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Environment, Infrastructure & Services Department

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UNIT: IMPACT MANAGEMENT & COMPLIANCE MONITORING

Our Reference: EIM-03/05/2018

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Attention: Munyadziwa Rikhotso

**DRAFT BASIC ASSESSMENT FOR THE PROPOSED ± 9KM 88KV ESKOM ETNA TRADE ROUTE  
POWER LINE NEAT LENASIA  
(DEA: TBA)**

Your report dated 23 April 2018 refers. This Department only received the report on 3 May 2018.

**Description of the project:**

The proposed project entails the construction of ± 9km 88kv power lines.

The proposed 88KV power line aims to strengthen the distribution network capacity as well as to improve the quality of electricity supply in the region and the national electricity at large. The project will also entail the decommissioning of the existing 88Kv to make way for the proposed new power line which is planned to be built within the existing servitude.

**Guidelines, by-laws, Precinct Plans and policies:**

The Report takes into account all relevant policies, by-laws and strategies. The development is in line with the SDF 2040 and the RSDF for Region G, Sub Area 1, which states that: The Sub Area is characterised mainly by developed residential townships to the North West, a striking mixture of Informal settlements surrounded by formal developed residential townships to the South East and a new and expanding housing project (Lehae) further South. With the exception of Thembelihle (informal settlement) and Lehae, residential development in Lenasia is homogeneous. The bulk of residential use consists of large single dwelling houses on single erven. There is very little conventional high-density development and little variation of dwelling types, except the three or four storey walk-up flats.

The large informal settlement of Thembelihle is estimated to house approximately 7000 shacks and is located between Lenasia Ext. 8, 9, 10 and 11. It includes residential sites and house shops, informal soccer fields, workshops and other small-scale income generating activities. Geo-technical studies have revealed that the land allows for very low housing densities. It is thus financially unfeasible for the City of Joburg's Department of Housing to develop on the land as these densities would barely meet the number of units needed to house Thembelihle's inhabitants, thus the settlement is to be relocated to Lehae Phase 2.

The Lenasia Node, which is the largest in the region, extends east from Lenasia railway station and Lenasia Drive. It consists of established mixed-use commercial businesses activities. "Within its local context the Lenasia Business District was theoretically designed to have a nodal/core area focus. The primary boundaries are Rose Avenue, Gemsbok Drive and the Railway Line/Station. However, Lenasia Business District is located on the far most western side of the Lenasia residential area yielding it as isolated rather than central to the area it is intended to serve (refer to the Local Context Plan). From this perspective it was

poorly planned if intended as a commercial node and it is not very "central" as implied by the term "Central Business District" (Lenasia Development Programme, 2000)

There are 4 Neighbourhood nodes, within the predominantly residential area serving the Sub Area; these include Trade Route Mall, Mardo, Taljee and High Point. Two defined industrial nodes are located in the Sub Area, namely Albert Street Industrial Node located to the south of Lenasia Node, consisting a range of business mix including wholesale trade/warehousing and distribution, food processing, automobile repairs and maintenance, construction and printing and Anchorville Industrial Node, located 2km south of Lenasia Node, which also includes a business mix of cosmetics, construction, motor mechanical works, furniture, automobile repair and maintenance, warehouse and distribution, plastic ware and packaging, food processing and metal works.

In terms of the City of Johannesburg Biodiversity Sector plan, part of the proposed development site is mapped as Critical Biodiversity Areas (CBA) and Ecological Support Area (ESA). CBAs are areas required to meet biodiversity patterns and/ or ecological processes targets. No alternative sites are available to meet these targets. Therefore the desired management of these areas is to maintain them in a natural state with limited or no biodiversity loss.

Ecological Support Areas has been split on the basis of land cover- ESA 1 being in a largely natural state and ESA 2 areas (e.g. maintaining landscape connectivity). In addition, ecological support areas play an important role in supporting the ecological functioning of Critical Biodiversity Area in delivering associated ecosystem services. Consequently, development in these areas should be planned in a manner that allows for faunal movement.

The site is within **Wetland Management Zone 5** as identified in the draft COJ Wetland Protection and Management Plan 2009. The south and south eastern areas of Greater Johannesburg, including Soweto, Kibier Park and surroundings, areas to the east and south of Lenasia, and the whole Ennerdale area, all have moderate development potential. Geotechnical constraints include poor drainage, shallow groundwater levels, active clays, moderate slopes (6°-15°) and some dolomite. This makes these areas prone to erosion and preferably suitable for formal residential, industrial and commercial developments. In terms of key management concerns for Wetland Management Zone 5, management of sediments and water quality are both identified as key, while pre-emptive engineering is advocated whereby sufficient space is maintained for the system to adjust with little active intervention to the change in hydrology or that active engineering is applied so as to ensure that wetland management objectives are met.

#### **Description of alternatives:**

The submitted Draft BAR has identified alternatives for executing the proposal.

#### **Evaluation and presentation of mitigation measures:**

The following Specialist Studies are included in the DBAR:

- Wetland Delineation Assessment
- Wetland Rehabilitation and Monitoring Program
- Biodiversity Impact Assessment
- Ridge Ecological Studies
- Avifaunal Assessment
- Heritage Impact assessment

The construction will take place in the existing footprint of the current power lines, which will be decommissioned as stated in the report. Furthermore, specialist studies submitted i.e. wetland delineation, biodiversity and avifaunal studies concluded that the potential adverse environmental impacts can be mitigated satisfactorily as it will mostly be associated with pylons and associated structures.

The wetland and its respective 30m buffer is clearly delineated and mapped as environmentally sensitive.

The proposed mitigation measures are also included in an Environmental Management Plan contained in Appendix I, and the Wetland Rehabilitation and Monitoring Plan contained in Appendix C2.

#### **Departmental Comments:**

- No pylons should be placed within the wetland and associated 30m buffer
- Where powerlines crosses the wetlands, bird diverters and/or flappers must be installed to avoid or minimize bird's collision and subsequent electrocution.
- It is also important to note that the wetland and riparian zones form part of the water resource and any development that impacts on the wetland will only be permissible if authorised by a Water Use Licence under Section 21 of the National Water Act and in terms of GN 387 of NEMA.

- An ongoing monitoring and eradication programme for all invasive and weedy plant species growing within the servitude must be implemented. Proof of implementation must be submitted to the EISD for attention Head: Environmental Compliance and Monitoring.
- Rehabilitation of natural vegetation must proceed in accordance with a rehabilitation plan compiled by a specialist registered in terms of the Natural Scientific Professions Act (No. 27 of 2003) in the field of Ecological Science. The rehabilitation plan must form part of the EMP and a site diary must be maintained on site to monitor and report on the implementation of the plan.
- Any post-development re-vegetation or landscaping exercise must use species indigenous to South Africa. Plant species locally indigenous to the area are preferred. As far as possible, indigenous plants naturally growing along the route, but would otherwise be destroyed during construction, must be used for re-vegetation / landscaping purposes.
- A copy of the Record of Decision showing approval must be forwarded to this Department.
- This Department should be informed of the date that construction on site would commence for the purpose of compliance monitoring.

Should you have any queries please do not hesitate to contact Etienne Allers on the numbers indicated above.

Yours faithfully



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