



**FINAL AMENDMENT MOTIVATION REPORT FOR THE
AUTHORISED 140MW BRANDVALLEY WIND ENERGY
FACILITY NORTH OF THE TOWN MATJIESFONTEIN
WITHIN THE KAROO HOOGLAND, WITZENBERG AND
LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN
AND NORTHERN CAPE PROVINCE**

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APPLICANT: BRANDVALLEY WIND FARM
(RF) (PTY) LTD`
CONTACT: MAGDALENA LOGAN

April 2023

2 INTRODUCTION

2.1 PROJECT OVERVIEW

The Brandvalley WEF was granted an Environmental Authorisation (EA) (DFFE Ref: 14/12/16/3/3/2/900) 23 November 2016 and subsequently amended via EA's dated 14 February 2019 (DFFE Ref: 14/12/16/3/3/1/900/AM1), 11 October 2021 (DFFE Ref: 14/12/16/3/3/2/900/AM2), and 23 August 2022 (DFFE Ref: 14/12/16/3/3/2/900/AM3), The Project was awarded PREFERRED BIDDER STATUS on 28 October 2021 within the REIPPPP BID Window 5 and is therefore classified as a SIP Project to be expedited in terms of Schedule 2 Section 17(2)) of the Infrastructure Development Act (Act No. 23 of 2014). The Project has subsequently reached Financial Close. After the submission of the Final Layout and its approval dated 23 August 2022 (DFFE Ref No. 14/12/16/3/3/2/900/AM3) final surveying was undertaken, and the civil engineers identified safety risks that required urgent and immediate attention. Specifically, sections B2, B11 and B16 of the approved internal road network were considered too steep to grade and posed a safety risk for the transportation of abnormal loads/infrastructure without blasting away a majority of the mountainside. These serious safety concerns precipitated the need for minor but important design adjustments and an urgent amendment application. The urgency is driven by the fact that the Project is a preferred bidder and is about to commence with construction (as per Notice of Intent to construct letter issued 25 November 2022). The proposed minor adjustments do not change the scope of the impacts and in fact, decrease the nature of the impacts and this is discussed in detail within this motivational letter and there is no reason to suggest why the proposed Amendment should not be approved by the Competent Authority

An Environmental Authorisation (EA) (DFFE Ref: 14/12/16/3/3/2/900– dated 23 November 2016) was granted for the 140MW Brandvalley Wind Energy Facility North of the Town Matjiesfontein within the Karoo Hoogland, Witzenberg and Laingsburg Local Municipalities in the Western and Northern Cape Province.

As per the EA, the main components of the *147 MW Brandvalley Wind Energy Facility* are as follows:

- 58 wind turbines with a maximum generating capacity of 147MW in total;
- Concrete foundations approximately 25m in diameter and 4m deep per turbine;
- 690V/33/kV transformer of 10m x 10m per hard standing area per turbine;
- Laydown areas of approximately 70m x 50m per turbine (total 20.3ha);
- Construction camp of 10ha and onsite batching plant of 1ha;
- **200m access road corridor to accommodate slight shift in alignments that are fully informed by the final detailed design of access road Alternative 1 and internal road network, up to 9m in width; Buildings;**
- Overhead 33kV powerlines and underground cabling;
- Low voltage yard of the 33/132kV onsite substation Position Number 4. The total footprint of the 33/132kV onsite substation (including both high voltage (Eskom yard) and low voltage yards (IPP yard)) will be up to 200m x200m;
- Lighting system;
- Fencing of the site construction camp; and
- 4 x 120m tall wind measuring lattice masts strategically placed within the wind farm development footprint to collect data on wind conditions during the operational phase.

Subsequent amendment applications were undertaken for the Brandvalley WEF since the first issue in 2016. Positive EAs were granted for the amendment applications undertaken thus far. These are detailed as follows:

- Amended EA issued by DFFE on 14 February 2019, Reference: 14/12/16/3/3/1/900/AM1
 - Change the contact details of the EA holder
 - Amend technical wind turbine specifications.
- Amended EA issued by DFFE on 11 October 2021, Reference: 14/12/16/3/3/2/900/AM2
 - Extension of validity of the EA to 23 November 2026
- Amended EA issued by DFFE on 23 August 2022, Reference: 14/12/16/3/3/2/900/AM3
 - Amend technical wind turbine specifications i.e from 58 turbines to 32 wind turbines
 - Approve the EMPR and Final Layout
- A Part 1 AA was submitted for the minor realignment of roads with the DFFE Reference 14/12/16/3/3/2/900/AM4. This amendment was withdrawn on the 25th of January 2022 after an email has been received from the department on 14 December 2022 stating that a Part 2 Amendment process should be followed.
- The Applicant now proposes to undertake the following Part 2AA:
 - Change in contact details of the holder of the EA on Page 2 of the EA
 - Minor realignment of road section B2, B11 and B16 where there are technical challenges

In summary for this Part 2 AA the following applies:

- The applicant has undergone a Part 2 AA in 2022 that was approved on 23 August 2022 with the DFFE reference number 14/12/16/3/3/2/900/AM3 This amendment was to amend technical specifications and to approve the EMPR and final layout.
- Final surveying was undertaken of the site before construction, and the civil engineers identified safety risks that required urgent and immediate attention. Specifically, sections B2, B11 and B16 of the approved internal road network were considered too steep to grade and posed a safety risk for the transportation of abnormal loads/infrastructure without blasting away a majority of the mountainside. These serious safety concerns precipitated the need for minor but important design adjustments and an urgent Part 2 amendment application (this Report).
 - Specialists have provided verification letters providing comment on the minor realignments of the approved road layout
 - A revision to the already approved EMPR (approved on 23 August 2022 with the DFFE reference number 14/12/16/3/3/2/900/AM3) has been made where necessary and indicated in **yellow**. The revised EMPR is Appended in Appendix E of this motivation report.

Figure 2.1. below indicates the current approved Brandvalley WEF road layout as per DFFE reference 14/12/16/3/3/2/900/AM3 dated 23 August 2022

Figure 2.2. below indicates the approved Brandvalley WEF road layout with the newly proposed building layout. The original 200m Corridor that was authorised in the EA with DEA reference 14/12/16/3/3/2/900– dated 23 November 2016 is indicated in Orange. This illustrates that the minor realignments in road sections B2 and B16 are the only changes that require comment.

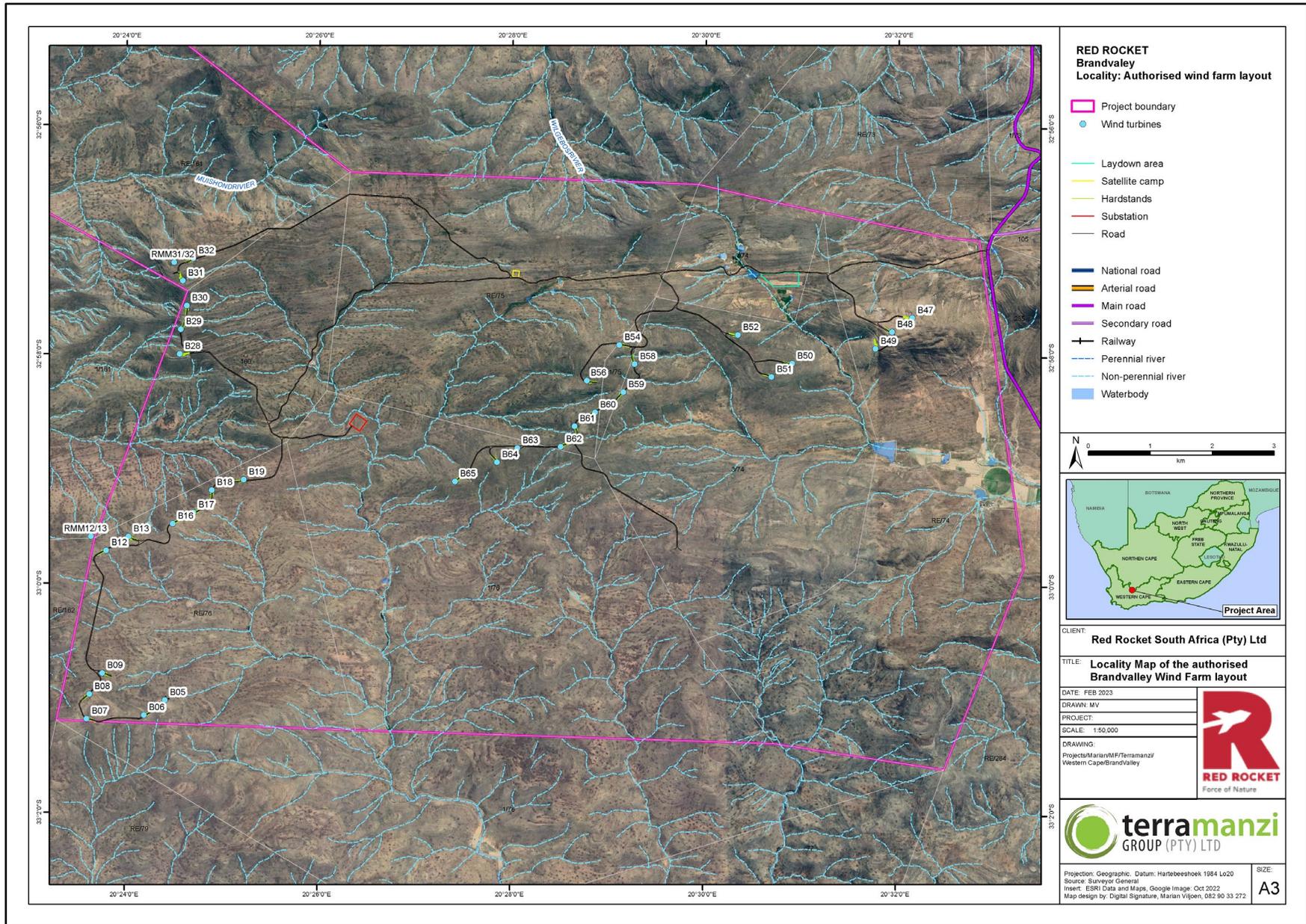


Figure 2.1: This figure shows the current authorised Brandvalley WEF road layout (as approved by DFFE on 23 August 2022)

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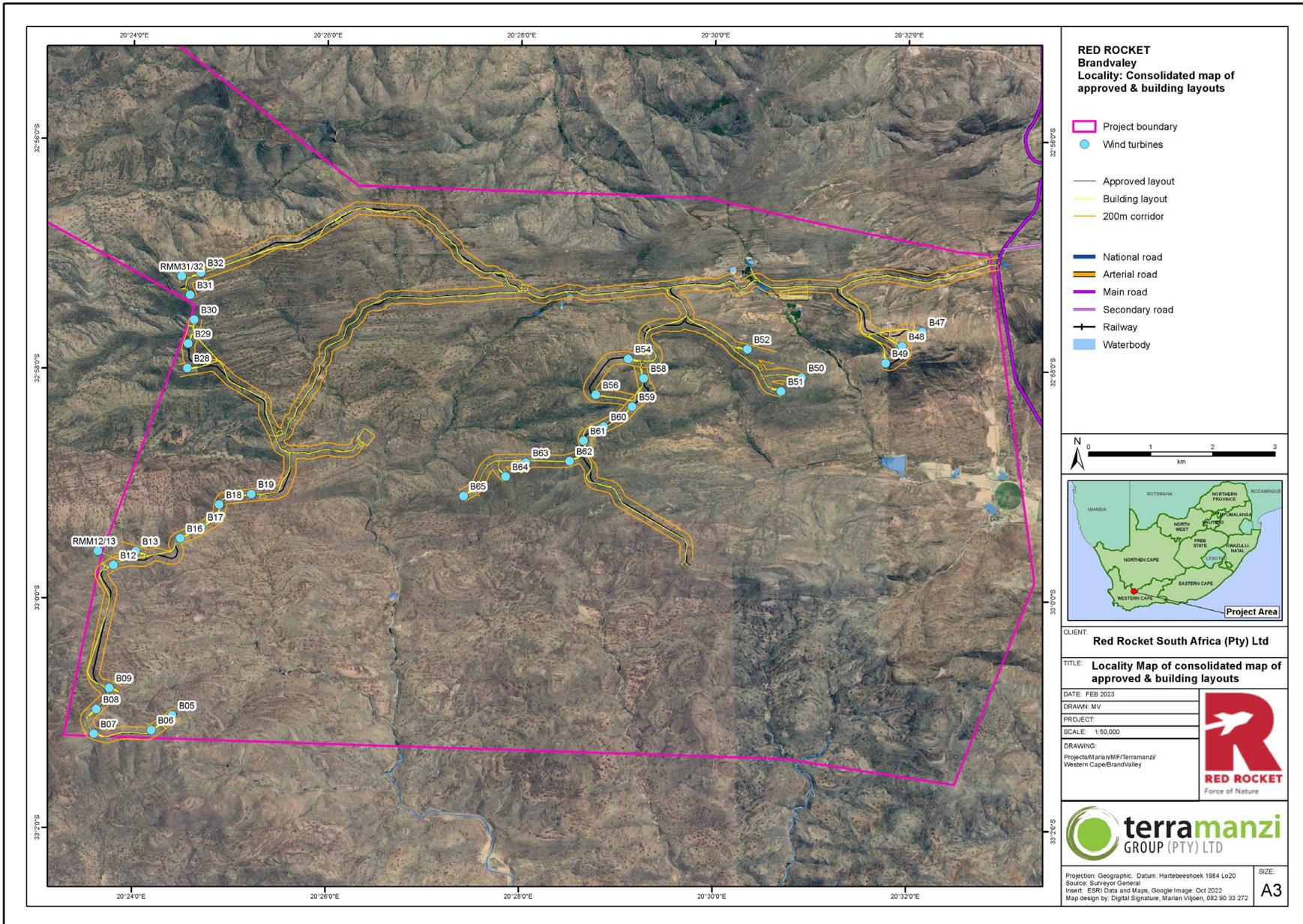


Figure 2.2: This figure shows the current approved Brandvalley WEF road layout with the newly proposed road layout within the authorised 200m corridor

The Applicant, Brandvalley Wind Farm (RF) (Pty) Ltd, wishes to undertake amendments to the authorised Brandvalley WEF located North of the Town Matjiesfontein within the Karoo Hoogland, , Witzenberg and Laingsburg Local Municipalities in the Western and Northern Cape Province

2.1.1 Non-Substantive Amendment

Amendment 1: Change in contact details of the holder of the EA on Page 2 of the EA:

From:

Dr Kilian Hagemann

Brandvalley Wind Farm (RF) (Pty) Ltd

125 Buitengracht Street

5th Floor

CAPE TOWN

8001

Telephone Number: (021) 300 0613

Cell Phone Number: 082 7689 830

Email Address: brandvalley@g7energies.com

To:

Matteo Brambilla

Brandvalley Wind Farm (RF) (Pty) Ltd

14th Floor, Pier Place Building

Heerengracht Street

Foreshore

CAPE TOWN

8001

Tel: +27(0)72 212 1531

Email: m.logan@redrocket.energy

2.1.2 Substantive Amendment

Amendment 2: Minor Realignments of the authorised roads B2, B11 and B16

The Brandvalley WEF was granted an Environmental Authorisation (EA) (DFFE Ref: 14/12/16/3/3/2/900) 23 November 2016 and subsequently amended via EA's dated 14 February 2019 (DFFE Ref: 14/12/16/3/3/1/900/AM1), 11 October 2021 (DFFE Ref: 14/12/16/3/3/2/900/AM2), and 23 August 2022 (DFFE Ref: 14/12/16/3/3/2/900/AM3),

The Project was awarded PREFERRED BIDDER STATUS on 28 October 2021 within the REIPPPP BID Window 5 and is therefore classified as a SIP Project to be expedited in terms of Schedule 2 Section 17(2) of the Infrastructure Development Act (Act No. 23 of 2014).

Following the approval of the EMPR and the Final Layout on 23 August 2022 (DFFE Ref No. 14/12/16/3/3/2/900/AM3), a final survey was conducted. During this survey, civil engineers identified safety risks that required immediate attention. Specifically, sections B2, B11, and B16 of the internal road network that had been approved were deemed too steep to grade and posed a safety risk for the transportation of abnormal loads/infrastructure. This would require the removal of a significant portion of the mountainside through blasting.

These serious safety concerns precipitated the need for **minor but important design adjustments** and an urgent amendment application. The urgency is driven by the fact that the Project is a preferred bidder and is about to commence with construction (as per Notice of Intent to construct letter issued 25 November 2022). The proposed minor adjustments do not change the scope of the impacts and in fact, decrease the nature of the impacts and this is discussed in detail within the motivational letter and there is no reason to suggest why the proposed Amendment should not be approved by the Competent Authority.

Following on from the department's email dated 14 December 2022 (attached as Appendix F), the requirement for a Part 2 Amendment Application (AA) to confirm the final road alignment for the Brandvalley Wind Energy Facility (WEF) is acknowledged. This WEF is a REIPPPP BID Round winner and is currently under construction. To confirm the context of this Part 2 Application, the original approval for the WEF included 58 Wind Turbine Generators (WTGs) and associated roads and infrastructure. The number of WTGs was reduced to 32 WTGs (14/12/16/3/3/2/900/AM3 dated 23 August 2022), resulting in a significant reduction in the development footprint.

The final road alignment has been reviewed and the changes are deemed to be **minor and insignificant**, with the only areas around sections B2 and B16 requiring additional comment. This is provided as part of this Amendment Motivation Report. Additionally, section B11 will have a portion of the ring road dropped as this is no longer required by the Applicant. These changes will accomplish a decrease in the overall impacts on the environment, especially from a Terrestrial Ecology and Biodiversity point of view.

As noted above, construction for the BID awarded Project is underway on the remainder of the site due to BID timing requirements. However, the portions B2 and B16 of the road build will only be completed once this amendment application process has been processed by the Competent Authority, which is of the utmost urgency.

In Summary the Amendment 2 is to authorise road section B2,B11 and B16:

From:

As stated above the second amendment to be done in this Part 2 Amendment Application is to **amend and realign three road sections** (B2, B11 and B16) from the Final Layout with the approval dated 23 August 2022 (DFFE Ref No. 14/12/16/3/3/2/900/AM3), due to safety risks from an engineering perceptiveness

To:

These serious safety concerns precipitated the need for minor but important design adjustment. The realignment of Road B2, B11 and Road B16 are minor deviations from the approved Final Layout dated 23 August 2022 (DFFE Ref No. 14/12/16/3/3/2/900/AM3). Whilst these refinements in the final layout emanate from a safety requirement for engineering and operational use of the roads, these do not change the scope of the EA, nor do they increase the level or nature of the impacts. Conversely, there are co-incidental positive benefits on general biodiversity, and Engineering.

Figure 2.3. below indicates the **Locality Map of the New Building Layout** with minor realignments which forms the basis on this part 2 amendment motivation report.

Figure 2.4. below indicates the **Locality Map of the New Building Layout** in comparison to the previously approved and authorised layout which forms the basis on this part 2 amendment motivation report.

Figure 2.5. below indicates the **approved** Brandvalley WEF road layout with the **newly proposed** building layout. The **original 200m Corridor** that was authorised in the EA with DEA reference 14/12/16/3/3/2/900– dated 23 November 2016) is indicated in Orange to show that the minor realignments in road sections B2 and B16 are the only changes that require additional comment.

Figure 2.6. ***Map indicating the minor realignments of road B2 (in Yellow) which forms the basis on this part 2 amendment motivation report.in comparison to the previously authorised layout (in Black) and the authorised 200m road layout corridor (DFFE Ref: 14/12/16/3/3/2/900) authorised 23 November 2016***

Figure 2.7. ***Map indicating the minor realignments and the relinquishment of road B11 (in Yellow) which forms the basis on this part 2 amendment motivation report.in comparison to the previously approved and authorised layout (in Black) and the authorised 200m road layout corridor (DFFE Ref: 14/12/16/3/3/2/900) authorised 23 November 2016***

Figure 2.8. ***Map indicating the minor realignments of road B16 (in Yellow) which forms the basis on this part 2 amendment motivation report.in comparison to the previously approved and authorised layout (in Black) and the authorised 200m road layout corridor (DFFE Ref: 14/12/16/3/3/2/900) authorised 23 November 2016***

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Please note that no additional Listed Activities in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA); Environmental Impact Assessment (EIA) Regulations (2014, as amended) are triggered by the proposed amendments.

The proposed new road layout (yellow) is a minor realignment to the authorised road layout (black). The original 200m Corridor that was approved in the EA with DEA reference 14/12/16/3/3/2/900–dated 23 November 2016 is indicated in Orange to show that the minor realignments in road sections B2 and B16 are the only changes that require additional comment. The reason for this amendment is due to safety risks from an Engineering perspective identified in consultation with the professional team after a final site survey was done.

Design Specification

Due to Engineering safety risks, the applicant Brandvalley Wind Farm (RF) (Pty) Ltd wishes to modify the already approved road layout that was approved on the 23rd of August 2022 (DFFE Ref No. 14/12/16/3/3/2/900/AM3).

As per page 8 of the EA dated 23 November 2016 with the DEA Reference 14/12/16/3/3/2/900 the Brandvalley WEF facility was approved with: *“a 200m access road corridor to accommodate slight shift in alignments that are fully informed by the final detailed design of access road Alternative 1 and internal road network, up to 9m in width; Buildings;”* The 200m corridor was assessed and approved on 23 November 2016 with the DEA Reference 14/12/16/3/3/2/900 to accommodate any alignments in the road layout.

An EMPR and Final Layout of the Brandvalley WEF was submitted to the DFFE and approved on 23 August 2022 (DFFE Ref No. 14/12/16/3/3/2/900/AM3). Following the approval of the EMPR and the Final Layout a final survey was conducted. During this survey, civil engineers identified safety risks that required immediate attention. Specifically, sections B2, B11, and B16 of the internal road network that had been approved were deemed too steep to grade and posed a safety risk for the transportation of abnormal loads/infrastructure. This would require the removal of a significant portion of the mountainside through blasting.

The original 200m Corridor that was approved in the EA with DEA reference 14/12/16/3/3/2/900–dated 23 November 2016) is indicated in Orange in **Figure 2.4** this corridor shows that the minor realignments in road sections B2 and B16 are the only realignments that require additional comment as these road section deviates outside of the originally approved 200m Corridor. All specialists have assessed these minor deviations of B2, B11 and B16 and deemed that the development is acceptable and implementable.

The design specifications of the road layout will be amended as follows:

Road Section B2

- The proposed realignment of road section B2, will go out of the approved 200m corridor to follow the natural contour of the mountain to make it easily accessible for trucks to transport wind turbines to. position B49. The previous approved road layout inside of the corridor from wind turbine position B47 to B49 made it impossible for trucks to transport wind turbines due to the turning radius. This will also reduce overall impacts.

Road Section B16

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- The proposed realignment of road section B16, will go out of the approved 200m corridor. The previous approved road layout inside of the corridor would result in excessive and unfeasible amount of fill that would be required to reduce the excessive gradient. The proposed realignment will ensure safety to transport wind turbines to position B29 and B30 and reduces overall impact.

Road Section B11

- The proposed realignment of road section B11, will slightly go out of the approved 200m corridor. The road section between turbine positions b54 and b56 is eliminated as it is no longer required instead making use of the road between turbine position B56 and B59 (to access position b56), and from turbine position B58 (to access turbine position 54). This reduces the overall impact.

Specialist Studies Completed

The following specialist studies were undertaken:

Original Assessment (2016) Reports

- Avifaunal Impact – African Insights (C/O Tony Williams, March 2016)
- Bat Impact – Animalia Zoological (C/O Werner Marais, May 2016)
- Ecological Impact – Simon Todd Consulting (C/O Simon Todd, August 2016)
- Freshwater Impact – Scherman Colloty & Associates (C/O Brian Colloty, July 2016)
- Agricultural Impact – EOH (C/O Roy de Kock, March 2016)
- Visual Impact – EOH (C/O Thomas King, March 2016)
- Noise Impact – Safetech (C/O Dr Brett Wiliams, March 2016)
- Heritage Impact – Booth Heritage Consulting(C/O Celeste Booth, March 2016)
- Archaeological Impact – Nature Viva (C/O John Almond, March 2016)

Part 2 Amendment Assessment (2021) Reports

- Avifaunal Impact – Birds & Bats Unlimited (C/O Rob Simmons, November 2021)
- Bat Impact – Animalia Zoological (C/O Werner Marais, November 2021)
- Ecological Impact – Trusted Partners (C/O Malcome Logie, November 2021)
- Freshwater Impact – SAS (C/O Christel du Preez & Stephan van Staden, July 2021)
- Agricultural Impact – Johann Lanz (C/O Johann Lanz, November 2021)
- Visual Impact – Sivist (C/O Kerry Schwartz, March 2022)
- Noise Impact – Safetech (C/O Dr Brett Wiliams, November 2021)
- Heritage Impact – CTS Heritage(C/O Jenna Lavin, November 2021)
- Social Impact – Tony Barbour Consulting (C/O Tony Barbour, November 2021)
- Traffic Impact – JGAfrika (C/O Iris Wink, November 2021)
- Geotechnical Impact – JGAfrika (C/O Jan Norris, November 2021)

The following specialist assessments were undertaken based on the current amendments proposed:

Current Amendment proposed Specialist Verification Letters – 2023

- Avifaunal Impact – Birds & Bats Unlimited (C/O Rob Simmons, February 2023)
- Bat Impact – Animalia Zoological (C/O Werner Marais, February 2023)
- Ecological Impact – Trusted Partners (C/O Malcome Logie, February 2023)
- Freshwater Impact – SAS (C/O Stephan van Staden February 2023)

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- Agricultural Impact – Johann Lanz (C/O Johann Lanz, February 2023)
- Visual Impact – SAS (C/O Stephan van Staden & Sanja Erwee, February 2023)
- Noise Impact – Safetech (C/O Dr Brett Williams, February 2023)
- Heritage Impact – PGS Heritage(C/O Wouter Fourie, February 2023)
- Social Impact – Tony Barbour Consulting (C/O Tony Barbour, February 2023)
- Traffic Impact – JGAfrika (C/O Adrian Johnson, February 2023)
- Geotechnical Impact – JGAfrika (C/O Priantha Subrayen, February 2023)

The Final Amendment Report was compiled to assess the potential impacts that the proposed amendments to the Brandvalley WEF authorised road layout may have on the receiving environment. The content of the report has been based on the impact assessment included within the EIA process undertaken in 2016 and comparing it to the potential impacts that may be expected, based on specialist input, should these amendments be approved.

The draft Amendment Report was subjected to a 30-day Public Participation Process (PPP) which commences on 06 March 2023 and concludes on 05 April 2023. All comments received during the 30-day PPP for the draft Amendment Report was recorded and addressed in the Comments and Response Report (C&RR). The C&RR will then accompany the Final Motivation Report for Decision.

11 EAP RECOMMENDATIONS AND CONCLUDING REMARKS

The investigation of potential environmental impacts associated with the proposed amendment indicates that the overall impacts identified during the 2016 Environmental Impact Assessment will remain the same. This was achieved through an iterative design process in collaboration with the Specialists. A key component to unlocking this outcome is the proposed minor realignments of the already approved road layout.

The potential environmental impacts related to the Brandvalley WEF have been adequately assessed and confirmed by the various independent Specialists. Please refer to their studies and supporting statements attached as Appendix C (and also summarised in Section 8 of this report).

Management measures specified by the Specialist's in their original 2016, 2022 and updated 2023 studies and specialist statements must be implemented for the WEF development site to ensure that the potential impacts identified through the environmental impact assessment process are adequately mitigated.

Further to the above, the overarching potential advantages and disadvantages of the proposed amendments to the authorised Brandvalley WEF are noted as follows:

- Advantages:
 - No additional environmental impacts associated with the proposed amendment as compared to what DEA approved in the Environmental Authorisation (dated 23 November 2016 with Ref: 14/12/16/3/3/2/900).
 - The impact on terrestrial ecological process of the proposed realignment of Road B2 does not result in any additional negative impact on biodiversity. However, it is expected that any transient impact resultant from a **lesser need for blasting** for the proposed route does have a positive benefit compared to the current approved alignment. In addition, the resultant footprint from cut-and-fill road section is lesser for the proposed new routing especially from the Y-junction to the WTG B49 The proposed alignment is shorter in distance than the approved alignment, there is a direct reduced impact on terrestrial biodiversity.
 - The impact on terrestrial ecological process of the proposed realignment of Road B16 is lesser for the proposed realignment, in that the proposed routing avoids nearby rocky outcrops between WTG B28 and WTG B29 The proposed alignment **negates the need for large cut-and-fill sections (blasting, earthen moving and impacted footprint)**, thereby further significantly reducing negative impact on terrestrial ecology by avoidance of the rocky edges in this area.
 - it is expected that any transient impact resultant from a lesser need for blasting for the proposed route does have a positive benefit compared to the current approved alignment.
 - The removal of the superfluous ring-road section of Road B11 reduces the overall impact of the WEF of ecological process and biodiversity.
 - The minor deviation outside of the approved 200m corridor (DFFE Ref: 14/12/16/3/3/2/900) on 23 November 2016) has been reviewed and the changes are deemed to be **minor and insignificant** These changes will accomplish a decrease in the overall impacts on the environment, especially from a Terrestrial Ecology and Biodiversity point of view.

The potential negative impacts of not approving the proposed amendments are:

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- The amendment to the proposed wind energy facility is based on changes and improvements in road infrastructure and layout. As such, should the amendment not be granted, could mean that the applicant would need to install and construct road section B2, B11 and B16 as previously approved on 23 August 2022 (DFFE Ref: 14/12/16/3/3/2/900/AM3), resulting in safety risks from an engineering perspective and a larger area being affected by the blasting of the mountainside.

Importantly, there were no fatal flaws or fundamental issues identified for this amendment proposal during this assessment process by the project team, the independent specialists or the independent EAP.

Based on the available information presented within this Amendment Report, which has been informed through independent specialist input, the EAP finds no reason why the amendments applied for, shouldn't be authorised:

This Amendment Report and supporting documentation is considered to be adequate in meeting the requirements of the relevant legislation, and the EAP believes that sufficient information is presented, and no reason why DFFE shouldn't approve these amendments.