

# Holland & Associates



Environmental Consultants

*Impact Assessments - Environmental Management Programs - Compliance Monitoring - Process Review*

15 July 2022

Dear Interested and/or Affected Party

**PROPOSED PAARDE VALLEY PV2 SWITCHING STATION, 132 KV OVERHEAD POWERLINE TO VETLAAGTE MAIN TRANSMISSION SUBSTATION (MTS), AND ASSOCIATED INFRASTRUCTURE, NEAR DE AAR, NORTHERN CAPE PROVINCE: BASIC ASSESSMENT PROCESS: NOTIFICATION OF APPLICATION FOR ENVIRONMENTAL AUTHORISATION AND AVAILABILITY OF DRAFT BASIC ASSESSMENT REPORT FOR COMMENT**

**PUBLIC PARTICIPATION PROCESS**

**(DFFE REF No.: TBC)**

The purpose of this letter is to inform potential Interested and Affected Parties (I&APs), including relevant State Departments and Organs of State, that Paarde Valley PV2 (Pty) Ltd, (hereafter referred to as “the Applicant”) is applying for an Environmental Authorisation (EA) in terms of the National Environmental Management Act (No. 107 of 1998) (NEMA), as amended, Environmental Impact Assessment (EIA) Regulations (2014), as amended, for the construction of a 132 kV double-circuit overhead powerline (OHPL) grid connection from the authorised Paarde Valley PV2 Solar Energy Facility to the Vetlaagte Main Transmission Substation (MTS), (which is currently undergoing its own EA application process), near De Aar, in the Northern Cape Province. The proposed project also includes the switching station (SwS) component of the authorised Paarde Valley PV2 on-site substation, a 132kV feeder bay at the Vetlaagte MTS, as well as service roads, access road and fencing.

The proposed project includes activities listed in terms of the NEMA (No. 107 of 1998) (as amended), EIA Regulations (2014), as amended i.e. Activities 11, 12, 19, 24, 27, 28, 48 and 56 of Listing Notice 1 (GN R983, as amended) and Activities 4, 10, 12, 14, 18, and 23 of Listing Notice 3 (GN R985, as amended). Accordingly, the project requires environmental authorisation from the competent environmental authority, i.e. the Department of Forestry, Fisheries and the Environment (DFFE) via a Basic Assessment process. Holland & Associates Environmental Consultants has been appointed to undertake the requisite Basic Assessment process and to submit an application for Environmental Authorisation in terms of the NEMA EIA Regulations (2014), as amended, to DFFE.

Notice is hereby given in terms of Regulation 41(2) of GN R982, as amended, published in terms of NEMA, of the submission of an application for environmental authorisation in respect of the aforementioned listed activities. Notice is also hereby given of the commencement of the public participation process in terms of the NEMA EIA Regulations (2014), as amended.

Furthermore, the proposed project may require approvals from the competent authorities in terms of the National Heritage Resources Act (Act No. 25 of 1999) and the National Water Act (Act No. 36 of 1998).

I&APs are invited to register as I&APs and to provide comment on the Application for EA and associated Draft Basic Assessment Report for the proposed project, during the 30 day I&AP comment period i.e. from 15 July 2022 – 15 August 2022.

In the event that you are reading this correspondence in your capacity as a representative of a State Department or Organ of State, kindly take note of the following: In terms of Section 24O of the National Environmental Management Act (NEMA) and Regulations 7(2) and 43(2) of the Environmental Impact Assessment (EIA) Regulations, 2014, as amended, any State Department that administers a law relating to a matter affecting the environment relevant to the application is hereby requested to comment within 30 days (i.e. by 15 August 2022) on the Application for Environmental Authorisation and associated Draft Basic Assessment Report for the proposed project.

The Executive Summary of the proposed development is given below.

## **EXECUTIVE SUMMARY**

### **Background**

Environmental Authorisation (EA) for the 75 - 150 MW Paarde Valley PV2 photovoltaic (PV) solar energy facility near De Aar in the Northern Cape Province was granted to Paarde Valley PV2 (Pty) Ltd by the Department of Environmental Affairs (DEA) (now known as the Department of Forestry, Fisheries and the Environment (DFFE)) in 2012, in terms of the National Environmental Management (“NEMA”) (Act No. 107 of 1998) Environmental Impact Assessment (“EIA”) Regulations (2010).

The currently authorised 132 kV / 220 kV grid connection for the Paarde Valley PV2 Solar Energy Facility is routed from the Paarde Valley PV2 facility to the De Aar substation. However, Eskom currently has grid capacity constraints in the Northern Cape, at certain lines and on certain substations, and currently does not have capacity for the authorised Paarde Valley PV2 Solar Energy Facility to connect at the De Aar substation. Accordingly, Paarde Valley PV2 (Pty) Ltd wishes to amend the authorised electrical grid connection (i.e. including re-alignment and termination point) and to create a separate Environmental Authorisation (EA) for Eskom’s self-build components (i.e. the switching station, 132 kV overhead powerline and associated infrastructure).

In light of the above, Paarde Valley PV2 (Pty) Ltd (hereafter referred to as the “Applicant”) proposes the construction of a 132 kV, double circuit, overhead powerline (OHPL) grid connection from the authorised on-site substation and switching station at the Paarde Valley PV2 solar energy facility to the Vetlaagte Main Transmission Station (MTS) (which is currently undergoing its own EA application process). The proposed OHPL would be approximately 12.7 km in length, and is located entirely within an Electricity Grid Infrastructure (EGI) Strategic Transmission Corridor, i.e. in the Central Corridor<sup>1</sup>, connecting the authorised Paarde Valley PV2 Solar Energy Facility to the Vetlaagte Main Transmission Substation (MTS).

The infrastructure associated with the proposed electrical Grid Connection works for the Paarde Valley PV2 project (and to be handed to Eskom following construction), includes the following:

- A 132kV, double circuit Overhead Power Line (OHPL) from the Switching Station connecting to the proposed Vetlaagte Main Transmission Substation (MTS). (Note: A 200 m corridor has been assessed and is being applied for).

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<sup>1</sup>as per Government Notice (GN.) 113 of Government Gazette No. 41445 published 16 February 2018, in terms of the NEMA (Act No. 107 of 1998).

- 132kV Feeder bay at the Vetlaagte MTS
- On-site Switching Station (SwS), including access road, adjacent to the authorised IPP 132 kV substation.

The OHPL and Switching station are required to connect the authorised Paarde Valley PV2 Solar Energy Facility to the Eskom National Grid.

In terms of the NEMA (Act No. 107 of 1998), Environmental Impact Assessment (EIA) Regulations (2014), as amended, the proposed project triggers listed activities that require Environmental Authorisation from the competent environmental authority, namely Department of Forestry, Fisheries and the Environment (DFFE). The DFFE's decision regarding environmental authorisation will be based on the outcome of the Basic Assessment process for the proposed project, required in terms of the NEMA EIA Regulations (2014), as amended.

## Project Location

The proposed development would be located on the periphery of the town of De Aar, in the Emthanjeni Local Municipality, within the Pixley Ka Seme District Municipality in the Northern Cape Province. The proposed switching station would be located approximately 3 km north of the town centre of De Aar, on the site of the authorised Paarde Valley PV2 Solar Energy Facility. The proposed switching station is currently authorised as a component of the Paarde Valley PV2 Solar Energy Facility's on-site substation (*Construction of 75-150MW PV2 Photovoltaic Solar Energy Facility and Associated Infrastructure*, EA reference number: 12/12/20/2500) but is proposed to be removed from this EA to form part of the infrastructure to be handed over to Eskom. The proposed overhead powerline would run from the proposed switching station, north-east, east and south-east of the town periphery to the proposed Vetlaagte MTS Substation which is located approximately 8.5 km south-east of the centre of De Aar. A 132 kV feeder bay is proposed to be located at the Vetlaagte MTS.

The proposed project would be located on the following affected properties / farm portions:

Project Component	Farm Name/s	SG Code
Switching Station and Access Road	RE/2/145 Paarde Valley	C057000000001450002
132 kV Feeder bay	RE/4 Vetlaagte	C05700030000026800000
Gridline to Vetlaagte MTS Substation	RE/2/145 Paarde Valley 6/145 Paarde Valley 29/145 Paarde Valley 30/145 Paarde Valley 31/145 Paarde Valley 43/145 Paarde Valley RE/179 Du Plessis Dam RE/4 Vetlaagte Erf 266 Erf 268 Erf 5113 Erf 5114 Erf 5115 Erf 5122 Erf 5121 Erf 5123 Erf 5127 Erf 5315 Erf 5316	C057000000001450002 C057000000001450006 C057000000001450029 C057000000001450030 C057000000001450031 C057000000001450043 C057000000001790000 C0300000000000400000 C05700030000026600000 C05700030000026800000 C05700030000511300000 C05700030000511400000 C05700030000511500000 C05700000000512200000 C05700030000512100000 C05700030000512300000 C05700030000512700000 C05700030000531500000 C05700030000531600000

The proposed project is located entirely within an Electricity Grid Infrastructure Strategic Transmission Corridor, i.e. in the Central Corridor<sup>2</sup>.

## Project Description

The proposed project would include the construction of a 132 kV, double circuit, overhead powerline (OHPL) grid connection from the switching station component of the authorised Paarde Valley PV2 Solar Energy Facility on-site substation to the proposed Vetlaagte Main Transmission Station (MTS) (which is undergoing its own EA process. The OHPL is proposed to be approximately 12.7 km in length and would be located in the Strategic Transmission Central Corridor<sup>3</sup>. The final OHPL servitude will be registered as 31 m in width but during the design development process a corridor of 200 meters has been assessed to allow for minor tower position adjustments. The exact pylon locations will be determined by the outcome of the specialist's investigations, and engineering considerations during detailed design. On average there will be 4 - 5 towers per km, so that the route will consist of approximately 40 towers. The teams constructing the OHPL often use cranes and these will fit into an area with a maximum radius of approximately 30 m around the base of each tower, with the final footprint being relatively small. The line will have a capacity of 132 kV and will make use of either steel monopole or steel lattice structure in line with Eskom required specifications.

The project would also include the switching station component of the authorised Paarde Valley PV2 Solar Energy Facility on-site substation, with an approximate footprint area of 100 m x 100 m, and a feeder bay at the Vetlaagte MTS with a capacity of 132 kV, as this needs to be handed over to Eskom with the grid connection self-build works once constructed.

In summary, the infrastructure associated with the proposed development (and to be handed over to Eskom following construction), includes the following:

- A 132 kV, double circuit Overhead Power Line (OHPL) with a length of approximately 12.7 km from the Paarde Valley PV2 Solar Energy Facility Switching Station to the proposed Vetlaagte Main Transmission Substation (MTS);
- A 132 kV feeder bay at the Vetlaagte MTS to connect to the Vetlaagte MTS; and
- An on-site Switching Station (SwS), adjacent to the authorised Paarde Valley PV2 Solar Energy Facility 132 kV on-site substation. (approximately 100 m x 100 m combined)

The technical details include:

### Overhead Powerline:

- Height of pylons: Up to 32 m
- Type of poles/ pylons to be used: Double Circuit configuration. The alternatives under consideration and assessed are steel lattice or monopole structures in line with Eskom required specifications.
- Transmission line capacity 132kV
- Length of OHPL approximately 12.7 km
- OHPL Service Road (to lie within the OHPL servitude)
  - Length of OHPL service road(s): Twin-tracked service road following line route with a length of approximately 12.7 km, and
  - Width of OHPL service road(s): 6 m

<sup>2</sup>as per Government Notice (GN.) 113 of Government Gazette No. 41445 published 16 February 2018, in terms of the NEMA (Act No. 107 of 1998).

<sup>3</sup>No. 113 of Government Gazette No. 41445 published 16 February 2018

### Switching Station:

- Footprint of approximately 50 m – 100 m x 100 m adjacent to the Paarde Valley PV2 Substation, within the authorised substation footprint;
- Area occupied by buildings (Control building, relay room, generator, storage warehouse, water tanks, ablutions): +-1.0 Hectares
- Switching Station Access Road (separate access servitude from the nearest public road to the Switching Station yard)
  - Compacted gravel
  - Length of access road: +- 2.34 km
  - Width of access road: 8 m
- Security fencing height: 2.4 m
  - Type of fencing: Eskom palisade fencing + chainlink fencing for temporary works
- Capacity of on-site switching station 132 kV

The OHPL and Switching station are required to connect the Paarde Valley PV2 Solar Energy Facility to the Eskom National Grid. The route selected follows boundary lines and / or existing OHPL routes so as to limit disruption to current farming activities as much as possible.

Note: The proposed Vetlaagte MTS, as well as the proposed Wag n Bietjie MTS, are both currently undergoing a separate EA process. While this application is for the Paarde Valley PV2 project to connect to the Vetlaagte MTS, there is a possibility that it may need to connect to the Wag n Bietjie MTS. If that is the case, the applicant will utilise this EA to construct up until the location of the Vetlaagte MTS, and then utilise a separate and additional EA for construction of the remaining portion of the line to the Wag n Bietjie MTS.

### **Legislative Context**

The EIA Regulations<sup>4</sup> (2014), as amended, promulgated in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998), as amended, identify certain activities that require environmental authorisation from the competent environmental authority, in this case the Department of Forestry, Fisheries and the Environment (DFFE), before commencing. Activities listed in Government Notice (GN) No. 984, as amended, require Scoping and Environmental Impact Reporting (S&EIR) whilst those in GN No. 983 and 985, as amended, require Basic Assessment (unless they are being assessed as part of a S&EIR process). The EIA listed activities that are being applied for in this BA process are as follows:

- GN R.983, as amended (Listing Notice 1): Activities 11, 12, 19, 24, 27, 28, 48 and 56
- GN R. 985, as amended (Listing Notice 3): Activities 4, 10, 12,14,18 and 23

In terms of Section 38(1) of the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), any person who intends to undertake “*any development ... which will change the character of a site exceeding 5 000 m<sup>2</sup> in extent*”, or “*the construction of a road, ....pipeline, or other similar form of linear development or barrier exceeding 300m in length*” must at the very earliest stages of initiating the development notify the responsible heritage resources authority, viz. the South African Heritage Resources Agency (“SAHRA”) or the relevant provincial heritage agency, viz Northern Cape Heritage Resources Authority (“NCHRA”).

Section 21 of the National Water Act (NWA) (Act No. 36 of 1998) specifies a number of “water uses”, including the abstraction of water from a water resource; the storing of water; impeding or diverting the flow of water in a watercourse; as well as altering the bed, banks, course or characteristics of a

<sup>4</sup> Government Notice No. R 983, R 984 and R 985 in Government Gazette No. 38282 of 4 December 2014, as amended in GN 324, GN 325, GN 326 and GN 327 of 7 April 2017, on 13 July 2018 (GN 706), 29 May 2020 (GN 599) and 11 June 2021 (GN 517).

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watercourse. Defined water use activities require the approval of the Department of Water and Sanitation (DWS) in the form of a General Authorisation (GA) or a Water Use Licence (WUL).

The GAs for Section 21 (c) and (i) water uses (impeding or diverting flow or changing the bed, banks or characteristics of a watercourse) as defined under the NWA were revised in 2016 (Government Notice R509 of 2016). Determining if a water use licence is required for these water uses is now associated with the risk of degrading the ecological status of a watercourse. A low risk of impact could be authorised in terms of a GA. The aquatic specialist has recommended that the proposed development falls within the ambit of the GA for Section 21(c) and (i) water use activities.

The ecological specialist for the proposed project confirmed that the vegetation type occurring of the site is Northern Upper Karoo, and that the conservation status of Northern Upeer Karoo is “Least Concern” (Hoare 2022). The vegetation type is not listed in The National List of Ecosystems that are Threatened and need of protection (GN1002 of 2011), published under the National Environmental Management: Biodiversity Act (Act No. 10, 2004) (Hoare, 2022).

The eastern section of the proposed development site (including the proposed access road) is located within 5 km of a Protected Area, i.e. a municipal nature reserve known as the De Aar Nature Reserve. Protected Areas should be maintained in a natural or near natural state with no loss or degradation of natural habitat (CapeNature, October 2020). The access road to the proposed switching station would be approximately 120 m from the edge of the De Aar Nature Reserve, at its closest. The proposed switching station would be approximately 750 m from the edge of the Nature Reserve and Vetlaagte MTS would be approximately 9.7 km from the Nature Reserve. The Emthanjeni Local Municipality and the DFFE: Protected Areas Directorate will be invited to comment on the proposed project as part of the Public Participation Process.

According to the National Web-based Screening Tool Report for the proposed project (dated 13 June 2022), the following protocols for the assessment of environmental impacts apply to the Basic Assessment Reporting process for the proposed project:

- Protocol for the Specialist Assessment and Minimum Report Content Requirements for the Environmental Impacts on Agricultural Resources (Government Notice No. 320 Published on 20 March 2020);
- Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Government Notice No. 320 Published on 20 March 2020);
- Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Aquatic Biodiversity (Government Notice No. 320 Published on 20 March 2020);
- Protocol for the Specialist Assessment and Minimum Report for Environmental Impacts on Terrestrial Plant Species (Government Notice No. 1150 Published on 30 October 2020);
- Protocol for the Specialist Assessment and Minimum Report for Environmental Impacts on Terrestrial Animal Species (Government Notice No. 1150 Published on 30 October 2020).
- General requirements for undertaking an initial site sensitivity verification where no specific assessment protocol has been identified (GN No. 648 Published on 10 May 2019), for Landscape/ Visual Impact Assessment; Archaeological and Cultural Heritage Impact Assessment; Palaeontology Impact Assessment; Geotechnical Assessment

A Site Sensitivity Verification Report was compiled which verified that of the twelve (12) specialist studies identified in the National web-based Screening Tool, nine full specialist assessments namely: Agriculture, Landscape / Visual, Archaeological and Cultural Heritage, Palaeontology, Terrestrial Biodiversity, Aquatic Biodiversity, Avian Impact Assessments are required. Compliance statements are required for the Animal Species theme (excluding the taxon Aves), the Plant Species theme, the Civil Aviation Theme and a specialist study was conducted for the RFI theme.

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## Assessment of Potential Environmental Impacts

The following impacts were assessed for the construction phase of the proposed development, with the impact significance ranging from medium positive to medium negative.

Construction Phase		
Potential Impact	Impact Significance without mitigation	Impact Significance with mitigation
Visual impacts	Low (-)	Low (-)
Impacts to archaeological resources	Very low (-)	Very low (-)
Impacts on graves	Very low (-)	Very low (-)
Impacts on cultural landscape	Very low (-)	Very low (-)
Damage or destruction of fossils on or below the surface	Very low (-)	Negligible (+)
Loss of natural habitat (powerline)	Low (-)	Low (-)
Loss of individuals of listed and protected plant species (gridline)	Very low (-)	Very low (-)
Loss of natural habitat (switching station)	Medium (-)	Medium (-)
Loss of individuals of protected trees, protected plants or other listed species (switching station)	Very low (-)	Negligible
Degradation of the ecological condition of aquatic ecosystems and water quality impacts	Negligible (-)	Negligible (-)
Displacement due to disturbance (gridline and switching station)	Low (-)	Very low (-)
Displacement due to habitat transformation (switching station)	Low (-)	Very low (-)
Displacement due to habitat transformation (gridline)	Very low (-)	Negligible (-)
Impact on traffic and transportation	Low (-)	Very low (-)
Impact on ambient noise levels in the area	Low (-)	Very low (-)
Impact on windblown dust	Low (-)	Very low (-)
Litter / Waste pollution	Very low (-)	Very low (-)
Job creation	Medium (+)	Medium (+)
Impacts on HIV and gender related concerns	Low (-)	Low (-)

The below impacts were assessed for the construction phase of the proposed development. All operational phase negative impacts can be mitigated to a medium, low, very low and negligible significance. One potentially high negative impact (mortality of avian priority species due to collisions with the OHPL) could occur without mitigation, however, would be reduced to medium negative significance with the recommended mitigation.

Operational Phase		
Potential Impact	Impact Significance without mitigation	Impact Significance with mitigation
Visual impacts (OHPL)	Medium (-)	Medium (-)
Visual impacts (switching station)	Medium (-)	Medium (-)
Impacts on cultural landscape	Low (-)	Low (-)
Invasion by alien invasive plant species	Low (-)	Very low (-)
Degradation of the ecological condition of aquatic ecosystems, modification of surface water runoff, erosion and alien vegetation invasion in aquatic features	Negligible (-)	Negligible (-)
Mortality of priority species due to collisions with the OHPL powerline using either technology alternative (i.e. steel lattice or standard steel monopole tower	High (-)	Medium (-)

Operational Phase		
Potential Impact	Impact Significance without mitigation	Impact Significance with mitigation
structures)		
Electrocutions on the proposed switching station infrastructure”	Low (-)	Very low (-)
Electrocutions on the proposed 132 kV powerline infrastructure using either technology alternative (i.e. steel lattice or standard steel monopole tower structures)	Medium (-)	Negligible (-)

Cumulative impacts have been rated as of very low to medium negative significance. This is due to the large number of existing and proposed developments in the area.

### Cumulative Impact Significance Summary Table

Impact	Cumulative impact without mitigation	Cumulative Impact with mitigation
<b>Construction Phase</b>		
Visual impacts	Medium (-)	Medium (-)
Impacts to archaeological resources	Low (-)	Low (-)
Impacts on graves	Low (-)	Low (-)
Impacts on cultural landscape	Low (-)	Low (-)
Damage or destruction of fossils on or below the surface	Low (-)	Low (-)
Loss of natural habitat (gridline)	Medium (-)	Medium (-)
Loss of individuals of listed and protected plant species (gridline)	Medium (-)	Medium (-)
Loss of natural habitat (switching station)	Medium (-)	Medium (-)
Loss of individuals of protected trees, protected plants or other listed species (switching station)	Medium (-)	Medium (-)
Degradation of the ecological condition of aquatic ecosystems and water quality impacts	Medium (-)	Low (-)
Displacement due to disturbance (gridline and switching station)	Medium (-)	Low (-)
Displacement due to habitat transformation (switching station)	Medium (-)	Medium (-)
Displacement due to habitat transformation (gridline)	Medium (-)	Medium (-)
<b>Operational Phase</b>		
Visual impacts (grid line)	Medium (-)	Medium (-)
Visual impacts (switching station)	Medium (-)	Medium (-)
Impacts on cultural landscape	Low (-)	Low (-)
Invasion by alien invasive plant species as a result of disturbance (gridline)	Medium (-)	Medium (-)
Invasion by alien invasive plant species as a result of disturbance (switching station)	Medium (-)	Medium (-)
Degradation of the ecological condition of aquatic ecosystems; modification of surface water runoff; erosion; and alien vegetation invasion in aquatic features	Medium (-)	Low (-)
Collisions with the proposed gridline	High (-)	Medium (-)
Electrocutions at the proposed switching station	Low (-)	Low (-)
Electrocutions on the proposed gridline	High (-)	Low (-)



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## Public Participation

A public participation process (PPP), in accordance with Chapter 6 of the EIA Regulations (2014), as amended, has been undertaken to ensure that potential and registered I&APs have been given an opportunity to comment on the proposed project.

The Public Participation Process includes, amongst others, the following:

- Advertisements in English and Afrikaans, placed in the local newspaper, *The Echo* (De Aar) newspaper, as well as in the regional *NoordkaapBulletin* newspaper.
- Site Notices in English and Afrikaans, placed at visible locations within the proposed project site and/or at the boundary of the site, where the public have access.
- Notification posters (in English and Afrikaans) placed in the town of De Aar at venues such as the local municipal offices, the public library, the police station and the local supermarket.
- Written notifications (sent via email, post and/or sms) to registered I&APs notifying them of the EA Application and the availability of the associated Draft Basic Assessment Report for review and comment.
- All potential and registered I&AP's (including relevant Organs of State and State Departments) will be given an opportunity to review and comment on the Draft Basic Assessment Report for a 30 day comment period i.e. from 15 July 2022 – 15 August 2022.
- Copies of the Draft Basic Assessment Report will be available as follows during the 30 day I&AP comment period:
  - A hard copy of the Draft Basic Assessment Report will be lodged at the Hennie Liebenberg Public Library in De Aar for the 30 day I&AP comment period.
  - An electronic copy of the Draft Basic Assessment Report will be made available for download on the Holland & Associates Environmental Consultants website ([www.hollandandassociates.net](http://www.hollandandassociates.net)). Furthermore, a copy of the Executive Summary for the Basic Assessment Report will be made available for download as a separate document on the Holland & Associates website, in order to accommodate I&APs who may not want to download the full report.
  - Upon request, the report will be made available to I&APs via electronic file transfer or Dropbox link. (The Dropbox link will be provided in the cover email for notifications sent to I&APs via email). Electronic copies of the report on CD or USB will be available on request.
  - An outline of the proposed project can be provided verbally (telephonically) to I&APs who are illiterate and/or those with disabilities and/or any other disadvantage, if necessary. Such I&APs may provide their comments via telephone and/or sms (if preferred), and such comments will be included in the Comments and Responses Report.
- Any additional I&APs who register during the Draft Basic Assessment process will be added to the registered I&AP database.
- All comments submitted by I&APs during the 30 day I&AP comment period will be collated and responded to in a Comments and Response Report (CRR), which will be submitted to the DFFE, together with the Final Basic Assessment Report, for decision-making.
- Registered I&APs will be notified, in writing, of DFFE's decision.

## Conclusions and Recommendations

A number of alternatives were considered during the design process for the proposed development, and the Preferred Alternative was selected as the best practicable environmental option that minimises impacts as far as possible. A corridor has been assessed for the linear activities, to allow for the avoidance of sensitive ecological features, such as aquatic buffers, and for detailed engineering considerations.

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Two generic Environmental Management Programmes (EMPrs) have been compiled for the proposed project, i.e. one for the overhead powerline (OHPL) component and the other for the switching substation component. These EMPrs also contain site specific impact management outcomes and the measures required to achieve these outcomes. These include the potential impacts on avifauna, ecology, freshwater, heritage, palaeontology, RFI and visual components.

In terms of the findings of the Basic Assessment (BA), the proposed development would result in no unacceptable biophysical and/or socio-economic impacts, provided that the mitigation measures as included in this BA Report are implemented. No impacts of High Negative significance would occur as a result of the implementation of the proposed activities during either the construction or operational phases. While some cumulative impacts are of medium negative significance, the contribution of the proposed development to the cumulative impacts is insignificant. The proposed development is necessary for the realisation of the authorised Paarde Valley PV2 Solar Energy Facility. The socio-economic benefits of the project therefore extend beyond the immediate impacts of the proposed development, and are considered to outweigh the residual negative impacts.

All specialists have recommended that the environmental authorisation can be granted, on the condition that the recommended mitigation measures included in the EMPr for the project are implemented.

In terms of the findings of the environmental assessment and specialist studies, there are no assessed potential negative environmental impacts associated with the proposed project that are of sufficient significance to justify the implementation of the “No-Go” Alternative.

In conclusion, it is the considered opinion of the EAP that the proposed project and listed activities should be authorised, given that the proposed project would result in no unacceptable biophysical and/or socio-economic impacts, provided that the mitigation measures as included in this BA Report are implemented.

In terms of the design alternatives for the poles/ pylons of the proposed overhead powerline (i.e. monopole or steel lattice), whilst monopole was preferred from a visual impact perspective, both design options are considered to be acceptable from an environmental perspective by the EAP and all of the specialists. The Applicant therefore wishes to be able to implement either design option (i.e. the Applicant would like to have free choice between the aforementioned design options, and the decision on which design to implement would happen at detailed design phase and in consultation with ESKOM).

## **Way Forward**

- The Draft Basic Assessment Report will be made available to I&APs for a 30 day comment period, i.e. from 15 July 2022 – 15 August 2022. Copies of the report will be available as follows during the 30 day I&AP comment period:
  - A hard copy of the Draft Basic Assessment Report will be available for viewing at the Hennie Liebenberg Public Library in the town of De Aar.
  - An electronic copy will be available for download on the Holland & Associates Environmental Consultants website ([www.hollandandassociates.net](http://www.hollandandassociates.net)). (Note: A copy of the Executive Summary for the Basic Assessment Report will be made available for download as a separate document on the Holland & Associates website, in order to accommodate I&APs who may not want to download the full report).
  - Upon request, the report will be made available to I&APs via electronic file transfer or Dropbox link. A Dropbox link will also be provided in the cover email for notifications sent to I&APs via email. Electronic copies of the report on CD or USB will be available on request, if required.
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I&APs are invited to review and comment on the abovementioned document during the 30-day comment period i.e. 15 July 2022 – 15 August 2022. Should you have any comments, issues or concerns regarding the proposed project, please submit your comments in writing via post or e-mail to Ms Tilly Watermeyer of Holland & Associates Environmental Consultants (email: PaardeValleygridppp@gmail.com or post: P.O. Box 31108, Tokai, 7966, Tel: 060 319 1217) on or before **15 August 2022**.

All comments received during the 30 day I&AP comment period will be recorded and responded to in a Comments and Response Report, which will be included in the Final Basic Assessment Report that will be submitted to the DFFE for decision making. Once the DFFE issues their decision on the proposed environmental authorisation application, all registered I&APs will be notified in writing of the DFFE's decision.

*Note: Protection of Personal Information Act, 2013 (Act 4 of 2013) Disclaimer: You are receiving correspondence with regards to the above-mentioned project, as your contact details have been captured into an initial Interested & Affected Parties (I&AP) database in terms of the Environmental Impact Assessment (EIA) Regulations (2014), as amended<sup>1</sup>, enacted in terms of the National Environmental Management Act (NEMA) (No. 107 of 1998), as amended. Should you wish to be removed from the I&AP Database at any stage, please notify the undersigned. Kindly note that by not responding to this correspondence it is our understanding that you consent to your contact details remaining in the registered I&AP Database and to receiving further correspondence with regards to the abovementioned EA application process for the proposed project. In the event of an appeal, the details of registered I&APs will be made available to an appellant to enable registered I&APs to be informed of and to participate in the appeal process. Should the proposed project be authorised, registered I&AP information will be made available to the Environmental Assessment Practitioner (EAP) or independent person for notification purposes of the submission of the environmental audit report. Further to the above, kindly note that it is the responsibility of registered I&APs to notify the Environmental Assessment Practitioner (EAP) should their contact details need to be updated during the EA application process (should they wish to continue receiving correspondence with regards to the EA application process).*

Should you require any further information or have any queries, please contact the undersigned.

Yours sincerely



**TILLY WATERMEYER** (BSc Hons, MSc.)



**NICOLE HOLLAND** (Reg. EAP (EAPASA); Pr Sci Nat)

# Holland & Associates



Environmental Consultants

*Impact Assessments - Environmental Management Programs - Compliance Monitoring - Process Review*

15 Julie 2022

Geagte Belanghebbende en/of Geaffekteerde Party

## **VOORGESTELDE PAARDE VALLEY PV2 SKAKELSTASIE, 132 KV OORHOOFSE KRAGLYN NA DIE VETLAAGTE HOOF-TRANSMISSIESUBSTASIE (HTS) EN VERWANTE INFRASTRUKTUUR NABY DE AAR, NOORD-KAAPROVINSIE: BASIESE BEOORDELINGSPROSES: KENNISGEWING VAN DIE AANSOEK VIR 'N OMGEWINGSMAGTIGING EN BESIKBAARHEID VAN DIE BASIESE BEOORDELINGSVERSLAG VIR KOMMENTAAR**

### **PROSES VAN OPENBARE DEELNAME**

**(DFFE VERWYSINGSNR: TBC)**

Die doel van hierdie brief is om moontlike Belanghebbende en Geaffekteerde Partye (B&GPe), insluitende betrokke Staatsdepartemente en Staatsinstansies, in kennis te stel dat Paarde Valley PV2 (Edms) Bpk, (hierna "die Applikant" genoem) in terme van die Wet op Nasionale Omgewingsbestuur (Nr 107 van 1998) (NEMA), soos gewysig, se Regulasies (2014) vir Omgewingsinvloedbepalings (OIB), soos gewysig, aansoek doen vir 'n Omgewingsmagtiging (OM) vir die oprigting van 'n 132 kV, dubbelstroom, oorhoofse kraglyn (OHKL) netwerkverbinding vanaf die gemagtigde Paarde Valley PV2 sonenergie-aanleg na die Vetlaagte Hoof-Transmissiestasie (HTS) ('n aparte aansoek vir 'n OM hiervoor is reeds aan die gang), naby De Aar in die Noord-Kaapprovinsie. Die voorgestelde projek sluit ook die volgende in: die skakelstasie-komponent van die gemagtigde Paarde Valley PV2 substasie op terrein en 'n 132kV toevoerkompartement by die Vetlaagte HTS, sowel as dienspaaie, 'n toegangspad en omheining.

Die beoogde projek sluit aktiwiteite in wat gelys is in terme van die NEMA (Nr 107 van 1998) (soos gewysig) se OIB-regulasies (2014), soos gewysig; naamlik Aktiwiteite 11, 12, 19, 24, 27, 28, 48 en 56 van Noteringskennisgewing 1 (GK R983, soos gewysig) en Aktiwiteite 4, 10, 12, 14, 18 en 23 van Noteringskennisgewing 3 (GK R985, soos gewysig). Die projek is daarom onderhewig aan 'n omgewingsmagtiging deur die bevoegde omgewingsowerheid, i.e. die Departement van Bosbou, Visserye en die Omgewing (DFFE). Holland & Genote Omgewingskonsultante is aangestel om die verlangde Basiese Beoordelingsproses te onderneem en 'n aansoek vir 'n Omgewingsmagtiging kragtens NEMA se OIB-regulasies (2014), soos gewysig, by die DFFE in te dien.

In terme van Regulasie 41(2) van GK R982, soos gewysig en afgekondig kragtens die NEMA, word u hiermee in kennis gestel van die aansoek vir 'n omgewingsmagtiging vir bogenoemde gelyste aktiwiteite. Hierdie skrywe dien ook as kennisgewing van die aanvang van die proses van openbare deelname kragtens die NEMA se OIB-regulasies (2014), soos gewysig.

Die beoogde projek mag miskien ook, in terme van die Wet op Nasionale Hulpbronne (Wet Nr 25 van 1999) en die Nasionale Waterwet (Wet Nr 36 van 1998), goedkeuring vanaf daardie bevoegde owerhede verlang.

B&GPe word uitgenooi om as 'n B&GP te registreer en gedurende die 30-dag kommentaartydperk vir B&GPe, i.e. van 15 Julie 2022 – 15 Augustus 2022, kommentaar te lewer op die Aansoek vir 'n OM en die gepaardgaande Basiese Beoordelingsverslag.

Indien u hierdie kennisgewing ontvang in u hoedanigheid as 'n verteenwoordiger van 'n Staatsdepartement of Staatsinstansie, word u versoek om van die volgende kennis te neem: Kragtens Afdeling 24O van die Wet op Nasionale Omgewingsbestuur (NEMA) se Regulasies 7(2) en 43(2) vir Omgewingsinvloedbepalings (OIB) 2014, soos gewysig, word enige Staatsdepartement wat 'n wetgewing administreer wat as gevolg van hierdie aansoek 'n invloed op die omgewing het, versoek om binne die 30-dag kommentaartydperk (i.e. teen 15 Augustus 2022) kommentaar te lewer op die Aansoek vir 'n Omgewingsmagtiging en die gepaardgaande Basiese Beoordelingsverslag vir die voorgestelde projek.

Die Uitvoerende Opsomming vir die voorgestelde projek is as volg:

## **EXECUTIVE SUMMARY**

### **Background**

Environmental Authorisation (EA) for the 75 - 150 MW Paarde Valley PV2 photovoltaic (PV) solar energy facility near De Aar in the Northern Cape Province was granted to Paarde Valley PV2 (Pty) Ltd by the Department of Environmental Affairs (DEA) (now known as the Department of Forestry, Fisheries and the Environment (DFFE)) in 2012, in terms of the National Environmental Management (“NEMA”) (Act No. 107 of 1998) Environmental Impact Assessment (“EIA”) Regulations (2010).

The currently authorised 132 kV / 220 kV grid connection for the Paarde Valley PV2 Solar Energy Facility is routed from the Paarde Valley PV2 facility to the De Aar substation. However, Eskom currently has grid capacity constraints in the Northern Cape, at certain lines and on certain substations, and currently does not have capacity for the authorised Paarde Valley PV2 Solar Energy Facility to connect at the De Aar substation. Accordingly, Paarde Valley PV2 (Pty) Ltd wishes to amend the authorised electrical grid connection (i.e. including re-alignment and termination point) and to create a separate Environmental Authorisation (EA) for ESKOM's self-build components (i.e. the switching station, 132 kV overhead powerline and associated infrastructure).

In light of the above, Paarde Valley PV2 (Pty) Ltd (hereafter referred to as the “Applicant”) proposes the construction of a 132 kV, double circuit, overhead powerline (OHPL) grid connection from the authorised on-site substation and switching station at the Paarde Valley PV2 solar energy facility to the Vetlaagte Main Transmission Station (MTS) (which is currently undergoing its own EA application process). The proposed OHPL would be approximately 12.7 km in length, and is located entirely within an Electricity Grid Infrastructure (EGI) Strategic Transmission Corridor, i.e. in the Central Corridor<sup>1</sup>, connecting the authorised Paarde Valley PV2 Solar Energy Facility to the Vetlaagte Main Transmission Substation (MTS).

The infrastructure associated with the proposed electrical Grid Connection works for the Paarde Valley PV2 project (and to be handed to Eskom following construction), includes the following:

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<sup>1</sup>as per Government Notice (GN.) 113 of Government Gazette No. 41445 published 16 February 2018, in terms of the NEMA (Act No. 107 of 1998).

- A 132kV, double circuit Overhead Power Line (OHPL) from the Switching Station connecting to the proposed Vetlaagte Main Transmission Substation (MTS). (Note: A 200 m corridor has been assessed and is being applied for).
- 132kV Feeder bay at the Vetlaagte MTS
- On-site Switching Station (SwS), including access road, adjacent to the authorised IPP 132 kV substation.

The OHPL and Switching station are required to connect the authorised Paarde Valley PV2 Solar Energy Facility to the Eskom National Grid.

In terms of the NEMA (Act No. 107 of 1998), Environmental Impact Assessment (EIA) Regulations (2014), as amended, the proposed project triggers listed activities that require Environmental Authorisation from the competent environmental authority, namely Department of Forestry, Fisheries and the Environment (DFFE). The DFFE's decision regarding environmental authorisation will be based on the outcome of the Basic Assessment process for the proposed project, required in terms of the NEMA EIA Regulations (2014), as amended.

### Project Location

The proposed development would be located on the periphery of the town of De Aar, in the Emthanjeni Local Municipality, within the Pixley Ka Seme District Municipality in the Northern Cape Province. The proposed switching station would be located approximately 3 km north of the town centre of De Aar, on the site of the authorised Paarde Valley PV2 Solar Energy Facility. The proposed switching station is currently authorised as a component of the Paarde Valley PV2 Solar Energy Facility's on-site substation (*Construction of 75-150MW PV2 Photovoltaic Solar Energy Facility and Associated Infrastructure*, EA reference number: 12/12/20/2500) but is proposed to be removed from this EA to form part of the infrastructure to be handed over to Eskom. The proposed overhead powerline would run from the proposed switching station, north-east, east and south-east of the town periphery to the proposed Vetlaagte MTS Substation which is located approximately 8.5 km south-east of the centre of De Aar. A 132 kV feeder bay is proposed to be located at the Vetlaagte MTS.

The proposed project would be located on the following affected properties / farm portions:

Project Component	Farm Name/s	SG Code
Switching Station and Access Road	RE/2/145 Paarde Valley	C057000000001450002
132 kV Feeder bay	RE/4 Vetlaagte	C0570003000002680000
Gridline to Vetlaagte MTS Substation	RE/2/145 Paarde Valley	C057000000001450002
	6/145 Paarde Valley	C057000000001450006
	29/145 Paarde Valley	C057000000001450029
	30/145 Paarde Valley	C057000000001450030
	31/145 Paarde Valley	C057000000001450031
	43/145 Paarde Valley	C057000000001450043
	RE/179 Du Plessis Dam	C057000000001790000
	RE/4 Vetlaagte	C030000000000040000
	Erf 266	C0570003000002660000
	Erf 268	C0570003000002680000
	Erf 5113	C0570003000051130000
	Erf 5114	C0570003000051140000
	Erf 5115	C0570003000051150000
	Erf 5122	C0570000000051220000
	Erf 5121	C0570003000051210000
	Erf 5123	C0570003000051230000
Erf 5127	C0570003000051270000	
Erf 5315	C0570003000053150000	

	Erf 5316	C05700030000531600000
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The proposed project is located entirely within an Electricity Grid Infrastructure Strategic Transmission Corridor, i.e. in the Central Corridor<sup>2</sup>.

### Project Description

The proposed project would include the construction of a 132 kV, double circuit, overhead powerline (OHPL) grid connection from the switching station component of the authorised Paarde Valley PV2 Solar Energy Facility on-site substation to the proposed Vetlaagte Main Transmission Station (MTS)( which is undergoing its own EA process. The OHPL is proposed to be approximately 12.7 km in length and would be located in the Strategic Transmission Central Corridor<sup>3</sup>. The final OHPL servitude will be registered as 31 m in width but during the design development process a corridor of 200 meters has been assessed to allow for minor tower position adjustments. The exact pylon locations will be determined by the outcome of the specialist's investigations, and engineering considerations during detailed design. On average there will be 4 - 5 towers per km, so that the route will consist of approximately 40 towers. The teams constructing the OHPL often use cranes and these will fit into an area with a maximum radius of approximately 30 m around the base of each tower, with the final footprint being relatively small. The line will have a capacity of 132 kV and will make use of either steel monopole or steel lattice structure in line with Eskom required specifications.

The project would also include the switching station component of the authorised Paarde Valley PV2 Solar Energy Facility on-site substation, with an approximate footprint area of 100 m x 100 m, and a feeder bay at the Vetlaagte MTS with a capacity of 132 kV, as this needs to be handed over to Eskom with the grid connection self-build works once constructed.

In summary, the infrastructure associated with the proposed development (and to be handed over to Eskom following construction), includes the following:

- A 132 kV, double circuit Overhead Power Line (OHPL) with a length of approximately 12.7 km from the Paarde Valley PV2 Solar Energy Facility Switching Station to the proposed Vetlaagte Main Transmission Substation (MTS);
- A 132 kV feeder bay at the Vetlaagte MTS to connect to the Vetlaagte MTS; and
- An on-site Switching Station (SwS), adjacent to the authorised Paarde Valley PV2 Solar Energy Facility 132 kV on-site substation. (approximately 100 m x 100 m combined)

The technical details include:

#### Overhead Powerline:

- Height of pylons: Up to 32 m
- Type of poles/ pylons to be used: Double Circuit configuration. The alternatives under consideration and assessed are steel lattice or monopole structures in line with Eskom required specifications.
- Transmission line capacity 132kV
- Length of OHPL approximately 12.7 km
- OHPL Service Road (to lie within the OHPL servitude)
  - Length of OHPL service road(s): Twin-tracked service road following line route with a length of approximately 12.7 km, and
  - Width of OHPL service road(s): 6 m

<sup>2</sup>as per Government Notice (GN.) 113 of Government Gazette No. 41445 published 16 February 2018, in terms of the NEMA (Act No. 107 of 1998).

<sup>3</sup>No. 113 of Government Gazette No. 41445 published 16 February 2018

### Switching Station:

- Footprint of approximately 50 m – 100 m x 100 m adjacent to the Paarde Valley PV2 Substation, within the authorised substation footprint;
- Area occupied by buildings (Control building, relay room, generator, storage warehouse, water tanks, ablutions): +-1.0 Hectares
- Switching Station Access Road (separate access servitude from the nearest public road to the Switching Station yard)
  - Compacted gravel
  - Length of access road: +- 2.34 km
  - Width of access road: 8 m
- Security fencing height: 2.4 m
  - Type of fencing: Eskom palisade fencing + chainlink fencing for temporary works
- Capacity of on-site switching station 132 kV

The OHPL and Switching station are required to connect the Paarde Valley PV2 Solar Energy Facility to the Eskom National Grid. The route selected follows boundary lines and / or existing OHPL routes so as to limit disruption to current farming activities as much as possible.

Note: The proposed Vetlaagte MTS, as well as the proposed Wag n Bietjie MTS, are both currently undergoing a separate EA process. While this application is for the Paarde Valley PV2 project to connect to the Vetlaagte MTS, there is a possibility that it may need to connect to the Wag n Bietjie MTS. If that is the case, the applicant will utilise this EA to construct up until the location of the Vetlaagte MTS, and then utilise a separate and additional EA for construction of the remaining portion of the line to the Wag n Bietjie MTS.

### **Legislative Context**

The EIA Regulations<sup>4</sup> (2014), as amended, promulgated in terms of the National Environmental Management Act (NEMA) (Act No. 107 of 1998), as amended, identify certain activities that require environmental authorisation from the competent environmental authority, in this case the Department of Forestry, Fisheries and the Environment (DFFE), before commencing. Activities listed in Government Notice (GN) No. 984, as amended, require Scoping and Environmental Impact Reporting (S&EIR) whilst those in GN No. 983 and 985, as amended, require Basic Assessment (unless they are being assessed as part of a S&EIR process). The EIA listed activities that are being applied for in this BA process are as follows:

- GN R.983, as amended (Listing Notice 1): Activities 11, 12, 19, 24, 27, 28, 48 and 56
- GN R. 985, as amended (Listing Notice 3): Activities 4, 10, 12,14,18 and 23

In terms of Section 38(1) of the National Heritage Resources Act (NHRA) (Act No. 25 of 1999), any person who intends to undertake “*any development ... which will change the character of a site exceeding 5 000 m<sup>2</sup> in extent*”, or “*the construction of a road, ....pipeline, or other similar form of linear development or barrier exceeding 300m in length*” must at the very earliest stages of initiating the development notify the responsible heritage resources authority, *viz.* the South African Heritage Resources Agency (“SAHRA”) or the relevant provincial heritage agency, *viz* Northern Cape Heritage Resources Authority (“NCHRA”).

Section 21 of the National Water Act (NWA) (Act No. 36 of 1998) specifies a number of “water uses”, including the abstraction of water from a water resource; the storing of water; impeding or diverting the flow of water in a watercourse; as well as altering the bed, banks, course or characteristics of a

<sup>4</sup> Government Notice No. R 983, R 984 and R 985 in Government Gazette No. 38282 of 4 December 2014, as amended in GN 324, GN 325, GN 326 and GN 327 of 7 April 2017, on 13 July 2018 (GN 706), 29 May 2020 (GN 599) and 11 June 2021 (GN 517).



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watercourse. Defined water use activities require the approval of the Department of Water and Sanitation (DWS) in the form of a General Authorisation (GA) or a Water Use Licence (WUL).

The GAs for Section 21 (c) and (i) water uses (impeding or diverting flow or changing the bed, banks or characteristics of a watercourse) as defined under the NWA were revised in 2016 (Government Notice R509 of 2016). Determining if a water use licence is required for these water uses is now associated with the risk of degrading the ecological status of a watercourse. A low risk of impact could be authorised in terms of a GA. The aquatic specialist has recommended that the proposed development falls within the ambit of the GA for Section 21(c) and (i) water use activities.

The ecological specialist for the proposed project confirmed that the vegetation type occurring of the site is Northern Upper Karoo, and that the conservation status of Northern Upeer Karoo is “Least Concern” (Hoare 2022). The vegetation type is not listed in The National List of Ecosystems that are Threatened and need of protection (GN1002 of 2011), published under the National Environmental Management: Biodiversity Act (Act No. 10, 2004) (Hoare, 2022).

The eastern section of the proposed development site (including the proposed access road) is located within 5 km of a Protected Area, i.e. a municipal nature reserve known as the De Aar Nature Reserve. Protected Areas should be maintained in a natural or near natural state with no loss or degradation of natural habitat (CapeNature, October 2020). The access road to the proposed switching station would be approximately 120 m from the edge of the De Aar Nature Reserve, at its closest. The proposed switching station would be approximately 750 m from the edge of the Nature Reserve and Vetlaagte MTS would be approximately 9.7 km from the Nature Reserve. The Emthanjeni Local Municipality and the DFFE: Protected Areas Directorate will be invited to comment on the proposed project as part of the Public Participation Process.

According to the National Web-based Screening Tool Report for the proposed project (dated 13 June 2022), the following protocols for the assessment of environmental impacts apply to the Basic Assessment Reporting process for the proposed project:

- Protocol for the Specialist Assessment and Minimum Report Content Requirements for the Environmental Impacts on Agricultural Resources (Government Notice No. 320 Published on 20 March 2020);
- Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity (Government Notice No. 320 Published on 20 March 2020);
- Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Aquatic Biodiversity (Government Notice No. 320 Published on 20 March 2020);
- Protocol for the Specialist Assessment and Minimum Report for Environmental Impacts on Terrestrial Plant Species (Government Notice No. 1150 Published on 30 October 2020);
- Protocol for the Specialist Assessment and Minimum Report for Environmental Impacts on Terrestrial Animal Species (Government Notice No. 1150 Published on 30 October 2020).
- General requirements for undertaking an initial site sensitivity verification where no specific assessment protocol has been identified (GN No. 648 Published on 10 May 2019), for Landscape/ Visual Impact Assessment; Archaeological and Cultural Heritage Impact Assessment; Palaeontology Impact Assessment; Geotechnical Assessment

A Site Sensitivity Verification Report was compiled which verified that of the twelve (12) specialist studies identified in the National web-based Screening Tool, nine full specialist assessments namely: Agriculture, Landscape / Visual, Archaeological and Cultural Heritage, Palaeontology, Terrestrial Biodiversity, Aquatic Biodiversity, Avian Impact Assessments are required. Compliance statements are required for the Animal Species theme (excluding the taxon Aves), the Plant Species theme, the Civil Aviation Theme and a specialist study was conducted for the RFI theme.

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## Assessment of Potential Environmental Impacts

The following impacts were assessed for the construction phase of the proposed development, with the impact significance ranging from medium positive to medium negative.

Construction Phase		
Potential Impact	Impact Significance without mitigation	Impact Significance with mitigation
Visual impacts	Low (-)	Low (-)
Impacts to archaeological resources	Very low (-)	Very low (-)
Impacts on graves	Very low (-)	Very low (-)
Impacts on cultural landscape	Very low (-)	Very low (-)
Damage or destruction of fossils on or below the surface	Very low (-)	Negligible (+)
Loss of natural habitat (powerline)	Low (-)	Low (-)
Loss of individuals of listed and protected plant species (gridline)	Very low (-)	Very low (-)
Loss of natural habitat (switching station)	Medium (-)	Medium (-)
Loss of individuals of protected trees, protected plants or other listed species (switching station)	Very low (-)	Negligible
Degradation of the ecological condition of aquatic ecosystems and water quality impacts	Negligible (-)	Negligible (-)
Displacement due to disturbance (gridline and switching station)	Low (-)	Very low (-)
Displacement due to habitat transformation (switching station)	Low (-)	Very low (-)
Displacement due to habitat transformation (gridline)	Very low (-)	Negligible (-)
Impact on traffic and transportation	Low (-)	Very low (-)
Impact on ambient noise levels in the area	Low (-)	Very low (-)
Impact on windblown dust	Low (-)	Very low (-)
Litter / Waste pollution	Very low (-)	Very low (-)
Job creation	Medium (+)	Medium (+)
Impacts on HIV and gender related concerns	Low (-)	Low (-)

The below impacts were assessed for the construction phase of the proposed development. All operational phase negative impacts can be mitigated to a medium, low, very low and negligible significance. One potentially high negative impact (mortality of avian priority species due to collisions with the OHPL) could occur without mitigation, however, would be reduced to medium negative significance with the recommended mitigation.

Operational Phase		
Potential Impact	Impact Significance without mitigation	Impact Significance with mitigation
Visual impacts (OHPL)	Medium (-)	Medium (-)
Visual impacts (switching station)	Medium (-)	Medium (-)
Impacts on cultural landscape	Low (-)	Low (-)
Invasion by alien invasive plant species	Low (-)	Very low (-)
Degradation of the ecological condition of aquatic ecosystems, modification of surface water runoff, erosion and alien vegetation invasion in aquatic features	Negligible (-)	Negligible (-)
Mortality of priority species due to collisions with the OHPL powerline using either technology alternative (i.e. steel lattice or standard steel monopole tower	High (-)	Medium (-)

<b>Operational Phase</b>		
<b>Potential Impact</b>	<b>Impact Significance without mitigation</b>	<b>Impact Significance with mitigation</b>
structures)		
Electrocutions on the proposed switching station infrastructure”	Low (-)	Very low (-)
Electrocutions on the proposed 132 kV powerline infrastructure using either technology alternative (i.e. steel lattice or standard steel monopole tower structures)	Medium (-)	Negligible (-)

Cumulative impacts have been rated as of very low to medium negative significance. This is due to the large number of existing and proposed developments in the area.

### Cumulative Impact Significance Summary Table

<b>Impact</b>	<b>Cumulative impact without mitigation</b>	<b>Cumulative Impact with mitigation</b>
<b>Construction Phase</b>		
Visual impacts	Medium (-)	Medium (-)
Impacts to archaeological resources	Low (-)	Low (-)
Impacts on graves	Low (-)	Low (-)
Impacts on cultural landscape	Low (-)	Low (-)
Damage or destruction of fossils on or below the surface	Low (-)	Low (-)
Loss of natural habitat (gridline)	Medium (-)	Medium (-)
Loss of individuals of listed and protected plant species (gridline)	Medium (-)	Medium (-)
Loss of natural habitat (switching station)	Medium (-)	Medium (-)
Loss of individuals of protected trees, protected plants or other listed species (switching station)	Medium (-)	Medium (-)
Degradation of the ecological condition of aquatic ecosystems and water quality impacts	Medium (-)	Low (-)
Displacement due to disturbance (gridline and switching station)	Medium (-)	Low (-)
Displacement due to habitat transformation (switching station)	Medium (-)	Medium (-)
Displacement due to habitat transformation (gridline)	Medium (-)	Medium (-)
<b>Operational Phase</b>		
Visual impacts (grid line)	Medium (-)	Medium (-)
Visual impacts (switching station)	Medium (-)	Medium (-)
Impacts on cultural landscape	Low (-)	Low (-)
Invasion by alien invasive plant species as a result of disturbance (gridline)	Medium (-)	Medium (-)
Invasion by alien invasive plant species as a result of disturbance (switching station)	Medium (-)	Medium (-)
Degradation of the ecological condition of aquatic ecosystems; modification of surface water runoff; erosion; and alien vegetation invasion in aquatic features	Medium (-)	Low (-)
Collisions with the proposed gridline	High (-)	Medium (-)
Electrocutions at the proposed switching station	Low (-)	Low (-)
Electrocutions on the proposed gridline	High (-)	Low (-)

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## Public Participation

A public participation process (PPP), in accordance with Chapter 6 of the EIA Regulations (2014), as amended, has been undertaken to ensure that potential and registered I&APs have been given an opportunity to comment on the proposed project.

The Public Participation Process includes, amongst others, the following:

- Advertisements in English and Afrikaans, placed in the local newspaper, *The Echo* (De Aar) newspaper, as well as in the regional *NoordkaapBulletin* newspaper.
- Site Notices in English and Afrikaans, placed at visible locations within the proposed project site and/or at the boundary of the site, where the public have access.
- Notification posters (in English and Afrikaans) placed in the town of De Aar at venues such as the local municipal offices, the public library, the police station and the local supermarket.
- Written notifications (sent via email, post and/or sms) to registered I&APs notifying them of the EA Application and the availability of the associated Draft Basic Assessment Report for review and comment.
- All potential and registered I&AP's (including relevant Organs of State and State Departments) will be given an opportunity to review and comment on the Draft Basic Assessment Report for a 30 day comment period i.e. from 15 July 2022 – 15 August 2022.
- Copies of the Draft Basic Assessment Report will be available as follows during the 30 day I&AP comment period:
  - A hard copy of the Draft Basic Assessment Report will be lodged at the Hennie Liebenberg Public Library in De Aar for the 30 day I&AP comment period.
  - An electronic copy of the Draft Basic Assessment Report will be made available for download on the Holland & Associates Environmental Consultants website ([www.hollandandassociates.net](http://www.hollandandassociates.net)). Furthermore, a copy of the Executive Summary for the Basic Assessment Report will be made available for download as a separate document on the Holland & Associates website, in order to accommodate I&APs who may not want to download the full report.
  - Upon request, the report will be made available to I&APs via electronic file transfer or Dropbox link. (The Dropbox link will be provided in the cover email for notifications sent to I&APs via email). Electronic copies of the report on CD or USB will be available on request.
  - An outline of the proposed project can be provided verbally (telephonically) to I&APs who are illiterate and/or those with disabilities and/or any other disadvantage, if necessary. Such I&APs may provide their comments via telephone and/or sms (if preferred), and such comments will be included in the Comments and Responses Report.
- Any additional I&APs who register during the Draft Basic Assessment process will be added to the registered I&AP database.
- All comments submitted by I&APs during the 30 day I&AP comment period will be collated and responded to in a Comments and Response Report (CRR), which will be submitted to the DFFE, together with the Final Basic Assessment Report, for decision-making.
- Registered I&APs will be notified, in writing, of DFFE's decision.

## Conclusions and Recommendations

A number of alternatives were considered during the design process for the proposed development, and the Preferred Alternative was selected as the best practicable environmental option that minimises impacts as far as possible. A corridor has been assessed for the linear activities, to allow for the avoidance of sensitive ecological features, such as aquatic buffers, and for detailed engineering considerations.

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Two generic Environmental Management Programmes (EMPrs) have been compiled for the proposed project, i.e. one for the overhead powerline (OHPL) component and the other for the switching substation component. These EMPrs also contain site specific impact management outcomes and the measures required to achieve these outcomes. These include the potential impacts on avifauna, ecology, freshwater, heritage, palaeontology, RFI and visual components.

In terms of the findings of the Basic Assessment (BA), the proposed development would result in no unacceptable biophysical and/or socio-economic impacts, provided that the mitigation measures as included in this BA Report are implemented. No impacts of High Negative significance would occur as a result of the implementation of the proposed activities during either the construction or operational phases. While some cumulative impacts are of medium negative significance, the contribution of the proposed development to the cumulative impacts is insignificant. The proposed development is necessary for the realisation of the authorised Paarde Valley PV2 Solar Energy Facility. The socio-economic benefits of the project therefore extend beyond the immediate impacts of the proposed development, and are considered to outweigh the residual negative impacts.

All specialists have recommended that the environmental authorisation can be granted, on the condition that the recommended mitigation measures included in the EMPr for the project are implemented.

In terms of the findings of the environmental assessment and specialist studies, there are no assessed potential negative environmental impacts associated with the proposed project that are of sufficient significance to justify the implementation of the “No-Go” Alternative.

In conclusion, it is the considered opinion of the EAP that the proposed project and listed activities should be authorised, given that the proposed project would result in no unacceptable biophysical and/or socio-economic impacts, provided that the mitigation measures as included in this BA Report are implemented.

In terms of the design alternatives for the poles/ pylons of the proposed overhead powerline (i.e. monopole or steel lattice), whilst monopole was preferred from a visual impact perspective, both design options are considered to be acceptable from an environmental perspective by the EAP and all of the specialists. The Applicant therefore wishes to be able to implement either design option (i.e. the Applicant would like to have free choice between the aforementioned design options, and the decision on which design to implement would happen at detailed design phase and in consultation with ESKOM).

### **Volgende stappe**

- Die Konsep Basiese Beoordelingsverslag sal vir 'n 30-dag kommentaartydperk aan B&GPe beskikbaar gestel word, i.e. van 15 Julie 2022 – 15 Augustus 2022. Afskrifte van die verslag sal as volg gedurende hierdie 30-dag B&GP-kommentaartydperk beskikbaar wees:
- 'n Afskrif van die Konsep Basiese Beoordelingsverslag sal in die Hennie Liebenberg Openbare Biblioteek in De Aar gelees kan word.
- 'n Elektroniese afskrif van die Konsep Basiese Beoordelingsverslag sal afgelaai kan word vanaf Holland & Genote Omgewingskonsulante se webwerf ([www.hollandandassociates.net](http://www.hollandandassociates.net)). (Neem kennis: 'n Afskrif van die Uitvoerende Opsomming van die Konsep Basiese Beoordelingsverslag sal as 'n losstaande dokument vanaf Holland & Genote se webwerf afgelaai kan word deur daardie B&GPe wat nie die volledige verslag wil aflaai nie).
- Die verslag sal ook, op versoek, elektronies via 'n Dropbox-skakel aan B&GPe beskikbaar gestel word. Hierdie Dropbox-skakel sal ook beskikbaar gestel word aan alle B&GPe wat hulle korrespondensie per epos ontvang. Elektroniese afskrifte van die verslae is ook op versoek op 'n CD of USB beskikbaar, indien so verlang.

B&GPe word uitgenooi om gedurende die 30-dag kommentaartydperk (i.e. 15 Julie 2022 – 15 Augustus 2022) op bogenoemde dokument kommentaar te lewer. Indien u enige kommentaar het op, probleme het met of bekommernis het oor die voorgestelde projek, word u versoek om u kommentaar voor of op **15 Augustus 2022** skriftelik per pos of epos te stuur aan Me Tilly Watermeyer van Holland & Omgewingskonsultante (epos: PaardeValleygridppp@gmail.com; of per pos: Posbus 31108, Tokai, 7966, Tel: 060 319 1217).

Alle kommentaar wat gedurende die 30-dag B&GP kommentaartydperk ontvang word, sal aangeteken en beantwoord word in 'n Kommentaar- en Antwoordverslag (KAV) wat deel sal vorm van die Finale Basiese Beoordelingsverslag wat vir besluitneming by die DFFE ingedien sal word. Sodra die DFFE sy besluit op die voorgestelde aansoek vir 'n omgewingsmagtiging bekend gemaak het, sal alle geregistreerde B&GPe skriftelik van die DFFE se besluit in kennis gestel word.

*Neem kennis: Vrywaringsverklaring ingevolge die Wet op die Beskerming van Persoonlike Inligting (Protection of Personal Information Act), 2013 (Wet Nr 4 van 2013): U ontvang hierdie skrywe i.v.m. bogenoemde projek aangesien u kontakbesonderhede opgeneem is in die aanvanklike databasis van Belanghebbende en Geaffekteerde Partye (B&GPe) kragtens die Regulasies vir Omgewingsinvloedbepalings (OIB) (2014), soos gewysig, en wat uitgevoer word in terme van die Wet op Nasionale Omgewingsbestuur (NEMA) (Nr 107 van 1998), soos gewysig. Tree asseblief ter eniger tyd met die ondergetekende in verbinding indien u naam van die B&GP-databasis verwyder moet word. Neem asb kennis dat, indien u nie op hierdie skrywe reageer nie, ons sal aanvaar dat u wel toegestem het dat u kontakbesonderhede op die geregistreerde B&GP-databasis kan bly en u dus verdere korrespondensie oor bogenoemde OM-aansoek vir die voorgestelde projek sal ontvang. U word voorts daarop gewys dat dit die verantwoordelikheid van die geregistreerde B&GP is om die Omgewingsbeoordelingspraktisyn (OBP) in kennis te stel indien enige kontakbesonderhede tydens die OM-proses verander het (indien u verdere korrespondensie oor die OM-aansoekproses wil ontvang).*

Tree asseblief met onderstaande in verbinding indien u enige verdere inligting verlang of navrae het:

Die uwe



**TILLY WATERMEYER** (BSc Hons, MSc.)



**NICOLE HOLLAND** (Reg. EAP (EAPASA); Pr Sci Nat)