced for bid window 6 with no bids awarded for wind power projects due to a lack of grid access. Bid Window 7 has procured 1 760 MW of solar PV renewable energy from eight projects with wind failing to win any capacity. In addition, bid window 2 under the BESIPP Procurement Programme,

yielded a further eight preferred bidders which will facilitate the procurement of up to 615 MW from facilities that can provide capacity.

Since the REIPP Procurement Programme was introduced, 7750 MW have been added to the national grid with a further 1800 MW under construction. As mentioned, the lack of transmission grid capacity is the biggest bottleneck to replacing coal with renewables and could mean a lull of a few years in renewable energy investment.

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:

1. In terms of section 15(2)(o): Obtaining the **Consent use** of 'renewable energy structure' (solar) to accommodate the *Padloper PV 5 facility* (including associated infrastructure) on Portion 3 of Farm Driefontein, No. 26.
2. In terms of section 15(2)(d): Municipal approval to register a lease agreement in favour of Padloper PV (Pty) Ltd., over the property concerned.

Please note that on 15 November 2022, the Beaufort West Municipality issued exemption for the registration of powerline and grid connection servitudes over the subject property (see **Annexure 21**).

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

This document must also serve as **information document** for Interested and Affected Parties (I&APs).

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. The Western Cape Government is also responsible for the writing of the planner's report on which a decision will be based.
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 *Padloper PV 5 facility*
Table 2	Specifics of the property earmarked for the *Padloper PV 5 facility*
Table 3	Measurement of possible impact
Map 1	Regional location
Map 2	Local orientation of the *Padloper PV 5 facility*
Map 3	Spatial Planning Categories
Map 4	Renewable energy development zones in South Africa
Map 5	REDZs and grid infrastructure corridors country wide
Map 6	Location of *Padloper PV 5 facility* in relation to the Beaufort West REDZ
Map 7	Central Karoo region and municipalities
Map 8	Layout of *Padloper PV 5 facility*

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.[2]

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.[3] SPLUMA is a framework law, which means that the law provides broad principles for a set of provincial laws that will regulate planning and clarity on how planning law interacts with other laws and policies.

[2] As published in Provincial Gazette No. 7509.
[3] 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'.

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'.[4] 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**.

<u>Provincial</u>

Western Cape Land Use Planning Guideline: Rural Areas, 2019[5]

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.

[4] Integrated Resource Plan, August 2018.
[5] These guidelines received ministerial approval on 3 March 2019.

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

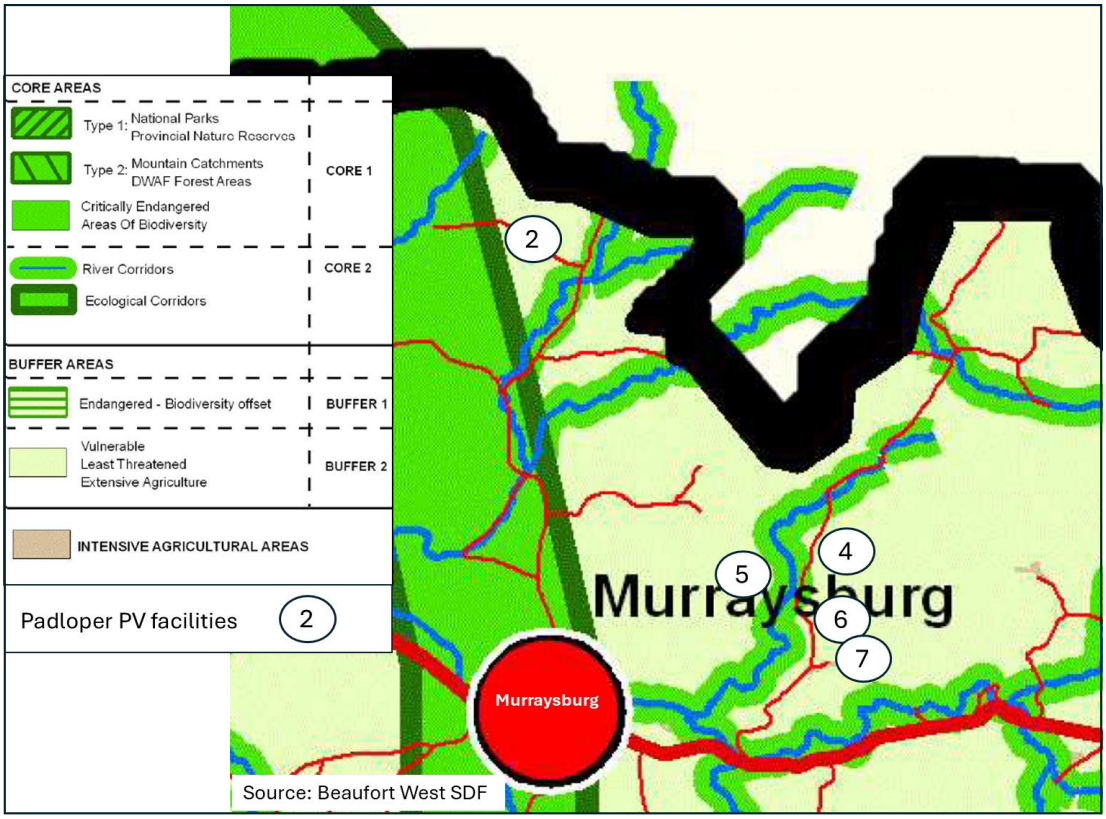
- Decisions on rural development applications should be based on the spatial principles in the PSDF.
- Accessibility should be a key consideration in all development decisions.
- No development should be permitted below the 1:100 flood line.
- Priority should be given to the re-use of previously developed 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 have a cumulative impact there upon.
- Compromise existing or potential farming activities.
- 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 was earmarked as having potential ESA 2 and potential ESA 1 (Aquatic) areas associated with the main stem rivers and or terrestrial environments within the region. The habitat associated with these areas, or habitat functions were mapped and have been avoided by the proposed development. In this regard, the proposed layout has avoided these areas by either avoiding watercourses and or ridges (rocky outcrops and inselbergs). At a very broad scale, the subject property falls within a Buffer 2 area (see **Map 3**). However, the specialist studies indicated that the site contains an area of approximately 158 ha of CBA1, with some small areas of CBA2 within that area.



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.[6] 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 20 000 MW 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.

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.

[6] A statement that is supported in the Beaufort West Municipality Integrated Development Plan, 2022-2027.

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.[7] 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 would be a land use different to the 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 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 renewable energy facilities, 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 on the subject property and 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.

[7] 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.

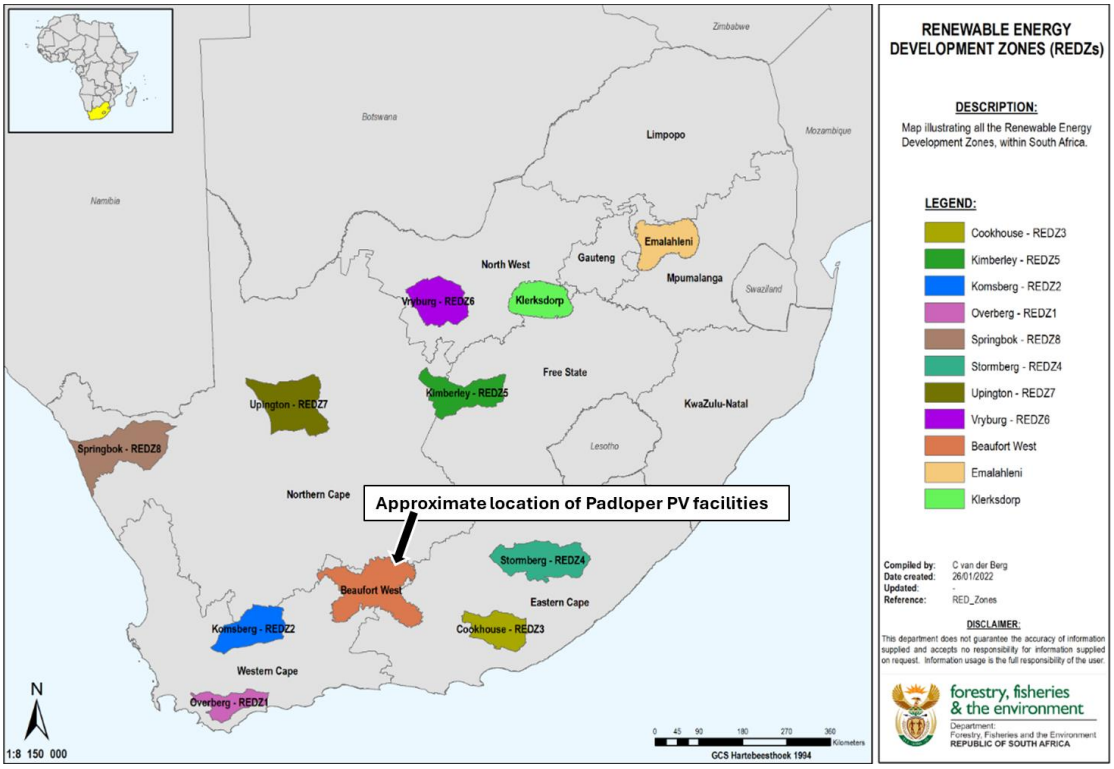
Section III – Spatial directives

15. Spatial rationale

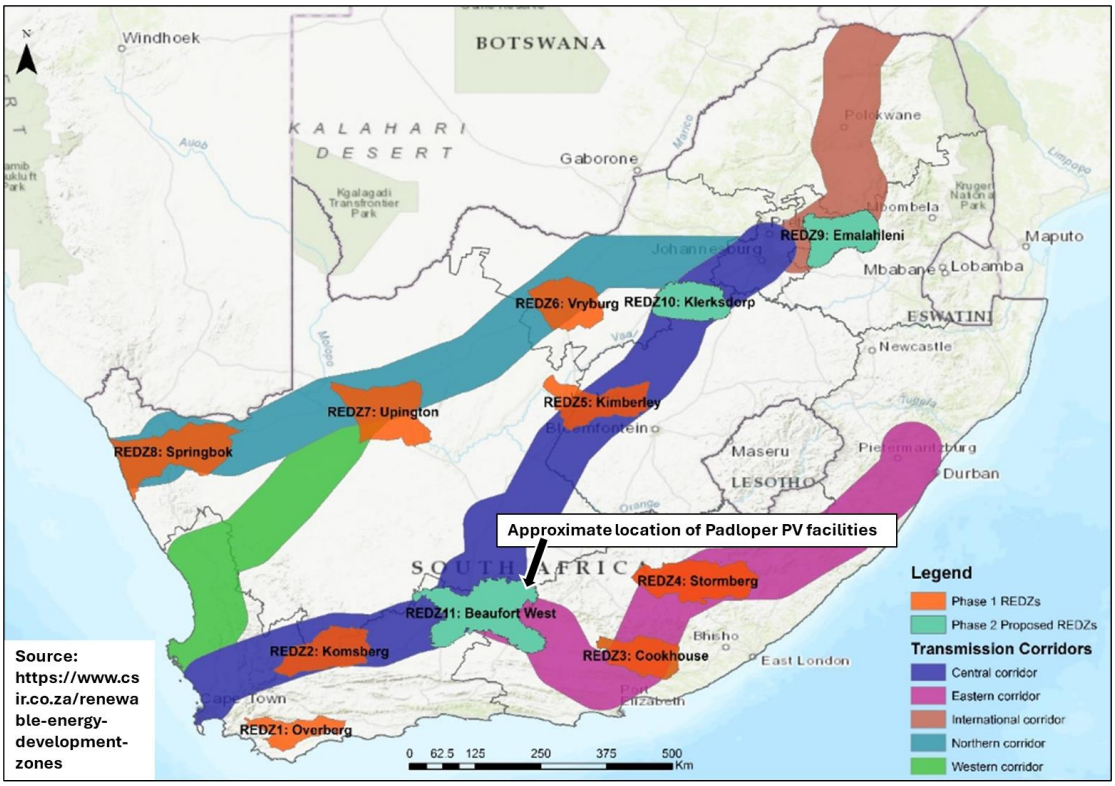
What determines the optimum location of a renewable energy facility?

In 2018 and in 2020, the Council for Scientific and Research Council (CSIR) was commissioned to identify, country-wide, focus areas best suited for the roll-out of renewable energy projects and electricity grid infrastructure (see **Map 4**). REDZs 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'.

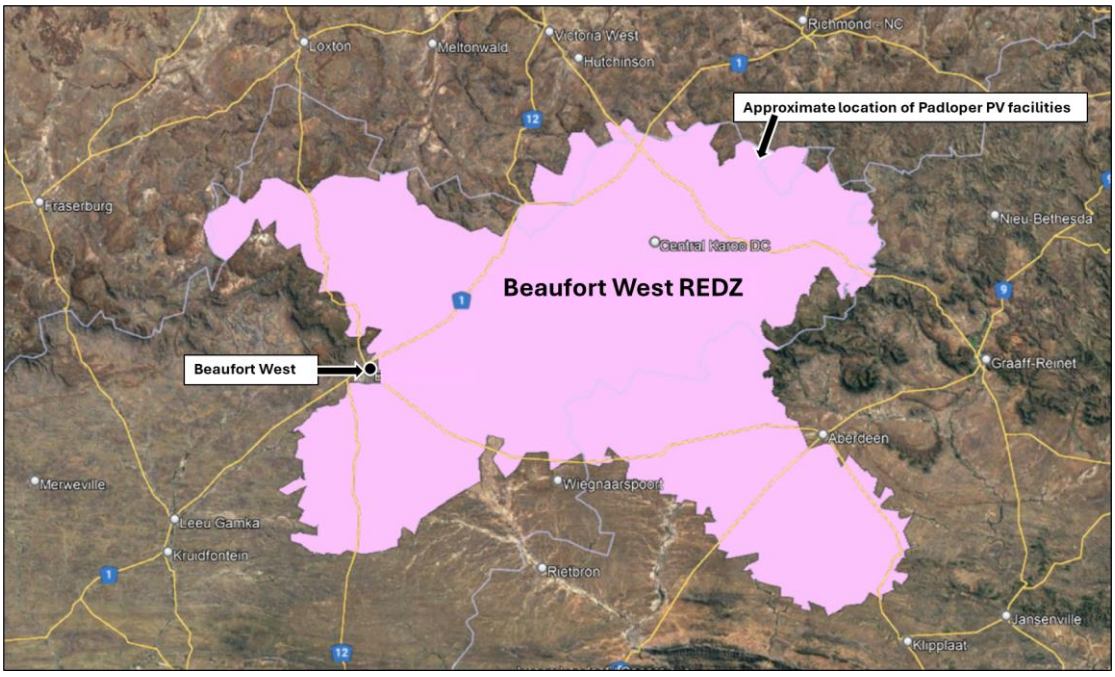
The proposed *Padloper PV 5 facility* is located within the Beaufort West REDZ and the central corridor of the proposed electricity grid infrastructure corridors (see **Maps 5** and **6**).



Map 4: REDZ in South Africa



Map 5: REDZs and grid infrastructure corridors country wide



Map 6: 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.

These principles align with the development principles set out in the Spatial Planning and Land Use Management Act, which serves as the 'rule' of how spatial planning (and land use management) should be done henceforth. 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

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. REDZs. 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 REDZ
- 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.

The selection process also considered existing use rights of adjacent properties and property owners. 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

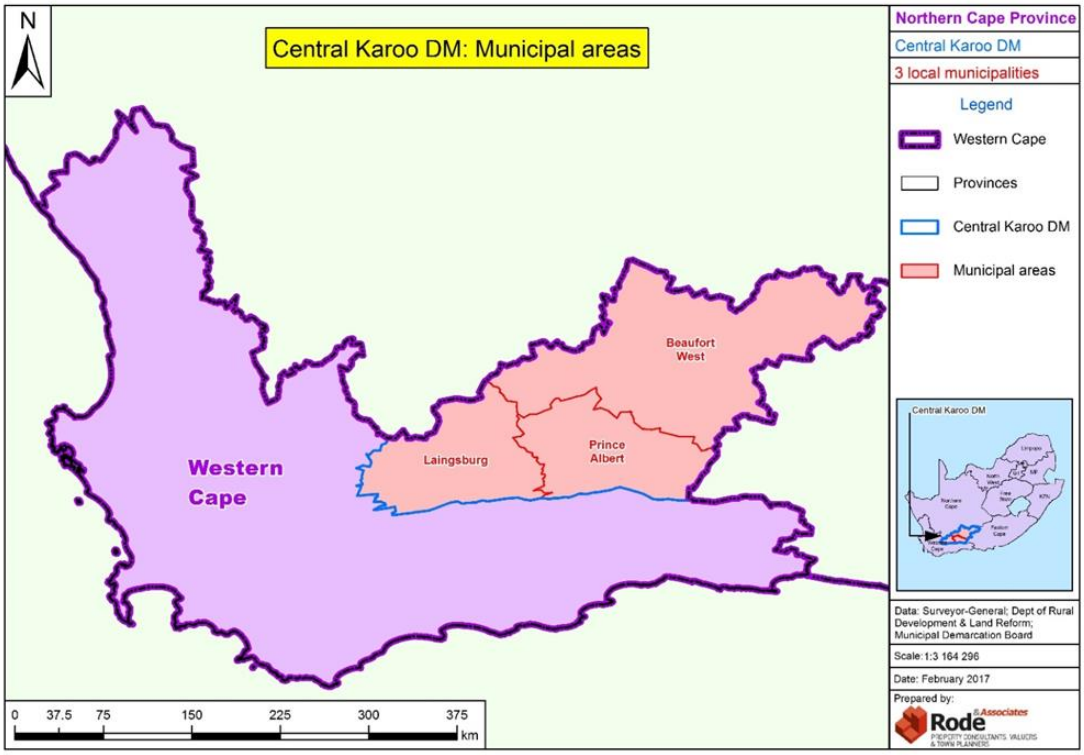
The *Padloper PV 5 facility* was the subject of a basic assessment in terms of the 2014 Regulations under the National Environmental Management Act, 1998 (Act No. 107 of 1998, with amendments). An Environmental Authorisation has been issued after a final Basic Assessment Report was submitted to the Department of Forestry, Fisheries and the Environment. During the process, Registered I&APs have been invited to review and provide comment on the Basic Assessment Report. Please note that, although not a subject of this application, the Environmental Authorisation for the associated gridline infrastructure was issued.

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 7: 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 and aspects of the traffic assessment. Please see the relevant annexures for more detailed descriptions thereof.

Protected area

The closest Protected Area is the Mountain Zebra Camdeboo Protected Area located approximately 12 km to the east of the Padloper PV 5 site.

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.

Drought has been experienced to varying degrees in different parts of the study area with lower rainfall meaning higher levels of evaporation and average wind velocities are expected to increase as well. As a result, these increasingly hot, arid conditions will cause the Karoo vegetation to become less resilient with an overall reduction in carrying capacity and a potential increase in veld fires. In addition, agricultural potential of the region is expected to be severely impacted with a further decline in productivity and yield, which is undoubtedly exacerbated by the ongoing drought prevailing in the area. This will ultimately require the adoption of more drought-tolerant farming practices and, as mentioned, the implementation of alternative land uses such as renewable energy generation developments, in particular solar and wind to ensure economic growth.

Topography and landscape

The broader area surrounding the proposed projects are largely characterised by a mix of flat to undulating and hilly terrain with distinctive koppies and hills in evidence while several pans dot the larger landscape. The terrain drops relatively steeply towards the valleys associated with the Snyderkraal and Buffels Rivers in the west and south respectively. Steep slopes also mark the divide between the

central sector of the site and the higher lying, more mountainous areas that dominate the north-east. The elevation of the site ranges between about 1260 m and 1445 m above mean sea level. Higher lying areas are characterised by intrusions and lower lying areas by drainage channels infilled with quaternary sediments, i.e., ephemeral riverbeds.

The majority of the region is classified as "most favourable" and "intermediate" due to the generally flat nature of the area. A portion along the western boundary of Padloper PV 5 footprint is classified as least favourable due to a large topographical feature along this boundary. The PV site itself lies on a very flat plateau. Aside from flat rock exposures on the surface, rock outcrops tend to be present only around the margins of the plateau where they form a small scarp. The substrate is a mixture of sand and gravel, with low vegetation. The powerline traverses a shallow, silty valley.

Agriculture and soils

The proposed project falls within units classified as comprising the following dominant soil types; Mispah, Valsrivier, Hutton, Rock outcrops. These soils predominantly very shallow, medium textured soils on underlying weathered bedrock. Soils with limited depth have insufficient moisture capacity to reliably carry a crop through the season. The cropping potential of the area is completely limited by the combination of climate (arid climate with low moisture availability) and soil constraints (limited soil depth) so that it is totally unsuitable for rain-fed crop production. The very low agricultural potential of the facility footprints limits its viable agricultural use to grazing only. The land use on the site and immediate surrounds is mostly grazing. The land has a long-term grazing capacity of 20-22 hectares per large stock unit.

Geohydrology

The proposed project site is underlain by a fractured aquifer, i.e., an aquifer in which groundwater flows in joints, fissures, cracks and fractures within the rock. The aquifer is classified as having an average yield potential of 0.5 – 2.0 litres per second. It is stated that the regional groundwater quality has an electrical conductivity ranging between 70 and 300 milli-siemens per metre. This is considered "moderate" groundwater quality, with respect to drinking water standards. Groundwater in the area is generally considered as being of moderate quality and boreholes have a low yield.

Aquatic biodiversity

There are no Strategic Water Source Areas (SWSA) within the proposed project site. The closest surface water SWSA is located over 100 km to the south-west, while the nearest groundwater SWSA is situated approximately 19 km to the east.

Vegetation

The vegetation type characterizing the study area is Upper Karoo Hardeveld (NKu 2), the Eastern Upper Karoo (NKu 4), Southern Karoo Riviere (AZi 6) vegetation units, associated with the mainstem systems of the Synderskraal / Bakensklip / Buffels rivers (Mucina & Rutherford, 2006; SANBI, 2022). The PV 5 site is mostly located within the Eastern Upper Karoo vegetation unit with a small portion located within the Upper Karoo Hardeveld (NKu 2) vegetation unit. The site is also located in L21E (Buffels River) Quinary Catchments of the Drought Corridor Ecoregion in the Mzimvubu-Tsitsikamma Proto Catchment Management Agency.

The Upper Karoo Hardeveld vegetation consist of "Steep slopes of Koppies, butts, mesas and parts of the Great Escarpment covered with large boulders and stones supporting sparse dwarf Karoo scrub with drought-tolerant grasses of genera such as Aristida, Eragrostis and Stipagrostis" (Mucina & Rutherford, 2006). Sour grass and fynbos are present in the mountains while karooveld is typical in most of the region. Shrubs and Acasia karoo (thorn trees) are present along watercourses. The Eastern Upper Karoo vegetation is characterised by "Flats and gently sloping plains (interspersed with hills and rocky areas of Upper Karoo Hardeveld in the west, Besemkaree Koppies Shrubland in the northeast and Tarkastad Montane Shrubland in the southeast), dominated by dwarf microphyllous shrubs, with 'white' grasses of the genera Aristida and Eragrostis (these become prominent especially in the early autumn months after good summer rains)".

The site (and grid connection corridor) were earmarked as having potential CBA 1, ESA 1 and FEPA catchments associated with the main stem rivers within the region. Based on the site observation, the habitat associated with these areas, or habitat functions (important catchments and or water courses were then mapped to a fine scale level as thus indicated as No-go (Very High) for the site. The proposed layout has thus avoided these areas.

The study area is not located within an International Bird Area (IBA) or a Strategic Water Resource Area and did not contain any Wetland Clusters or listed Threatened Ecosystems.

Avifauna

Three Verreaux's Eagle nests were located during the pre-construction monitoring surveys near the PV Sites. One nest is located east of the Padloper Solar PV 5 site. No-development buffers of 1 km are recommended around these nests to protect the breeding birds from disturbance.

Visual

The Visual Impact Assessments for the PV and EGI projects identified eleven potentially sensitive visual receptor locations, within 5 km of the respective power line assessment corridors and twelve potentially sensitive visual receptor locations, within 5 km of the PV facility assessment areas.

Three of the receptor locations identified were found to be linked to leisure-based (specifically nature-based) tourism and is therefore considered to be sensitive receptor locations. The remaining receptor locations are believed to be farmsteads which are regarded as potentially sensitive visual receptors as the proposed development will likely alter natural or semi-natural vistas experienced from these locations.

The specialist concluded that although the Screening Tool identifies significant areas of Very High landscape sensitivity for the proposed project, the site sensitivity verification exercise conducted in respect of this visual impact assessment did not indicate the presence of mountaintops, high ridges or any significantly steep slopes. This assessment showed the presence of undulating and hilly terrain with some koppies and hills in evidence. The sensitivity analysis has recognised these ridges and identified the higher ridges as zones where development would be least preferred.

Heritage resources

Overall, the assessments for the PV sites confirmed that there are no significant archaeological concerns for this project since no archaeological sites are under threat and no other heritage resources will be significantly impacted. One archaeological site, i.e., engravings, is considered to have medium cultural significance and is allocated a grade of IIIB. This site has been avoided by the proposed footprint with a buffer of 50 m.

Traffic

The development is in close proximity to national road R63 and provincial roads MR607 and DR2404. It can be accessed from likely points of supply through an existing road network comprising asphalt and gravel roads that are in good and suitable condition, including for the transportation of abnormal loads. Access to the proposed facilities already exists in the form of farm access points but the vertical alignment and width of the access roads will need to be upgraded to accommodate the proposed adjusted land use. It is stated that no major risks concerning the proposed development are foreseen and the proposed development will have nominal impact on the existing traffic network.

20. Development specifics (continued)
20.2. Leasehold area information

The *Padloper PV 5 facility* involves the property known as Portion 3 of Farm Driefontein, No. 26, 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 *Padloper PV 5 facility*

Farm name	Portion	Size (ha)	Title deed	Landowner
Driefontein, 26	Portion 3	3874	T16932/1998	The Groot Driefontein Boerdery Trust

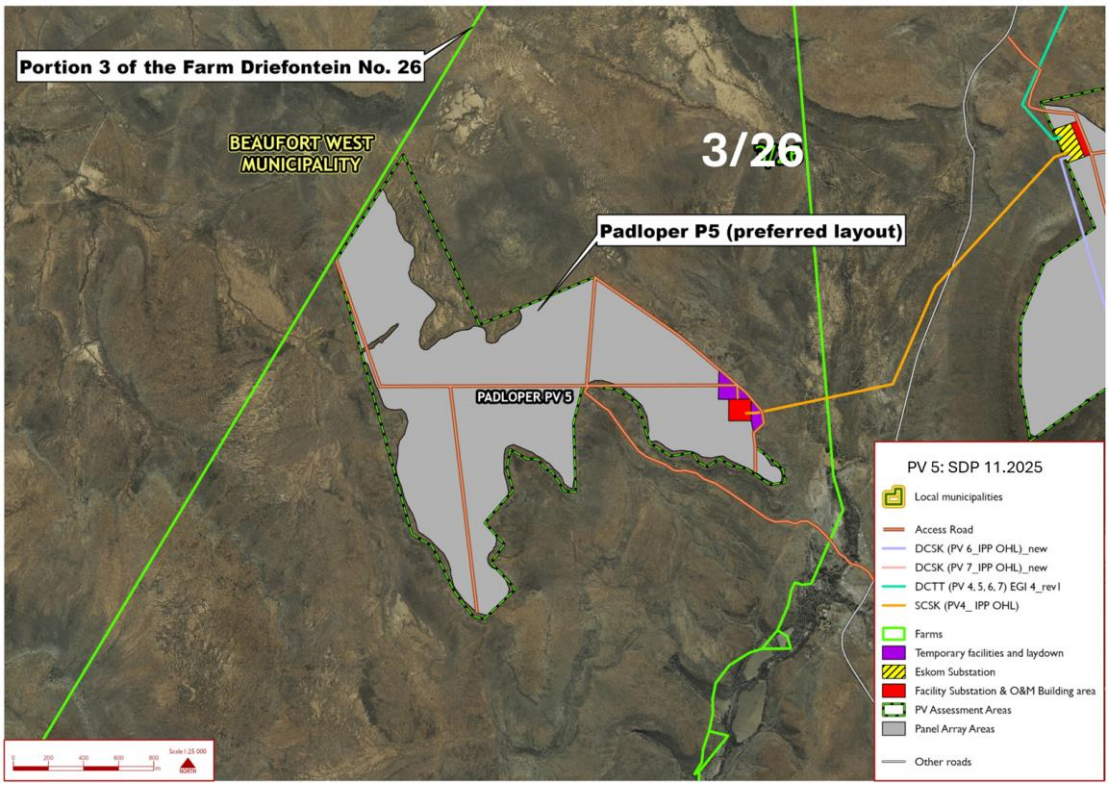
The applicant is in the process to secure the use of the land through a long-term leasehold agreement i.e. the registration of a lease agreement against the title deed of the property concerned. If required, ministerial consent to register the lease agreement in terms of the Subdivision of Agricultural 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 10** and **Map 8**).



Map 8: Layout of *Padloper PV 5 facility*

20. Development specifics (continued)
20.4. Infrastructure

The key components of the *Padloper PV 5 facility* are described in brief below.

- PV panels:
    - Solar panels can be mounted in various ways to ensure maximum exposure of the PV panels to sunlight. The main mounting systems that will be considered as part of the design are Single Axis Tracking structures (aligned north-south); Fixed Axis Tracking (aligned east-west); Dual Axis Tracking (aligned east-west and north-south); Fixed Tilt Mounting Structure or Bifacial Solar Modules. Maximum height of ± 4.5 m. Generated power of up to 150 MW.
- Inverter transformer stations
    - 3.5 MW inverters will be located across the proposed project. The exact number of inverters are still to be confirmed however all inverter-transformers will be within the PV array.

  - Area occupied by stations: 0.022 ha each
  - Height: The inverter stations will have a height of ± 3 m each (Excluding lightning rods. The lightning rods are expected to extend 10 m high. Each inverter station will have 1 – 2 lightning rods).
- Battery Energy Storage System (BESS):
  - The proposed solar facility will have Battery Energy Storage Systems (BESS) of up to 900 MWh located adjacent the onsite substation. Batteries that are being considered include, solid state Lithium-ion such as Lithium Iron Phosphate, Lithium Nickel Manganese Cobalt oxides or sodium-ion systems, and Redox flow (typically vanadium). The specific technology will only be determined following Engineering, Procurement and Construction (EPC) procurement. Area: about 5 ha. Height: about 10 m.
- On-site substation:
  - One 132 kV; up to 18 m height; 2 ha; Substation will step up voltage from 33 to 132 kV. Various transformers will be located within the PV area.
- Construction camp and laydown areas:
  - One construction camp with temporary containers. The 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:
  - 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 5m. The total length of internal roads would be about 5.88 km.

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 11** to **20**, 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 *Padloper PV 5 facility* was considered and selected.

Table 3

Measurement of possible impact

Potential impact	Construction	Operational
Visual	Low	Moderate
Heritage	Low	Low
Paleontology	Very low	Insignificant
Terrestrial Biodiversity and Species	Very low	Very low
Aquatic Biodiversity and Species	Very low	Very low
Avifauna	Very low / moderate	Low / very low

Socio-economic	Low / moderate	Low
Geotechnical	Very low	Very low
Traffic	Low	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 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 will again be possible, if Government does not implement the Energy Action Plan announced in 2022 and the Integrated Resource Plan 2025. 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 *Padloper PV 5 facility* (including associated infrastructure) on Portion 3 of Farm Driefontein, No. 26.
- In terms of section 15(2)(d): Approval to register a lease agreement in favour of Padloper (Pty) Ltd., over the property concerned.

24. Desirability

Desirability of *Padloper PV 5 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 or approved 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 *Padloper PV 5 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 on the subject property and in proximity, and the location of the *Padloper PV 5 facility* in a REDZ.

We argue that the proposed development would be 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 facilities. 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 I&AP.

(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 Vl 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 Plan
Annexure 7	Regional locality Plan
Annexure 8	Site Development Plan
Annexure 9	Basic Assessment Report
Annexure 10	Environmental Authorisation
Annexure 11	Agricultural study
Annexure 12	Aquatic study
Annexure 13	Avifaunal study
Annexure 14	Geotechnical study
Annexure 15	Traffic study
Annexure 16	Heritage assessment
Annexure 17	Socio-economic assessment
Annexure 18	Visual assessment
Annexure 19	Terrestrial biodiversity study
Annexure 20	Geohydrology study
Annexure 21	Exemption of servitude
Annexure 22	Pre-application letter
Annexure 23	Proof of payment
Annexure 24	Bondholder's consent