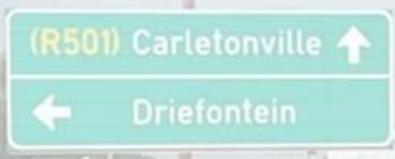
DRAFT SITE SENSITIVITY VERIFICATION REPORT & ENVIRONMENTAL MANAGEMENT PROGRAMME.

for

MIDAS BATTERY ENEGERY STORAGE FACILITY

on

Portion 10 of the Farm Uitval No. 280



In terms of the

National Environmental Management Act
(Act No. 107 of 1998, as amended) &
BESS Exclusion Norm GNR. 4557.

Prepared for Applicant: **Midas BESS (Pty) Ltd**

Date: **15 July 2024**

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Report Reference: **MER839/11**
Department Reference: **TBC**

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Registrations: IAIAsa. EAPASA Registered EAP (2019/301)

PURPOSE OF THIS REPORT:

Site Sensitivity Verification Report and EMPr in support of Norms Registration

APPLICANT:

Midas BESS (Pty) Ltd

CAPE EAPRAC REFERENCE NO:

MER839/11

SUBMISSION DATE

15 July 2024

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Midas Battery Energy Storage Facility

Portion 10 of the Farm Uitval No. 280

Submitted for:
Departmental Compliance

Report Issued by:
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1. INTRODUCTION

Midas BESS (Pty) Ltd ('the Applicant') is proposing the construction of the Midas Battery Energy Storage (BESS) Facility, located on Portion 10 of the Farm Uitval No. 280, approximately 18 km east of Carletonville in the Gauteng Province. The Applicant is also proposing to utilise the existing public road on Portion 8 and Portion 10 of the Farm Uitval No. 280 to access the site.

The Midas BESS facility will have a total development footprint of up to approximately 15 ha and will have a maximum export capacity of 77 MW. The development area is situated within the Merafong City Local Municipality and the Rand West City Local Municipality. The site is accessible via existing gravel roads from the R501 and N12.

The proposed Midas BESS will cover approximately 15 ha and will include the following infrastructure:

- Solid State Battery Energy Storage System (BESS) (up to 10 ha).
- Inverters and transformers
- Site and internal access roads (up to 8m wide).
- Operation and Maintenance buildings including a gate house and security building, control centre, offices, warehouses and workshops for storage and maintenance (up to 1 ha).
- Laydown areas (3 ha temporary and 1 ha permanent).
- A 132 kV facility substation (up to 1 ha).
- 33 kV cabling between the project components and the facility substation.

The capacity of the BESS will be up to 77 MW and is proposed to be bid as part of the Department of Mineral Resources and Energy's (DMRE) bid window 3 for the Battery Energy Storage Independent Power Producers Procurement Programme (BESIPPPP).

Cape Environmental Assessment Practitioners (Pty) Ltd, Cape EAPrac, have been appointed as the independent environmental consultant to undertake the required Registration Process in terms of the Norm for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity (GN 4557 of 27 March 2024), hereafter referred to as the BESS exclusion regulations.

This report constitutes a consolidated report including the content requirements in terms of section 4 of the BESS Exclusion Regulations and includes the specialist SSVR's as well as the Environmental Management Programme.

The registration authority is the National Department of Forestry, Fisheries, and the Environment (DFFE) as the development is proposed to be bid as part of the BESIPPPP which forms part of the Integrated Resources Plan (IRP)

This draft Site Sensitivity Verification Report and EMPR is available for a 30-day review and comment period from **Tuesday, 16 July 2024 to Thursday, 15 August 2024.** The final Site Sensitivity Verification Report will then be submitted along with the Registration Application as required in appendix A of the BESS Exclusion Norms. This SSVR must be read in conjunction with the specialist SSVR's in Appendix B and the EMPR in Appendix C.

2. NON TECHNICAL SUMMARY

Based on the site-specific SSVRs conducted by the independent specialists, it was verified that the proposed Midas BESS development is situated entirely within areas confirmed as low or medium sensitivity and as such, the BESS exclusion norms are applicable.

Table 1: Sensitivity of relevant site sensitivities in the screening tool and sensitivities verified by the specialists.

Theme.	Sensitivity as per screening Tool.	Sensitivity verified by specialist.
Agriculture	High	Medium and Low
Animal Species	Medium	Low
Plant Species	Low	Low
Aquatic Biodiversity	Very High	Low
Terrestrial Biodiversity	Low	Low and Very Low

Furthermore, all specialist SSVRs confirm that cumulative impacts are acceptable across each relevant environmental theme. It is therefore recommended that the Competent Authority register the proposed Midas BESS and associated infrastructure, subject to the outcome of the consultation process.

3. REGULATORY REQUIREMENTS FOR REGISTRATION

The proposed Midas BESS and Associated Infrastructure is currently undergoing a registration process in terms of GNR 4557 of 27 March 2024.

GNR4557 lists activities that are excluded from the need of obtaining an Environmental Authorisation subject to the criteria outlined in section 2 of these regulations. In order for the BESS exclusion regulations to be applicable to a project, the following key criteria must be met:

1. The entire activity must be situated within low and medium sensitivity areas for the Agriculture, Terrestrial Biodiversity, Aquatic Biodiversity, Plant Species and Animal Species themes as identified by the screening tool.
2. These sensitivities must be verified through a site sensitivity verification process undertaken by the relevant specialists.
3. Should a species of conservation concern be confirmed or likely to be present on the footprint, the exclusion does not apply.

As outlined in the table below, it is evident that that all listed and specified activities required for the realization of the project are included in terms of the Norm and are therefore excluded from the requirement of obtaining EA as per GNR 4557. No additional listed activities (most notably those listed in listing notice 3 and associated with Critical Biodiversity Areas and Endangered vegetation types) are required for the realization of the Midas BESS.

Table 2: Applicability of Activities excluded under GNR.4557

Activity excluded in GNR. 4557	Portion of Project Associated with Activity	Applicability of Exclusion.
Listing notice 1: Activity 11	The project includes 33 kV cabling between the project components and the facility substation and a132 kV facility substation;	Activity is relevant to the proposed project .

Activity excluded in GNR. 4557	Portion of Project Associated with Activity	Applicability of Exclusion.
The development of facilities or infrastructure for the transmission and distribution of electricity – (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.		
Listing notice 1 Activity 12 The development of (ii) infrastructure or structures with a physical footprint of 100m^2 or more; where such development occurs – (a) within a watercourse. Note from gazette: only insofar as development or expansion occurs within or over a natural channel in which water flows regularly or intermittently.	None of the project infrastructure is proposed within a watercourse or within 32m of a watercourse.	Not applicable – Please refer to the Aquatic Biodiversity SSVR attached in Appendix B2.
Listing Notice 1: Activity 14 The development and related operation of facilities or infrastructure, for the storage, or the storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.	None. The technology proposed for the BESS (Solid State Lithium Technology), is not considered a facility or infrastructure for the storage and storage and handling of a dangerous good.	Not Applicable
Listing Notice 1: Activity 19 The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand shells, shell grid, pebbles or rock of more than 10 cubic metres from a watercourse. Note from gazette: only insofar as development or expansion occurs within or over a natural channel in which water flows regularly or intermittently.	None of the project infrastructure is proposed within a watercourse.	Not applicable – Please refer to the Aquatic Biodiversity SSVR attached in Appendix B2.
Listing Notice 1: Activity 24 The development of a road (i) for which an environmental authorisation was obtained for the	The proposed project includes site access and internal roads of up to 8m. The main site access will entail the upgrade of existing	Activity is relevant to the proposed project .

Activity excluded in GNR. 4557	Portion of Project Associated with Activity	Applicability of Exclusion.
route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 metres, or where no reserve exists where the road is wider than 8 metres.	roads. Internal roads will constitute the construction of new roads.	
Listing notice 1: Activity 27 The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.	The proposed Midas BESS will have a total project footprint of approximately 15 hectares and as such will require the removal of more than 1, but less than 20 ha or of indigenous vegetation.	Activity is relevant to the proposed project. The terrestrial biodiversity specialist Appendix B1 has identified two different terrestrial habitat types within the Project Area. These habitats include: Disturbed Rocky Grassland and Modified. The disturbed rocky grassland (although considered as having a low site ecological importance) is still considered indigenous vegetation)
Listing Notice 1: Activity 28 Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.	The development footprint for Midas BESS is located on land that is used for agriculture and is located outside of an urban area. The BESS is considered to be industrial use and will have a footprint of approximately 15 ha.	Activity is relevant to the proposed project .
Listing Notice 1: Activity 47 The expansion of facilities or infrastructure for the transmission and distribution of electricity where the expanded capacity will exceed 275 kilovolts and the development footprint will increase.	None of the proposed infrastructure will exceed 275 kilovolts.	Not Applicable

Activity excluded in GNR. 4557	Portion of Project Associated with Activity	Applicability of Exclusion.
Listing Notice 1: Activity 48 The expansion of infrastructure or structures where the physical footprint is expanded by 100 square metres or more; where such expansion occurs (a) within a watercourse. Note from gazette: only insofar as development or expansion occurs within or over a natural channel in which water flows regularly or intermittently.	None of the project infrastructure is proposed within a watercourse or within 32m of a watercourse.	Not applicable – Please refer to the Aquatic Biodiversity SSVR attached in Appendix B2.
Listing Notice 1: Activity 51 The expansion and related operation of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 cubic metres.	None. The technology proposed for the BESS (Solid State Lithium Technology), is not considered a facility or infrastructure for the storage and storage and handling of a dangerous good.	Not Applicable.
Listing Notice 1: Activity 67 Phased activities for all activities – (i) listed in this Notice, which commenced on or after the effective date of this Notice or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA notices.	None. The proposed Midas BESS does not constitute a phased activity.	Not Applicable.
Listing Notice 2: Activity 4 The development and related operation of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.	None. The technology proposed for the BESS (Solid State Lithium Technology), is not considered a facility or infrastructure for the storage and storage and handling of a dangerous good.	Not Applicable.
Listing Notice 2: Activity 9 The development of facilities or infrastructure for the transmission and distribution of electricity with a capacity of 275 kilovolts or more, outside an urban area or industrial complex.	None of the proposed infrastructure will exceed 275 kilovolts.	Not Applicable.

Activity excluded in GNR. 4557	Portion of Project Associated with Activity	Applicability of Exclusion.
Listing Notice 3: Activity 3 The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the mast or tower – (a) is to be placed on a site note previously used for this purpose; and (b) will exceed 15 metres in height.	None. Masts or towers for telecommunication do not form part of the proposed activities for Midas BESS.	Not Applicable.

4. SITE SENSITIVITY VERIFICATION

In order for the proposed development to register in terms of the BESS Norm it must be verified that proposed development footprint occurs entirely in areas of low or medium environmental sensitivity as identified by the screening tool (and/or verified to be of low or medium sensitivity by specialists) for the following environmental themes:

- Plant species;
- Animal species;
- Terrestrial biodiversity;
- Aquatic biodiversity; and
- Agriculture.

The Following SSVR's were undertaken by suitably experienced SACNASP registered specialists:

- Terrestrial Biodiversity inclusive of the plant and animal species themes (Appendix B1)
- Aquatic Biodiversity (Appendix B2)
- Agriculture (Appendix B3)

These specialists undertook a physical inspection, which was supplemented by utilising desktop information available,

On 20 March 2020 the Minister of Forestry, Fisheries and the Environmental published the general requirements for undertaking site sensitivity verification for environmental themes for activities requiring environmental authorisation (Government Gazette No. 43110). In terms of these requirements, prior to commencing with a specialist assessment (and in this case, to determine the applicability of the BESS Exclusion Norms to the project), the **current land use** and **environmental sensitivity** of the site under consideration by the screening tool must be confirmed by undertaking a site sensitivity verification by a specialist.

In order for the BESS exclusion norms to be applicable to a project, the site sensitivity in terms of the Terrestrial Biodiversity, Aquatic Biodiversity, Plant Species, Animal Species and Agricultural Themes needs to be verified as low or medium.

Table 3: General requirements for site sensitivity verifications in terms of GN43110.

SSVr Requirement	Discussion
The SSV must be undertaken by an EAP or a specialist	This SSV report (SSVr) has been compiled by the EAP and the Specialists. Please refer to the Specialist SSVr's attached in appendices B1 – B3
A preliminary on-site inspection must be undertaken	A site Inspection was undertaken by the EAP in January 2024. All specialists have undertaken site inspections between February 2024 and July 2024 (i.e. a wet and dry season inspection). Please refer to the Specialist SSVR's attached in Appendix B1 – B3 for dates in which each specialist undertook field work.
A desktop analysis must be undertaken, alongside any other applicable/ relevant information.	Consideration has been given to the SANBI GIS Viewer, other Biodiversity Spatial layers, and Google Earth. All relevant spatial biodiversity layers were consulted, including: - Gauteng Biodiversity Sector plan. - National Freshwater Ecosystems Priority areas. - National Spatial Biodiversity Assessment. - National Protected Areas Expansion Strategy.

Further to the requirements of GN43110, in accordance with Regulation 4.16 of the BESS Exclusion Norms, the site sensitivity verification report must be prepared by a registered environmental assessment practitioner or a registered environmental scientist who must meet the requirements of regulation 13(1) of the EIA Regulations, 2014, as amended.

Cape EAPrac have been appointed by Midas BESS (Pty) Ltd, to facilitate the registration process. This has been undertaken with input from relevant SACNASP registered specialists. Please refer to Appendix E for a copy of the EAP's CV and EAPASA registration and Appendix F for the specialist CV's and SACNASP Registrations.

4.1 General Site Information

Midas BESS (Pty) Ltd ('the Applicant') is proposing the construction of the Midas Battery Energy Storage (BESS) Facility, located on Portion 10 of the Farm Uitval No. 280, approximately 18 km east of Carletonville in the Gauteng Province. The Applicant is also proposing to utilise the existing public road on Portion 8 and Portion 10 of the Farm Uitval No. 280 to access the site.

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- Inverters and transformers
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- Operation and Maintenance buildings including a gate house and security building, control centre, offices, warehouses and workshops for storage and maintenance (up to 1 ha).

- Laydown areas (3 ha temporary and 1 ha permanent).
- A 132 kV facility substation (up to 1 ha).
- 33 kV cabling between the project components and the facility substation.

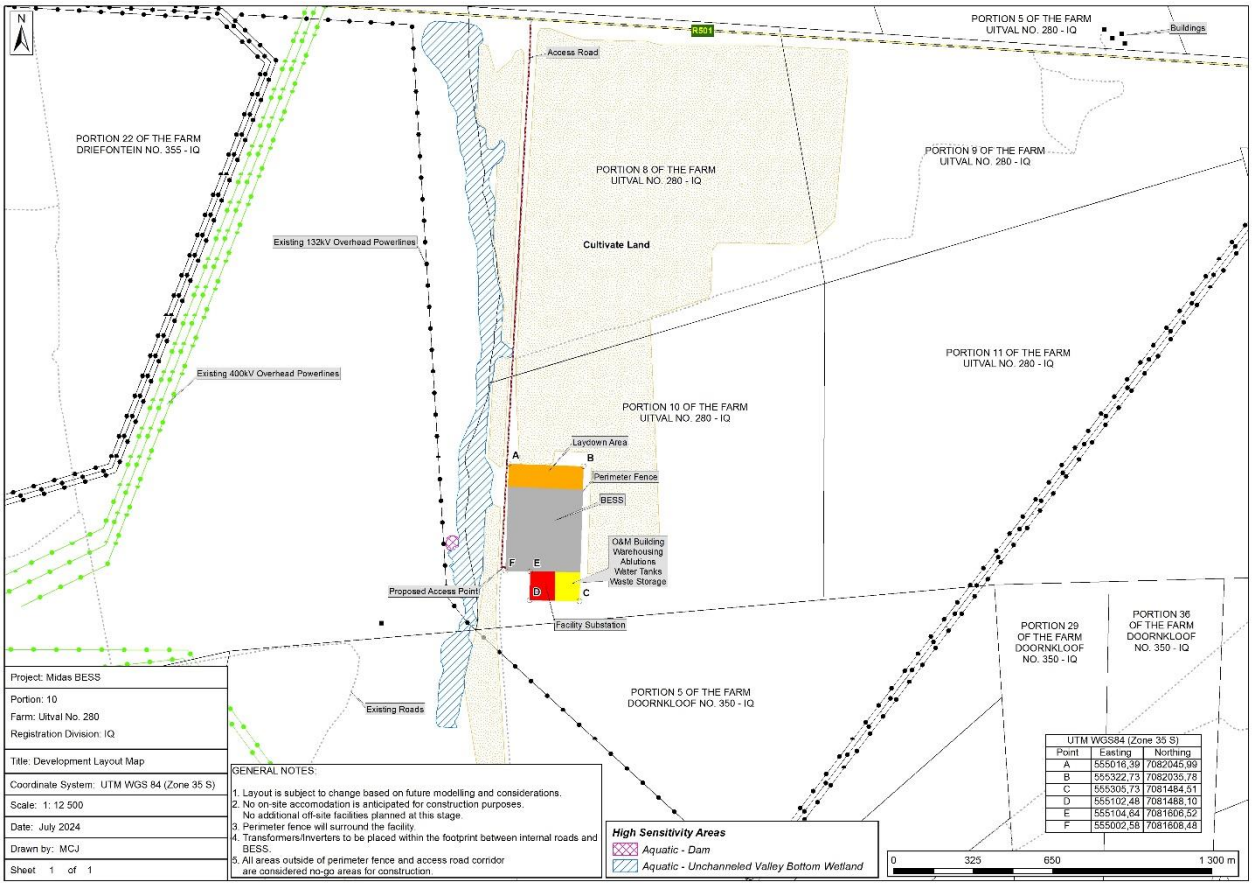


Figure 1: Site Layout plan for the proposed Midas BESS.

The sensitive features on the target and adjacent properties (namely cultivated areas and unchanneled valley bottomed wetland) have been avoided by the proposed BESS.

The target property (Portion 10 of the Farm Uitval No. 280), is located in the Rand West District of the Gauteng Province, within the jurisdiction area of the Rand West Local Municipality. The total property size is approximately 162ha. The proposed Midas Battery Energy Storage Facility is accessed directly from an existing gravel road off the R501 between Carletonville and Potchefstroom.

The geology of the area includes dolomite and chert of the Malmani Supergroup supporting shallow Mispah and Glenrosa soil forms. Additionally, shale and some coarse clastic sediments as well as significant andesite from the Pretoria Group, all sedimentary rocks. All supporting the occurrence of shallow Mispah, but deeper soils occur at the foot of the slopes.

The project falls within the Carletonville Dolomite Grassland vegetation type (Least Concern). The Terrestrial Biodiversity Specialist has however confirmed that the vegetation consists of Disturbed Rocky Grassland and Modified Habitat as per the Figure Below.

Figure 2: Delineated Terrestrial Habitats (The Biodiversity Company, 2024).

The Aquatic biodiversity specialist confirmed that there are no aquatic resources within the project area of influence. The closest aquatic feature, an unchanneled valley bottom wetland is situated on the opposite side of the existing gravel road, approximately 60m from the proposed BESS.

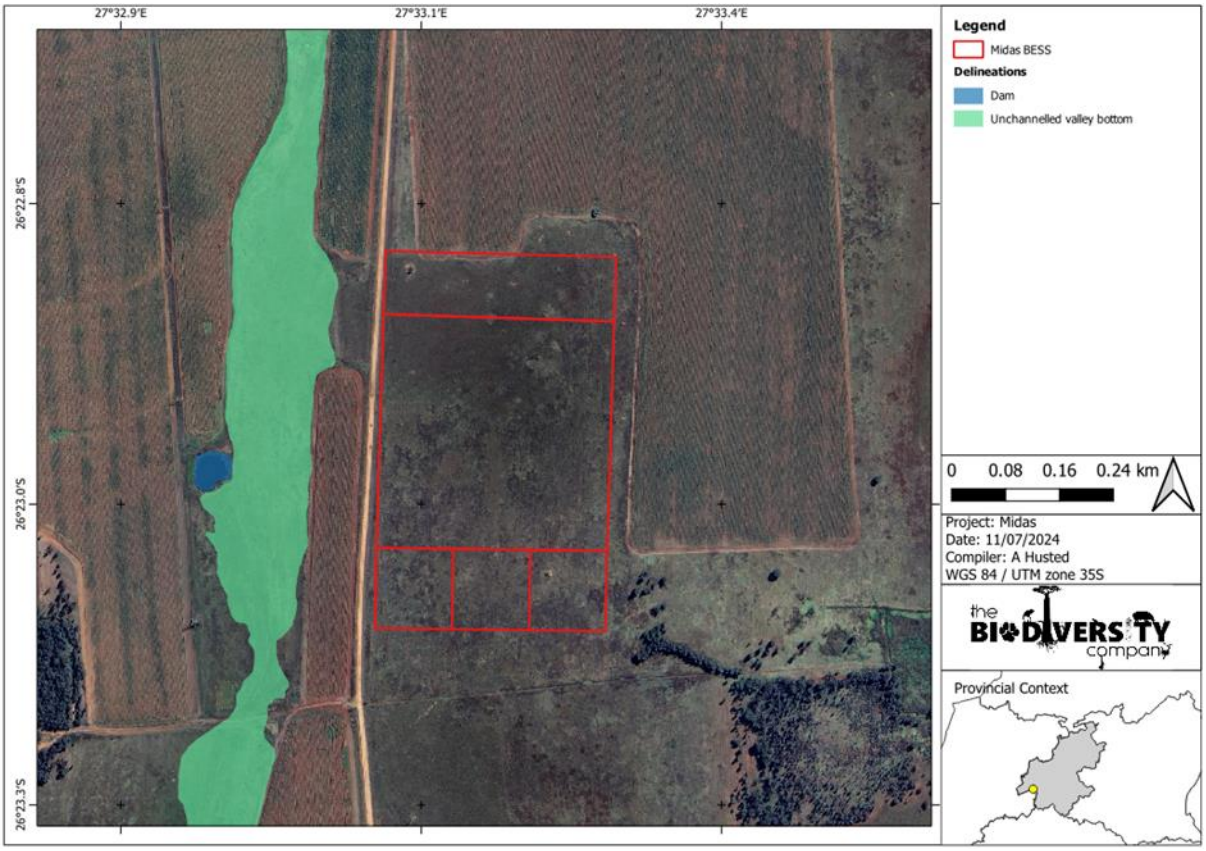


Figure 3: Delineated Aquatic Habitats in proximity to the proposed Midas BESS (The Biodiversity Company, 2024).

4.2 Screening Tool Results

According to the Screening Tool Report (Appendix A) that was run on **15 July 2024**, the following sensitivities were identified in the screening tool.

Table 4: Summary of the environmental sensitivities identified by the Screening Tool for the Midas BESS

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme		X		
Animal Species Theme			X	
Aquatic Biodiversity Theme	X			
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme			X	
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme				X
Terrestrial Biodiversity Theme				X

Of the various themes identified in the Screening Tool, the Agriculture, Animal Species, Aquatic Biodiversity, Plant Species and Terrestrial Biodiversity Themes require consideration in terms of the BESS Exclusion Norms.

The verification of these sensitivities by the participating specialists is included in the specialist reports attached in Appendices B1 – B3 and summarised in the sections below.

4.3 Agriculture

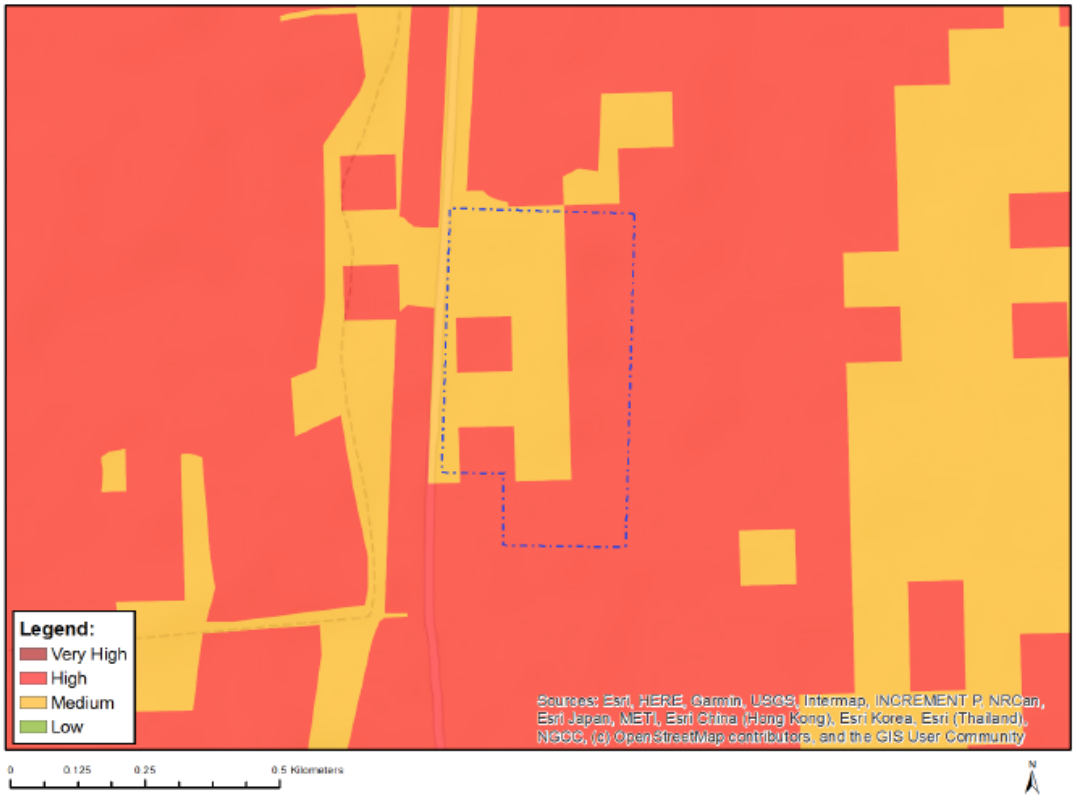
The agriculture Theme Sensitivity indicates that the proposed project area falls within the 'Medium to High' agricultural sensitivity as indicated in the figure below.

The Agricultural specialist refuted the high sensitivity and confirmed the medium sensitivity in the screening tool as follows:

Table 5: Verified sensitivities for the Agriculture theme (The Biodiversity Company, 2024)

Screening Tool Theme	Screening Tool	Verified by Specialist	Screening Tool Validated or Disputed by Specialist - Reasoning
Agricultural Theme	**High**	**Medium**	Disputed – Land Capability Low Moderate to Moderate. Presence of moderate potential soils including the Ermelo and Hutton soil form. There was no active crop fields and irrigation infrastructure found within the project area.
	High	**Low**	Disputed – Land Capability Very Low to Low. Presence of low potential soils including the Glenrosa soil form. Glenrosa has a restrictive subsoil horizon with low agricultural potential.
	Medium	**Medium**	Validated– Land capability Low Moderate to Moderate. Presence of moderate soils including Ermelo and Hutton soil forms with well drained, aerated and unfavorable climatic conditions.

MAP OF RELATIVE AGRICULTURE THEME SENSITIVITY



Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
	X		

Sensitivity Features:

Sensitivity	Feature(s)
High	Land capability;09. Moderate-High/10. Moderate-High
Medium	Land capability;06. Low-Moderate/07. Low-Moderate/08. Moderate

Figure 4: Map of Relative Agricultural Theme Sensitivity for the Midas BESS Project generated by the Environmental Screening Tool .

The agricultural specialist (Appendix B3) refuted the sensitivity in the screening tool and confirmed that that the agricultural sensitivity is mostly low, with some portions of medium sensitivity as per the image below.

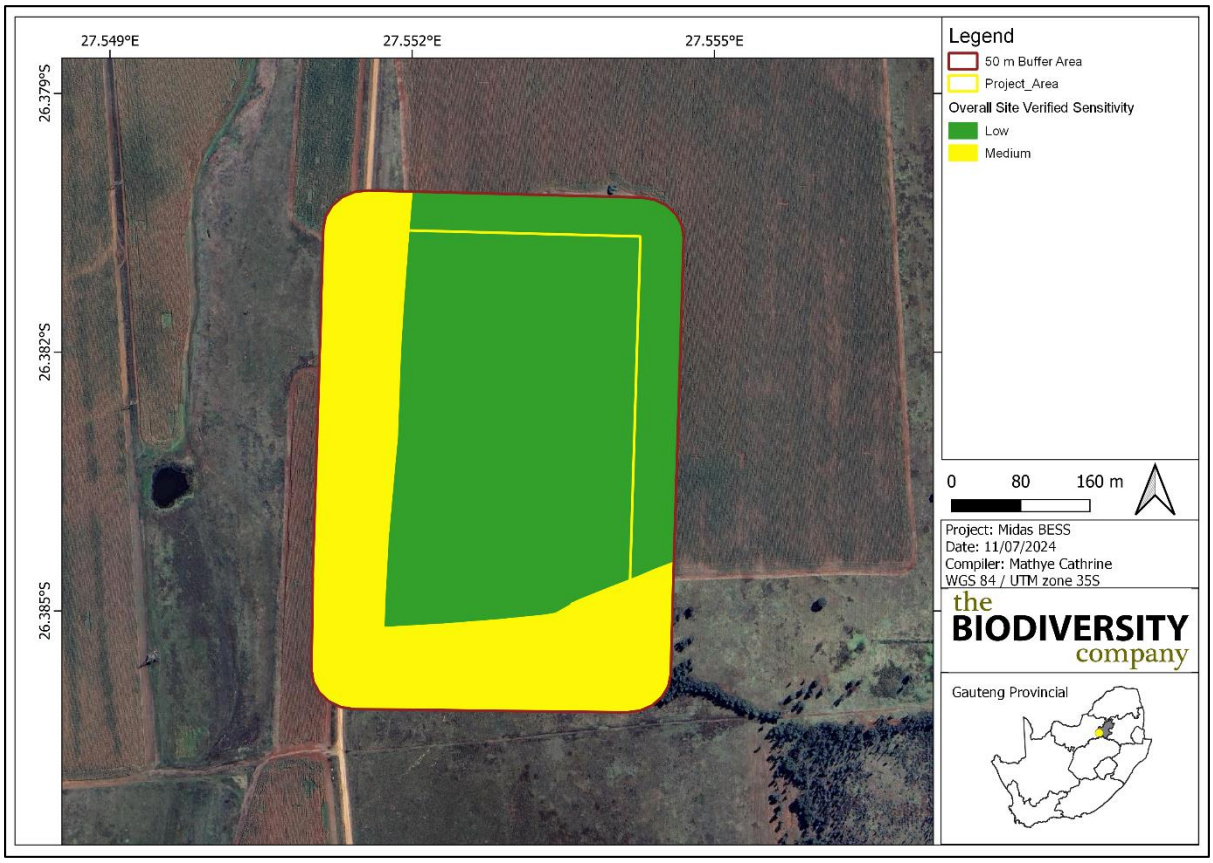


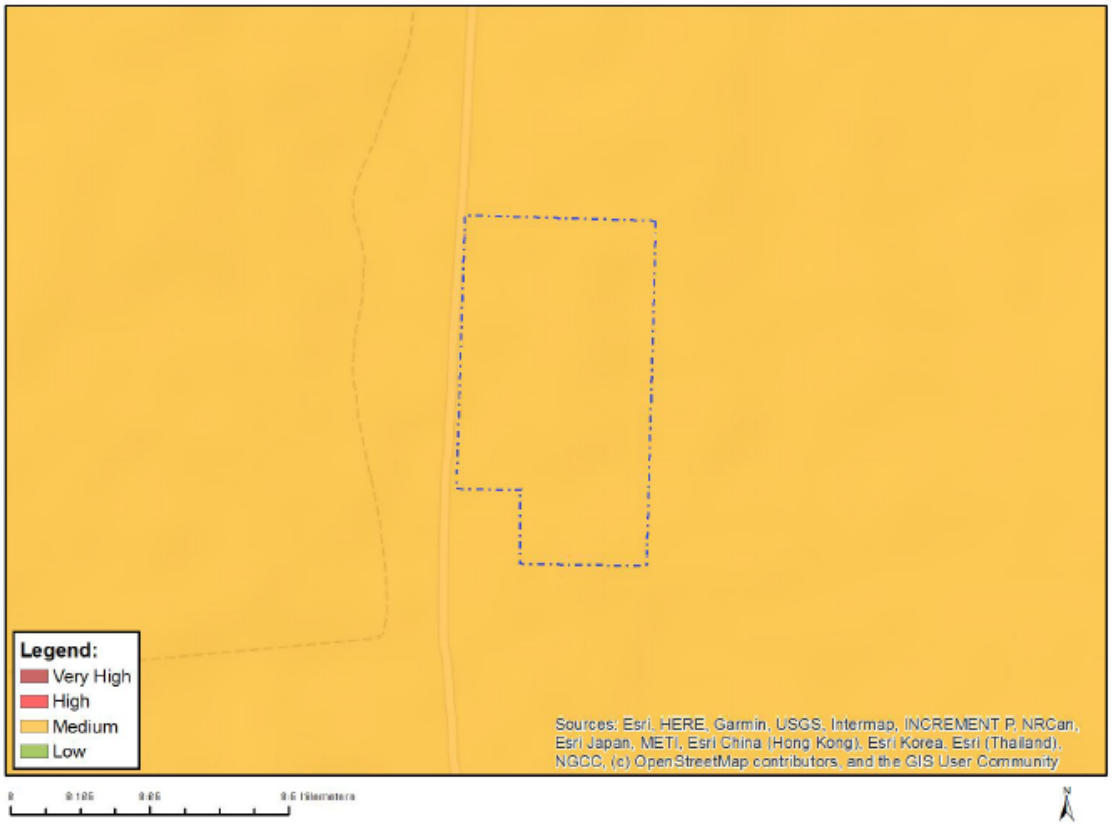
Figure 5: Verified Agricultural Sensitivity of the project area (The Biodiversity Company, 2024).

Based on the verified sensitivity it is confirmed that the scope of the BESS Exclusion Norm in in GNR4557 applies in Relation to the Agricultural Theme.

4.4 Animal Species, Plant Species and Terrestrial Biodiversity

The screening tool identified the Animal Species Themes as Medium and the Terrestrial Biodiversity Theme and Plant species theme as low as shown in the figures below.

MAP OF RELATIVE ANIMAL SPECIES THEME SENSITIVITY



Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
		X	

Sensitivity Features:

Sensitivity	Feature(s)
Medium	Insecta-Lepidochrysops praeterita
Medium	Mammalia-Crocidura maquassiensis
Medium	Mammalia-Hydrictis maculicollis
Medium	Invertebrate-Clonia uvarovi

Figure 6: Map of Relative Animal Species Theme Sensitivity for the Midas BESS Project generated by the National Screening Tool .

MAP OF RELATIVE PLANT SPECIES THEME SENSITIVITY

Where only a sensitive plant unique number or sensitive animal unique number is provided in the screening report and an assessment is required, the environmental assessment practitioner (EAP) or specialist is required to email SANBI at eiadatarequests@sanbi.org.za listing all sensitive species with their unique identifiers for which information is required. The name has been withheld as the species may be prone to illegal harvesting and must be protected. SANBI will release the actual species name after the details of the EAP or specialist have been documented.

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

Figure 7: Map of Relative Plant Species Theme Sensitivity for the Midas BESS Project generated by the National Screening Tool .

MAP OF RELATIVE TERRESTRIAL BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
			X

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low Sensitivity

Figure 8: Map of Relative Terrestrial Theme Sensitivity for the Midas BESS Project generated by the National Screening Tool .

The specialist identified Two different terrestrial habitat types within the Project Area. These habitats include: Disturbed Rocky Grassland and Modified habitat.

The Disturbed Rocky Grassland was found to have a site ecological importance of low and the Modified Habitat was found to have a site ecological importance of Very Low.

The specialist disputed the Medium Animal Species sensitivity in the screening tool and confirmed this to be low. The specialist confirmed the Low plant species theme in the screening tool. The specialist confirmed the low Terrestrial Biodiversity Theme in the Screening Tool (The Disturbed Rocky Grassland was found to have a low sensitivity, while the Modified Habitat was found to have a very low sensitivity.

Table 6: Verified sensitivities for the Terrestrial Biodiversity, Plant Species and Animal Species (The Biodiversity Company, 2024)

Screening Tool Theme	Screening Tool	Habitat	Verified by Specialist	Tool Validated or Disputed by Specialist - Reasoning
Animal Theme	**Medium**	**-**	**Low**	Disputed – Due to the Project Area's proximity to agricultural fields and roads, no SCC are likely to occur here.
Plant Theme	**Low**	**-**	**Low**	Validated – Although the habitat forms a functional component of the Carletonville Dolomite Grassland, flora SCC are unlikely to occur here.
Terrestrial Theme	**Low**	**Disturbed Rocky Grassland**	**Low**	Validated – Habitat forms a functional component of the Carletonville Dolomite Grassland but no sensitive features were identified on site. No fauna or flora SCC were recorded and are unlikely to occur.
		Modified Habitat	**Very Low**	Validated – Habitat modified in nature, made up of an agricultural field. Fauna and flora SCC unlikely to occur.

4.5 Aquatic Biodiversity

The National Web based Environmental Screening Tool has characterised the aquatic theme sensitivity as "Very High" sensitivity as per the figure below. This very high sensitivity in the screening tool was as the result of a possible Wetland Seep identified in the National Wetland Map 5.

MAP OF RELATIVE AQUATIC BIODIVERSITY THEME SENSITIVITY

Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
X			

Sensitivity Features:

Sensitivity	Feature(s)
Low	Low sensitivity
Very High	Wetlands_Dry Highveld Grassland Bioregion (Seep)

Figure 9: Aquatic Sensitivity as per web-based screening tool.

The specialist confirmed that this seep (as identified in the National Wetlands Map 5) was not present in the Project Area of Influence and the closest Aquatic Biodiversity Resource (unchanneled valley bottom wetland) was found approximately 60m to the West of the Project Area of Influence.

The table below provides a comparison between the Environmental Screening Tool and the specialist determined Site Ecological Importance of the project.

Table 7: Summary of the Aquatic Site sensitivity from the screening tool and that allocated by the specialist.

Project Component	Screening Tool Theme	Screening Tool	Specialist Finding	Screening Tool Validated or Disputed by Specialist - Reasoning
BESS	Aquatic Theme	**Very High**	**Low**	Disputed - No natural surface water resources were identified within the proposed BESS development areas. The 'suggested' seep wetland (NWM5) area is not present.

As can be seen in the Figure below there are no aquatic features present on the position of the BESS.

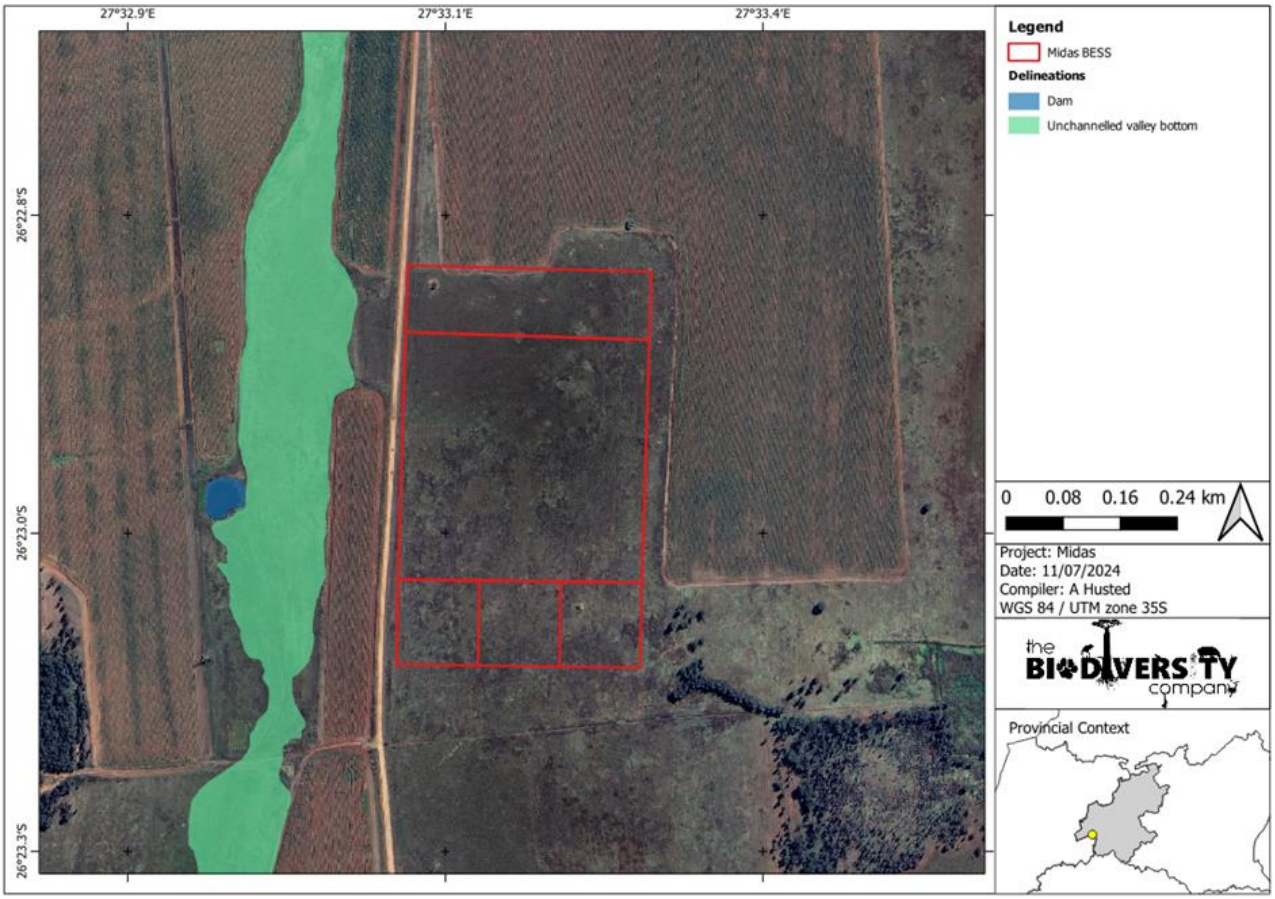


Figure 10: Aquatic features in proximity to the proposed Midas Battery Energy Storage Facility (The Biodiversity Company, 2024)

4.6 Species of Conservation Concern.

According to the Terrestrial Biodiversity Specialist (Appendix B1), No plant or animal species of conservation concern were recorded on site nor are they likely to occur on site.

4.7 Summary of Site Sensitivity Verification Process.

Please refer to the table below for a summary of the relevant site sensitivities as verified by the specialists.

Table 8: Sensitivity of relevant site sensitivities in the screening tool and sensitivities verified by the specialists.

Theme.	Sensitivity as per screening Tool.	Sensitivity verified by specialist.
Agriculture	High	Medium and Low
Animal Species	Medium	Low
Plant Species	Low	Low
Aquatic Biodiversity	Very High	Low
Terrestrial Biodiversity	Low	Low and Very Low

Based on the results of the Site Sensitivity Verification Report (see summary in table above) it is confirmed that the proposed project qualifies for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity (GN 4557

of 27 March 2024) and can therefore be registered, subject to the outcome of the consultation process. No Environmental Authorisation in terms of the EIA Regulations, 2014 (as amended), is therefore required.

5. ENVIRONMENTAL MANAGEMENT PROGRAMME

Regulation 7.2.8. of the BESS Exclusion Nor requires that an environmental management programme (EMPr) for the management of impacts from the battery storage facility, which addresses as a minimum, each of the general environmental controls identified in Appendix 10 of the BESS Norm, be complied by the EAP.
The Environmental Management Programme, complying with these requirements is attached in Appendix C. This must be read in conjunction with the Generic EMPr for Substation Infrastructure (Appendix C1), which details the Environmental Impact Management Outcomes and Actions associated with the IPP Substation.

6. PROJECT NEED AND DESIRABILITY

In keeping with the requirements of an integrated Environmental Assessment, the DEA&DP Guidelines on Need and Desirability (2010 & 2011) were referenced to provide the following estimation of the activity in relation to the broader societal needs. The concept of need and desirability can be explained in terms of its two components, where need refers to time and desirability refers to place. Questions pertaining to these components are answered in the Sections below.

The section below considers the overall need and desirability of energy storage for Grid balancing, peak shaving etc.

6.1 Need.

In accordance with the guidelines on need and desirability, a project should be able to answer a series of questions to demonstrate need.

Table 9: Project Need Analysis.

Need	Discussion	
Is the land use considered within the timeframe intended by the existing approved Spatial Development Framework (SDF)? (I.e., is the proposed development in line with the projects and programmes identified as priorities within the credible IDP?	Yes	The Gauteng Spatial Development Framework (GSDF) outlines the long-term spatial vision and development priorities for the Gauteng province in South Africa. While energy is a critical component of the framework, the GSDF itself does not provide detailed energy strategies or policies. However, it does emphasize the importance of sustainable energy planning and integration within the broader spatial development context.. The GSDF recognizes the significance of sustainable energy development in supporting economic growth, improving quality of life, and mitigating environmental impacts. It promotes the adoption of renewable energy sources, energy efficiency measures, and clean technologies to enhance energy security and reduce carbon emissions. In conclusion, the Gauteng Spatial Development Framework underscores the importance of sustainable energy planning and integration within the broader spatial development agenda of the province. It emphasizes the need for strategic energy policies, infrastructure investments, and land-use planning strategies to support economic growth, environmental sustainability, and social equity in Gauteng. Considering the above, it can be concluded that the area is suitable for BESS development in terms of the SDF.
Should the development occur here at this point in time?	Yes	The proposed BESS is to be located outside the Carltonville urban edge, and outside of a legislated REDZ. It is however in close proximity to the existing Midas Substation, where sufficient transmission capacity is currently available to evacuate power into the National Grid.

Need	Discussion	
		The National Grid has existing excess capacity in order to accommodate the development right away (thus reducing the opportunity costs).
Does the community / area need the activity and the associated land use concerned?	Yes	The West Rand City Municipality Integrated Development Plan (IDP) outlines the strategic vision and development priorities for the West Rand City Municipality in South Africa. The IDP emphasizes community engagement and capacity building initiatives to raise awareness, empower residents, and promote participation in energy planning and decision-making processes. It includes outreach programs, education campaigns, and skills development initiatives to build local capacity in energy management and entrepreneurship. The proposed BESS Development will contribute energy stability to the constrained Gauteng and National electrical network, contributing to a provincial and national need. This development has been designed in such a way so as to avoid or minimise potential negative impacts of the local environment while enhancing potential positive impacts, locally and regionally.
Are the necessary services with adequate capacity currently available?	Yes	The cost of supplying any will be covered by the Applicant, and the impacts thereof have been assessed in this environmental process. The water required for the construction and operation of the facility will be sourced from the Local Municipality (preferred option) or third party water services provider and will be supplemented by stored rainwater. Construction waste (general waste) will be disposed of at the existing landfill sites.
Is this development provided for in the infrastructure planning of the municipality?	Yes	Yes. Attracting private investment and the employment opportunities associated with energy development are identified as priority strategies to create sustainable urban and rural settlements.
Is this project part of a national programme to address an issue of national concern or importance?	Yes	Battery Energy Storage such as that proposed by the applicant is specifically identified in the IRP. The Integrated Resource Plan (IRP) in South Africa is a government policy document that outlines the country's long-term energy strategy, including electricity generation, transmission, and distribution. While the IRP primarily focuses on the broader energy mix, it also includes provisions for battery energy storage systems (BESS) as part of the overall energy infrastructure.

6.2 Desirability.

In accordance with the guidelines on need and desirability, a project should be able to answer a series of questions to demonstrate desirability. These are highlighted in the table below:

Table 10: Project Desirability Analysis.

Desirability	Discussion	
Is the development the best practicable environmental option for this land / site?	Yes	The target property is outside the Carltonville Urban Edge, in close proximity to the existing Eskom Midas Substation. The footprint within the affected property does not contain any cultivated agricultural area. There is however agricultural activities taking place on other areas on the property.

Desirability	Discussion	
		Since the property is positioned outside of an urban area, it is unlikely to be considered for an alternative land use such as urban development. The property is not within an area earmarked for the expansion of protected areas, nor does the footprint contain any unique biodiversity features. The area is thus unlikely to be considered for conservation use.
Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?	No	The vision of the West Rand Municipality Integrated Development Plan (IDP) regarding energy revolves around fostering sustainable and resilient energy systems that support socio-economic development while minimizing environmental impact. The IDP identifies a number of key challenges facing the Municipality, including poverty, high levels of unemployment and skills shortages. In order to address these challenges, the DM is committed to creating an environment that is conducive to economic growth, sustainable employment opportunities and growth in personal income levels of communities. The IDP promotes community engagement and empowerment initiatives to raise awareness, build capacity, and foster participation in energy planning and decision-making processes. It recognizes the importance of involving residents, businesses, and local stakeholders in shaping the municipality's energy future. In this regard the development has the potential to support private sector investment and create employment and skills development opportunities. These issues can be addressed by SED and ED spend linked to the project.
Would the approval of this application compromise the integrity of the existing approved environmental management priorities for the area?	unlikely	According to the national vegetation map (Mucina & Rutherford 2018), the solar development site lies entirely within a vegetation type that is classified as Least Concern (Carltonville Dolomite Grassland). The Biodiversity Specialist has confirmed the Terrestrial and Aquatic Site Sensitivity to be low.
Do location factors favour this land use at this place?	Yes	The proximity of the project to the existing Midas Substation.
How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas?	Yes	All relevant site sensitivities has been confirmed to be low.
How will the development impact on people's health and wellbeing?	Yes	The site is located outside of the Carletonville Urban Edge and as a result is unlikely to impact negatively on the community's health and wellbeing.
Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?	Unlikely	The next best land use alternative to the BESS is limited agriculture (the status-quo). However, the proposed development footprint does not have any significant agricultural value and has not been utilised for any intensive agricultural purposes during recent times (although intensive agricultural activities do take place adjacent to the site. The economic benefits and opportunities that the proposed BESS development holds for the landowner and the local economy of the municipal area cannot be recovered from the current or potential agricultural activities. The opportunity costs in terms of the water-use requirements of the BESS development are within acceptable bounds if one considers the minimal demand on the resource.

Desirability	Discussion	
Will the proposed land use result in unacceptable cumulative impacts?	Unlikely.	Due to the close proximity of the Midas Substation, the potential for further, future energy related developments in the area cannot be discounted. However, these will have synergistic benefits for the economy and growth of the area, while the contribution to cumulative habitat loss in the area associated with this and potential future energy development would be relatively small in relation to the land resources available, with low impacts restricted to the local area.

7. CONSULTATION

In accordance with the criteria outlined in the BESS Exclusion Norms, consultation is required to form part of the registration process.

Regulation 5 of GNR 4557 indicates the following requirements:

The environmental assessment practitioner or environmental scientist on behalf of the proponent must identify and consult with parties who may be affected by the proposed facility, including as a minimum the following:

- adjacent landowner and land occupiers;
- relevant conservation and biodiversity entities / agencies;
- relevant non-governmental organisations involved with ecology including bird preservation;
- relevant tourist and farmers associations;
- the relevant heritage resources authority; and
- the relevant local government authority.

The consultation process must as a minimum include the following:

- notification of the proposed development including –
  - details of the proponent;
  - a detailed project descriptions including the need and desirability of the proposed project;
  - the location of the proposed facility including a map generated at an appropriate scale that displays the extent of the proposed facility in as much detail as possible overlaid on the identified environmental sensitivities per theme; and
  - notification of where the site sensitivity verification report and environmental management programme can be accesses; and
  - a request for inputs and the timeframe in which inputs are to be submitted."

A register of potential I&AP's as per the requirements of Regulation 5.1 has been prepared by the EAP and attached in Appendix D1.

All parties included in the register have been notified of the availability of the Site Sensitivity Verification Report and EMPr for review and comment. The report is available on the Cape EAPrac Website (www.cape-eaprac.co.za) and via Direct download links (WeTransfer and Dropbox).

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Proof of all correspondence and comments received during the 30-day comment period (including a comments and Responses Report) will be included in the final Site Sensitivity Verification Report and submitted to the DFFE for registration.

8. CONCLUSION AND RECCOMENTATIONS

The Applicant, Midas BESS (Pty) Ltd is proposing the construction of the Midas Battery Energy Storage (BESS) Facility, located on Portion 10 of the Farm Uitval No. 280, approximately 18 km east of Carletonville in the Gauteng Province. The Applicant is also proposing to utilise the existing public road on Portion 8 and Portion 10 of the Farm Uitval No. 280 to access the site.

The Midas BESS facility will have a total development footprint of up to approximately 15 ha and will have a maximum export capacity of 77 MW. The development area is situated within the Merafong City Local Municipality and the Rand West City Local Municipality. The site is accessible via existing gravel roads from the R501 and N12.

The proposed Midas BESS will cover approximately 15 ha and will include the following infrastructure:

- Solid State Battery Energy Storage System (BESS) (up to 10 ha).
- Inverters and transformers
- Site and internal access roads (up to 8m wide).
- Operation and Maintenance buildings including a gate house and security building, control centre, offices, warehouses and workshops for storage and maintenance (up to 1 ha).
- Laydown areas (3 ha temporary and 1 ha permanent).
- A 132 kV facility substation (up to 1 ha).
- 33 kV cabling between the project components and the facility substation.

Terrestrial Biodiversity (including plant and animal species), Aquatic Biodiversity and Agricultural specialists undertook Site sensitivity verifications for the proposed project and confirmed all relevant theme sensitivities as being of medium or low sensitivity.

Further to the above the relevant specialists also confirmed that no plant or animal Species of Conservation Concern were recorded in the project area nor were they likely to occur within the project area of influence.

The proposed Midas BESS does not fall within a Critical Biodiversity Area, an Endangered or Critically Endangered Ecosystem nor does it intersect with any Aquatic Biodiversity Resource.

Based on the results of the Site Sensitivity Verification Report it is confirmed that the proposed project qualifies for the Exclusion of Identified Activities Associated with the Development and Expansion of Battery Storage Facilities in Areas of Low or Medium Environmental Sensitivity (GN 4557 of 27 March 2024) and can therefore be registered.