

EXECUTIVE SUMMARY

INTRODUCTION

The project applicant, Venter Wildlife Trust, proposes the construction and operation of a Solar Photovoltaic (PV) Facility, including associated infrastructure, capable of producing 3.4MW of AC electricity, on a portion of Farm 713, known as Hopefield, in the Sundays River Valley Municipality. The facility will be for private use for existing agricultural activities on Farm 713, namely, broiler houses and irrigation infrastructure and is not a large-scale commercial PV Facility. The farm measures approximately ~554ha in extent and is currently zoned Agriculture 1. Farm 713 is a working farm and is currently used for commercial production of citrus, a Poultry Broiler Facility and associated infrastructure.

The proposed facility will consist of several photovoltaic solar panels, anticipated to measure ~ 35 475m² (3.55ha) in extent, as well as a battery storage area (~300m²), with a total proposed development footprint of ~3.6ha. The proposed facility will have a combined production capacity of 3.4MW of AC electricity and will be a hybrid facility which will be connected to the existing ESKOM grid, with battery backup during power outages.

The PV Facility and its components will be connected to one another and connected via underground cables (400V) to two existing ESKOM transformers on site. Additionally, a private 22kV overhead powerline will be constructed over a distance of ~2.5km, connecting the PV Facility to an existing Medium Voltage point (MV). The PV Facility is proposed to be constructed adjacent to the northern boundary of Farm 713, on an area that has previously been transformed, within the footprint of an existing, separately fenced in Poultry Broiler Facility.

Farm 713 is located ~7km north of Sunland and approximately 8.5km north-west of Addo, in the Sundays River Valley Municipality. The farm can be accessed via the DR02006 gravel road (Enon Road), at its intersection with the Slagboom road (MN50605). The nearest boundary of the Addo Elephant National Park is approximately ~5.4km from the boundary of the farm and ~7.6km from the proposed development footprint.

PROJECT DETAIL

The farm measures approximately ~554ha in extent and is currently zoned Agriculture 1. Farm 713 is a working farm and is currently used for the commercial production of citrus and a Poultry Broiler Facility (12 houses and associated infrastructure). Approximately ~140ha of the site has been transformed for citrus orchards, including internal roads and laydown areas. Approximately 38ha of the site has been transformed for a separately fenced in Poultry Broiler facility, which consists of 12 broiler houses including associated infrastructure (i.e., internal access roads, boilers, managers house, and existing Eskom transformers), located adjacent to the northern boundary of the farm. In Addition, a pump station is also located adjacent to the north-east boundary of the enclosed footprint of the Poultry Broiler facility. A farm dam, measuring ~2.5ha in extent, is located southeast of the Poultry Broiler Facility in the centre of the site and is currently used to convey irrigation water from the Lower Sundays River Water Users Association (LSRWUA) canal system to several of the applicant's farms, including Farm 713. The remainder of the site is in a near natural condition with some evidence of disturbance, including internal roads, and cut lines. The south-eastern portion of Farm 713, measuring ~219 ha has been rezoned as Public Open Space III (Private Nature Reserve), in compliance with the conditions of a previous Environmental Authorisation issued on Farm 713.

It is the intention of the applicant to construct and operate a 3.4MW solar Photovoltaic (PV) facility, including associated infrastructure, on a portion on Farm 713. The PV facility will consist of multiple solar panels (~3.5ha), with associated infrastructure (i.e., battery storage area and electrical power cables), for a combined development footprint of ~3.6ha. In addition to the solar PV area, underground electrical cables (400V) must be installed between the PV array and the battery storage area as well as to existing Eskom transformers and an MV (Medium Voltage) point. The connection to the MV point will be an overhead 22kV powerline mounted on creosote poles.

Associated with the proposed PV Facility are the following project activities:

- Preparation of the site, levelling, runoff control measures, and stormwater management
- Construction of foundations for metal supporting frames
- Installation of the solar Photovoltaic array (panels) (~3.5ha)
- Establishment of battery storage area (~300m²) and connection to the array
- Installation and connection of inverters (String or Centre Inverters)
- Installation of underground cables (400V) connecting the PV facility with existing transformers
- Establishment of a 22kV overhead private powerline (~2.5km) connecting the PV facility with an existing MV point on Farm 690
- Establishment and/or expansion of internal access roads
- Securing the facility including erection of a fence

The total area proposed for the construction of the solar photovoltaic facility and associated infrastructure is anticipated to be ~3.6ha in extent and is proposed on an area of the farm that has previously been transformed as part of the existing Poultry Broiler facility. The project components are indicated in Map 3 below (also attached in Appendix C).

Pre-construction Phase

Prior to commencement with construction activities on site, the detailed design drawings for the proposed construction for the solar Photovoltaic facility and associated infrastructure must be finalised and the necessary approvals obtained. Final designs and PV panels to be installed will be based on the best available technology at the time of construction.

Construction Phase

It is anticipated that the proposed construction phase will entail the following activities:

- Preparation of the site, levelling, runoff control measures, and stormwater management
- Construction of foundations for metal supporting frames
- Installation of the solar Photovoltaic array (panels) (~3.5ha)
- Establishment of battery storage area (~300m²) and connection to the array
- Installation and connection of inverters (String or Centre Inverters)
- Installation of underground cables (400V) connecting the PV facility with existing transformers
- Establishment of a 22kV overhead private powerline (~2.5km) connecting the PV facility with an existing MV point on Farm 690
- Establishment and/or expansion of internal access roads
- Securing the facility including erection of a fence

Operational Phase

Once the PV facility and associated infrastructure has been installed, the facility will become operational and start producing 3.4MW electricity which will be fed into the Eskom grid. The applicant will therefore receive a rebate from the power utility, based on the amount of electricity produced at the solar PV facility on Farm 713.

PROJECT TIMING

Should this project receive a positive Environmental Authorisation, it is proposed that the preconstruction phase will commence immediately and will be completed within 12 months. The construction phase will commence within 6 months of the completion of the Pre-construction period and is anticipated to be completed within 24 months. Once the construction phase is completed the PV facility will become operational and will continue on perpetuity.

BASIC ASSESSMENT PROCESS AND PUBLIC PARTICIPATION

In terms of the NEMA EIA Regulations 2014 (as amended), published in GN R326, 327, 325 and 324, promulgated under Chapter Five of the National Environmental Management Act (Act 107 of 1998) (NEMAA), and published in Government Gazette 40772 on the 7 April 2017, the project requires a Basic Assessment (BA), because it triggers, amongst others the following listed activity, in Listing Notice 1 (GN R324):

- "1. The development of facilities or infrastructure for the generation of electricity from a renewable resource where –*
(ii) The output is 10 megawatts or less but the total extent of the facility covers an area in excess of 1 hectare"

In addition to the above, the following listed activities are also anticipated to be triggered by the proposed development:

GN R327 (Listing Notice 1): 28. (ii).

GN R324 (Listing Notice 3): 18. a. i. (gg)

This listed activity requires authorisation from the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT). The Basic Assessment Report (BAR) needs to show the competent authority, DEDEAT (Sarah Baartman Region), as well as the project applicant, the Venter Wildlife Trust, what the consequences of their choices will be in biophysical, social and economic terms. Public participation forms an important component of this process, by assisting in the identification of issues and alternatives to be evaluated, and, together with specialist input, assists the competent authority with their decision-making. The BA Process is currently at the stage where an Application Form for Environmental Authorisation has been submitted to the competent authority. In parallel, Interested and Affected Parties (I&APs) are being provided with a legislated 30-day comment period within which to provide their input on the Consultation Basic Assessment Report (CBAR). The 30-day comment period extends from the **26 September 2022 to the 26 October 2022**.

SPECIALIST STUDIES

The following specialist studies have been undertaken as part of the BA Process in order to inform the CBAR:

- Terrestrial Biodiversity Compliance Statement
- Aquatic Biodiversity Compliance Statement
- Visual Specialist Opinion Report

Specialist assessments are included in Appendix D of the CBAR. In addition, a **Phase 1 Heritage Impact Assessment**, which was undertaken as part of a previous environmental assessment on Farm 713, has also been used to assess potential impacts on heritage resources, and has been included as supporting information to this report, in Appendix G (ix).

ENVIRONMENTAL IMPACT STATEMENT

The proposed construction of the Solar photovoltaic facility is anticipated to have an overall **LOW NEGATIVE** impact on the receiving environment during the construction phases, if all the recommended mitigation measures are applied. In the operational phase, the overall impact is **LOW NEGATIVE** to **NEUTRAL**.

Terrestrial Biodiversity impacts are not anticipated to be significant, as the site is largely transformed and no significant vegetation other than some weeds that currently occur on site. The implementation of proposed mitigation measures, suggested by specialist, the impact has been rated as a **LOW NEGATIVE** impact.

Aquatic Biodiversity impacts are not anticipated to be significant, as no drainage lines occur within the development footprint and surrounding drainage line and river systems are likely to be unaffected due to distance from the site. The implementation of proposed mitigation measures, suggested by specialist, the impact has been rated as a **LOW NEGATIVE** impact.

Heritage impact can be mitigated to **NEUTRAL** during the construction phase if the ECO and/or construction foreman are informed of the various types of heritage artefacts which could be uncovered during excavation and levelling, and what action is to be taken should a heritage material be uncovered.

The overall Visual impacts associated with this development is anticipated to be **LOW NEGATIVE**. Impacts on sensitive receptors are anticipated to be low due to the transformed nature of the site and the surrounding agricultural activities. Impact associated with visual impacts can be mitigated and is predicted to be **LOW NEGATIVE**.

The application of the proposed mitigation and design measures, as recommended by the respective specialists, to be effectively managed in order to reduce the identified impacts so as to not have a detrimental effect on the environment.

In addition, some positive impacts have also been predicted. These include the creation of a number of additional employment opportunities and associated economic growth for the local community rated as **LOW POSITIVE**. Additionally, a consistent electricity supply for the adjacent Poultry Broiler Facility will be provided rated as a **MEDIUM POSITIVE**.

NO-GO Alternative (Compulsory)

The No-Go alternative will result in the potential employment and skills development opportunities for the local community not being realised. In turn, the potential opportunity for economic growth in the community will be lost. The securing a stable electricity supply for current agricultural activities will also not be realised. These consequential impacts are regarded as **HIGH NEGATIVE**.