

**THE TOWNPLANNING DEVELOPMENT FEASIBILITY  
STUDY IN REGARD THE CONSTRUCTION OF THE ARNOT-  
GUMENI DOUBLE CIRCUIT 400 KV TRANSMISSION LINE  
AND THE UPGRADE OF THE GUMENI SUBSTATION.**

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**SUBMISSION BY  
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## **1. PROJECT UNDERSTANDING**

### **1.1 Introduction and project understanding**

Bageso Housing Development Consultants was appointed to undertake a townplanning feasibility Assessment for the proposed double circuit 400 kv transmission line which runs approximately 60 km to easterly direction from Arnot Substation to Gumeni Substation.

The study area is located within the Mpumalanga Province and the proposed project falls under the jurisdiction of the Nkangala District Municipality (Emakhazeni Local Municipality and the Steve Tshwete Local Municipality) and the Gert Sibande District Municipality, ( Albert Luthuli Local Municipality).

**This project is constituted by three proposed alternative routes namely:**

#### **1.1.1 Alternative 1 (Orange corridor).**

The proposed Alternative 1 corridor will run parallel to the existing Arnot-Maputo power line, situated south of Arnot and will subsequently link up and run parallel to the approved Hendrina-Gumeni power line.

This alternative is approximately 56 km in length and crosses various roads including the R33 which is an important transport and economic route.

#### **1.1.2 Alternative 3 (Purple corridor).**

The Alternative 3 route alignment will run parallel to the N4 Maputo Corridor, situated north of Arnot. This corridor is considered to be the main link between Gauteng, Mpumalanga and Mozambique.

Alternative 3 is approximately 60 km in length and crossed various roads including the R33. An existing railway line, linking Machadodorp (Enthokozweni)with Hendrina Power Station transects various sections of the route alignment. The St Micheil's and Fins Estate civil aerodrome are situated 490 m and 1.7 km north of this corridor.

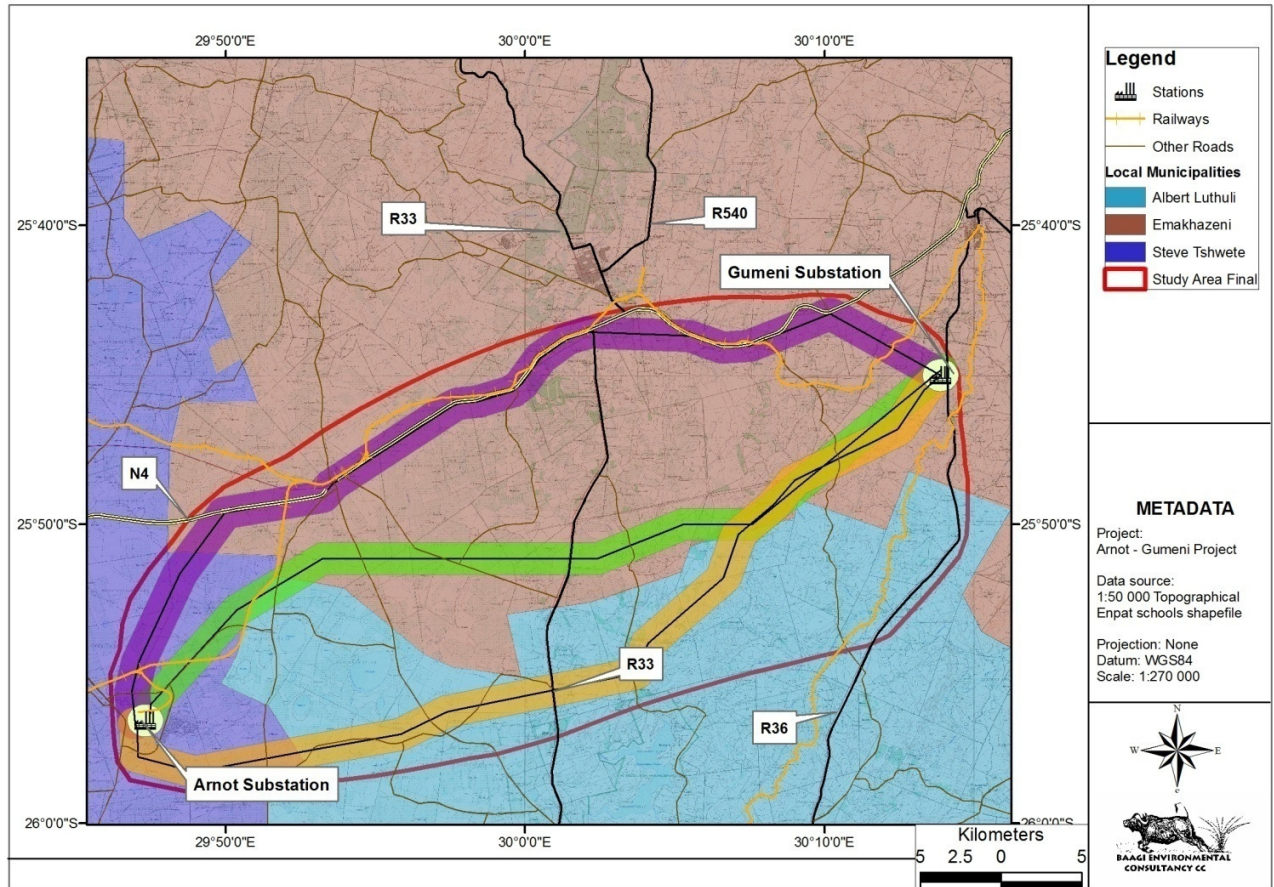
#### **1.1.3 Alternative 5 (Green corridor)**

Alternative 5 is approximately 55 km in length and crosses the approved Hendrina-Gumeni power line as well as various roads including the R33. Arnot Power Station aerodrome is situated 1100m south of Alternative 5. This corridor also transects various mining operations such as Gleco Mining and an Exxaro coal mine.

This report provides a detailed Townplanning rational of the proposed alternative routes and issues relating to the IDP and SDF of the surrounding areas.

The purpose of this report is to evaluate the three given alternatives, eliminate and choose the preferred route as far as Townplanning issues are concerned.

#### 1.1.4 Map of Showing the Three Alternative routes and Municipal Boundaries.



#### 1.2 Project scope & deliverables

And the following key issues will be addressed as per client's specification:

- The identification, description and mapping of all relevant existing and future planned developments within the areas traversed by the three corridors.
- The identification and mapping of land claims and land reform initiatives in the areas traversed by the three corridors (where possible).
- The identification of geographic areas where the proposed project would be incompatible with existing and future planned developments and the land reform programme.
- The specialist should highlight assumptions, exclusions and key uncertainties.

## **2. POLICY UNDERSTANDING: (INTEGRATED DEVELOPMENT FRAMEWORK) AND (SPATIAL DEVELOPMENT FRAMEWORK).**

### **2.1 Integrated Development Plan (IDP).**

The IDP is the key instrument to achieve developmental local governance for decentralised, strategic, participatory, implementation orientated, coordinated and integrated development. Preparing an IDP is not only a legal requirement in terms of the legislation but it is actually the instrument for realising municipalities' major developmental responsibilities to improve the quality of life of citizens. It seeks to speed-up service delivery by securing a buy-in of all relevant role-players and provides government departments and other social partners with a clear framework of the Municipality's development trajectory to harness implementation efforts.

Integrated development planning also promotes intergovernmental co-ordination by facilitating a system of communication and co-ordination between local, provincial and national spheres of government. Local development priorities, identified in the IDP process, constitute the backbone of the local governments' budgets, plans, strategies and implementation activities. Hence, the IDP forms the policy framework on which service delivery, infrastructure development, economic growth, social development, environmental sustainability and poverty alleviation rests. The IDP therefore becomes a local expression of the government's plan of action as it informs and is informed by the strategic development plans at national and provincial spheres of government.

### **2.2 The Spatial Development Framework (SDF).**

In terms of Section 26(e) of the Municipal Systems Act (Act 32 of 2000), every municipality is required to formulate a Spatial Development Framework as a part of its Integrated Development Plan (IDP).

Taking into account the current pattern of land use and the nature of development in the municipal area, a Spatial Development Framework is required to describe in words and illustrations how the Municipality sees *desirable future patterns of land use and development in its area of jurisdiction*. In essence, it is the Municipality's spatial "Vision" of what the Municipal area will look like in years to come.

The Spatial Development Framework is a legally enforceable component of the IDP, which indicates both to the Municipality (councillors and officials) and to the public (developers, land owners etc.) where certain types of land use and associated developments are permissible, and where certain activities are unlikely to be permitted.

As such, it forms the basis for land use management and serves as a guideline to inform the Municipality in its decisions on land development (new development and changes to

existing land uses) in its area of jurisdiction.

Therefore, the Spatial Development Framework also functions as a framework for public and private sector investment in different types or levels of development in those areas that are identified as appropriate or suited to such development.

### **2.3 Policies Affecting the Study Area.**

1. Nkangala District Municipality IDP 2011-2012.
2. Emakhazeni Local Municipality IDP 2011-2012.
3. Steve Tshwete Local Municipality IDP 2011-2012.
4. Gert Sibande District Municipality IDP 2011-2012.
5. Chief Albert Luthuli Local Municipality (CALLM) Draft IDP 2011-2016.

Emakhazeni and Steve Tshwete Local Municipalities simulate the district IDP and the SDF inserted within the IDP. For the purpose of this report the intensive focus is channelled on the district IDP and SDF as it summarizes the development needs, trends and challenges of the two local municipalities.

Gert Sibande District Municipality and Chief Albert Luthuli Local Municipality (CALLM) are currently busy compiling the new IDP 2011-2016. The documents are still on their draft form and there is no SDF insert as yet. The portion of lands which falls within this municipality on our project has a direct effect with the Nkangala District Municipality since they are on the boundary, therefore the land uses, zonings and the potential infrastructure investment should be uniform.

### **2.4 Overview of Chief Albert Luthuli Local Municipality.**

The CALLM is a mainly rural municipality, with a number of service centres and settlements distributed throughout the area. The main service town within the CALLM area is Carolina, followed by Elukwatini and Badplaas. The N17 cuts through the south eastern part of the area, as well as other regional mobility routes namely the R36, R33 and R38. The majority of rural settlements occur in the eastern part of the CALLM, with access provided by the R541, N17 and various secondary routes.

Key natural features include hills in the east of the area which form physical barriers between groups of rural settlements. Other key features include forestry areas in the central and southern areas of the CALLM, a river system and the Nooitgedacht and Vyeboom Dams, as well as the edge of a greater wetland region around Chrissiesmeer (mostly outside the CALLM to the south). Economic activities that are dominant spatially in the CALLM include agriculture, forestry and mining. Retail and services concentrate in Carolina, and also in smaller centres such as Elukwatini and Badplaas.

### **3. IDP and SDF OVERVIEW ON CORRIDOR DEVELOPMENT OPPORTUNITIES THAT AFFECT THE STUDY AREA.**

#### **3.1 Corridor developments**

The N4 Maputo Corridor holds significant opportunities for the Nkangala District area, both in terms of economic spin-offs from the corridor, and tourism potential. Activities capitalizing on the economic opportunities associated with these corridors are highly encouraged by the SDF to locate adjacent to the corridors (refer to figure 3.1). The figures (maps) below outline the spatial development proposals and land-use guidelines that will guide development and which future development decisions will be based on. This could include intensive agriculture, agro-processing and hospitality uses. The significance of the railway lines in the District in terms of export opportunities to the Maputo and Richards Bay harbours is highly promoted in terms of this SDF.

Development along the N4 corridor is nodal in nature with a concentration of activities around some of the most strategically located access interchanges along these routes. Apart from the Emalahleni City and Middelburg areas, it is suggested that economic activity should also be actively promoted at Belfast and Machadodorp, as well as Delmas town along the N12 freeway.

**(SEE BELOW SDF AS FIGURE 3.1.1)**