



# forestry, fisheries & the environment

Department:  
Forestry, Fisheries and the Environment  
REPUBLIC OF SOUTH AFRICA

Private Bag X447, Pretoria, 0001, Environment House, 473 Steve Biko Road, Pretoria, 0002 Tel: +27 12 399 9000, Fax: +27 86 625 1042

**DFFE Reference:** 14/12/16/3/3/2/2532

**Enquiries:** Ms Constance Musemburi

**Telephone:** (012) 399 9416 **E-mail:** [CMusemburi@dffe.gov.za](mailto:CMusemburi@dffe.gov.za)

Mr. Alberto Gambacorta  
Biesjesvlei 4 (Pty) Ltd  
5 Buitengracht St  
20th Floor  
Portside Building  
Cape Town City Centre  
**CAPE TOWN**  
8001

Telephone Number: (021) 202 1230

Cell phone Number:

Email Address :

## PER E-MAIL / MAIL

Dear Mr Gambacorta

**ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE DEVELOPMENT OF THE UP TO 1200MWH BATTERY ENERGY STORAGE SYSTEM AND ASSOCIATED INFRASTRUCTURE (BIESJESVLEI BESS 3); NEAR SMITHFIELD, WITHIN THE MOHOKARE LOCAL MUNICIPALITY, FREE STATE PROVINCE.**

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within fourteen (14) days of the date of the decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulate that the Department should conduct itself in a responsible manner when collecting, processing, storing, and sharing an individual or another entity's



**Batho pele-** putting people first

The processing of personal information by the Department of Forestry, Fisheries and the Environment is done lawfully and not excessive to the purpose of processing in compliance with the POPI Act, any codes of conduct issued by the Information Regulator in terms of the POPI Act and / or relevant legislation providing appropriate security safeguards for the processing of personal information of others.

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personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribes the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

**Appeals must be submitted in writing in the prescribed form to:**

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: [appeals@dfpe.gov.za](mailto:appeals@dfpe.gov.za)

By hand: Environment House  
473 Steve Biko Road  
Arcadia  
**PRETORIA**  
0083, or

By post: Private Bag X447  
**PRETORIA**  
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

DFFE REFERENCE: 14/12/16/3/3/2/2532

ENVIRONMENTAL AUTHORISATION FOR THE PROPOSED DEVELOPMENT OF THE UP TO 1200MWH BATTERY ENERGY STORAGE SYSTEM AND ASSOCIATED INFRASTRUCTURE (BIESJESVLEI BESS 3); NEAR SMITHFIELD, WITHIN THE MOHOKARE LOCAL MUNICIPALITY, FREE STATE PROVINCE.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at [https://www.dffe.gov.za/documents/forms#legal authorisations](https://www.dffe.gov.za/documents/forms#legal%20authorisations) or request a copy of the documents at [appeals@dffe.gov.za](mailto:appeals@dffe.gov.za).

Yours faithfully

  
**Dr Sabelo Malaza**  
**Chief Director: Integrated Environmental Authorisations**  
**Department of Forestry, Fisheries & the Environment**  
Date: 11/11/2024

cc	Mr Paul Lochner	CSIR	
		CSIR	
	Mr MJ Kanwendo	Mohokare Local Municipality	Email: <a href="mailto:kanwendoj@gmail.com">kanwendoj@gmail.com</a>
		Mohokare Local Municipality	Email: <a href="mailto:info@mohokare.gov.za">info@mohokare.gov.za</a>
		Mohokare Local Municipality	Email: <a href="mailto:sebinane.thejane@yahoo.com">sebinane.thejane@yahoo.com</a>
	Ms Grace Mkhosana	DESTEA	Email: <a href="mailto:mkhosana@destea.gov.za">mkhosana@destea.gov.za</a>
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# forestry, fisheries & the environment

Department:  
Forestry, Fisheries and the Environment  
REPUBLIC OF SOUTH AFRICA

## Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014, as amended

THE DEVELOPMENT OF THE UP TO 1200MWH BATTERY ENERGY STORAGE SYSTEM AND ASSOCIATED INFRASTRUCTURE (BIESJESVLEI BESS 3); NEAR SMITHFIELD, WITHIN THE MOHOKARE LOCAL MUNICIPALITY, FREE STATE PROVINCE.

XHARIEP DISTRICT MUNICIPALITY

<b>Application Register Number:</b>	<i>14/12/16/3/3/2/2532</i>
<b>Last amended:</b>	<i>First issue</i>
<b>Holder of authorisation</b>	<i>Biesjesvlei 4 (Pty) Ltd</i>
<b>Location of activity:</b>	<i>On Portion 1 of Farm Pompoenfontein 118, near Smithfield town, within Mohokare Local Municipality in the Free State Province</i>

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

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## Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this Environmental Authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this Environmental Authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, Act No. 107 of 1998, as amended and the EIA Regulations, 2014, as amended.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

## Activities Authorised

By virtue of the powers conferred on it by the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

### **BIESJESVLEI 4 (PTY) LTD**

with the following contact details –

Mr. Alberto Gambacorta  
Biesjesvlei 4 (Pty) Ltd  
5 Buitengracht St  
20th Floor  
Portside Building  
Cape Town City Centre  
**CAPE TOWN**  
8001

Telephone Number: 021 202 1230

Cell phone Number:

Email Address :



to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 of the EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>Listing Notice 1, Item 11(i)</u></p> <p><i>"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."</i></p>	<p>The proposed project will entail the construction of an Independent Power Producer (IPP) Substation for the Battery Energy Storage System (BESS), which will be maintained by the IPP. This is referred to as the BESS IPP Substation, which will have a capacity stepping up from 33kV to 132kV. This constitutes facilities for the distribution and transmission of electricity.</p> <p>The proposed project will take place outside of an urban area. It will be constructed on various affected farm portions, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province.</p>
<p><u>Listing Notice 1, Item 12(ii)(a)(c)</u></p> <p><i>"The development of-</i></p> <p><i>(ii) infrastructure or structures with a physical footprint of 100 square metres or more;</i></p> <p><i>where such development occurs-</i></p> <p><i>(a) within a watercourse;</i></p> <p><i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse."</i></p>	<p>The proposed project will entail the construction of various infrastructure and structures (such as, but not limited to, the BESS facility; units; laydown area; BESS IPP Substation; laydown area for the BESS IPP Substation; BESS Operational and Maintenance (O&amp;M) Office, including Ablutions; access roads; internal roads; various MV to HV cables; fencing and security; and parking area etc.).</p> <p>Where existing or new access roads cross drainage features, new culverts, bridges or crossing structures will also be required. Such infrastructure across the drainage features will have a minimum footprint of 150m<sup>2</sup>.</p> <p>The total footprint of the BESS facility extends approximately 10ha, within which the various</p>

Activity number	Activity description
	<p>infrastructure and structures will be constructed. These infrastructure and structures will exceed a footprint of 100m<sup>2</sup>, and some occur within small drainage features, watercourses, and wetlands, and within 32m of these aquatic features, which have been delineated by the aquatic specialist.</p> <p>The proposed project will take place outside of an urban area. It will be constructed on various affected farm portions, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province.</p>
<p><u>Listing Notice 1, Item 19</u></p> <p><i>"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 grit, pebbles or rock of more than 10 cubic metres from a watercourse".</i></p>	<p>The proposed project will entail the excavation, removal and moving of more than 10m<sup>3</sup> of soil, sand, pebbles or rock from nearby small drainage features, watercourses, and wetlands. The proposed project will also entail the infilling of more than 10m<sup>3</sup> of material into the nearby aquatic features. The aquatic features have been delineated by the aquatic specialist. This will occur as a result of development of the proposed BESS facility and associated infrastructure, including the development of access roads and internal roads, and drainage line crossings.</p>
<p><u>Listing Notice 1, Item 24(ii)</u></p> <p><i>"The development of a road -                      (ii) with reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 meters."</i></p>	<p>Where existing or new access roads cross drainage features, new culverts, bridges or crossing structures will also be required along Access Route Option A, Access Route Option B and Access Route Option C. The concrete slab of the bridge / structure will be a minimum of 5.5m and will have approximately 3m wide gabion mattresses on either side. Hence the structure will have a minimum width of 11 to 12m.</p>

Activity number	Activity description
<p><u>Listing Notice 1, Item 27</u></p> <p><i>"The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation."</i></p>	<p>The proposed BESS facility, which will contain various sub-components and associated infrastructure, will have a footprint in excess of 1ha but less than 20ha (i.e. total footprint of approximately 10ha). As a result, approximately 10ha of indigenous vegetation will be removed for the construction of the proposed BESS facility and associated infrastructure. According to Mucina &amp; Rutherford (2006, as amended), the study area and proposed project falls within Aliwal North Dry Grassland (Gh2) vegetation type.</p>
<p><u>Listing Notice 1, Item 28(ii)</u></p> <p><i>"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:</i></p> <p><i>(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare."</i></p>	<p>The proposed project will take place outside of an urban area. It will be constructed on various affected farm portions, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province. The land within the study area is currently being used for livestock grazing and agriculture.</p> <p>The proposed BESS facility, which is considered a commercial/industrial development, will have a footprint in excess of 1ha (total footprint of approximately 10ha). The proposed project will also entail the construction of various infrastructure and structures (such as the BESS facility; units; laydown area; BESS IPP Substation; laydown area for the BESS IPP Substation; BESS Operational and Maintenance (O&amp;M) Office, including ablutions; access roads; internal roads; various MV to HV cables; fencing and security; and parking area etc.). This will constitute infrastructure with a physical footprint of more than 1ha.</p>
<p><u>Listing Notice 1, Item 48(i)(a)(c)</u></p>	



Activity number	Activity description
<p><i>"The expansion of-</i></p> <p><i>(i) infrastructure or structures where the physical footprint is expanded by 100 square metres or more;</i></p> <p><i>where such expansion occurs-</i></p> <p><i>(a) within a watercourse;</i></p> <p><i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse."</i></p>	<p>The proposed project study area can be accessed via various existing main roads and gravel roads. Specifically, three access route options have been considered: Access Route Option A, Option B and Option C, which are routed along the N6; S1262; and S119. Access Route Options A, B and C have different access points off the S119. Direct access to the proposed project will be taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used where possible. Existing roads will be used as far as practically achievable.</p> <p>The Traffic Specialist has noted that the N6, S1262, and S119 roads leading to the study area are of a sufficient width to accommodate truck movement, however widening will be required at localised positions (i.e. intersections). Such widening is discussed below:</p> <ul style="list-style-type: none"> <li>• <b><u>Intersection S1262 and S119:</u></b> Road widening by approximately 9m (at the widest point) (approximately 400m<sup>2</sup>) will be required at this intersection.</li> <li>• <b><u>Intersection S119 and Access Route Option A:</u></b> Road widening by approximately 14m (at the widest point) (approximately 800m<sup>2</sup>) will be required at this intersection.</li> <li>• <b><u>Intersection S119 and Access Route Option B:</u></b> Road widening by approximately 7m (at the widest point) (approximately 200m<sup>2</sup>) will be required at this intersection.</li> <li>• <b><u>Intersection S119 and Access Route Option C:</u></b> Road widening by approximately 14m (at the widest</li> </ul>

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Activity number	Activity description
	<p>point) (approximately 450m<sup>2</sup>) will be required at this intersection.</p> <p>Therefore, the intersection widening is regarded as expansion of infrastructure by more than 100m<sup>2</sup>.</p> <p>In addition, the existing cement bridge along Access Route Option A is approximately 3m wide. The bridge structure will need to be widened to approximately 15m (including gabion structures), which is regarded as expansion of infrastructure by more than 100m<sup>2</sup>.</p> <p>The intersection widening and bridge widening will occur within small drainage features, watercourses, and wetlands, and within 32m of these aquatic features, which have been delineated by the aquatic specialist.</p>
<p><u>Listing Notice 1, Item 56(i)</u></p> <p><i>“The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre- (i) where the existing reserve is wider than 13,5 meters.”</i></p>	<p>The proposed project study area can be accessed via various existing main roads and gravel roads. Specifically, three access route options have been considered: Access Route Option A, Option B and Option C, which are routed along the N6; S1262; and S119. Access Route Options A, B and C have different access points off the S119. Direct access to the proposed project will be taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used where possible. Existing roads will be used as far as practically achievable.</p>

Activity number	Activity description
	<p>The Traffic Specialist has noted that the N6, S1262, and S119 roads leading to the study area are of a sufficient width to accommodate truck movement, however widening will be required at localised positions (i.e. intersections). Such widening is discussed below:</p> <ul style="list-style-type: none"> <li>• <b><u>Intersection S1262 and S119:</u></b> Road widening by approximately 9m (at the widest point) (approximately 400m<sup>2</sup>) will be required at this intersection.</li> <li>• <b><u>Intersection S119 and Access Route Option A:</u></b> Road widening by approximately 14m (at the widest point) (approximately 800m<sup>2</sup>) will be required at this intersection. The road widening will exceed 6m in this regard.</li> <li>• <b><u>Intersection S119 and Access Route Option B:</u></b> Road widening by approximately 7m (at the widest point) (approximately 200m<sup>2</sup>) will be required at this intersection. The road widening will exceed 6m in this regard.</li> <li>• <b><u>Intersection S119 and Access Route Option C:</u></b> Road widening by approximately 14m (at the widest point) (approximately 450m<sup>2</sup>) will be required at this intersection. The road widening will exceed 6m in this regard.</li> </ul> <p>In addition, the existing cement bridge along Access Route Option A is approximately 3m wide. The bridge structure will need to be widened to approximately 15m (including gabion structures), which is regarded as road widening by more than 6m. No road will need to be lengthened by more than 1km at these access routes.</p>
Listing Notice 3, Item 10(b)(i)(hh)	

Activity number	Activity description
<p><i>"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 30 but not exceeding 80 cubic metres;</i></p> <p><i>(b) In the Free State;</i></p> <p><i>(i) Areas outside urban areas;</i></p> <p><i>(hh) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland."</i></p>	<p>The construction and operational phases of the proposed BESS Facility will require dangerous goods such as chemicals, fuels, oils, lubricants and solvents for general activities. This does not apply to the actual BESS Facility, as a solid state BESS is proposed. Therefore, infrastructure for the storage and handling of dangerous goods of 30m<sup>3</sup> or more but not exceeding 80m<sup>3</sup> is proposed.</p> <p>Dangerous goods will be stored on site within designated areas such as laydown areas. The laydown area is located within 100m of small drainage features, watercourses, and wetlands, which have been delineated by the aquatic specialist.</p>
<p><u>Listing Notice 3, Item 12(b)(iv)</u></p> <p><i>"The clearance of an area of 300 square metres or more of indigenous vegetation,</i></p> <p><i>(b) In the Free State;</i></p> <p><i>(iv) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland."</i></p>	<p>The proposed BESS facility and associated infrastructure will have an estimated footprint of approximately 10ha and will take place in the Free State. The proposed project will entail the construction of various infrastructure and structures (such as, but not limited to, the BESS facility; units; laydown area; BESS IPP Substation; laydown area for the BESS IPP Substation; BESS Operational and Maintenance (O&amp;M) Office, including Ablutions; access roads; internal roads; various MV to HV cables; fencing and security; and parking area etc.). Where existing or new access roads cross drainage features, new culverts, bridges or crossing structures will also be required. Some of these infrastructure and structures will occur within small drainage features, watercourses, and wetlands, and within 100m of these aquatic features, which have been delineated by the aquatic specialist.</p>

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Activity number	Activity description
	<p>As a result, more than 300m<sup>2</sup> of indigenous vegetation will be removed from these areas for the construction of the proposed BESS Facility and associated infrastructure.</p>
<p><u>Listing Notice 3, Item 18(b)(i)(hh)</u></p> <p><i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p><i>(b) In the Free State;</i></p> <p><i>(i) Outside urban areas;</i></p> <p><i>(hh) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland."</i></p>	<p>The proposed project will take place on various affected farm portions, outside of an urban area, north-west of the town of Smithfield, in the Mohokare Local Municipality and Xhariep District Municipality, in the Free State Province.</p> <p>The proposed project study area can be accessed via various existing main roads and gravel roads. Specifically, three access route options have been considered: Access Route Option A, Option B and Option C, which are routed along the N6; S1262; and S119. Access Route Options A, B and C have different access points off the S119. Direct access to the proposed project will be taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used where possible. Existing roads will be used as far as practically achievable.</p> <p>The Traffic Specialist has noted that the N6, S1262, and S119 roads leading to the study area are of a sufficient width to accommodate truck movement, however widening will be required at localised positions (i.e. intersections). Such widening is discussed below:</p> <ul style="list-style-type: none"> <li>• <b>Intersection S1262 and S119:</b> Road widening by approximately 9m (at the widest point) (approximately 400m<sup>2</sup>) will be required at this</li> </ul>

Activity number	Activity description
	<p>intersection. The road widening will exceed 4m in this regard.</p> <ul style="list-style-type: none"> <li>• <b><u>Intersection S119 and Access Route Option A:</u></b>                      Road widening by approximately 14m (at the widest point) (approximately 800m<sup>2</sup>) will be required at this intersection. The road widening will exceed 4m in this regard.</li> <li>• <b><u>Intersection S119 and Access Route Option B:</u></b>                      Road widening by approximately 7m (at the widest point) (approximately 200m<sup>2</sup>) will be required at this intersection. The road widening will exceed 4m in this regard.</li> <li>• <b><u>Intersection S119 and Access Route Option C:</u></b>                      Road widening by approximately 14m (at the widest point) (approximately 450m<sup>2</sup>) will be required at this intersection. The road widening will exceed 4m in this regard.</li> </ul> <p>In addition, the existing cement bridge along Access Route Option A is approximately 3m wide. The bridge structure will need to be widened to approximately 15m (including gabion structures), which is regarded as road widening by more than 4m. No road will need to be lengthened by more than 1km at these access routes.</p> <p>The intersection widening and bridge widening will occur within small drainage features, watercourses, and wetlands, and within 100m of these aquatic features, which have been delineated by the aquatic specialist.</p>

as described in the final Environmental Impact Assessment (EIAR) dated September 2024:

**SG 21 Codes and Affected Farm Properties for Biesjesvlei BESS 3 and associated infrastructure**

<b>Farm Portion</b>	<b>21-digit Surveyor General code</b>
<b>BESS and associated infrastructure</b>	
Portion 1 of Farm Pompoenfontein 118	F03100000000011800001
<b>Access Road Option A – Preferred Route</b>	
Farm Salpetervlei 756	F03100000000075600000
Farm Paalland 373	F03100000000037300000
Farm Ronde Bult 408	F03100000000040800000
Farm Modderkuil 396	F03100000000039600000
Farm Biesjesvlei 372	F03100000000037200000
Portion 1 of Farm Pompoenfontein 118	F03100000000011800001
<b>Access Road Option B – Preferred Route</b>	
Farm Benoni 534	F03100000000053400000
Farm Klein Badfontein 369	F03100000000036900000
Farm Paalland 373	F03100000000037300000
Farm Ronde Bult 408	F03100000000040800000
Farm Modderkuil 396	F03100000000039600000
Farm Biesjesvlei 372	F03100000000037200000
Portion 1 of Farm Pompoenfontein 118	F03100000000011800001
<b>Access Road Option C – Preferred Route</b>	
Remaining Extent of Farm Biesjespoort 521	F03100000000052100000
Farm Benoni 534	F03100000000053400000
Farm Klein Badfontein 369	F03100000000036900000
Farm Paalland 373	F03100000000037300000
Farm Ronde Bult 408	F03100000000040800000
Farm Modderkuil 396	F03100000000039600000
Farm Biesjesvlei 372	F03100000000037200000
Portion 1 of Farm Pompoenfontein 118	F03100000000011800001
<b>Widening of Existing Road Intersections</b>	
Farm Benoni 534	F03100000000053400000
Remaining Extent of Farm Biesjespoort 521	F03100000000052100000
Portion 1 of Farm Biesjespoort 521	F03100000000052100001
Remaining Extent of Farm Elizabethfontein 374	F03100000000037400000
Farm Klein Badfontein 369	F03100000000036900000
Farm Salpetervlei 756	F03100000000075600000

<b>Farm Portion</b>	<b>21-digit Surveyor General code</b>
Remaining Extent of Klein Sevenfontein 156	F03100000000015600000

**Coordinates for Biesjesvlei BESS 3 and associated infrastructure**

Co-ordinate Point	Decimal Degrees		Degrees, Minutes, Seconds	
	Latitude (Y)	Longitude (X)	Latitude (S)	Longitude (E)
<b>BESS and associated infrastructure</b>				
Corner Point 1	-30.12658476	26.37920814	30° 07' 35.70513600" S	26° 22' 45.14931840" E
Corner Point 2	-30.12660067	26.38258194	30° 07' 35.76239760" S	26° 22' 57.29498040" E
Corner Point 3	-30.12953885	26.38256366	30° 07' 46.33986360" S	26° 22' 57.22916160" E
Corner Point 4	-30.12952294	26.37918983	30° 07' 46.28259591" S	26° 22' 45.08337545" E
<b>Access Road Option A – Preferred</b>				
Start-Point	-30.10215751	26.40774589	30° 06' 07.76702867" S	26° 24' 27.88519696" E
Mid-Point	-30.10967631	26.38279884	30° 06' 34.83470520" S	26° 22' 58.07583840" E
End-Point	-30.12739854	26.37920305	30° 07' 38.63476200" S	26° 22' 45.13099080" E
<b>Access Road Option B – Preferred</b>				
Start-Point	-30.09332796	26.3885668	30° 05' 35.98065095" S	26° 23' 18.84049168" E
Mid-Point	-30.10404815	26.37116602	30° 06' 14.57332301" S	26° 22' 16.19768272" E
End-Point	-30.12739854	26.37920305	30° 07' 38.63476200" S	26° 22' 45.13099080" E
<b>Access Road Option C – Preferred</b>				
Start-Point	-30.08834041	26.37831337	30° 05' 18.02546520" S	26° 22' 41.92812120" E
Mid-Point	-30.10079365	26.37118663	30° 06' 02.85712442" S	26° 22' 16.27186086" E
End-Point	-30.12739854	26.37920305	30° 07' 38.63476200" S	26° 22' 45.13099080" E
<b>Widening of Existing Road Intersections</b>				
Mid-Point (S1262/S119 intersection)	-30.10423498	26.4123598	30° 06' 15.24592316" S	026° 24' 44.49527212" E
Mid-Point (S119/Option A)	-30.10220739	26.40774196	30° 06' 07.94659649" S	026° 24' 27.87105360" E
Mid-Point (S119/Option B)	-30.09339592	26.38873086	30° 05' 36.22530598" S	026° 23' 19.43109165" E



Co-ordinate Point	Decimal Degrees		Degrees, Minutes, Seconds	
	Latitude (Y)	Longitude (X)	Latitude (S)	Longitude (E)
Mid-Point (S119/Option C)	-30.08839031	26.37833609	30° 05' 18.20510587" S	026° 22' 42.00993312" E

- for the development of the up to 1200MWH Battery Energy Storage System and associated infrastructure (Biesjesvlei BESS 3); near Smithfield, within the Mohokare Local Municipality, Free State Province, hereafter referred to as "the property".

Description of the components of Biesjesvlei BESS 3 and Associated Infrastructure

Component	Description
<b>Battery Energy Storage System (BESS)</b>	
BESS Area/Facility	<ul style="list-style-type: none"> <li>▪ Technology: Lithium-Ion BESS</li> <li>▪ Estimated Capacity: Maximum 1 200 MWh</li> <li>▪ Total Footprint: Approximately 10 ha</li> <li>▪ Height: Between 5 m and 10 m</li> <li>▪ The BESS area will include the following sub-components:                             <ul style="list-style-type: none"> <li>○ BESS Units;</li> <li>○ BESS Laydown Area;</li> <li>○ BESS IPP Substation;</li> <li>○ Laydown area for the BESS IPP Substation;</li> <li>○ BESS Operational and Maintenance (O&amp;M) Office, including Ablutions;</li> <li>○ Access Roads;</li> <li>○ Internal Roads;</li> <li>○ MV cables between BESS Units;</li> <li>○ Transformer at the BESS IPP Substation;</li> <li>○ Internal cables; and</li> <li>○ Overhead cables at the BESS IPP Substation;</li> <li>○ Fencing and Security; and</li> <li>○ Parking Area.</li> </ul> </li> </ul>
<b>BESS Sub-Components</b> <i>(to be located within the 10 ha area of the overall BESS Facility)</i>	

Component	Description
BESS Units	<ul style="list-style-type: none"> <li>▪ This will include battery packs or containers, with an area of approximately 6 ha, and height up to 5 m.</li> </ul>
BESS Laydown Area	<ul style="list-style-type: none"> <li>▪ Footprint: Approximately 1.25 ha</li> </ul>
BESS IPP Substation	<ul style="list-style-type: none"> <li>▪ Footprint: Approximately 1 ha</li> <li>▪ Height: Up to 15 m</li> <li>▪ Capacity: 33 kV to 132 kV</li> <li>▪ This will be maintained by the IPP.</li> </ul>
Laydown Area for the BESS IPP Substation	<ul style="list-style-type: none"> <li>▪ Footprint: Approximately 0.5 ha</li> </ul>
BESS Operational and Maintenance (O&M) Office	<ul style="list-style-type: none"> <li>▪ Maximum height: Up to 5 m</li> <li>▪ Footprint: Approximately 0.5 ha</li> <li>▪ The BESS O&amp;M Office will also include Ablution facilities.</li> </ul>
External Access Roads	<ul style="list-style-type: none"> <li>▪ The study area can be accessed via various existing main roads and gravel roads. Specifically, three access route options have been considered: Access Route Option A, Option B and Option C, which are routed along the N6; S1262; and S119. Access Route Options A, B and C have different access points off the S119. Direct access to the proposed projects will be taken from the S119 along an existing farm access point, and thereafter new access roads will be developed within the study area, where they do not align with existing roads, or existing roads will be used where possible. Existing roads will be used as far as practically achievable.</li> <li>▪ New Access Roads: Where new access roads are required within the study area, these will be 4 - 8 m wide. A preferred and alternative main access road route will be considered in the EIA Phase (Refer to Chapter 5 for additional information).</li> </ul>

Component	Description
	<ul style="list-style-type: none"> <li>▪ Existing Access Roads: Where existing roads are used within the study area, they may need to be upgraded, as described below.</li> <li>▪ The Traffic Specialist has noted the following (additional detail is provided in Section 2.7 of this report):                     <ul style="list-style-type: none"> <li>○ The N6, S1262, and S119 are of a sufficient width to accommodate truck movement, however widening by more than 4 m or more than 6 m will be required at localised positions (i.e. intersections). Specifically, road widening by approximately 9 m will be required at the S1262 and S119 intersection. In addition, the N6 and S1262 intersection will need to be widened by approximately 2 m on the western side of the intersection and by approximately 2 m on the eastern side of the intersection.</li> <li>○ Existing internal farm roads (local farm roads within the farm property boundaries) will need to be upgraded to accommodate the abnormal loads as required. This includes the following:                             <ul style="list-style-type: none"> <li>• Intersection S119 and Access Route Option A: Road widening by approximately 14 m (at the widest point) will be required.</li> <li>• Intersection S119 and Access Route Option B: Road widening by approximately 7 m (at the widest point) will be required.</li> <li>• Intersection S119 and Access Route Option C: Road widening by</li> </ul> </li> </ul> </li> </ul>

Component	Description
	<p>approximately 14 m (at the widest point) will be required.</p> <ul style="list-style-type: none"> <li>• The existing bridge on the S119 will also need to be inspected by a Structural Engineer.</li> <li>• The existing bridge on the existing internal farm road along Access Route Option A will need to be rebuilt/upgraded or realigned to minimise the turns that the abnormal loads need to navigate, if this access route is used for the proposed projects.</li> <li>• A new bridge will need to be developed along Access Route Option B, if this option is used for the proposed projects.</li> <li>• A new bridge will need to be developed along Access Route Option C, if this option is used for the proposed projects.</li> </ul>
Internal Roads	<ul style="list-style-type: none"> <li>▪ Details: New internal gravel roads will need to be established within the BESS facility area.</li> <li>▪ Width: Up to 4 m</li> </ul>
Medium Voltage (MV) cables between the BESS Units	<ul style="list-style-type: none"> <li>▪ Placement: Buried/Ducted</li> <li>▪ Capacity: Ranges from 1 kV up to 33 kV</li> <li>▪ Depth: Up to 2 m</li> </ul>
Transformer at the BESS IPP Substation	<ul style="list-style-type: none"> <li>▪ Capacity: Ranges above 33 kV</li> <li>▪ Depth/Height: Up to 2 m</li> </ul>
Internal cables in the BESS facility	<ul style="list-style-type: none"> <li>▪ Placement: Buried / ducted</li> <li>▪ Capacity: Ranges from 1 kV up to 33 kV</li> <li>▪ Depth: Up to 2 m</li> </ul>
Overhead cables at the BESS IPP Substation	<ul style="list-style-type: none"> <li>▪ Placement: Overhead</li> <li>▪ Capacity: Ranges above 33 kV</li> <li>▪ Height: Up to 12 m</li> </ul>
Fencing of the BESS Facility and Security	<ul style="list-style-type: none"> <li>▪ Type: Palisade or mesh or fully electrified</li> </ul>

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Component	Description
	<ul style="list-style-type: none"> <li>▪ Height: Up to 5 m</li> <li>▪ Security: Access to the BESS Facility will be managed and monitored by an appointed security service provider.</li> </ul>
Parking Area	<ul style="list-style-type: none"> <li>▪ A parking area will be established at the BESS Facility for staff</li> </ul>
Storm water channels	<ul style="list-style-type: none"> <li>▪ Details to be confirmed once the Engineering, Procurement and Construction (EPC) contractor has been selected and the design is finalised. Where necessary, a detailed storm water management plan would need to be developed.</li> </ul>
Water Requirements	<ul style="list-style-type: none"> <li>▪ Approximately 350 m<sup>3</sup> to 450 m<sup>3</sup> of water is estimated to be required per year for the construction phase.</li> <li>▪ Approximately 200 m<sup>3</sup> to 300 m<sup>3</sup> of water is estimated to be required per year for the operational phase.</li> <li>▪ Water requirements during the decommissioning phase are expected to be the same as the construction phase.</li> <li>▪ Potential sources: Existing boreholes on site or from the Local Municipality via trucks.</li> </ul>
Construction Period	<ul style="list-style-type: none"> <li>▪ 12 - 24 months</li> </ul>
Operational Period	<ul style="list-style-type: none"> <li>▪ Once the commercial operation date is achieved, the proposed BESS will store and dispatch electricity for a minimum period of 20 to 30 years.</li> </ul>

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## Conditions of this Environmental Authorisation

### Scope of authorisation

1. The development of the up to 1200MWH Battery Energy Storage System and associated infrastructure (Biesjesvlei BESS 3); near Smithfield, within the Mohokare Local Municipality, Free State Province, is approved as per the geographic coordinates cited in the table above.
2. Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant, or person rendering a service to the holder of the authorisation.
4. The activities authorised must only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be affected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the regulations.
6. The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for Environmental Authorisation must be made for the activity to be undertaken.
8. Construction must be completed within five (05) years of the commencement of the activity on site. The continuation of any such activities after the above-mentioned period has lapsed may trigger one or more listed and/or specified activities, including activity 32 of Listing Notice 1. Such continuation without the required environmental authorisation will constitute an offence or offences in terms of section 49A(1)(a) read with section 24F(1)(a) of National Environmental Management Act (NEMA).
9. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

### **Notification of authorisation and right to appeal**

10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
11. The notification referred to must –
  - 11.1. specify the date on which the authorisation was issued,
  - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014,
  - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
  - 11.4. give the reasons of the Competent Authority for the decision.

### **Commencement of the activity**

12. The authorised activity must not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

### **Management of the activity**

13. The final project layout map is showing the detailed infrastructure and development footprints for Biesjesvlei BESS 3, on Figure 20.2, on page 20-7 (under Chapter 20) of the final EIAR dated September 2024 is hereby approved.
14. The Environmental Management Programme (EMPr) for Battery Energy Storage System (BESS) submitted as part of the final EIAR dated September 2024, attached as Appendix L, is approved and must be implemented and adhered to.
15. The generic Environmental Management Programme (EMPr) for the BESS IPP Substation, submitted as part of the final EIAR dated September 2024, attached as Appendix M, is approved and must be implemented and adhered to.
16. The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.

17. Changes to the approved EMPr must be submitted in accordance with the EIA Regulations applicable at the time.
18. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the final EIAR be discovered.

### **Frequency and process of updating the EMPr**

19. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 25 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
20. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
21. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
22. In assessing whether to grant approval of an EMPr which has been updated because of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
23. The holder of the authorisation must apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

### **Monitoring**

24. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.



- 24.1. The ECO must be appointed before commencement of any authorised activities.
- 24.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.]
- 24.3. The ECO must keep record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO.
- 24.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

### **Recording and reporting to the Department**

25. All documentation e.g., audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
26. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
27. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, considering the processes for such auditing as prescribed in Regulation 34 of the EIA Regulations, 2014 as amended.
28. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e., within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
29. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
30. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

### **Notification to authorities**

31. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site

preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

### **Operation of the activity**

32. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

### **Site closure and decommissioning**

33. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and Competent Authority at that time.

### **Specific conditions**

34. The footprint of the development and access routes must be limited to areas required for actual construction works.
35. No exotic plants must be used for rehabilitation purposes. Only indigenous plants of the area must be utilised.
36. Permit from relevant authorities must be obtained prior commencement of any construction activities for the disturbance or removal of any nationally or provincially protected species.
37. No activities, which require a water use license, must be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation.
38. Should any archaeological sites, artefacts, paleontological fossils, or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, the South African Heritage Resources Agency (SAHRA) must be informed, and the services of an accredited heritage professional obtained for an assessment of the heritage resources.
39. Hazardous substances must be stored in a bunded and designated area to avoid accidental leakage into the environment.
40. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste must be disposed of at a landfill licensed in terms of Section 20 (b) of the National Environment Management Waste Act, 2008 (Act No.59 of 2008).

**General**

41. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
- 41.1. at the site of the authorised activity,
  - 41.2. to anyone on request; and
  - 41.3. Where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
42. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of Environmental Authorisation: 11/11/2024



Dr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations  
Department of Forestry, Fisheries & the Environment

## **Annexure 1: Reasons for Decision**

### **1. Information considered in making the decision**

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the amended application form received on 08 March 2024, amended application form received on 02 August 2024.
- b) The information contained in the final EIAR dated September 2024.
- c) The comments received from all interested and affected parties as included in the final EIAR dated September 2024.
- d) Mitigation measures as proposed in the EIAR and the EMPr and the generic EMPr dated September 2024.
- e) The information contained in the specialist studies contained within the appendices of the final EIAR.

### **2. Key factors considered in making the decision**

All information presented to the Department was considered in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project ties in with the national government policies, plans, and programmes which have relevance to energy planning and production.
- c) The final EIAR dated September 2024 identified all legislations and guidelines that have been considered in the preparation of the EIAR.
- d) The methodology used in assessing the potential impacts identified in the final EIAR dated September 2024 and the specialist studies have been adequately indicated.
- e) A sufficient public participation process was undertaken, and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 as amended for public involvement.

### **3. Findings**

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the final EIAR dated September 2024 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.

- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. **The environmental authorisation is accordingly granted.**

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