ENVIRONAMICS

Environmental Consultants

BACKGROUND INFORMATION DOCUMENT

Basic Assessment for the proposed Castor Solar PV Project, Tokologo Local Municipality, Free State Province

1. Introduction

The activities entail the development of photovoltaic solar facility and associated infrastructure on Portion 1 of Farm Merriesfontein 1725, Registration Division Boshof, Free State Province situated within the Tokologo Local Municipality area of jurisdiction. The town of Boshof is located approximately 2 km northwest of the proposed development (refer to the attached locality map).

The project entails the generation of up to 20MW electrical power through photovoltaic (PV) panels. The total footprint of the project will be approximately 40 hectares (including supporting infrastructure on site). The property on which the facility is to be constructed will be leased by Castor Solar PV Project (Pty) Ltd from the property owner, for the lifespan of the project (minimum of 20 years).

The purpose of this background information document (BID) is to provide interested and affected parties (I&APs) with:

- Information on the need for a Basic Assessment (BA);
- An overview of the proposed PV solar energy facility;
- An overview of the Basic Assessment process and specialist studies being conducted to explain the potential impacts associated with the proposed facility; and
- Details of how I&APs may become involved in the process, receive information, or raise issues, which may concern and/or interest them.

2. The need for an EIA

The EIA Regulations, 2014 (GN. R.326 as amended) published in terms of the National Environmental Management Act (Act No. 107 of 1998) determine that an environmental authorisation is required for certain listed activities, which might have detrimental impacts on the environment. The following activities have been identified with special reference to the proposed development and are listed in the EIA Regulations:

- Activity 11(i) (GN.R. 327): *"The development of facilities or infrastructure for the transmission and distribution of electricity outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts."*
- Activity 24 (ii) (GN.R. 327): *"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."*
- Activity 28 (ii) (GN.R. 327): *"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."*
- Activity 56 (ii) (GN.R. 327): *"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..."*
- Activity 1 (GN.R. 325): *"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more..."*
- Activity 15 (GN.R. 325): *"The clearance of an area of 20 hectares or more of indigenous vegetation."*

Being listed under Listing Notice 1 and 2 (GN.R. 327 & 325) implies that the development is considered as potentially having a significant impact on the environment. The site is located in a Renewable Energy Development Zone (REDZ) and therefore a 'basic assessment (BA) process' is required as described in Regulation 19. The 'basic assessment process' involves the identification and assessment of environmental impacts through specialist studies, as well as public participation.

3. Project description

The key components of the proposed project are described below:

- PV Panel Array - To produce up to 20MW, the proposed facilities will require numerous linked cells placed behind a protective glass sheet to form a panel. Multiple panels will be required to form the solar PV arrays which will comprise the PV facility. The PV panels will be tilted at a northern angle in order to capture the most sun.
- Wiring to Inverters - Sections of the PV array will be wired to inverters. The inverter converts direct current (DC) electricity to alternating current (AC) electricity at grid frequency.
- Connection to the grid - Connecting the PV plant to the electrical grid requires transformation of voltage to 22kV or 66kV. The normal components and dimensions of a distribution rated electrical substation will be required. An onsite substation and switching stations will be required on the site to step the voltage up to 22kV or 66kV, after which the power will be evacuated into the national grid via a new proposed power line. It is expected that generation from the facility will tie in with the existing Bosplaat Rural Substation located within the affected property. The power line route will be assessed within a grid connection corridor of between 50 and 200m wide.
- Supporting Infrastructure – The following auxiliary buildings with basic services including water and electricity will be required on the sites:
    - Roads: 6600m^2
    - Access gate: 10m
    - O&M Building: 400m^2
    - Laydown Area: 2000m^2
- Roads – Access will be obtained via the R64 regional road to the south of the site and various gravel farm roads within the affected property. An internal site road network will also be required to provide access to the solar field and associated infrastructure.
- Fencing - For health, safety and security reasons, the facility will be required to be fenced off from the surrounding farm.

4. Specialist studies to be conducted

There are a number of environmental impacts, both positive and negative that are associated with the development of photovoltaic solar energy facilities. Specialist studies will be conducted to identify and assess these potential impacts. Specialist studies will be guided by existing information, field observations and input from the public participation process. For this project, the following specialist studies have been identified as relevant:

- Ecological Impact Assessment
- Aquatic Wetland Assessment
- Avifaunal Study
- Agricultural Compliance Statement
- Visual Impact Assessment
- Social Impact Assessment
- Heritage Impact Assessment
- Palaeontological Impact Assessment
- Traffic Impact Assessment

5. The BA process and timeline for the project

Public participation is an integral part of the BA process and aims to involve Interested and Affected Parties (I&APs) in the process by notifying them of the proposed project and encouraging them to voice their issues and concerns.

Through the BA process of the project, the process is transparent and allows I&APs to comment on the project or raise concerns, which are included in the Basic Assessment Report and are taken into consideration during the authorities' assessment of the project.

Table 1 indicates the key steps of the BA process and the envisaged timelines for the project.

Table 1: Key steps of the BA process

Activity	Prescribed timeframe	Timeframe
Public participation (BID)	30 Days	14 July – 15 Aug 2022
Submit application form and Draft BAR	-	August 2022
Public participation (DBAR)	30 Days	August – September
Submit Final BAR	90 Days	September. 2022
Decision	57 Days	November 2022
Public participation (decision) & submission of appeals	20 Days	December 2022

6. Your involvement

I&APs include individuals, communities or groups whose interest may be positively or negatively affected by the proposed development. You may get involved in the public participation process by:

- Registering as an I&AP.
- Submitting your issues, concerns and questions in writing by sending an email to participation@environamics.co.za.
- Attending any public meetings which may be held during the course of the BA process, if relevant. As a registered I&AP you will automatically be invited to attend these meetings.
- Reviewing and commenting on the report within the stipulated public review periods.

7. Comments and queries

All comments and queries may be directed to the following contact person:

Contact person: Lisa de Lange
Telephone: 084 920 3111
Electronic mail: participation@environamics.co.za