ELECTRIFICATION PLANNING REPORT:
THE PROCESS, THE CONTENT AND THE END RESULT

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Date : 08 October 2013
OVERVIEW

• Background on Electrification
• The Process
• The Content of the Report
• The End Result
• Questions
BACKGROUND

• The South African President’s address
• The Government’s Intention
• Eskom’s Mandate
• Network Planning’s Responsibility
THE PROCESS INVOLVED

- Integrated Development Plan (IDP) Road Shows/Imbizo’s
- Network Planning
- Electrification Co-ordinator
- Eskom & Municipality
- Department of Energy (DoE)
Electrification Project: Network Planning Report

(Sikhulu electrification area REV2)

PROJECT SUMMARY

- No. Connections: 350
- Feeder and TRFR detail: Ingeli NB1 near TGG25
- GPS Co-ordinates: 29°41'46.1"E  30°25'33.33"S
- Income Level: 0 to 750
- Network Constrained Status: Not Constrained
- Existing Customer Base: 6571

ADMD, HERMAN BETA, AND MV SYSTEM PARAMETER CALCULATION & ASSUMPTIONS

Elect. Proj. Name: Sikhulu REV2     Classification: Rural Settlement

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Final (year 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMD (kVA)</td>
<td>1.0</td>
</tr>
<tr>
<td>Alfa parameter</td>
<td>0.461</td>
</tr>
<tr>
<td>Beta parameter</td>
<td>1.661</td>
</tr>
<tr>
<td>Circuit Breaker Size</td>
<td>20</td>
</tr>
<tr>
<td>Statistical Current</td>
<td>AMEU</td>
</tr>
<tr>
<td>Network Classification (C1=102%, C2=98%, C3=95.5%, C4=92.5%)</td>
<td>C2</td>
</tr>
<tr>
<td>Maximum allowable LV Volt drop</td>
<td>7.5%</td>
</tr>
</tbody>
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Table 1: Calculated ADMDs, Herman beta parameters and MV system voltages.

Recommendation

This project **may** go ahead.
Voltage Profile of a Network at 96.8%
ELECTRIFICATION APPROVED

• Job Creation
• Economic Growth
• Community Development
ELECTRIFICATION NOT APPROVED

- Socio economic issues
- Political issues
- Eskom not delivering
- Illegal connections
QUESTIONS
Thank You