



forestry, fisheries & the environment

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

Private Bag X 447· PRETORIA ·0001· Environment House ·473 Steve Biko Road, Arcadia· PRETORIA

DFFE Reference: 14/12/16/3/3/2/2314

Enquiries: Ms Constance Musemburi

Telephone: (012) 399 9416 **E-mail:** CMusemburi@dfre.gov.za

Mr Anthony De Graaf
Turffontein Solar 1 (Pty) Ltd
101, Block A
West Quay Building 7 West Quay Road
CAPE TOWN
8000

Tel number: 021 418 2596

Email Address: anthony@atlanticep.com / amy@atlanticep.com

PER E-MAIL

Dear Mr De Graaf

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: THE DEVELOPMENT OF AN UP TO 240MW TURFFONTEIN SOLAR 1 PHOTOVOLTAIC (PV) ENERGY FACILITY AND ASSOCIATED GRID INFRASTRUCTURE, NEAR CARLETONVILLE, GAUTENG PROVINCE AND NORTHWEST 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 14 (fourteen) 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 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 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 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

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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

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.

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



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

Date: 19/09/2023

Cc:	Vivienne Vorster	Environamics CC	Email: vivienne@solis-environmental.co.za
	Malesela Sehona	Gauteng Department of Agriculture and Rural Development	Email: eiaenquiries@gauteng.gov.za / environmentcomments@gauteng.gov.za
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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 AN UP TO 240MW TURFFONTEIN SOLAR 1 PHOTOVOLTAIC (PV) ENERGY FACILITY AND ASSOCIATED GRID INFRASTRUCTURE, NEAR CARLETONVILLE, GAUTENG PROVINCE AND NORTH-WEST PROVINCE

WEST RAND DISTRICT MUNICIPALITY & DR KENNETH KAUNDA DISTRICT MUNICIPALITY

Authorisation register number:	<i>14/12/16/3/3/2/2314</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>Turffontein Solar 1 (Pty) Ltd</i>
Location of activity:	<i>On Portion 4 of the Farm Turffontein No.126, Remaining Extent Portion 1 and Portion 3 of the Farm Kleinfontein No. 141 and Portion 1, 11, 23 and 28 of the Farm Doornfontein No. 118, within Ward 28 of the Merafong Local Municipality and JB Marks Local Municipality, Gauteng Province and North-West 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 NEMA 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 NEMA EIA Regulations, 2014, as amended, the Department hereby authorises –

TURFFONTEIN SOLAR 1 (PTY) LTD

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

with the following contact details –

Mr Anthony De Graaf
Turffontein Solar 1 (Pty) Ltd
101, Block A
West Quay Building 7 West Quay Road
CAPE TOWN
8000

Tel number: 021 418 2596

Email Address: anthony@atlanticep.com / amy@atlanticep.com

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

as described in the Environmental Impact Assessment Report (EIAR) dated 26 July 2023:

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>Energy generated by the PV array will be transmitted via underground medium voltage cables (i.e., up to 33kV) to the onsite Turffontein Solar 1 substation (the onsite facility substation) where it will be stepped-up to 132kV. A 132kV overhead powerline is proposed to connect the onsite facility substation to the existing Carmel Main Transmission substation.</p>
<p><u>Listing Notice 1, Item 12 (ii)(a)(c):</u></p> <p><i>The development of, (ii) infrastructure or structures with a physical footprint of 100 square metres or more, (a) within a watercourse or (c) within 32 meters of a watercourse measured from the edge of a watercourse.</i></p>	<p>The overhead powerline will span over the channelled valley bottom wetlands identified towards the eastern boundary of the area with pylon location within riparian areas of the watercourse. The project further requires an informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e., ~8.5km in length) and will run from the North-West to the Gauteng province. The project site comprises of high sensitivity livestock watering holes/ponds which have been avoided, however, panel structures and internal access roads will be located within 32m from the livestock watering holes/ponds.</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 development entails the placement of pylons within identified riparian areas (east of the proposed development) resulting to the excavation, removal or moving of soil from a watercourse of more than 10 cubic metres. The project further requires an informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e., approximately</p>

Activity number	Activity description
	8.5 km in length) and will run from the North-West to the Gauteng province.
<p><u>Listing Notice 1, Item 24(ii):</u> 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.</p>	<p>The proposed access roads to Turffontein Solar 1 will be up to 8 m wide, but with the inclusion of side drains and gavel embankments, will exceed the threshold of this activity. The proposed roads are not anticipated to traverse any watercourses. The project further requires an informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e., approximately 8.5 km in length) and will run from the North-West to the Gauteng province.</p>
<p><u>Listing Notice 1, Item 27:</u> The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation.</p>	<p>A total of 12ha of indigenous vegetation will be removed for the following:</p> <ul style="list-style-type: none"> • Auxiliary buildings – Up to 1ha • BESS – Up to 5ha • On-site facility substation – Up to 1ha • Laydown area – Up to 5ha
<p><u>Listing Notice 1, Item 28:</u> Residential, mixed, retail, commercial, industrial, or institutional developments where such land was used for agriculture or afforestation on or after 1998 and where such development, (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.</p>	<p>The total area to be developed for the PV facility and associated infrastructure is greater than 1ha and occurs outside an urban area in an area currently zoned for agriculture. The property will be re-zoned to “special” use. The development footprint of the solar PV facility is up to 490ha (excluding linear activities).</p>
<p><u>Listing Notice 1, Item 56:</u> The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre, (ii) where no reserve exists, where the existing road is wider than 8 metres.</p>	<p>The existing roads will require widening of up to 6 m to accommodate the movement of heavy vehicles and cable trenching activities. The project further requires an informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e.,</p>

Activity number	Activity description
	approximately ~8.5km in length) and will run from the North-West to the Gauteng province.
<p><u>Listing Notice 2, Item 1:</u></p> <p><i>The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more.</i></p>	<p>The proposed photovoltaic solar energy facility will generate up to 240 megawatts electricity through the use of a renewable resource.</p>
<p><u>Listing Notice 2, Item 15:</u></p> <p><i>The clearance of an area of 20 hectares or more of indigenous vegetation.</i></p>	<p>The cumulative area of indigenous vegetation to be cleared for the entire Project (excluding linear components) will exceed 20 hectares. The total development area (excluding linear activities) is approximately 490ha.</p>
<p><u>Listing Notice 3, Item 4(h)(iv):</u></p> <p><i>The development of a road wider than 4 metres with a reserve less than 13,5 metres, within</i></p> <p><i>(h) the North-West province,</i></p> <p><i>(iv) Critical Biodiversity Areas as identified in systematic biodiversity plans adopted by the competent authority.</i></p>	<p>The internal and perimeter access roads with a width of between 6 and 10 meters will be constructed. The project further requires an informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e., approximately ~8.5 km in length) and will run from the North-West to the Gauteng province. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical Biodiversity Area or an Ecological Support Area. Furthermore, a small portion of the site has been identified as a NPAES Priority Focus Areas (FA) for inclusion in future protected areas.</p>
<p><u>Listing Notice 3, Item 10(h)(iv)(vi):</u></p> <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>(h) North-West province</i></p>	<p>The proposed development will need to develop infrastructure for the storage and handling of dangerous goods (diesel and/or oils) in containers with a capacity exceeding 30 but not exceeding 80 cubic metres. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical</p>

Activity number	Activity description
<p>(iv) <i>Critical Biodiversity Areas as identified in systematic biodiversity plans adopted by the competent authority</i></p> <p>(vi) <i>Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.</i></p>	<p>Biodiversity Area or an Ecological Support Area. The project site comprises of high sensitivity livestock watering holes/ponds which have been avoided, however, panel structures and internal access roads will be located within 32m from the livestock watering holes/ponds.</p>
<p><u>Listing Notice 3, Item 12(c)(ii):</u></p> <p><i>The clearance of an area of 300 square metres or more of indigenous vegetation,</i></p> <p><i>(c) in the Gauteng Province,</i></p> <p><i>(ii) within Critical Biodiversity Areas or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans.</i></p>	<p>The proposed 132kV overhead powerline crosses into the Gauteng province and parts of indigenous vegetation will need to be temporarily cleared. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical Biodiversity Area or an Ecological Support Area.</p>
<p><u>Listing Notice 3, Item 12(h)(iv)(vi)</u></p> <p><i>The clearance of an area of 300 square metres or more of indigenous vegetation</i></p> <p><i>(h) North-West province,</i></p> <p><i>(iv) Critical Biodiversity Areas as identified in systematic biodiversity plans adopted by the competent authority</i></p> <p><i>(vi) Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.”</i></p>	<p>The proposed development is located in the North-West province and portions of the site has not been lawfully disturbed during the preceding ten years and therefore indigenous vegetation is present on the site. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical Biodiversity Area or an Ecological Support Area. The project site comprises of high sensitivity livestock watering holes/ponds which have been avoided, however, panel structures and internal access roads will be located within 32m from the livestock watering holes/ponds.</p>
<p><u>Listing Notice 3, Item 14(ii)(a)(c)(c)(ii)(iv)</u></p> <p><i>The development of,</i></p> <p><i>(ii) infrastructure or structures with a physical footprint of 10 square metres or more, where such development occurs</i></p> <p><i>(a) within a watercourse or</i></p>	<p>The proposed development comprises of a 132kV overhead powerline that will span over the channelled valley bottom wetland identified along the eastern boundary of the project area with pylon location within the riparian area of a watercourse. The proposed 132kV overhead powerline runs from the North-West to the Gauteng province. The project further requires an</p>

Activity number	Activity description
<p><i>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse,</i></p> <p><i>(c) Gauteng Province</i></p> <p><i>(ii) National Protected Area Expansion Strategy Focus Area</i></p> <p><i>(iv) Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans.</i></p>	<p>informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e., approximately 8.5 km in length) and will run from the North-West to the Gauteng province. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical Biodiversity Area or an Ecological Support Area. Furthermore, a small portion of the site has been identified as a NPAES Priority Focus Areas (FA) for inclusion in future protected areas.</p>
<p><u>Listing Notice 3, Item 14(ii)(a)(c)(h)(iv)</u></p> <p><i>The development of</i></p> <p><i>(ii) infrastructure or structures with a physical footprint of 10 square metres or more, where such development occurs</i></p> <p><i>(a) within a watercourse or</i></p> <p><i>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse,</i></p> <p><i>(h) North-West Province</i></p> <p><i>(iv) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority.</i></p>	<p>The project site comprises of high sensitivity livestock watering holes/ponds which have been avoided, however, panel structures and internal access roads will be located within 32m from the livestock watering holes/ponds</p>
<p><u>Listing Notice 3, Item 18(c)(ii)(iv)</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>(c) Gauteng Province</i></p> <p><i>(ii) National Protected Area Expansion Strategy Focus Area</i></p> <p><i>(iv) Sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans."</i></p>	<p>The project requires an informal access road (e.g., jeep track) that will span the length of the proposed powerline (i.e., approximately ~8.5 km in length) and will run from the North-West into the Gauteng province. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical Biodiversity Area or an Ecological Support Area. Furthermore, a small portion of the site has been identified as a NPAES Priority Focus Areas (FA) for inclusion in future protected areas.</p>

Activity number	Activity description
<p><u>Listing Notice 3, Item 18(h)(v)(ix)</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>(h) North-West Province</i></p> <p><i>(v) Critical Biodiversity Areas as identified in systematic biodiversity plans adopted by the competent authority</i></p> <p><i>(ix) Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.</i></p>	<p>The existing main access road to the site will need to be widened by more than 4 metres. The project further requires internal and perimeter access roads which will be widened by more than 4 m and within 100m from high sensitivity livestock watering holes/ponds. The project is located within the North-West Province. According to the Terrestrial Biodiversity Impact Assessment, parts of the site are within a Critical Biodiversity Area or an Ecological Support Area. Furthermore, a small portion of the site has been identified as a NPAES Priority Focus Areas (FA) for inclusion in future protected areas.</p>

as described in the Environmental Impact Assessment Report (EIAR) dated 26 July 2023:

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Farm portion	SG code
Solar PV Facility and Access Road:	
Portion 4 of the Farm Turffontein No. 126	TOIQ00000000012600004
Proposed Powerline:	
Portion 4 of the Farm Turffontein No. 126	TOIQ00000000012600004
Remaining Extent of the Farm Kleinfontein No. 141	TOIQ00000000014100000
Portion 1 of the Farm Kleinfontein No. 141	TOIQ00000000014100001
Portion 3 of the Farm Kleinfontein No. 141	TOIQ00000000014100003
Portion 1 of the Farm Doornfontein No. 118	TOIQ00000000011800001
Portion 11 of the Farm Doornfontein No. 118	TOIQ00000000011800011
Portion 23 of the Farm Doornfontein No. 118	TOIQ00000000011800023
Portion 28 of the Farm Doornfontein No. 118	TOIQ00000000011800028

Co-ordinates of the proposed facility:

Project Boundary	Latitude	Longitude
A	26°26'30.81"S	27°11'39.06"E
B	26°25'38.85"S	27°12'53.08"E
C	26°26'40.23"S	27°13'26.79"E

D	26°27'5.90"S	27°13'28.17"E
E	26°27'10.37"S	27°12'46.77"E
PV Array		
A	26°26'30.97"S	27°11'38.87"E
B	26°25'37.93"S	27°12'51.98"E
C	26°26'29.36"S	27°13'20.63"E
D	26°26'29.63"S	27°13'14.86"E
E	26°26'44.91"S	27°13'14.40"E
F	26°26'45.29"S	27°13'27.14"E
G	26°26'59.06"S	27°13'28.28"E
H	26°26'57.89"S	27°13'21.19"E
I	26°27'4.50"S	27°13'16.13"E
J	26°27'7.92"S	27°13'17.30"E
K	26°27'10.33"S	27°12'47.25"E

Associated Infrastructure:

Laydown Area		
A	26°26'29.23"S	27°13'14.40"E
B	26°26'29.06"S	27°13'20.97"E
C	26°26'32.89"S	27°13'23.15"E
D	26°26'34.49"S	27°13'19.62"E
E	26°26'37.21"S	27°13'21.18"E
F	26°26'37.30"S	27°13'14.37"E
BESS		
E	26°26'37.21"S	27°13'21.18"E
F	26°26'37.30"S	27°13'14.37"E
G	26°26'44.06"S	27°13'14.44"E
H	26°26'44.08"S	27°13'21.33"E
I	26°26'42.26"S	27°13'23.19"E
J	26°26'40.73"S	27°13'23.15"E
Auxiliary Buildings		
K	26°26'34.69"S	27°13'20.04"E
L	26°26'33.22"S	27°13'23.27"E

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M	26°26'36.06"S	27°13'24.86"E
N	26°26'37.49"S	27°13'21.62"E
Facility Substation		
O	26°26'37.83"S	27°13'21.87"E
P	26°26'36.34"S	27°13'25.07"E
Q	26°26'40.67"S	27°13'23.45"E
R	26°26'39.15"S	27°13'26.63"E
Grid Connection Corridor		
Start Point: A	26°26'38.77"S	27°13'24.15"
Bend Point: B	26°26'42.54"S	27°13'28.43"E
Middle Point: C	26°26'16.25"S	27°15'41.61"E
Bend Point: D	26°26'8.67"S	27°16'22.35"E
End Point (Carmel Main Transmission Substation): E	26°25'26.07"S	27°18'21.80"

- for the proposed development an up to 240MW Turffontein Solar 1 Photovoltaic (PV) energy facility and associated grid infrastructure, near Carletonville, on Portion 4 of the Farm Turffontein No.126, Remaining Extent Portion 1 and Portion 3 of the Farm Kleinfontein No. 141 and Portions 1, 11, 23 and 28 of the Farm Doornfontein No. 118, within Ward 28 of the Merafong Local Municipality and JB Marks Local Municipality, Gauteng Province and North West Province, hereafter referred to as "the property".

The key components/infrastructure will include the following:

- PV modules and mounting structures.
- Inverters and transformers.
- Battery Energy Storage System (BESS).
- Site and internal access roads (up to 8m wide).
- Operation and Maintenance buildings including a gate house and security building, control centre, offices, warehouses and workshops for storage and maintenance.
- Temporary and permanent laydown area.
- Facility grid connection infrastructure, including:
 - 33kV cabling between the project components and the facility substation.
 - A 132kV facility substation\Eskom switching station.
 - Up to 132kV powerline between the facility substation\Eskom Switching Station and the Carmel Main Transmission Substation.

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The technical details of the proposed facility include:

Component	Description / dimensions
Generation capacity	Up to 240MW
Height of PV panels	Up to 5.5m
Area of PV Array	Up to 478ha
Area occupied by inverter / transformer stations / substations / BESS	BESS: up to 5ha Facility substation: up to 1ha
Capacity of on-site substation	132kV
Development Footprint	Approximately 490ha (excluding linear activities)
Area occupied by both permanent and construction laydown areas	Permanent and Temporary Laydown Area: up to 5ha Hard Stand Area: <ul style="list-style-type: none"> • Auxilliary buildings – Up to 1ha • BESS – Up to 5ha • Facility substation – Up to 1ha • PV array – Up to 478ha
Area occupied by buildings	A 33kV switch room, a gate house, ablutions, workshops, storage and warehousing areas, site offices and a control centre: Up to 1ha
Battery storage facility	The Battery Storage Facility will occupy an area of up to 5 hectares. Maximum height of the BESS is 8m. The exact capacity of the battery storage remains unspecified at this stage.
Length of internal roads	Approximately 33km
Width of internal roads	Approximately 6 meters
Height of fencing	Approximately 3.5 meters
Height of powerline	Up to 32m
Capacity of the power line	132kV
Eskom Switching Station	132kV
Electricity Grid Infrastructure Corridor	The total area assessed for the Electricity Grid Infrastructure up to 100ha.
Grid connection corridor width	Up to 100m assessment corridor
Grid connection corridor length	Up to 8.5km assessment corridor

Power line servitude width	Up to 36m
Type of pylon to be used	Lattice or monopole

Conditions of this Environmental Authorisation

Scope of authorisation

1. The development of an up to 240MW **Turffontein Solar 1** Photovoltaic (PV) energy facility and associated grid infrastructure, near Carletonville, on Portion 4 of the Farm Turffontein No.126, Remaining Extent Portion 1 and Portion 3 of the Farm Kleinfontein No. 141 and Portion 1, 11, 23 and 28 of the Farm Doornfontein No. 118, within Ward 28 of the Merafong Local Municipality and JB Marks Local Municipality, Gauteng Province and North West Province, is 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 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 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 the 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 (10) years of the commencement of the activity on site.

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 project layout map attached as Figure I of the final EIAR dated 26 July 2023 is hereby approved.
14. The Environmental Management Programme (EMPr) submitted as part of the Final EIAR dated 26 July 2023 (Appendix F1 including appendices) 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 26 July 2023 (Appendix F2), is approved, and must be implemented and adhered to.

16. Part C of the generic Environmental Management Programme (EMPr) for the powerline, submitted as part of the EIAR dated 26 July 2023 (Appendix F3), is approved, and must be implemented and adhered to.
17. The EMPrs (for the PV facility and the generic EMPr's for the substation and powerline) 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.
18. Changes to the approved EMPrs must be submitted in accordance with the EIA Regulations applicable at the time.
19. 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

20. 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.
21. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
22. 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 before submission of the updated EMPr to the Department for approval.
23. In assessing whether to approve 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.
24. 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

25. 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.
- 25.1. The ECO must be appointed before the commencement of any authorised activities.
- 25.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 25.3. The ECO must keep a record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO. .
- 25.4. 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

26. 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.
27. 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.
28. The frequency of auditing and 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.
29. 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.
30. 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.

31. 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

32. A written notification of commencement must be given to the Department no later than fourteen (14) days before 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

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

Site closure and decommissioning

34. 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

35. Walk down of the approved site prior to construction activities must be undertaken in the relevant season to record all provincially protected species that will be impacted on by the development.
36. If any archaeological material or human burials are uncovered during the course of development, then work in the immediate area should be halted. The find would need to be reported to the heritage authorities and may require inspection by an archaeologist. Such heritage is the property of the state and may require excavation and curation in an approved institution.
37. All mitigation measures detailed within the final EIA Report, specialist assessments and technical studies must be implemented.
38. 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

39. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr must be made available for inspection and copying-
- 39.1. at the site of the authorised activity,
 - 39.2. to anyone on request; and
 - 39.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible websites.
40. 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 the authorisation.

Date of Environmental Authorisation: 19/09/2023



Mr 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 27 July 2023.
- b) The information contained in the final EIAr dated 26 July 2023.
- c) The comments received from Interested and Affected Parties as included in the final EIAr dated 26 July 2023.
- d) Mitigation measures as proposed in the final EIAr and the EMPr's.
- e) The information contained in the specialist studies contained within the appendices of the final EIAr dated 26 July 2023 and as appears below:

Name	Company	Author and Date
Aquatic Ecological Assessment	EnviroSci (Pty) Ltd	Dr Brian Colloty – 19 May 2023
Terrestrial Biodiversity Assessment, Animal Species Compliance Statement, and Plant Species Compliance Statement	David Hoare Consulting (Pty) Ltd	Dr David Hoare – Terrestrial Biodiversity Assessment – 31 May 2023 Animal Species Compliance Statement – 31 May 2023 Plant Species Compliance Statement - 31 May 2023
Avifaunal Scoping Report	Pachnoda Consulting CC	Lukas Niemand - May 2023
Visual Impact Assessment	Donaway Environmental Consultants	Johan Botha - December 2022
Agricultural Compliance Statement	Johann Lanz Soil Scientist	Johann Lanz - May 2023
Heritage Impact Assessment	J van Schalkwyk	J van Schalkwyk - December 2022, Revised on 09 May 2023
Palaeontological Impact Assessment	Banzai Environmental (Pty) Ltd	Eliza Butler - 2022
Social Impact Assessment	Donaway Environmental Consultants	Johan Botha - December 2022

Name	Company	Author and Date
Traffic Impact Assessment	iWink Consulting (Pty) Ltd	May 2023
Desktop Geotechnical Assessment	Delta Geotech	January 2023

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 the final EIAr recommended mitigation measures.
- b) The need and desirability of the Turffontein Solar 1 Facility, from an international perspective, can be described through the project's alignment with internationally recognised and adopted agreements, protocols, and conventions. South Africa is a signatory to a number of international treaties and initiatives, including the United Nations Development Programme's (UNDP's) Sustainable Development Goals (SDGs). The SDGs address global socio-economic challenges such as poverty, hunger, health, education, climate change, gender equality, water, sanitation, energy, urbanisation, environment, and social justice. The SDGs consist of 17 global goals set by the United Nations. The 17 SDGs are characterised by 169 targets and 304 indicators. Goal 7 of the SDGs relates to "Affordable and Clean Energy", with the aim of the goal being to ensure access to affordable, reliable, sustainable, and modern energy for all. The following targets and indicators have been set for Goal 7.
- c) The final EIAr dated 26 July 2023 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The location of the proposed project in relation to the larger cluster.
- e) The methodology used in assessing the potential impacts identified in the final EIAr dated 26 July 2023 and the specialist studies have been adequately indicated.
- f) 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

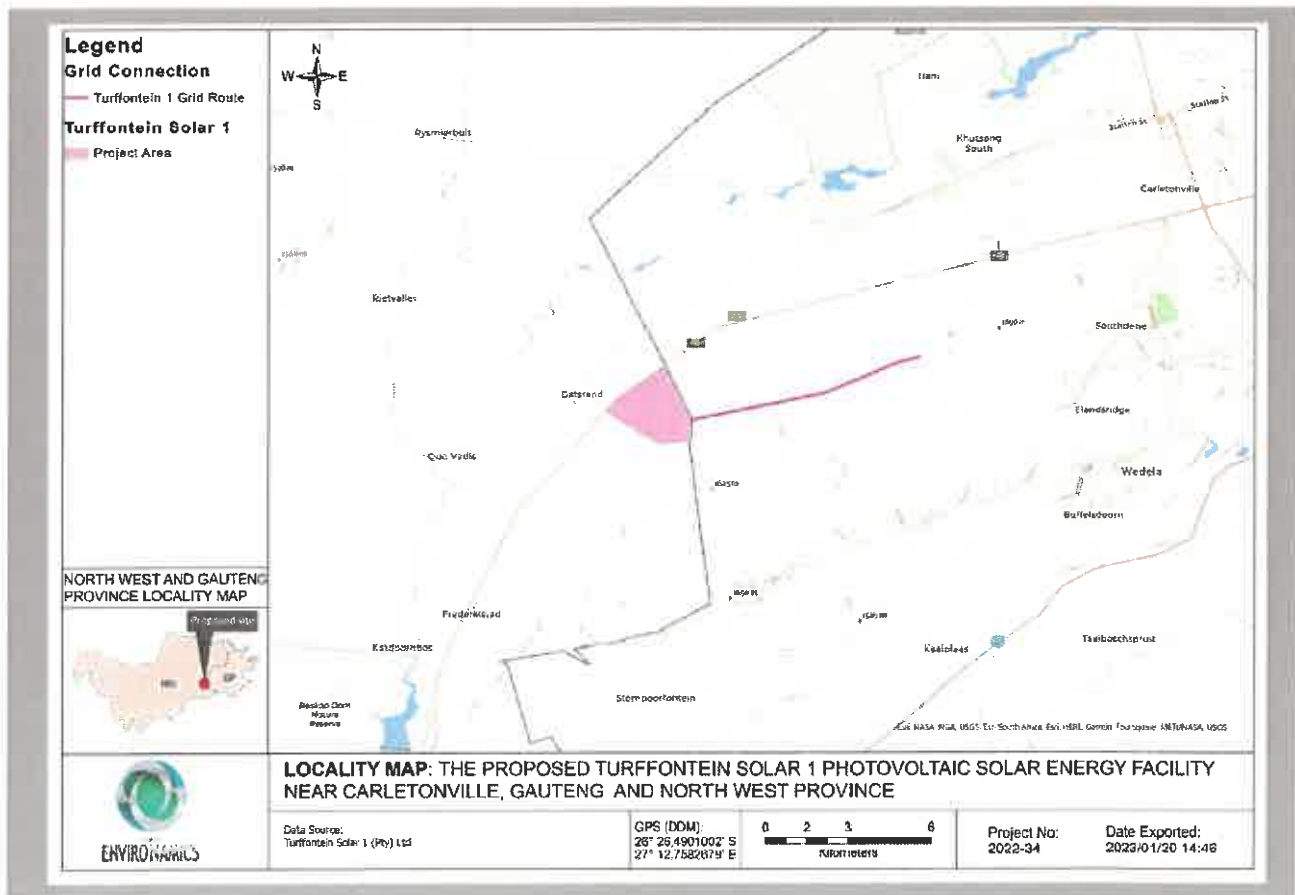
After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the final EIAr dated 26 July 2023 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 final EIA dated 26 July 2023 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) The comments and responses report adequately catered for all comments received and responses were deemed sufficient.
- f) EMP measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the final EIA 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: Locality Plan



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