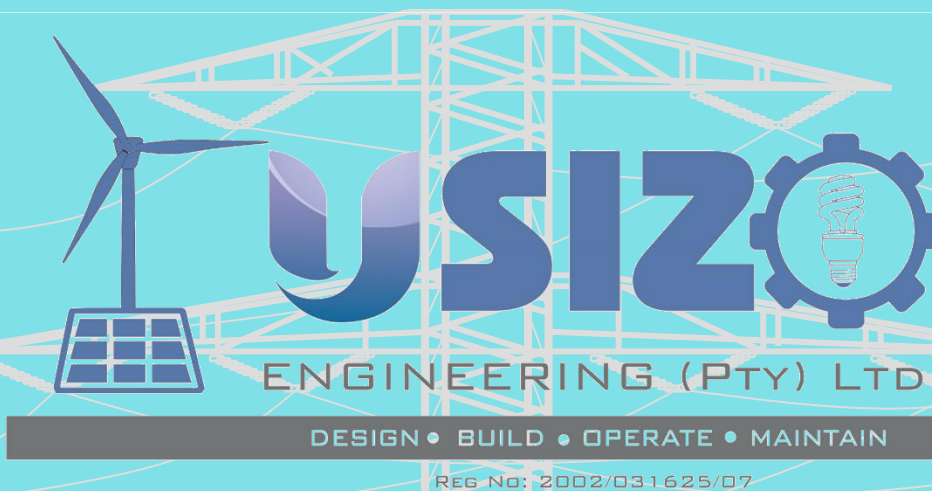




ELECTRICAL ENERGY PROJECTS

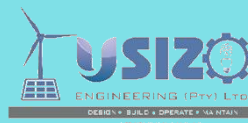
PRESENTATION ON SERVICES, CAPACITY & COMPETENCIES

Presented by : Sakhi Dumakude, BScEng, PrEng, PrCPM

Revision Date: June 2026

Contact : +27 72 254 3855

Email : sakhi@usizoeng.co.za

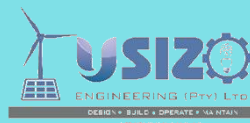


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4. Services Offered	12. PMBoK (PM Tools)
5. Client Base	13. Company Infrastructure
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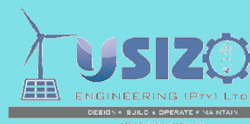
Company Introduction

- ❖ We hereby introduce our firm Usizo Engineering (Pty) Ltd to yourselves.
- ❖ Usizo Engineering (UE) is a 100% Black owned South African entity in the technical field of Electrical Energy Sector (Project Design, Procurement, Construction Management, Electrical Network Operations & Maintenance).
- ❖ UE usually works on project to project basis in partnership with other capable firms in the Energy Sector.
- ❖ UE has offices Johannesburg, Gauteng Province (Head office), as well as in each of the other 8 provinces of South Africa (RSA).
- ❖ UE and partner firms employs over 20 permanent staff members spread across the whole of RSA.
- ❖ Most Technical employees are registered with ECSA, SACPCMP, CESA, SABTACO, and certain partner firms are ISO9001:2015 and SABS accredited.



Background

- ❖ Usizo Engineering was founded in 1998.
- ❖ To provide Professional Electrical Energy Services (Project Engineering, Procurement, Construction Management, Electrical Network Operations & Maintenance).
- ❖ To offer opportunities to indigenous Black individuals and promote Gender Equality.
- ❖ The Firm is a member of CESA, SABTACO, (GBCSA) Green Building Council South Africa and is ISO 9001:2015 certified by Dekra-ITS. Technical Staff are registered with ECSA, SACPCMP and SAIEE.
- ❖ The largest Electrical Energy project completed by The Firm is a R1.2bil 2x66MVA Internal Combustion Chrome Smelter Expansion in Steelpoort, Limpopo, RSA in 2012.
- ❖ The Firm is an Equity Owner and Engineering Service provider to 6 PV Solar, and 5 Wind energy IPP plants, commissioned under REIPPP Rounds 1, 2 & 3 of RSA.



Company Vision and Mission Statement

Vision

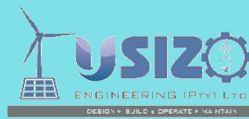
To be the preferred provider of Electrical Energy Project Design, Build, Operate, Maintain and Transfer services in Africa and globally.

We strive to achieve our Vision through:

- ❖ Respect and deliver the customer requirements optimally & on time.
- ❖ Acknowledging our staff as our greatest asset (Human Capital).
- ❖ Our culture of continuous learning and development.
- ❖ Never compromising our professional ethics as core values.

Mission

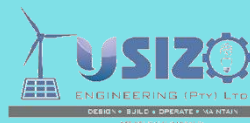
To provide Technically Sound, High Quality one stop (turnkey) Electrical Energy Plants and Power Transmission Services to both Public and Private Sectors.



Services Offered

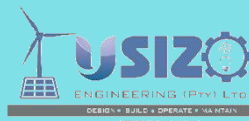
Project Design, Procurement, Construction Management , Operations and Maintenance in the Sectors:

- ❖ Bulk Energy Customers (Utilities, Smelters, Mines, Bulk Electricity Users)
- ❖ Electricity Transmission Projects (Substations & Lines)
- ❖ Electricity Distribution & Reticulation Projects
- ❖ Electrification Projects (Urban and Rural Townships)
- ❖ Energy Efficiency Installations & Green Buildings
- ❖ Renewable Energy Generating Plants (Wind, Solar, Hydro, Biomass)
- ❖ Building & Hospital Electrical Services
- ❖ Security & Access Control
- ❖ Avionic Developments (Airport Electrical Services)
- ❖ Lightning & Earthing Conductor Design & Installations
- ❖ Sports Stadium Electrical Services, and many other project types



Client Base

- ❖ Eskom Power Generation (Thermal & Renewables)
- ❖ Eskom Power Transmission, Distribution & Reticulation
- ❖ Eskom IDM (Energy Efficiency & Green Buildings)
- ❖ IPP's (Independent Power Producers)
- ❖ Airports Company of South Africa (ACSA)
- ❖ Municipalities
- ❖ Department of Public Works (DPW)
- ❖ Department of Water Affairs & Sanitation (DWAS)
- ❖ Department of Energy (DMRE)
- ❖ Department of Human Settlements (DHS)
- ❖ Private Property Developers



Office Locations

HEAD OFFICE

Unit 10A Highway Gardens Office Park
No. 77 Minuach Street
Edenvale
1609

P.O. Box 130
Modderfontein
1645

Cell: +27 72 254 3855
E-mail: sakhi@usizoeng.co.za

POLOKWANE OFFICE

No. 11 Crocodile Street
Serela View Estate, Florapark
Polokwane
0699

P.O. Box 130
Modderfontein
1645

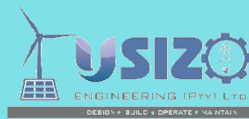
Cell: +27 79 557 8984
E-mail: sakhi@usizoeng.co.za

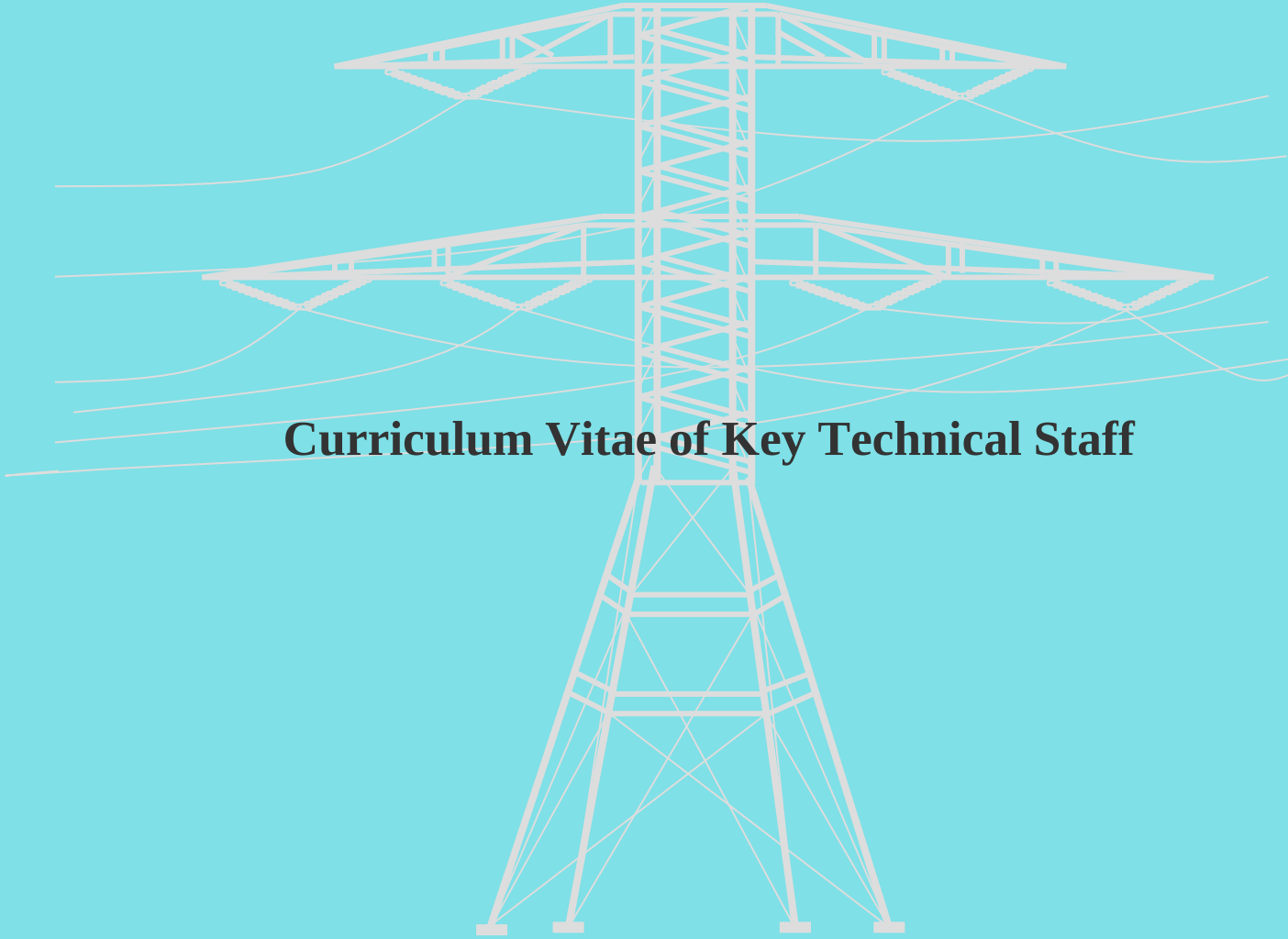
DURBAN OFFICE

No6
Horseshoe Crescent
Amanzimtoti
4126

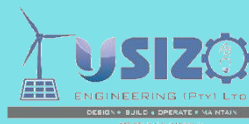
P.O. Box 1059
Amanzimtoti
4125

Tel: +27 82 883-2305
E-mail: sakhi@usizoeng.co.za





Curriculum Vitae of Key Technical Staff



Sakhi Dumakude, PrEng, PrCPM - Managing Director

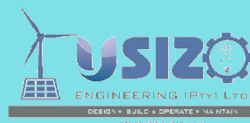


Academic Qualification	:	BSc Eng (Electrical) University of Cape Town
Professional Institutions	:	ECSA, CESA, SMSAIEEE, SACPCMP and MSABTACO
Specialisation	:	Design, Project Management, Electrical Reticulation Scheme Projects, Sub-Transmission & Retic Lines, Substation Projects, Renewable Energy Projects, Building Electrical Services, Control & Instrumentation, Electrification Projects and Products and Systems
Years of Experience	:	35 Years
Projects Handled	:	1) Design, Tender & Constr Supervision of various Sub-Tx Subs & Lines within RSA (11kV – 132kV) 2) Electrification of 200 Villages/Townships and 900 Schools. 3) Electrical Services for Govt Hospitals (Dept of P/Works). 4) Constr Manager, & COW Services for Eskom Distribution 5) Equity Owner & Engineering Service provider to 2x50MW and 4x10MW PV Solar, 2x140MW and 2x100MW Wind IPP plants in RSA.



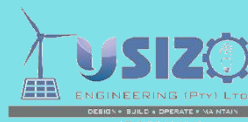
Ngokoana Ramaloko, NatDip ElectroTech – Project Technician (Female)

Academic Qualification	:	N6 Diploma (Electro-Tech Engineering), Tshwane South FET College
Professional Institutions	:	SAIEE
Specialisation	:	Design, Project Management, Building Electrical / Mechanical Services, Draughting and Electrical Reticulation
Years of Experience	:	15 Years
Projects Handled	:	1) Nkhensani Hospital Design and Supervision of Electrical Installation and Area Lighting 2) Thohoyandou Government Complex Undertake Detailed Audit of Electrical Infrastructure, Compile Technical Specifications and Scope of all Refurbishment, Repair and Upgrading 3) Sekhukhune Traffic Station Design and Upgrading of Traffic Station from Grade B to Grade A 4) Groblersdal Fire Station Project Planning, Design, Tender Documentation, Supervision and Project Closure. 5) Construction Supervision on PV Solar & Wind energy plants. 6) Wind & Solar Plant Operation & Maintenance Manuals Assessment and Update 7) General Building Electrical Reticulation Design Draughting



Godfrey Baloyi–S4 Diploma Power Eng -Project Technician

Academic Qualification	:	N4 Diploma (Electrical Engineering), Buffalo City College S4 Dip Vaal University of Technology
Professional Institutions	:	SAIEE
Specialisation	:	Design, Building Electrical / Mechanical Services, Draughting and Electrical Reticulation
Years of Experience	:	10 Years
Projects Handled	:	1) Align Plant and Spares Inventory to Maintenance Schedules to ensure Optimum Power Generation on PV Solar Energy Plants 2) PV Module Maintenance involving Clamp Meter Testing, JB's, GJB's, String Combiners, Connectors, Cabling & Inverter Stations 3) Creation of Early Warning System for Plant Equipment failure and create Mitigating Plans on PV Solar Energy Plants 4) Procurement Policy Procedure Implementation on PV Solar Energy Plants 5) Maintenance and Operation of Plant according to strict client (Eskom & IPP) regulations and procedures. 6) COW Services for Eskom S/S projects



Panel Listing

PROPOSED PANELS TO BE LISTED ON

- ❖ PROJECT MANAGEMENT (PM, PC and COW)
- ❖ PROJECT ENGINEERING DESIGN
- ❖ PROCUREMENT
- ❖ ENERGY EFFICIENCY
- ❖ RENEWABLE ENERGY IPP's

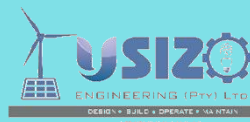
Renewable Energy Projects

Wind Energy Plants

- ❖ Equity & Engineering Partners on 140MW Wind Energy Plant in Eastern Cape
- ❖ Equity & Engineering Partners on 104MW & 140MW Wind Plants in N/Cape
- ❖ Equity partner on another 100MW and 38MW wind energy projects
- ❖ Attended Wind Farm Design, Construction and Operations in Ireland
- ❖ Attended Wind Turbine Design and Manufacture in Denmark

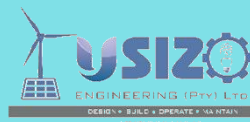
Solar Energy Plants

- ❖ Equity & Engineering Partners on 2x50MW Solar PV Plants in Northern Cape
- ❖ Equity partner on another 5 x 10.75MW Solar PV projects
- ❖ Appointed to develop a 10MW IPP Solar PV plant in E/Cape
- ❖ Appointed to develop a 10MW IPP Solar PV plant in Ekurhuleni
- ❖ Attended Large Scale Solar PV Plant Design and O & M in Germany
- ❖ Attended Large Scale Solar PV Inverter Training in Germany
- ❖ Visited solar PV panel manufacturing factories in China
- ❖ JV Partner Firm for Commercial Scale Solar PV Plants (0.1- 1MWp)



Project Experience

- ❖ Turnkey Electrification of Modjadji Valley, Greater Letaba Municipality, 4,790 connections - R45.6mil
- ❖ Turnkey Electrification of Sun City, Thembisile Hani Municipality, 1,390 connections - R16.7mil
- ❖ Turnkey Electrification of Mashamba, Makhado Municipality, 900 connections - R12.1mil
- ❖ Turnkey Electrification of Maebane, Makhado Municipality, 640 connections - R8.6mil
- ❖ Turnkey Electrification of Cooperspark, Aganang Municipality, 500 connections - R6.7mil
- ❖ Electrification of +- 400 Schools, (Limpopo), R38mil
- ❖ Electrification of +- 300 Schools, (KZN), R28.5mil
- ❖ Electrification of +- 30 Schools, (Mpumalanga), R2.8mil

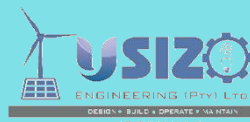


Project Experience (Cont.-1)

- ❖ Construction of more than 350km of Retic O/H lines
- ❖ Refurbishment of more than 700km of Retic O/H lines
- ❖ Construction of more than 100km of various 88 & 132kV O/H lines
- ❖ Refurbishment of more than 90km various of 88kV & 132kVO/H lines
- ❖ Upgrading of Union Plats 88/11kV S/S (Add 3rd 20MVA trfr)
- ❖ Upgrading of Rustenburg Incline 88/11kV S/S (Add 3x20MVA trfr's + C/ Room)
- ❖ Upgrading of de Kroon 132/88/33kV S/S (Add 4th 80MVA trfr + 2x132kV lines)
- ❖ Project Engineering Design for Lefco S/S (1 x 10MVA trfr + 11kV outdoor B/B + 4x11kV line)
- ❖ Upgrading of Ucar Minerals 88/11kV S/S (Add 4th 5MVA trfr + 11kV outdoor B/B + 3x11kV line closing spans)
- ❖ Upgrading of 6 large hospitals in Limpopo Province
- ❖ Upgrading of Runway Lighting + Airfield 11kV substations for Jhb + Dbn Airports
- ❖ New Eldordo Park 4 x 45MVA 88/11kV S/S and 4 x 88kV Lines

Project Experience (Cont.-2)

- ❖ Install Access Control & Burglar Alarm Systems at 7 ACSA National Airports
- ❖ Construction of Traffic Control Facility (Heavy Duty) at Burgersfort (Limpopo)
- ❖ Establishment of a new Redhill Substation 2x20MVA + 8km 132 kV line + 30km 11 & 22kV Lines
- ❖ Refurbishment of Thohoyandou Government Complex (12 x 3 Story Buildings)
- ❖ Electrical Upgrade of Thohoyandou Stadium
- ❖ Replacement of more than 1,700,000 Incandescent lamps with CFL's & LED's (Eskom DSM various projects)
- ❖ ASA Metals Dilokong s/s upgrade to 4x80MVA 132/33kV S/S, 1x132kV Frdr Bay, 25km 132kV Line & 25km Fibre.
- ❖ Construction of various Fire Stations in Polokwane
- ❖ Construction of Van Velden Hospital (SASSA facility)
- ❖ Polokwane / Flora Park Ext 28 Residential Development (Underground cable infra, indoor switchgear & service connections for 970 stands)
- ❖ Establishment of New Mhluzi 2x10MVA 88/22kV S/S, 2x88kV & 5x22kV lines plus C/Room.
- ❖ Louis Trichardt 132kV Frdr bay & 30km 132kV line to Njelele.



Quality, Environment and Safety

❖ Quality

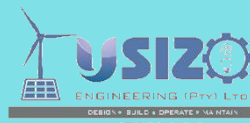
Develop a Quality Plan to comply with Clients Standards & Specifications

❖ Environment

Obtain RODs and conduct EIA studies at Project Initiation stage. Then obtain or compile EMP reports to be complied with during Project Design & Implementation stages.

❖ Safety

Conduct a Safety Risk Assessment at Project Initiation stage, and then compile a Safety Management Plan to be complied with during Project Design & Implementation stages.



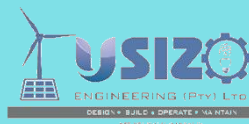
Project Management Standards (PMBOK)

Apply the following 10 PMBOK Knowledge Areas:

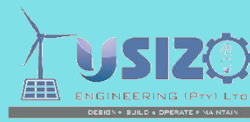
- 1) Project Integration (Project Plan Development, Execution & Control) - *MS Project*
- 2) Project Scope (Scope Definition, Verification change control) - *Progress Meeting*
- 3) Project Time (Task Definition, Sequencing, Duration Estimation, Scheduling & Control) - *Site Agent*
- 4) Project Cost (Resource Plan, Cost Estimate, Budget & Control) - *QS*
- 5) Project Quality (Develop Plan, Enforce & Control) - *Site Agent*
- 6) Project Human Resource (Organogram, Recruitment & Team Development) - *Recruitment*
- 7) Project Communications (Comms Plan, Info Flow, Progress Report & Closure) - *PC*
- 8) Project Risk (Identify, Probability, Impact Assessment, Mitigate, Monitor & Control) – *Contractor/COW*
- 9) Project Procurement (Enquiry, Select Supplier, Contract Admin, Control Closeout) – *Buyer/PC*
- 10) Stakeholder Management – *PM, PC & COW*

Company Infrastructure

- ❖ **Software** : Windows 11, MS Project, Office Professional, Adobe Acrobat, Various draughting packages eg. Microstation, CART, Retic Master, Power Office, PLSCADD, AutoCAD Revit MEP, etc.
- ❖ **Office Facilities** : Each office has a dedicated Fax Machine, Photocopier, Scanner, E-mail Address, Internet Access, Shredder and Network Server.
- ❖ **Qualifications** : Each office has an ECSA registered person (PrEng. or PrTech.), Site Agent certified by Eskom T & Q. Mr. S Dumakude is a registered PrEng and a PrCPM.



4x80MVA 132/33kV S/S Upgrade



30km 132kV Kingbird line construction



Wind Power Turbines on a Wind Farm



Own Wind Farms (RE-IPPP Round-1)

140MW Jeffreys Bay Wind Farm



Own Wind Farms (RE-IPPP Round-3)

104 MW De Aar-1 Wind



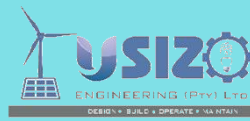
140 MW De Aar-2 North Wind



Wind Energy Grid connection S/S Trfr



Solar PV Energy (Roof-top PV Solar plant)



Own Solar PV Energy Plants (RE-IPPP Round-1)

50MW De Aar Solar PV



50MW Droogfontein Solar PV



THE END

THANK YOU

QUESTIONS / CONCERNS

