

BASIC ASSESSMENT FOR THE PROPOSED CONSTRUCTION OF A 132kV POWER LINE, SUBSTATION AND THE EXTENSION OF HOMESTEAD SUBSTATION ASSOCIATED WITH THE 75MW PHOTOVOLTAIC (PV) PLANT (PV3) ON THE FARM DROOGFONTEIN IN KIMBERLEY, NORTHERN CAPE PROVINCE

DEA Ref No: 14/12/16/3/3/1/508/2
NEAS Ref No: DEA/EIA/0001335/2012

INTRODUCTION

Eskom intend to provide infrastructure for the electricity generated from the proposed Photovoltaic (PV) Plant being developed by South Africa Mainstream Renewable Power Droogfontein PV 3 (Pty) Ltd on the farm Droogfontein in Kimberley.

An Environmental Impact Assessment (EIA) was conducted for the PV Plant; however this EIA did not include the electrical infrastructure required in order to connect the electricity generated at the PV 3 plant onto the Eskom grid.

As such, a separate environmental authorisation application process needs to be conducted for the proposed construction of a 132kV power line, substation and the extension of Homestead Substation.

According to the National Environmental Management Act, 1998 (Act No. 107 of 1998) as amended, a Basic Assessment (BA) process is required for the proposed project as several listed activities are triggered which require investigation.

PURPOSE OF THIS DOCUMENT

The purpose of this Background Information Document (BID) is to inform interested and/or affected parties (I&APs) about the Basic Assessment (BA) that is being conducted for the proposed 132kV power line, substation and the extension of Homestead Substation.

In addition to supplying information about the proposed project and the BA process, this BID will also provide I&APs with the opportunity to:

- better understand the proposed project in order to provide comments and raise issues of concern;
- understand the environmental authorisation process in order to participate effectively;
- raise issues of concern and/or submit suggestions related to this application to enhance the proposed project;
- contribute local knowledge; and
- comment on the specialist studies that will be conducted.

OBJECTIVE OF THE PROJECT

The proposed power line, substation and extension of Homestead Substation is required for the transmission and distribution of bulk electricity from the Droogfontein PV 3 plant that will generate electricity to directly feed onto Eskom's national electricity grid.

PROJECT INFORMATION

The proposed project consists of:

- Construction of 1 x 132kV overhead power line from the proposed Droogfontein PV 3 substation to the existing Homestead Substation, to be agreed with Eskom.
- Construction of a new substation within the approved PV 3 Plant footprint;
- The extension of Homestead Substation to accommodate the new incoming power line;
- Construction of an access track along the power line servitude; and
- Establishment of associated infrastructure as required by Eskom.





Location of the Proposed Power line

The study area falls within the boundaries of the Sol Plaatje Local Municipality within the greater Francis Baard District Municipality, on the outskirts of the town of Kimberley. The proposed development is anticipated to transverse several properties and farm boundaries just west of the N12 in the area surrounding Roodepan.

Proposed Route Corridor Alternatives

Two (2) corridor alternatives that vary between 100m and 700m wide will be assessed during the BA. These are as follows:

- Alternative A - approximately 17km (blue)
- Alternative B – approximately 18.3km (pink)

The corridors have been proposed for each route alternative to allow flexibility when determining the final route alignment, however only a 31m wide servitude would be required for the proposed 132kV power line. As such, the 31m wide servitude would be positioned within the corridor.

These proposed corridor alternatives are indicated on the locality map (Figure 1) on page 3.

Proposed Substation Alternative

In addition, two (2) substation site alternatives will be assessed for proposed substation within the approved PV 3 Plant footprint. These will be indicated in the Draft Basic Assessment Report (DBAR) that will be available for public review.

PROPOSED CONSTRUCTION SCHEDULE AND METHODOLOGY

Timeframe

Depending on the issuing date of the Environmental Authorisation (EA), should it be granted by Department of Environmental Affairs (DEA), it is proposed that construction will commence in mid 2015.

The construction period is estimated to be six (6) months in total. This includes the clearing of the servitude for both the substations (new proposed substation and the Homestead Substation expansion) and

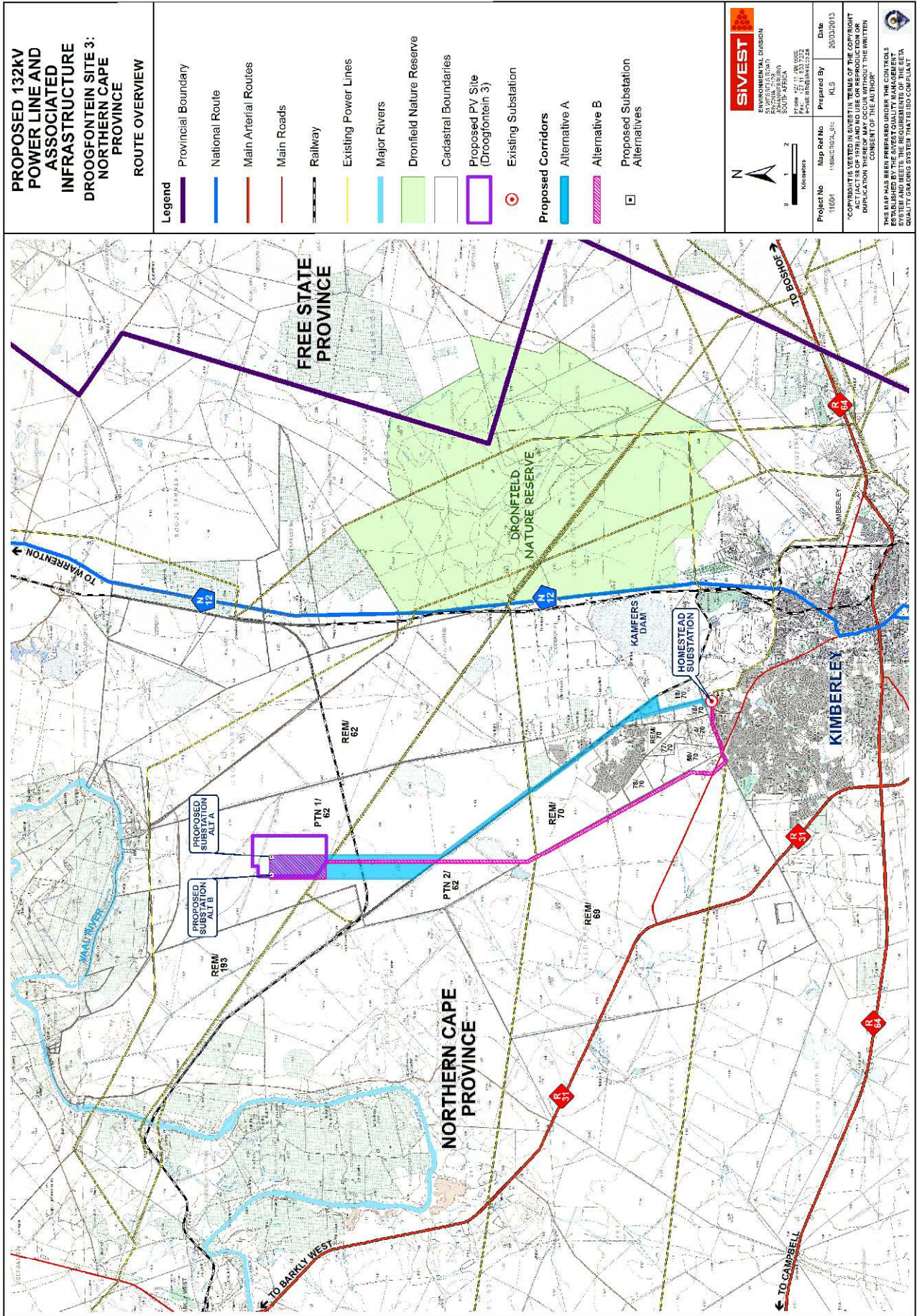
where the towers will be erected, construction of the towers, the new substation and the extension of the Homestead substation, stringing of the conductors, and commissioning of the power line.

Rehabilitation of servitude after construction

A Construction Environmental Management Programme (CEMPr) will be established which will, amongst other requirements, detail the rehabilitation of any disturbed areas resulting from construction works.

The appointed Environmental Control Officer (ECO) on site will ensure that all disturbed areas are stabilised as soon as possible after construction and the area is rehabilitated as close to the original condition as possible, as per the CEMPr. Rehabilitated areas that are susceptible to erosion due to their position in the landscape will be adequately protected by soil conservation measures.

Figure 1: Locality Map for Droogfontein PV 3 132kV Power Line Corridor Alternatives



Employment opportunities during construction

A contractor will be appointed for the construction of the proposed power line, substation and extension of the Homestead substation and should any local labour force be required, the appointed contractor will source the labour force through established structures, for example, the Local Municipality.

- Power line: As the construction of power lines requires highly skilled personnel, and is mainly constructed by the utilisation of specialised machinery, it is not envisaged that additional labour force will be required for this proposed project.
- Substation: Construction of the substation also requires highly skilled personnel and is mainly constructed by the utilisation of specialised machinery. It is anticipated that labour forces can be required for minimal and non-technical work like site clearance and security jobs, should there be no site camp in close proximity of the construction site.
- Ancillary (additional) infrastructure: The construction/temporary erection of ancillary infrastructure might require the use of local labour and as mentioned above, construction workers will be sourced locally, as far as possible.

Health (Possible Impacts of Electro-Magnetic Fields – EMFs)

Power lines are designed and built to comply with the Occupational Health and Safety (OHS) Act (Act 85 of 1993). As long as activities under the power line comply with the servitude conditions, they are safe to undertake. EMF effects decrease as distance from the power line increases and any living quarters outside the servitude will not be affected by the power line as radiation from the power line is nil at the edge of the servitude. A report on EMFs is available on Eskom's website (www.eskom.co.za/c/25/facts-figures/) should further clarity be sought on this subject. The report will also be attached to the DBAR that will be available for public review.



BASIC ASSESSMENT PROCESS

What is a Basic Assessment?

A BA is a process of collecting, organising, analysing, interpreting and communicating information that is relevant for the consideration of a particular application. BAs, as opposed to full Environmental Impact Assessments (EIAs), are undertaken where the impacts are less likely to have significant impacts on the receiving environment.

BAs are used by planning authorities/developers to obtain an independent and objective view of the potential environmental (biophysical and social) impacts that could arise during the construction and operation of the proposed development. This information needs to provide the Competent Authority with a sound basis for their decision-making. Environmental management and mitigation measures are also identified through the BA process.

National Environmental Management Act (Nema)

The BA process, as presented in Figure 2, will be conducted in accordance with the Environmental Impact Assessment (EIA) Regulations 2010 promulgated

in terms of Sections 24 (5) read with section 44 of the National Environmental Management Act (No. 107 of 1998) (NEMA), as amended, in Government Notice (GN) No. R543.

The proposed project triggers activities in terms of Government Notice (GN) No. 544 (18 June 2010): Listing Notice 1 and (GN) No. 546 (18 June 2010): Listing Notice 3.

Notice Number	Listed Activities	Notice Number	Listed Activities
Government Notice R544 (18 June 2010)	10	Government Notice R546 (18 June 2010)	4
	11		10
	13		12
	18		13
	22		16
	23		23
	24		24

Environmental Issues to be Investigated during the BA

Environmental issues to be investigated during the BA include the following;

- Biodiversity (Flora and Fauna)
- Avifauna
- Surface Water
- Agriculture and Soils
- Visual Impact
- Heritage
- Geotechnical
- Social

Competent Authority

The Competent Authority, as described according to the EIA Regulations, for this proposed project is the National Department of Environmental Affairs (DEA).

The BA Process to be followed is illustrated in Figure 2:

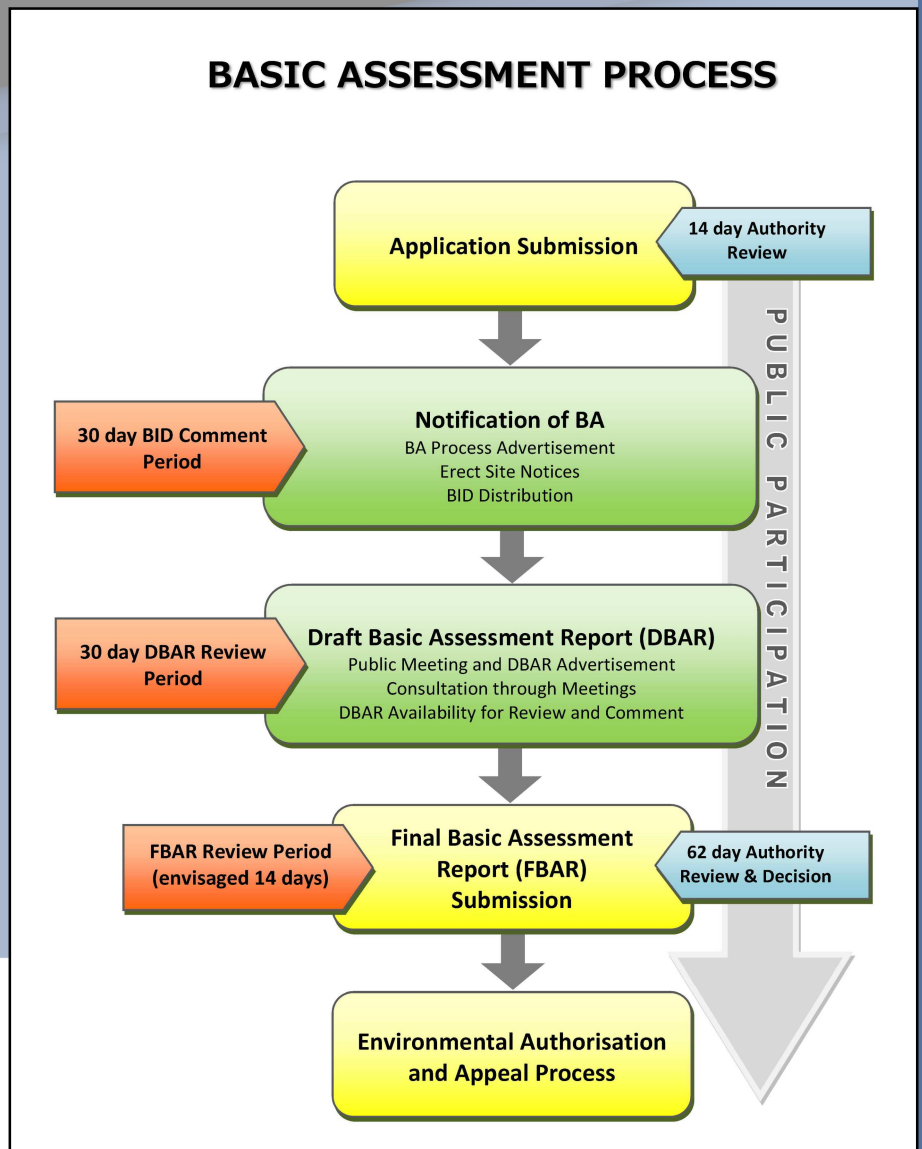


Figure 2: Basic Assessment Process Diagram.

THE PUBLIC PARTICIPATION PROCESS

The key objective of public participation during this BA will be to provide I&APs with sufficient and relevant information and to conduct a transparent consultation process on an on-going basis, in order to ensure effective participation throughout the BA process. As part of this public participation process you will also be provided with the opportunity to comment on the environmental findings as per the DBAR, which will be made available for public review and comment during the process.

You will receive personal notification by post, e-mail, facsimile and/or sms of all documents available for comment, and due dates for comment at every stage.

How to become involved

Respond (by phone, fax, post or e-mail) to our invitation for your participation, which has been advertised in the printed media.

Post, fax or e-mail the attached Registration and Comment Form to SiVEST.

Contact us telephonically should you have a query, comment or require further project information.

Review the DBAR within the review periods that will be stipulated in the advertisement.

By completing and submitting the accompanying BID Registration and Comment Form, you automatically register yourself as an I&AP for this proposed project, ensuring that your comments and/or concerns raised regarding the proposed project will be noted.

The public participation consultants will respond to all comments and queries received during the course of the project.

Please be informed that all relevant public documents can be downloaded from the SiVEST's website (www.sivest.co.za/Downloads - select '11604 Droogfontein 3 Power Line')

We look forward to your contributions.

COMMENTS AND QUERIES

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