



forestry, fisheries & the environment

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

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DFFE Reference: 14/12/16/3/3/2/2562
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Mr Andrew Pearson
Jupiter Solar PV1 (Pty) Ltd
Suite 53
Private Bag X21
HOWARD PLACE
7450

Telephone Number (021) 685 3240
E-mail Address: andrew@mulilo.com

PER E-MAIL

Dear Mr Pearson

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE DEVELOPMENT OF THE JUPITER SOLAR PV1 FACILITY ON THE REMAINDER OF ROODE KRAAL 28 AND THE REMAINDER OF THE FARM HARTEBEEST HOEK 31, EMTHANJENI LOCAL MUNICIPALITY, PIXLEY KA SEME DISTRICT MUNICIPALITY IN THE NORTHERN CAPE 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 the Promotion of Administrative Justice Act, 2000 (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, 2013 (Act No. 4 of 2013) which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuses or compromises your personal information in any way.

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, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.



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.

MS

Your attention is drawn to Chapter 2 of the National Environmental Management Act, 1998 (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 prescribe 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 twenty (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@dffe.gov.za

By hand: Environment House
473 Steve Biko Road
Arcadia

PRETORIA

0083 or

By post: Private Bag X447

PRETORIA

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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.

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 or request a copy of the documents at appeals@dffe.gov.za.

Yours faithfully



Dr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment

Date: 05/02/2025

cc.	Ms Madeleine Knoetze	Sharples Environmental Services CC	Email: madeleine@sescc.net
	Mr Brian Fisher	Northern Cape DEARDLR	Email: bfisher@ncpp.gov.za
	Ms S Felix	Emthanjeni Local Municipality	Email: shereavef@emthanjeni.co.za



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 JUPITER SOLAR PV1 FACILITY ON THE REMAINDER OF ROODE KRAAL
28 AND THE REMAINDER OF THE FARM HARTEBEEST HOEK 31, EMTHANJENI LOCAL
MUNICIPALITY IN THE NORTHERN CAPE PROVINCE**

Pixley Ka Seme District Municipality

Authorisation register number:	14/12/16/3/3/2/2562
Last amended:	First issue
Holder of authorisation:	Jupiter Solar PV1 (Pty) Ltd
Location of activity:	Remainder of Farm Hartebeest Hoek 31; Remainder of Farm Roode Kraal 28; Emthanjeni Local Municipality; Pixley Ka Seme District Municipality; and Northern Cape Province.

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.

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 –

JUPITER SOLAR PV1 (PTY) LTD

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Mr Andrew Pearson

Suite 53

Private Bag X21

HOWARD PLACE

7450

Telephone Number: (021) 685 3240

E-mail Address: andrew@mulilo.com

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 NEMA EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>Listing Notice 1, Item 11:</u></p> <p><i>"The development of facilities or infrastructure for the transmission and distribution of electricity</i> <i>(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts."</i></p>	<p>The development is located outside of an urban area and will see to the construction of an on-site Eskom switching station as well as a IPP Substation (with a transmission capacity of up to 132kV). The distribution capacity will be within the thresholds of this activity. Furthermore, the internal electricity reticulation of the development will be within this threshold as well.</p>
<p><u>Listing Notice 1, Item 12:</u></p> <p><i>"The development of-</i> <i>(ii) Infrastructure or structures with a physical footprint of 100 square metres or more;</i> <i>Where such development occurs-</i> <i>(a) within a watercourse;</i> <i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse."</i></p>	<p>The development will be constructed through areas identified as wetlands. Sections of the development will intercept the wetlands identified on site. This would involve the movement of material in the watercourse.</p>
<p><u>Listing Notice 1, Item 14:</u></p> <p><i>"The development and related operation of facilities or infrastructure, for the storage, or for 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."</i></p>	<p>The project will require the storage and handling of dangerous goods, which would include fuels (i.e., diesel or petrol for the operation of machinery and equipment, etc), lubricants and chemicals, which will be greater than 80m³ but not exceeding 500m³.</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 development will be constructed through areas identified as wetlands. Sections of the development will intercept the wetlands identified on site. This would involve the movement of material in the watercourse.</p>

<p><u>Listing Notice 1, Item 24:</u></p> <p><i>“The development of a road—</i> <i>(ii) with a reserve wider than 13.5 metres, or where</i> <i>no reserve exists where the road is wider than 8</i> <i>metres.”</i></p>	<p>The development will include the construction of access roads and internal roads. The roads used for the purpose of the construction phase and the access road of the development will have a width of up to 10m. The internal roads to be used for the purpose of the operational phase of the development, will have a width of up to 8m. Therefore, the development footprint will exceed the 8m threshold.</p>
<p><u>Listing Notice 1, Item 28</u></p> <p><i>“Residential, mixed, retail, commercial, industrial or</i> <i>institutional developments where such land was used</i> <i>for agriculture, game farming, equestrian purposes or</i> <i>afforestation on or after 01 April 1998 and where such</i> <i>development:</i> <i>(ii) will occur outside an urban area, where the total</i> <i>land to be developed is bigger than 1 hectare.”</i></p>	<p>The development will be located on a portion of land which is currently used for the purpose of agricultural practices (game farming and small-scale livestock). The development site is approximately 832ha and the area to be cleared is up to 642ha. Therefore, the development footprint will exceed the 1ha threshold.</p>
<p><u>Listing Notice 1, Item 48</u></p> <p><i>“The expansion of—</i> <i>(i) infrastructure or structures where the physical</i> <i>footprint is expanded by 100 square metres or more;</i> <i>where such expansion occurs—</i> <i>(a) within a watercourse;</i> <i>(c) if no development setback exists, within 32 metres</i> <i>of a watercourse, measured from the edge of a</i> <i>watercourse.”</i></p>	<p>The development will see to the expansion and formalisation of multiple farm tracks located within the project area of interest. This will result in the need for a number of watercourse crossings to be upgraded. The cumulative area of impact on the watercourses and their respective 32m NEMA regulatory areas will exceed the 100m² threshold.</p>
<p><u>Listing Notice 2, Item 1:</u></p> <p><i>“The development of facilities or infrastructure for the</i> <i>generation of electricity from a renewable resource</i> <i>where the electricity output is 20 megawatts or more.”</i></p>	<p>The development of the Jupiter Solar PV 1 project will see to the installation of infrastructure with a total maximum generation capacity of up to 307MW. The exclusions of this activity are not applicable to the development. Therefore, the development footprint will exceed the 20MW threshold.</p>

<p><u>Listing Notice 2, Item 15:</u> "The clearance of an area of 20 hectares or more of indigenous vegetation"</p>	<p>The development will see to the clearance of up to 648ha of indigenous vegetation. Therefore, the development footprint will exceed the 20ha threshold. The exclusions of this activity are not applicable to the development.</p>
<p><u>Listing Notice 3, Item 4:</u> "The development of a road wider than 4 metres with a reserve less than 13,5 metres. g. Northern Cape ii. Outside urban areas: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans."</p>	<p>The development will include the construction of access roads and internal roads. The roads used for the purpose of the construction phase of the development will have a width of up to 10m. The internal roads to be used for the purpose of the operational phase of the development, will have a width of up to 8m.</p> <p>The development will be located within an area identified as a CBA in terms of the Northern Cape Conservation Plan. Therefore, the internal roads of the development exceeds the 4m threshold as stipulated in the activity.</p>
<p><u>Listing Notice 3, Item 12:</u> "The clearance of an area of 300 square metres or more of indigenous vegetation. g. Northern Cape ii. Within critical biodiversity areas identified in bioregional plans."</p>	<p>The development will be located within an area mapped as CBA, however these works will only involve the internal roads and the fencing infrastructure. The extent of the interception of the beforementioned infrastructure within the CBA is approximately 16ha.</p>
<p><u>Listing Notice 3, Item 14</u> "The development of— (ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs— (a) within a watercourse;</p>	<p>The development will see to the development of a road with a width of 10m within a watercourse. The length of the portion of the road infrastructure to impede into the watercourse will be approximately 442m. Therefore, the footprint of the infrastructure</p>

<p>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</p> <p>g. Northern Cape</p> <p>ii. Outside urban areas:</p> <p>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans."</p>	<p>will be approximately 4420m². This portion of the infrastructure is also located within a CBA.</p>
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as described in the Environmental Impact Assessment Report (EIAR) dated November 2024 at:

SG 21 Digit Code:

Farm Description	21 Digit Surveyor General Code
Remainder of Farm Hartebeest Hoek 31	C03000000000003100000
Remainder of Farm Roode Kraal 28	C03000000000002800000

Coordinates:

Point	Latitude	Longitude
Development Footprint Corner Points		
a	30°47'8.51"S	24° 7'18.40"E
b	30°46'52.49"S	24° 6'58.23"E
c	30°47'22.71"S	24° 5'24.01"E
d	30°46'54.79"S	24° 5'18.19"E
e	30°46'18.00"S	24° 6'9.95"E
f	30°46'20.17"S	24° 6'30.85"E
g	30°46'7.56"S	24° 6'44.42"E
h	30°45'47.69"S	24° 6'38.02"E
i	30°45'39.26"S	24° 6'25.08"E
j	30°45'0.96"S	24° 6'21.62"E
k	30°44'44.43"S	24° 6'52.62"E
l	30°45'22.05"S	24° 7'54.37"E
m	30°45'53.22"S	24° 8'10.54"E

Access Road Locality Points		
1	30°47'43.31"S	24° 8'1.07"E
2	30°47'41.66"S	24° 8'11.26"E
3	30°47'37.85"S	24° 8'11.18"E
4	30°47'26.75"S	24° 7'57.44"E
5	30°47'15.72"S	24° 7'43.64"E
6	30°47'4.67"S	24° 7'29.80"E
7	30°46'58.76"S	24° 7'24.08"E
8	30°46'44.82"S	24° 7'33.70"E
9	30°46'37.32"S	24° 7'38.91"E
10	30°46'32.61"S	24° 7'38.91"E
11	30°46'18.74"S	24° 7'48.59"E
12	30°46'12.95"S	24° 7'52.44"E
13	30°46'9.48"S	24° 7'45.77"E
Access Road Locality Points		
Start (N10-Highway)	30°47'43.31"S	24° 8'1.07"E
Mid	30°46'50.01"S	24° 7'31.66"E
End (Proposed infrastructure)	30°46'9.48"S	24° 7'45.77"E
Coordinates of the IPP Substation – 1ha		
a	30°45'55.37"S	24° 8'19.61"E
b (b)	30°45'57.05"S	24° 8'22.83"E
c (3)	30°45'59.80"S	24° 8'20.88"E
d (4)	30°45'58.14"S	24° 8'17.66"E
Centre Point Coordinates of IPP Substation	30°45'57.54"S	24° 8'20.23"E
Coordinates of the O&M and Control Buildings – 1ha		
1	30°46'0.93"S	24° 8'15.74"E
2 (ii)	30°46'2.62"S	24° 8'18.97"E
c (3)	30°45'59.80"S	24° 8'20.88"E
d (4)	30°45'58.14"S	24° 8'17.66"E
Centre Point Coordinates of the O&M and control Buildings	30°46'0.32"S	24° 8'18.42"E

Coordinates of the Battery Energy Storage System – 10ha		
A	30°46'0.39"S	24° 8'29.28"E
b (B)	30°45'57.05"S	24° 8'22.83"E
C	30°46'10.96"S	24° 8'13.17"E
D	30°46'14.27"S	24° 8'19.59"E
Centre Point Coordinates of the Battery Energy Storage System	30°46'5.52"S	24° 8'21.56"E
Coordinates of the Solar Array Fragments		
SAi	30°45'48.90"S	24° 8'34.23"E
SAii	30°46'13.91"S	24° 9'16.20"E
SAiii	30°46'27.55"S	24° 8'39.91"E
SAiv	30°47'2.97"S	24° 8'16.77"E
Coordinates of the Diesel Storage Area – 0.25ha		
i	30°46'1.80"S	24° 8'17.30"E
ii (2)	30°46'2.62"S	24° 8'18.97"E
iii	30°46'4.03"S	24° 8'17.97"E
iv	30°46'3.17"S	24° 8'16.35"E
Centre Point Coordinates of the Diesel Storage Area	30°46'2.90"S	24° 8'17.65"E
Coordinates of the Laydown Area – 10.8ha		
AA	30°46'13.21"S	24° 8'2.79"E
BB	30°46'16.51"S	24° 8'9.22"E
C	30°46'10.96"S	24° 8'13.17"E
iii	30°46'4.03"S	24° 8'17.97"E
iv	30°46'3.17"S	24° 8'16.35"E
1	30°46'0.93"S	24° 8'15.74"E
d (4)	30°45'58.14"S	24° 8'17.66"E
HH	30°45'56.53"S	24° 8'14.37"E
Centre Point Coordinates of the Laydown Area	30°46'6.55"S	24° 8'11.43"E
Centre points of blocks		
SAi	30°47'26.94"S	24° 8'2.42"E

SAii	30°47'26.94"S	24° 8'13.75"E
SAiii	30°47'26.95"S	24° 8'22.15"E
SAiv	30°47'26.94"S	24° 8'31.05"E
Corner points of SAI		
1	30° 45' 45,325" S	24° 8' 20,524" E
2	30° 45' 48,340" S	24° 8' 20,523" E
3	30° 45' 50,461" S	24° 8' 22,801" E
4	30° 46' 6,056" S	24° 8' 47,300" E
5	30° 46' 3,139" S	24° 8' 47,124" E
6	30° 45' 54,166" S	24° 8' 41,920" E
7	30° 45' 52,520" S	24° 8' 52,542" E
8	30° 45' 49,623" S	24° 8' 52,554" E
9	30° 45' 38,865" S	24° 8' 30,022" E
10	30° 45' 38,865" S	24° 8' 25,028" E
Corner points of SAii		
1	30° 46' 1,010" S	24° 9' 16,515" E
2	30° 46' 5,260" S	24° 9' 25,781" E
3	30° 46' 10,288" S	24° 9' 28,005" E
4	30° 46' 13,251" S	24° 9' 24,667" E
5	30° 46' 17,857" S	24° 9' 23,643" E
6	30° 46' 21,601" S	24° 9' 22,026" E
7	30° 46' 23,815" S	24° 9' 18,660" E
8	30° 46' 23,816" S	24° 9' 12,131" E
9	30° 46' 19,481" S	24° 9' 5,741" E
10	30° 46' 16,660" S	24° 9' 5,752" E
11	30° 46' 14,536" S	24° 9' 6,072" E
12	30° 46' 12,564" S	24° 9' 8,409" E
13	30° 46' 2,767" S	24° 9' 11,971" E
14	30° 46' 1,010" S	24° 9' 12,140" E
15	30° 46' 7,378" S	24° 9' 28,017" E
Corner points of SAiii		
1	30° 46' 0,329" S	24° 8' 29,548" E
2	30° 46' 28,062" S	24° 9' 10,768" E

3	30° 46' 28,058" S	24° 9' 10,761" E
4	30° 46' 30,895" S	24° 9' 10,757" E
5	30° 46' 32,994" S	24° 9' 10,487" E
6	30° 46' 33,602" S	24° 9' 10,430" E
7	30° 46' 36,555" S	24° 9' 10,769" E
8	30° 46' 41,588" S	24° 9' 10,758" E
9	30° 46' 57,057" S	24° 9' 5,009" E
10	30° 47' 2,950" S	24° 9' 0,786" E
11	30° 47' 4,394" S	24° 9' 0,216" E
12	30° 47' 4,394" S	24° 8' 59,356" E
13	30° 46' 17,335" S	24° 8' 2,803" E
14	30° 46' 15,381" S	24° 8' 1,669" E
15	30° 46' 12,815" S	24° 8' 1,657" E
16	30° 45' 53,684" S	24° 8' 16,366" E
Corner points of SAiv		
1	30° 46' 16,687" S	24° 7' 58,245" E
2	30° 47' 7,853" S	24° 8' 59,590" E
3	30° 47' 9,976" S	24° 9' 0,229" E
4	30° 47' 12,886" S	24° 9' 0,549" E
5	30° 47' 17,919" S	24° 9' 0,537" E
6	30° 47' 19,639" S	24° 8' 59,910" E
7	30° 47' 19,923" S	24° 8' 59,898" E
8	30° 47' 28,706" S	24° 8' 51,147" E
9	30° 47' 35,692" S	24° 8' 46,478" E
10	30° 47' 39,939" S	24° 8' 21,475" E
11	30° 47' 39,939" S	24° 8' 13,982" E
12	30° 47' 2,191" S	24° 7' 26,695" E
13	30° 46' 57,235" S	24° 7' 26,194" E
14	30° 46' 16,856" S	24° 7' 54,735" E

- for the development of the Jupiter Solar PV1 Facility on the Remainder of Roode Kraal 28 and the Remainder of the Farm Hartebeest Hoek 31, Emthanjeni Local Municipality, Pixley Ka Seme District Municipality in the Northern Cape Province, hereafter referred to as "the property".

The development will have an extent of approximately 832ha (with a development footprint of approximately 647ha) and will have a total maximum generation capacity of up to 307MW. The development will include the following infrastructure:

a) Solar field:

- The solar array will be fragmented into four (4) different areas.
- The development will have a maximum output capacity of up to 307MW, with a solar array with an extent of up to 624ha.
- The solar array will be comprised of solar PV modules with single axis tracking or fixed technology with a maximum height of 4,5m. The solar module mounting structures will be comprised of galvanised steel and aluminium, whereas the foundations will be drilled and concreted into the ground.
- The solar array will be equipped with solar measurement instruments and weather stations.

b) IPP Substation and control room:

- The IPP Substation will operate at 132kV and will be equipped with the High Voltage (HV) transformer, a metering system, filters, capacitors, an inverter and a protection building. The IPP Substation will also be equipped with the substation control building and the MW collector switchgear building.
- The Substation will have a total footprint of up to 1ha (100mx100m).

c) Laydown Area:

- The allocated laydown area of the development will have a total footprint of up to 13ha and will be directly adjacent to the Operational & Maintenance Building and Diesel Storage Area.

d) Operational & Maintenance Building and Control Buildings:

- The area of the O&M Buildings and Control Rooms will have a total footprint of up to 1ha (100mx100m).

e) Internal Roads:

- The internal gravel roads will have an operational footprint of up to 6m in width.
- The internal gravel roads will connect the various components of the solar array, the medium voltage stations and the main infrastructural components (substations, the BESS, laydown areas, etc).

f) External/Access Road:

- Access will be obtained through a road leading from the N10-Highway to the development area.
- The access road will be approximately 10m in width during the construction phase of the development and will be approximately 8m in width during the operational phase.

g) Battery Energy Storage System:

- The Battery Energy Storage System (BESS) will be located at the substation and laydown area.
- The facility will be equipped with Solid State Battery Technology (which will be either Lithium-Ion or Sodium Sulphide (NaS)).
- The BESS will have an extent of up to 10ha and will be approximately 200m in width and 500m in length.

h) Diesel Storage area:

- The area is approximately 2 500m² in size and will be 50m in length and width.

i) Guard house.

Technical details for the Jupiter Solar PV1 Facility

Component	Description / dimension
Solar Field	<ul style="list-style-type: none"> • The solar array will be fragmented into four (4) different areas. • The development will have a maximum output capacity of up to 307MW, with a solar array with an extent of up to 624ha. • The solar array will be comprised of solar PV modules with single axis tracking or fixed technology with a maximum height of 4,5m. The solar module mounting structures will be comprised of galvanised steel and aluminium, whereas the foundations will be drilled and concreted into the ground. • The solar array will be equipped with solar measurement instruments and weather stations.
IPP Substation and control room	<ul style="list-style-type: none"> • The IPP Substation will operate at 132kV and will be equipped with the High Voltage (HV) transformer, a metering system, filters, capacitors, an inverter and a protection building. The IPP Substation will also be equipped with the substation control building and the MW collector switchgear building. • The Substation will have a total footprint of up to 1ha (100mx100m).
Laydown Area	<ul style="list-style-type: none"> • The allocated laydown area of the development will have a total footprint of up to 13ha and will be directly adjacent to the Operational & Maintenance Building and Diesel Storage Area.
Operational & Maintenance Building and Control Buildings	<ul style="list-style-type: none"> • The area of the O&M Buildings and Control Rooms will have a total footprint of up to 1ha (100mx100m).
Internal Roads	<ul style="list-style-type: none"> • The internal gravel roads will have an operational footprint of up to 6m in width. • The internal gravel roads will connect the various components of the solar array, the medium voltage stations and the main infrastructural components (substations, the BESS, laydown areas, etc).

External/Access Road	<ul style="list-style-type: none">• Access will be obtained through a road leading from the N10-Highway to the development area.• The access road will be approximately 10m in width during the construction phase of the development and will be approximately 8m in width during the operational.
Battery Energy Storage System	<ul style="list-style-type: none">• The Battery Energy Storage System (BESS) will be located at the substation and laydown area.• The facility will be equipped with Solid State Battery Technology (which will be either Lithium-Ion or Sodium Sulphide (NaS)).• The BESS will have an extent of up to 10ha and will be approximately 200m in width and 500m in length.
Diesel Storage area	<ul style="list-style-type: none">• The area is approximately 2 500m² in size and will be 50m in length and width.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The development of the Jupiter Solar PV1 Facility on the Remainder of Roode Kraal 28 and the Remainder of the Farm Hartebeest Hoek 31, Emthanjeni Local Municipality, Pixley Ka Seme District Municipality in the Northern Cape Province as described above, are hereby approved as per the geographic coordinates cited in the tables 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 conducted 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 effected. 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 in order 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 layout plan attached under Appendix C- Preferred Development Layout titled "*Proposed Hercules Solar Cluster- Jupiter Solar PV1 development, Emthanjeni Local Municipality, Pixley ka Seme District Municipality, Northern Cape*" in the EIAr dated November 2024 is hereby approved.
14. The Environmental Management Programme (EMPr) submitted as part of the EIAr dated November 2024 (Appendix I1) is approved and must be implemented and adhered to.
15. Part C of the generic Environmental Management Programme (EMPr) for the substation, submitted as part of the EIAr dated November 2024 (Appendix I2), is approved, and must be implemented and adhered to.
16. The EMPrs (for the PV facility and the generic EMPr for the substation) must be implemented and strictly enforced during all phases of the project. They shall be seen as dynamic documents and shall be included in all contract documentation for all phases of the development.
17. Changes to the approved EMPrs must be submitted in accordance with the EIA Regulations applicable at the time.
18. The Department reserves the right to amend the approved EMPrs, should any impacts that were not anticipated or covered in the 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 26 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 as a result 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 at Directorcompliance@dffe.gov.za.
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 at Directorcompliance@dffe.gov.za.

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 an environmental audit report 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 area of the construction must be kept to a minimum. The footprint area must be clearly demarcated to avoid unnecessary disturbances to adjacent areas.

35. No exotic plants must be used for rehabilitation purposes. Only indigenous plants of the area must be utilised.
36. Permits from relevant authorities must be obtained for the removal or disturbance of any TOPs, Red Data listed or nationally protected species.
37. All areas to be developed must be walked through prior to any activity to ensure no SCC (Species of Conservation Concern) nests or avifauna species are found in the area. Should any SCC be found and not move out of the area, or their nest be found in the area, an avifaunal specialist must be consulted to advise on the correct actions to be taken.
38. All the parts of the infrastructure that forms part of the development must be nest proofed, and anti-perch devices placed on areas that can lead to electrocution.
39. Post-construction avifaunal monitoring must follow the BirdLife South Africa best practice guidelines for solar energy facilities (BirdLife South Africa, 2017). If monitoring results indicate excessive bird fatalities, then adaptive mitigations must be implemented. Before implementation, these must be discussed with the avifaunal specialist and could include the retrofitting/incorporation of additional visual cues/diverters to existing PV panels/infrastructure. This is especially important for monitoring the existing Secretary bird nest that exists near the Project Area of Influence. Monitoring of this nest must be considered throughout the life of the operation.
40. An ornithological management plan must be put in place for the construction and post construction monitoring.
41. A 50m buffer must be applied to the drainage areas as depicted in Figure 3-25 of the Freshwater Ecology Assessment and considered as No-Go areas for the placement of the solar panels, substation, laydown area, O&M building, BESS and diesel storage area.
42. If any archaeological material or human burials are uncovered during the course of development, then work in the immediate area must be halted. The find would need to be reported to the heritage authorities and to a heritage practitioner so that an investigation and evaluation of the finds can be made.
43. The Chance Finds Protocol must be strictly adhered to.
44. A Fire Management Plan must be compiled and strictly adhered to.
45. Construction must include design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
46. Mitigation measures detailed within the Environmental Impact Assessment Report, specialist assessments and technical studies are to be implemented.
47. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, reuse, 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

48. The recommendations of the EAP in the EIAr dated November 2024 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
49. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
- 49.1. at the site of the authorised activity;
 - 49.2. to anyone on request; and
 - 49.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
50. 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: 05/02/2025



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 22 November 2024.
- b) The information contained in the EIAr dated November 2024.
- c) The comments received from interested and affected parties as included in the EIAr dated November 2024.
- d) Mitigation measures as proposed in the EIAr dated November 2024, the Facility EMPr and the generic EMPr dated November 2024.
- e) The information contained in the specialist studies contained within the appendices of the EIAr dated November 2024 and as appears below:

Title	Prepared by	Date issued
Avifauna Impact Assessment	The Biodiversity Company	November 2024
Agricultural Compliance Statement	Johann Lanz	October 2024
Palaeontological Impact Assessment	Dr Gideon Groenewald	September 2024
Heritage Impact Assessment Report	TerraMare Archaeology	September 2024
Social Impact Assessment	Tony Barbour Environmental Consulting	October 2024
Visual Impact Assessment	David Gibbs Landscape Architect Environmental Planner + Heritage Practitioner	September 2024
Freshwater Ecology Assessment	The Biodiversity Company	October 2024
Biodiversity Impact Assessment	The Biodiversity Company	November 2024

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 stems from the provision of electricity to the national grid.

- c) The EIAr dated November 2024 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The methodology used in assessing the potential impacts identified in the EIAr dated November 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.

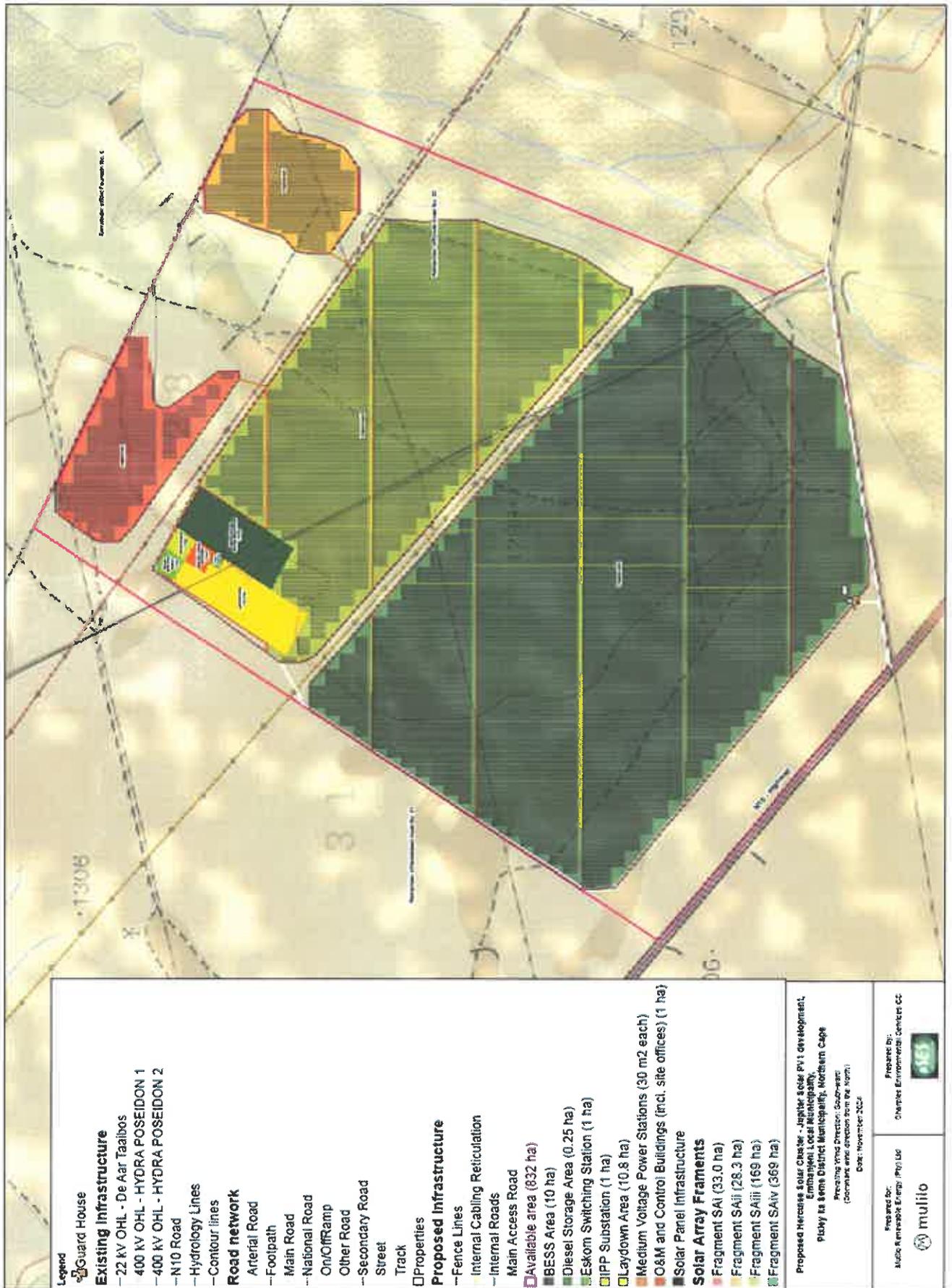
3. Findings

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 EIAr dated November 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 information contained in the EIAr dated November 2024 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) 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.**

Annexure 2: Layout Plan



M-S