

**Electricity Licensing, Compliance &
Dispute Resolutions Department**

INSPECTION IN LOCO QUESTIONNAIRE


APPLICANT NAME: Eskom Distribution Gauteng Cluster

REPRESENTATIVE NAME: Bandile Jack

DESIGNATION: General Manager

Supported by: Thandiwe Nkambule
Designation: Senior Manager Asset Creation
U/N: 1116991
Date: 10 April 2025



SIGNATURE: 

DATE: 11-04-2025

1 INTRODUCTION

The National Energy Regulator of South Africa (NERSA or 'the Energy Regulator') regulates the energy industry in accordance with the Electricity Regulation Act, 2006 (Act No. 4 of 2006), issued licences, rules, standards and international best practices in support of sustainable development. The organisation issues licences to electricity distributors. When licence amendment applications are received, NERSA has to conduct an inspection in loco of the area to confirm the information supplied to enable NERSA to make a sound decision on the application submitted.

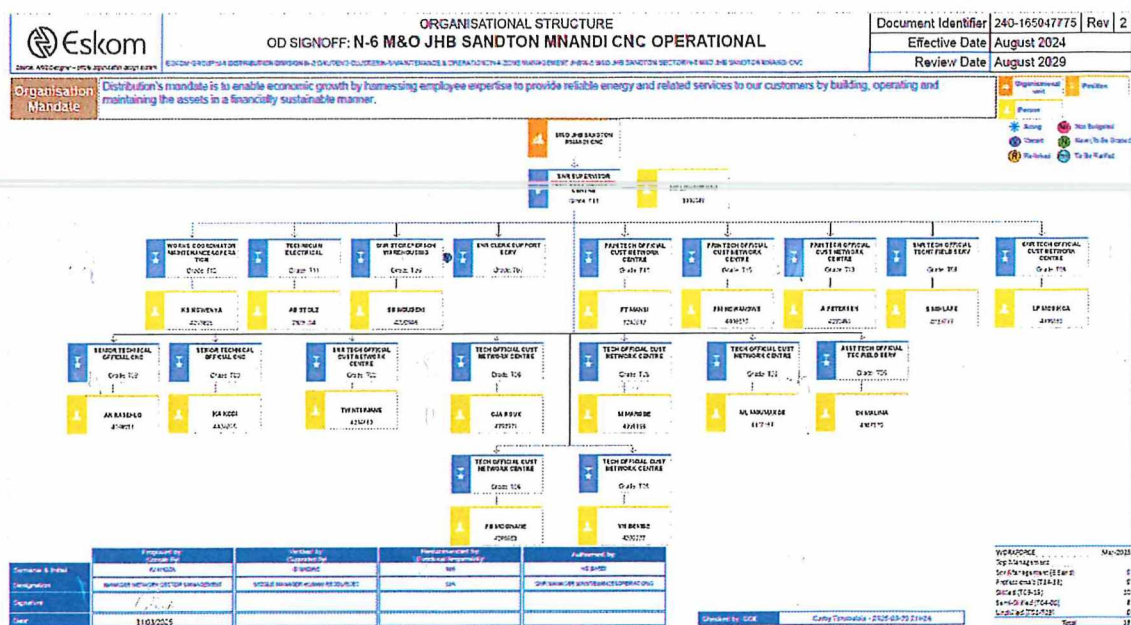
2 INSPECTION IN LOCO

This questionnaire is intended to identify and obtain all information for the inspection in loco arising from the licence transfer or amendment applications that NERSA receives. You may find that the information and data requested are slightly different from your normal practices and procedures and your data and information recording methods.

Note: Please answer every question as accurate as possible from Page 3 until Page 8

Under the General Manager, Asset Creation is responsible for all new build assets. Network Planning function falls under Asset Creation

3.2 How many vacancies in structure? State your plans and timeframes to fill



- 1X Senior Supervisor (T13)
- 1X Technician (T11)
- 1X Works Coordinator (T10)
- 1X Senior Clerk (T07)
- 1X Senior Storeperson (T06)
- 3X PTO (T10)
- 5X STO (T09)
- 6X TO (T06)

• Vacant positions

- 1X PTO (T10)
- 1X TO (T06)

3.3 List equipments, instrumentations, machinery including vehicles that you have and are necessary for the operation and maintenance (O&M) of the electricity network.

Refer to attached files for the Mnandi CNC:

- Mnandi CNC Vehicle List.xlsx
- Mnandi Asset Register Production Listing 5P13000 2023.xlsx

3.4 How many bulk supply intake points do/will you have for each area applied for?

Area name(s)	Number of supply points
Area 1 Timsrand Extension 4 Development	1 (Proposed Diepsloot East substation)

3.5 Provide details of how the area(s) applied for will be serviced:

Name of Area 1 applied for Timsrand Extension 4 Development

Description of area (urban or rural area, distance and direction from nearest town)... **Urban**.....

GIS Polygon (location) of the area... **See Appendix.**

Supplier substation name and ownership **Proposed Diepsloot East substation (Eskom)**

Installed capacity (in MVA)... **80**.....

Load maximum demand (in MW) **12 MVA**.....

Envisaged load energy demand (in GWh)... **412 per annum**.....

Distance from the point of supply to the customers... **1.5 km**.....

Type of connections (underground, overhead, etc) **To be determined**

3.6 What type of customers per area are being applied for?

Customer type	No. of customer in Area 1
Domestic (Households)	20000
Commercial (Business)	0
Light Industrial	0
Heavy Industrial	0

3.7 List (or attach a **List of**) all current areas you supply excluding the area(s) you applied for:

1. Northern Cape
2. Free State
3. Eastern Cape
4. Northwest
5. Western Cape
6. Mpumalanaga
7. Limpopo
8. Kwa Zulu Nataal
9. Gauteng

3.8 What percentage (%) are your total network losses (Technical and Non-Technical) as per NRS 080?

Technical Losses (i.e. system losses) in %	3%
Non-Technical Losses (i.e. unaccounted energy) in %	19.5 (July 2023: NTL % 12mmA)
Energy for Own use not metered in % (e.g. for streetlights, pump station, municipal buildings etc.)	N/A

3.9 Describe the financial implications (Budget, Costs, INEP or Funding granted etc.) for the area(s) applied for.

The estimated capital costs to establish the development is R105 128 776 (Table 3-1).

Table 3-1: Timsrand Development Capital Requirement

Project Name	Job Name	Scope of Work	Job Costs
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Timsrand Ext 4 Development	Diepsloot East – Build new substation	Build a substation that can accommodate 3x40 MVA transformer bays. Initially only 2x40 MVA will be installed.	R51 530 298
	Lulamisa – Diepsloot East new line	Build an approximately 3.8km Double Circuit Twin Tern 88kV Line from Lulamisa Substation to the proposed Diepsloot East Sub.	R25 251 622
	Diepsloot East – supply Timsrand Ext 4	Do the LV design Install the MV and LV network for the whole development.	R25 346 856
	Tx Interdependent	Apply to Tx for an Installation of 2 x 88kV Line Bays at Lulamisa MTS	R3 000 000
Total			R105 128 776

3.10 Are you providing any of your existing customers (e.g. indigent customers) with **Free Basic Electricity (FBE)** each month? If not, why? If yes, how many kWh per month?

Eskom provides FBE based on the list customers Eskom receives from the relevant municipality. Eskom must provide FBE according to their criteria. For the Mnandi CNC, part of the area is under the City of Johannesburg (CoJ) municipality, where Eskom provided an average of 8560kWh of FBE for the period December 2024 to February 2025 based on CoJ's indigent criteria. A large part of the are falls with in agricultural holdings that don't meet the criteria.

	December			January		February	
	Registered Customers	KWH	Number	KWH	Number	KWH	Number
DIEPSLOOT	286	2310	77	2280	76	2700	90
DIEPSLOOT TANGANANI	36	530	18	620	21	500	17
DIEPSLOOT WEST	119	480	16	540	18	600	20
RIVERSIDE VIEW SANDTON	1	4470	150	4310	145	5920	199
	1751					120	4
	1					30	1
WATERFALLS BLUEHILLS	64	150	5	120	4		
	2258	7940	266	7870	264	9870	331

- 3.11 Are payments to your bulk supplier (i.e. Eskom) up to date? **Provide a copy of your last Eskom account.**

N/A

- 3.12 Have you ever exceeded your Notified Maximum Demand (NMD) or incurred penalties on exceeding NMD previously? **If Yes, explain in terms of future capacity upgrades and when.**

N/A

- 3.13 How is the tariff increase communicated to the customers? Provide a copy of a public booklet/pamphlet that indicates a list of the approved tariffs.

The tariffs and charges can be accessed via the Eskom website (<https://www.eskom.co.za/distribution/tariffs-and-charges/>).

The Eskom Connect (communication insert sent with a customer's monthly bill) is also sent to our SPU customers with their monthly bill.

- 3.14 Are there any Demand Side Management (DSM) strategies developed by the licensee? If yes, describe the key points of the strategy.

Yes - There are 3 main programmes:

1. Energy Efficiency focusing on MWh reduction during Weekday Standard & Peak Time (Industry & Mining)
2. Load Management or Peak clipping focussing on MVA reduction during evening Peak (Mega flex Hours)
3. Residential Load Management (Bulk Projects requiring >1MW to be evening Peak load shifted).

Actual Asset Maintenance Practices:

- 3.15 State your Annual Operational and Maintenance cost for the current network (excluding the area(s) you applied for):

Mnandi CNC Operating Expenses

Periods	Act. Costs	Plan Costs	Var.(Abs.)
24-Feb	R3 329 154.59	R2 420 416.06	-R908 738.53
24-Mar	R2 193 355.82	R2 338 982.19	R145 626.37
24-Apr	R2 384 898.36	R2 571 445.48	R186 547.12
24-May	R2 519 756.98	R2 469 179.29	-R50 577.69
24-Jun	R2 478 796.06	R2 645 056.69	R166 260.63
24-Jul	R3 686 759.32	R2 795 453.39	-R891 305.93
24-Aug	R1 807 695.62	R2 745 279.35	R937 583.73
24-Sep	R2 867 061.08	R2 649 920.71	-R217 140.37
24-Oct	R1 991 135.01	R2 490 162.58	R499 027.57
24-Nov	R3 299 018.97	R2 928 563.73	-R370 455.24
24-Dec	R4 327 045.25	R2 631 349.26	-R1 695 695.99
25-Jan	R5 252 739.97	R2 677 803.62	-R2 574 936.35
Total February to January	R36 137 417.03	R31 363 612.35	-R4 773 804.68

- 3.16 Are there any parts of the electricity network (infrastructure) (e.g. transformers, etc.) which present significant maintenance problems and present a high risk of failure?

Refer to the All GOU Abnormality Report.xlsx file for the Mnandi CNC.

- 3.17 Are there any infrastructure maintenance backlogs at any of your current areas of supply? If yes, what corrective measures are being put in place?

Refer to the planned maintenance plan for the Mnandi CNC: PM Tool Mnandi CNC.xlsx

- 3.18 Is your maintenance carried out in-house (i.e. own staff) or by a sub-contractor?

In-house

System Control:

- 3.19 How many control centres and operating hours does the municipality have?

Eskom has 1 for the Gauteng Cluster (OU).

3.20 Are the control centres computerised or do they use a manual (e.g. 'pin-on-diagram') system?

Computerised

3.21 Currently, how many depots do the field crews operate from?

1 Depot - Mandi CNC

3.22 How are your operators (i.e. field crew) accredited?

Refer to 240-70413681-Portfolio of Evidence for Authorisation.pdf

3.23 Who is responsible for updating the network **Single Line Diagrams** and the **Operational Diagrams**? Provide name, designation and contact details.

Name: Dries Botha

Designation: S/S Network Data Management

Contact Details: bothaad@eskom.co.za - 0827881605

3.24 Is the Quality of Supply (QOS) being monitored as per NRS 048?

YES	NO
X	

If **yes**, how? If **no**, why not?

The QoS is monitored as per section 7 of NRS048-4 2021. Eskom (the NSP) is responsible for monitoring power quality for the purposes of:

- a) providing annual performance statistics to the NERSA;
- b) managing NSP requirements to comply with NRS 048-2 (or with specific contractual requirements, where applicable); and
- c) ad-hoc investigations (including the enforcement of emission limits, when necessary)

3.25 What are your typical response and restoration times (**in terms of hours**) during network interruptions (power outage)?

Zone	Cnc	Average of Dispatch React time	Average of Workorder Restoration Time
Johannesburg Zone	Mnandi CNC	2.28	22.38

3.26 Are consumers given adequate notice of planned maintenance outages?
How many days in advance is notice given? **Provide proof of such communiqué.**

Planned Outages

- 14 days Customer Notification. This means that customer notification is sent 14 days prior to the outage taking place.
- 3 days Customer Notification. This means that customer notification is sent 3 days prior to the outage taking place
- Below is the standard template on CC&I for Planned Outage
 - Planned outage on [DATE] Tfmr [TRANS_NUMBER] Enquiries 0860037566.Planned maintenance on [DATE] Tfmr [TRANS_NUMBER]. Apologies for inconvenience. Enquiries Eskom 0860037566

5 OTHER INFORMATION

Is there any other information relevant to the assessment which you believe NERSA should be aware of, but did not cover in this questionnaire? List any such information below and NERSA will explore it in more detail during the inspection in loco meeting.

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6 REQUIRED DOCUMENTATION

The documents below are a vital requirement for NERSA, as they will validate the assessment of your inspection with respect to regulatory conditions and industry standards. Should you be unable to provide specific documents, please provide an explanation.

- a) The **detailed approved structure** of the electricity department indicating filled positions as well as current vacancies.
 - a. Refer to Zone Management – JHB Sandton Sector.pptx.
- b) A copy of the **recent account received and paid** to the bulk supplier (Eskom).
 - a. N/A
- c) A copy of **any monthly account to a customer** that indicates the tariff charged, number of units consumed etc.
 - a. Refer to 5999281072_599832231165_Eskom bill.PDF
- d) A copy of a public **booklet/pamphlet or document that communicates to customers** a list of the approved tariffs.
 - a. Refer to 2024-25-Tariff-Book.pdf.
- e) A copy of the **maintenance plan** for the electricity network.
 - a. Refer to the planned maintenance plan for the Mnandi CNC: PM Tool Mnandi CNC.xlsx
- f) A copy of the **notice to customers with regard to any previous planned maintenance** outages.
 - a. The standard template on CC&I for Planned Outage
 - o Planned outage on [DATE] Tfmr [TRANS_NUMBER] Enquiries 0860037566.Planned maintenance on [DATE] Tfmr [TRANS_NUMBER]. Apologies for inconvenience. Enquiries Eskom 0860037566
- g) A copy of the **outages recorded** for the last month.
 - a. Refer to Outages.zip

