



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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DEA Reference: 14/12/16/3/3/1/1746

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Ms Andrea Gibb
SiVEST (Pty) Ltd.
PO Box 2921
RIVONIA
2128

Telephone Number: (011) 798 0638
Email Address: andreag@sivest.co.za

PER E-MAIL / MAIL

Dear Ms Gibb

COMMENTS ON THE DRAFT BASIC ASSESSMENT REPORT FOR THE PROPOSED TLISITSENG 2 132KV SUBSTATION AND POWERLINE NEAR THE TOWN OF LICHTENBURG WITHIN THE DITSOBOTLA LOCAL MUNICIPALITY IN THE NORTH WEST PROVINCE

The draft Basic Assessment Report (BAR) received by this Department on 27 March 2017 refers.

This Department has the following comments on the abovementioned application:

- i. Please ensure that all relevant listed activities are applied for, are specific and that it can be linked to the development activity or infrastructure as described in the project description.
- ii. The EAP is requested to verify the listed activities applied for against the listed activities in the EIA Regulations 2014 as amended on 7 April 2017. If there is any changes, an amended application form must be submitted to this Department.
- iii. If the activities applied for in the application form differ from those mentioned in the final BAR, an amended application form must be submitted. Please note that the Department's application form template has been amended and can be downloaded from the following link <https://www.environment.gov.za/documents/forms>.
- iv. It is imperative that the relevant authorities are continuously involved throughout the basic assessment process as the development property possibly falls within geographically designated areas in terms of numerous GN R. 985 Activities. Written comments must be obtained from the relevant authorities and submitted to this Department. In addition, a graphical representation of the proposed development within the respective geographical areas must be provided.
- v. The final BAR must include a list of all the infrastructure the proposed facility will entail,
- vi. The final BAR must provide evidence that all relevant and identified competent authorities have been given an opportunity to comment on the proposed development. Particularly, the following competent authorities must be engaged regarding the proposed development: the North West Parks and Tourism Boards, the National Zoological Gardens of South Africa, and the Department of Agriculture Forestry and Fisheries (DAFF): Forestry and Natural Resource Management. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments.

- vii. It is noted that on the letter dated 10 March 2017 and on the minutes of the meeting held on 11 October 2016, the Department of Agriculture, Forestry and Fisheries advised that they do not support the proposed development as it will affect the pivots in the area and recommended that an alternative site be identified instead.
- viii. The Department of Agriculture, Forestry and Fisheries further indicated that the proposed site lies within an area of high agricultural potential with a land capability of III, with I having the most agricultural potential and VIII having the least agricultural potential.
- ix. This Department requests that a letter from the Department of Agriculture, Forestry and Fisheries affirming if the subsequent recommended mitigation measures are sufficient be sought. This letter must form part of the final BAR.
- x. Please ensure that all issues raised and comments received during the circulation of the draft BAR from registered I&APs and organs of state which have jurisdiction in respect of the proposed activity are adequately addressed in the final BAR. Proof of correspondence with the various stakeholders must be included in the final BAR. Should you be unable to obtain comments, proof should be submitted to the Department of the attempts that were made to obtain comments. The Public Participation Process must be conducted in terms of Regulation 39, 40, 41, 42, 43 and 44 of the EIA Regulations 2014 as amended.
- xi. Please provide a description of any identified alternatives for the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity as per Appendix 1 (2) (e) and 3 (1) (h) (i) of GN R.982 of 2014 as amended. Alternatively, you should submit written proof of an investigation and motivation if no reasonable or feasible alternatives exist in terms of Appendix 1.
- xii. Where specialist studies are conducted in-house or by a specialist other than a suitably qualified specialist in the relevant field, such specialist reports must be peer reviewed by a suitably qualified external specialist in the relevant field. The terms of reference for the peer review must include:
 - A CV clearly showing expertise of the peer reviewer;
 - Acceptability of the terms of reference;
 - Is the methodology clearly explained and acceptable;
 - Evaluate the validity of the findings (review data evidence);
 - Discuss the suitability of the mitigation measures and recommendations;
 - Identify any shortcomings and mitigation measures to address the shortcomings;
 - Evaluate the appropriateness of the reference literature;
 - Indicate whether a site-inspection was carried out as part of the peer review; and
 - Indicate whether the article is well-written and easy to understand.
- xiii. The final BAR must include a comments and responses table indicating who the comments are from, the date on which the comments were received as well as the response from the EAP. For ease of reference, please see Annexure 1.
- xiv. In accordance with Appendix 1 (3) (1) (a) of the EIA Regulations 2014 as amended, the details of—
 - (i) *the EAP who prepared the report; and*
 - (ii) *the expertise of the EAP to carry out Environmental Impact assessment procedures;*
 must be submitted.
- xv. You are further reminded that the final BAR to be submitted to this Department must comply with all the requirements in terms of the scope of assessment and content of Basic Assessment reports in accordance with Appendix 1 and Regulation 19(1) of the EIA Regulations, 2014 as amended.
- xvi. The final BAR must provide an assessment of the impacts and mitigation measures for each of the listed activities applied for.
- xvii. EIAR must include a **cumulative impact assessment** of the facility if there are other similar facilities within a 30km radius of the proposed development site. The specialist studies e.g. biodiversity, visual, heritage etc. which are incorporated as part of the BAR must also assess the facility in terms of potential cumulative impacts. The cumulative impact assessment for all identified and assessed impacts must indicate the following:
 - Identified cumulative impacts must be clearly defined, and where possible the size of the identified impact must be quantified and indicated, i.e. hectares of cumulatively transformed land.

- Detailed process flow and proof must be provided, to indicate how the specialist's recommendations, mitigation measures and conclusions from the various developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for this project.
 - Identified cumulative impacts associated with the proposed development must be rated with the significance rating methodology approved with the acceptance of the scoping report.
 - The cumulative impact significance rating must also inform the need and desirability of the proposed development.
 - A cumulative impact environmental statement on whether the proposed development must proceed.
- xviii. The final BAR must provide the technical details of the proposed facility in a table format as well as their description and/or dimensions.
- xix. The final BAR must provide the four corner coordinate points for the proposed development site (note that if the site has numerous bend points, at each bend point coordinates must be provided) as well as the start, middle and end point of all linear activities.
- xx. The final BAR must provide the following:
- Clear indication of the envisioned area for the proposed powerline route and all associated infrastructure should be mapped at an appropriate scale.
 - Clear description of all associated infrastructure. This description must include, but is not limited to the following:
 - Internal roads infrastructure; and;
 - All supporting onsite infrastructure such as laydown area, guard house and control room etc.
 - Details of the future plans for the site and infrastructure after decommissioning and the possibility of upgrading the proposed infrastructure to more advanced technologies.
- xxi. A copy of the final site layout map. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:
- Facility and associated infrastructure;
 - Permanent laydown area footprint;
 - Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible);
 - Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;
 - The location of sensitive environmental features on site e.g. CBAs, heritage sites, wetlands, drainage lines etc. that will be affected by the facility and its associated infrastructure;
 - Substation(s) and/or transformer(s) sites including their entire footprint;
 - Connection routes (including pylon positions) to the distribution/transmission network;
 - All existing infrastructure on the site, especially roads;
 - Buffer areas;
 - Buildings, including accommodation; and
 - All "no-go" areas.
- xxii. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- xxiii. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map.
- xxiv. A shapefile of the preferred development layout/footprint must be submitted to this Department. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for

digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

Environment House
473 Steve Biko Road
Pretoria

For Attention: Muhammad Essop
Integrated Environmental Authorisations
Strategic Infrastructure Developments
Telephone Number: (012) 399 9406
Email Address: MEssop@environment.gov.za

The Environmental Management Programme (EMPr) to be submitted as part of the BAR must include the following:

- i. All recommendations and mitigation measures recorded in the BAR and the specialist studies conducted.
- ii. The final site layout map.
- iii. Measures as dictated by the final site layout map and micro-siting.
- iv. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- v. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map.
- vi. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- vii. A transportation plan for the transport of components, main assembly cranes and other large pieces of equipment.
- viii. A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- ix. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- x. An effective monitoring system to detect any leakage or spillage of all hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- xi. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

The EAP must provide detailed motivation if any of the above requirements is not required by the proposed development and not included in the EMPr.

The EAP is requested to contact the Department to make the necessary arrangements to conduct a site visit prior to the submission of the final BAR.

Please also find attached information that must be used in the preparation of the BAR. This will enable the Department to speedily review the BAR and make a decision on the application.

Further note that in terms of Regulation 45 of the EIA Regulations 2014 as amended, this application will lapse if the applicant fails to meet any of the timeframes prescribed in terms of these Regulations, unless an extension has been granted in terms of Regulation 3(7).

You are hereby reminded of Section 24F of the National Environmental Management Act, Act No 107 of 1998, as amended, that no activity may commence prior to an environmental authorisation being granted by the Department.

Yours faithfully



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs

Signed by: Mr Coenrad Agenbach

Designation: Deputy Director: Strategic Infrastructure Developments

Date: 25/04/2017

| | | | |
|-----|---------|----------------------------|------------------------------------|
| cc: | J Nyker | BioTherm Energy (Pty) Ltd. | Email: eiaadmin@biothermenergy.com |
|-----|---------|----------------------------|------------------------------------|

Annexure 1

Format for Comments and Response Trail Report:

| Date of comment, format of comment name of organisation/I&AP | Comment | Response from EAP/Applicant/Specialist |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27/01/2016 Email Department of Environmental Affairs: Strategic Infrastructure Development (John Soap) | Please record C&R trail report in this format Please update the contact details of the provincial environmental authority | EAP: (Noted) The C&R trail report has been updated into the desired format, see Appendix K EAP: Details of provincial authority have been updated, see page 16 of the Application form |

A. EIA INFORMATION REQUIRED FOR POWERLINES AND SUBSTATIONS

1. General site information

The following general site information is required:

- Descriptions of all affected farm portions
- 21 digit Surveyor General codes of all affected farm portions
- Copies of deeds of all affected farm portions
- Photos of areas that give a visual perspective of all parts of the site
- Photographs from sensitive visual receptors (tourism routes, tourism facilities, etc.)
- Generation capacity of the facility as a whole at delivery points

This information must be indicated on the first page of the EIAr. It is also advised that it be double checked as there are too many mistakes in the applications that have been received that take too much time from authorities to correct.

2. Sample of technical details for the proposed facility

| Component | Description / dimensions |
|----------------------------------------------------------------|---------------------------------|
| Length of power line | |
| Width and length of servitudes required | |
| Area occupied by substations | |
| Capacity of substation | |
| Area occupied by both permanent and construction laydown areas | |
| Area occupied by buildings | |
| Length of access roads | |
| Width of access roads | |
| Height of fencing | |
| Type of fencing | |

3. Site maps and GIS information

Site maps and GIS information should include at least the following:

- All maps/information layers must also be provided in ESR! Shapefile format
- All affected farm portions must be indicated
- The exact site of the application must be indicated (the areas that will be occupied by the application)
- A status quo map/layer must be provided that includes the following:
 - Current use of land on the site including:
 - Buildings and other structures
 - Agricultural fields
 - Grazing areas
 - Natural vegetation areas (natural veld not cultivated for the preceding 10 years) with an indication of the vegetation quality as well as fine scale mapping in respect of Critical Biodiversity Areas and Ecological Support Areas
 - Critically endangered and endangered vegetation areas that occur on the site
 - Bare areas which may be susceptible to soil erosion
 - Cultural historical sites and elements
 - Rivers, streams and water courses
 - Ridgelines and 20m continuous contours with height references in the GIS database

- Fountains, boreholes, dams (in-stream as well as off-stream) and reservoirs
- High potential agricultural areas as defined by the Department of Agriculture, Forestry and Fisheries
- Buffer zones (also where it is dictated by elements outside the site):
 - 500m from any irrigated agricultural land
 - 1km from residential areas
- Indicate isolated residential, tourism facilities on or within 1km of the site
- A slope analysis map/layer that include the following slope ranges:
 - Less than 8% slope (preferred areas for PV and infrastructure)
 - between 8% and 12% slope (potentially sensitive to PV and infrastructure)
 - between 12% and 14% slope (highly sensitive to PV and infrastructure)
 - steeper than 18 % slope (unsuitable for PV and infrastructure)
- A site development proposal map(s)/layer(s) that indicate:
 - Foundation footprint
 - Permanent laydown area footprint
 - Construction period laydown footprint
 - Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible)
 - River, stream and water crossing of roads and cables indicating the type of bridging structures that will be used
 - Substation(s) and/or transformer(s) sites including their entire footprint.
 - Cable routes and trench dimensions (where they are not along internal roads)
 - Connection routes to the distribution/transmission network (the connection must form part of the EIA even if the construction and maintenance thereof will be done by another entity such as ESKOM)
 - Cut and fill areas at PV sites along roads and at substation/transformer sites indicating the expected volume of each cut and fill
 - Borrow pits
 - Spoil heaps (temporary for topsoil and subsoil and permanently for excess material)
 - Buildings including accommodation

With the above information authorities will be able to assess the strategic and site impacts of the application.

4. Regional map and GIS information

The regional map and GIS information should include at least the following:

- All maps/information layers must also be provided in ESRI Shapefile format
- The map/layer must cover an area of 20km around the site
- Indicate the following:
 - roads including their types (tarred or gravel) and category (national, provincial, local or private)
 - Railway lines and stations
 - Industrial areas
 - Harbours and airports
 - Electricity transmission and distribution lines and substations
 - Pipelines
 - Waters sources to be utilised during the construction and operational phases
 - A visibility assessment of the areas from where the facility will be visible
 - Critical Biodiversity Areas and Ecological Support Areas
 - Critically Endangered and Endangered vegetation areas
 - Agricultural fields

- Irrigated areas
- An indication of new road or changes and upgrades that must be done to existing roads in order to get equipment onto the site including cut and fill areas and crossings of rivers and streams

5. Important stakeholders

Amongst other important stakeholders, comments from the National Department of Agriculture, Forestry and Fisheries must be obtained and submitted to the Department. Any application, documentation, notification etc. should be forwarded to the following officials:

Ms Mashudu Marubini
Delegate of the Minister (Act 70 of 1970)
E-mail: MashuduMa@daff.gov.za
Tel 012- 319 7619

Ms Thoko Buthelezi
AgriLand Liaison office
E-mail: ThokoB@daff.gov.za
Tel 012- 319 7634

All hardcopy applications / documentation should be forwarded to the following address:

Physical address:

Delpen Building
Cnr Annie Botha and Union Street
Office 270
Attention: Delegate of the Minister Act 70 of 1970

Postal Address:

Department of Agriculture, Forestry and Fisheries
Private Bag X120
Pretoria
0001
Attention: Delegate of the Minister Act 70 of 1970

In addition, comments must be requested from Eskom regarding grid connectivity and capacity. Request for comment must be submitted to:

Mr John Geeringh
Eskom Transmission
Megawatt Park D1Y38
PO Box 1091
JOHANNESBURG
2000

Tel: 011 516 7233
Fax: 086 661 4064
John.geeringh@eskom.co.za

B. AGRICULTURE STUDY REQUIREMENTS

- Detailed soil assessment of the site in question, incorporating a radius of 50 m surrounding the site, on a scale of 1:10 000 or finer. The soil assessment should include the following:
 - Identification of the soil forms present on site
 - The size of the area where a particular soil form is found
 - GPS readings of soil survey points
 - The depth of the soil at each survey point
 - Soil colour
 - Limiting factors
 - Clay content
 - Slope of the site
 - A detailed map indicating the locality of the soil forms within the specified area,
 - Size of the site
- Exact locality of the site
- Current activities on the site, developments, buildings
- Surrounding developments / land uses and activities in a radius of 500 m of the site
- Access routes and the condition thereof
- Current status of the land (including erosion, vegetation and a degradation assessment)
- Possible land use options for the site
- Water availability, source and quality (if available)
- Detailed descriptions of why agriculture should or should not be the land use of choice
- Impact of the change of land use on the surrounding area
- A shape file containing the soil forms and relevant attribute data as depicted on the map.