

POWER LINE AFRICA



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THE COMPANY

Power Line Africa (Pty) Ltd is a Namibian registered company operating in the Electricity Industry in the field of turnkey project contracting and project management. The company focuses on Southern Africa and specialises in the installation of distribution networks, power generation plants, substation and high voltage overhead transmission line projects.

The company's head-office is located in Tsumeb, Namibia where it has extensive storage and workshop facilities. It has a marketing office in the Kyalami Office Park in Johannesburg, South Africa which is seen as the hub of the SADC operational area.



HISTORY

Power Line Africa has its roots in the electrical contracting sector of Namibia when the company HO Himmel Electrical Services Ltd was incorporated in 1969.

This company continuously grew its business, starting in house wiring at the time of the expansion of electrification to farmers in Namibia. The business was then expanded to include building installations and in 1992, when Namibia embarked on its rural electrification programme, the company entered this business segment. To date the company has successfully completed projects valued in excess of US\$ 50 million in this sector and completed up to 85% of the electrification projects in Namibia.

In 1997, the company embarked on an aggressive expansion programme into the transmission line contracting field. Through a number of subcontract agreements and strategic partnerships the company successfully undertook various projects in Namibia on which it trained its personnel and procured the specialist equipment required for the transmission line contracting business.

A strategic decision was taken in 2003 to expand the operations of the company into the SADC region, resulting in the birth of Power Line Africa (Pty) Ltd in September 2003 as the vehicle for this expansion. By acquiring HO Himmel Electrical Services, all personnel and equipment were consolidated enabling the company to reach its full potential. During the past years the company has penetrated the SADC market place and has expanded its activities beyond transmission line projects. Since 1998 the company has completed over 20 transmission line projects completing over 2,000km of 132 kV lines as well as various 220kV, 350kV and 400kV lines.

OPERATIONAL

POWER LINE AFRICA



Work Ethics
Productivity

Cost
Management

Balance Sheet

Leadership

Resources

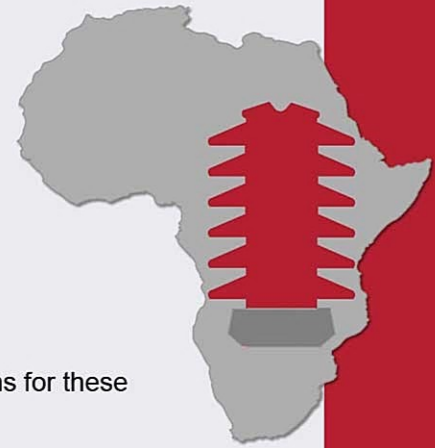
Method
Statement

COMPANY FOUNDATION

In order to maximise the successful entry into the SADC market, Power Line Africa was created on the cornerstones of key shareholders, sound financial support and state of the art equipment.

The shareholders of the company play an active role in the strategic development and management of the company and have a proven track record in the SADC region.

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MARKET SEGMENT

The company is a turnkey contractor in the Southern Africa electricity sector focusing primarily on its five core sectors of operation:

- High voltage overhead transmission line projects,
- Erection and commissioning of substations
- Distribution networks
- Power generation plants and
- Rural electrification projects.

The company has commenced business in a new market sector, namely open cast coal mining in South Africa. This is a fully operational company called ***Power Mine Africa (Pty) Ltd***, owning its own specialised mining equipment. This has been a natural development for the company as we have the following competencies which complement this new division:

- Construction project experience
- The necessary construction and earth moving equipment
- Skilled personnel who are familiar with the construction environment
- We have in house costing software which is tailor made for the construction sector.

The company is able to offer a variety of service solutions for these core sectors including:

- Full turnkey projects - encompassing project management, engineering, design, procurement, supply, installation and commissioning
- Supply, installation and commissioning to client designs and specifications
- Installation and commissioning of client issued materials to client designs and specifications
- Rehabilitation of existing overhead lines
- Survey and assessment of existing overhead lines
- Special solutions to line route/servitude problems that the client may encounter.



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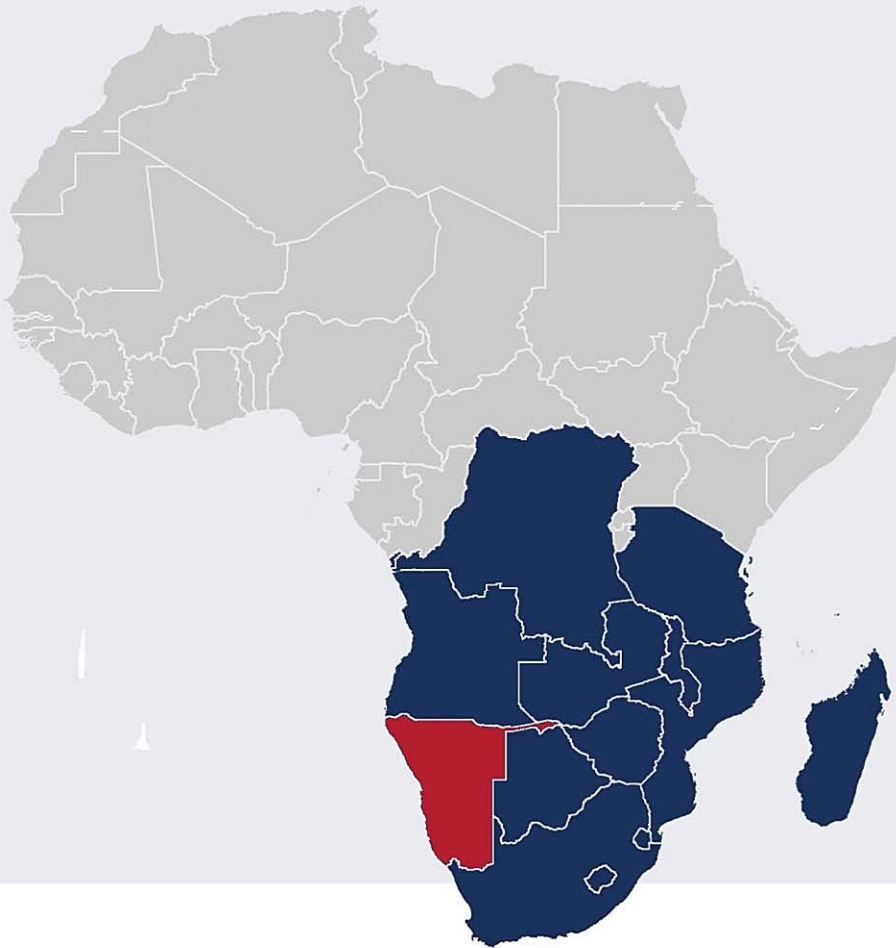
Current Area Of Operation

The company has current interests in projects being undertaken in Namibia, the Democratic Republic of the Congo, Tanzania, Zambia and Zimbabwe and is further looking to expand its field of operations to Mozambique, Uganda, Kenya and Angola and South Africa where rapid redevelopment of electrical infrastructure will provide an ideal opportunity for it to penetrate the market utilising its efficiency, skilled personnel and tailored equipment. They have offices located in the following countries:

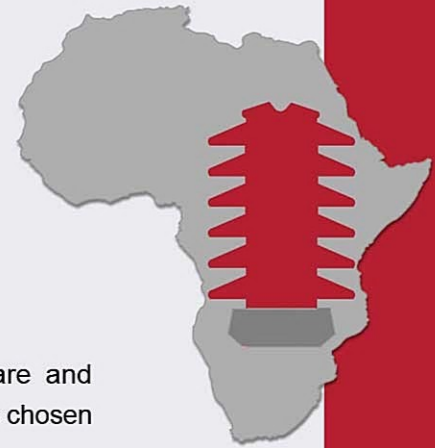
- Tsumeb and Windhoek, Namibia
- Johannesburg, South Africa
- Lubumbashi, The Democratic Republic of the Congo
- Lusaka, Zambia and
- Harare, Zimbabwe

The company intends to utilise a combination of direct tendering and strategic partnering to gain access to these new markets.

Built on an ethic of quality and integrity, Power Line Africa (Pty) Ltd is proud of its on-going role in bringing electricity to the people of the Southern African Development Community and thereby supporting the social and economic development of the countries in which it operates and to the region as a whole.



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RESOURCES

PERSONNEL

The company boasts a management team with a combined direct experience in excess of one hundred years within the electricity industry in Southern Africa. The management team has a diversity of strengths in the various disciplines of entrepreneurship, administration, finances, projects and technical operations.



The company employs a core permanent staff complement below one hundred personnel which it supplements with experienced contract employees as the need arises. Through the extensive experience of its management team, the company has relationships with some of the most skilled contract employees within the region.

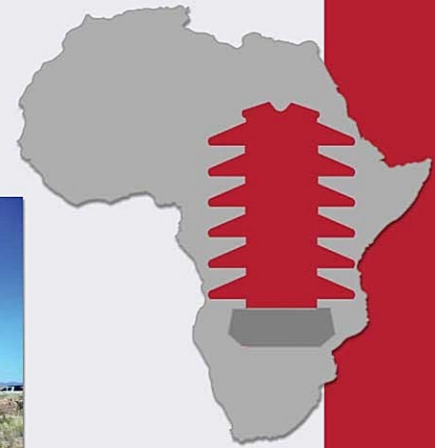
EQUIPMENT

Power Line Africa has procured state of the art software and equipment in order to ensure its competent participation in its chosen field of operations:

- PLSCADD, an integrated line design and tower spotting programme, Numerous GPS and surveying equipment.
- State of the art tension stringing winch/brake combinations with infinite setting and constant reporting capacity in order to ensure stress limits are adhered to (capable of the refined requirements of stringing OPGW, up to triple conductor bundles),
- Rough terrain cranes
- Various 4 x 4's, 6 x 4's, 6 x 6's, and 8 x 8's ten and seven ton trucks capable of accessing any rough terrain,
- Numerous 4 x 4's LDV's.



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EQUIPMENT PRINCIPLE

During the last twenty years we have invested in specialised vehicles and equipment suitable for transmission line projects. Many of these vehicles and equipment are purpose built, using our extensive on-site experience for all types of construction activities, in extreme terrain conditions encountered in remote areas.



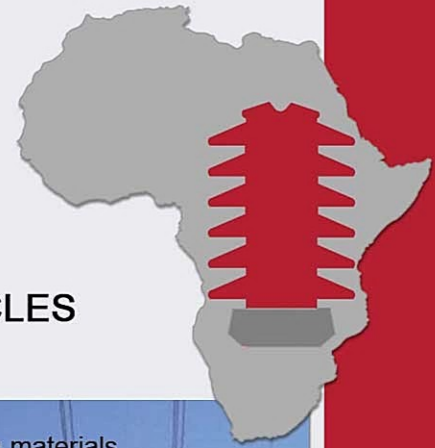
Whether it is in densely bush encroached fields, predominantly rough and rocky terrain, mud and clay terrain, or thick sand dunes, we strive to achieve successful construction progress.



We are proud to have an extensive fleet of specialized construction vehicles and equipment which is required to successfully construct lines in these remote areas of Southern Africa.



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HEAVY DUTY CONSTRUCTION VEHICLES

These are the workhorses of our construction activities transporting materials to site. They are fitted with mud-terrain tyres for additional traction and grip when off-roading, and all-wheel drive mode is engaged to overcome obstacles. Most are also fitted with a range of truck mounted cranes depending on the application. Our supply fleet include:

- 6x6 Trucks c/w truck mounted cranes
- 8x8 Trucks c/w truck mounted cranes
- 6x6 Horses c/w truck mounted cranes



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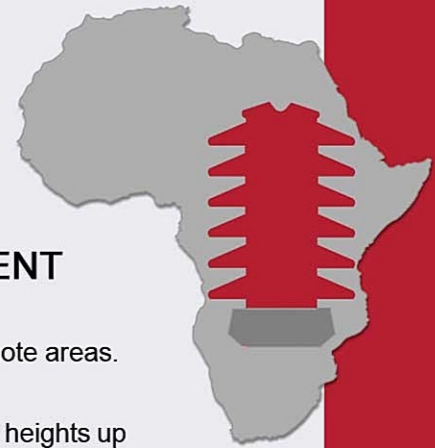
EARTH MOVING EQUIPMENT

Various standard earthmoving equipment complements the civil works activities of the construction phase.

- Bulldozers for bush clearing
- Excavators
- Tractor-loader-backhoes (TLB) for all excavation applications (including rock breaking)
- Front End loaders with fork attachments which are used for multi-purpose offloading and stacking.



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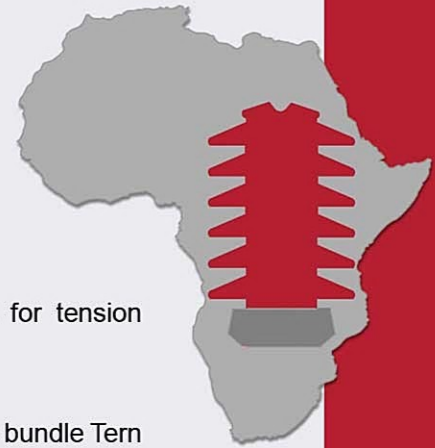
MOBILE CRANES AND LIFTING EQUIPMENT

We have various rough terrain cranes required for working in remote areas.

With various sizes, lifting capacities and applications of working at heights up to 45m, our cranes have contributed to lifting and erecting over 4,000 km of overhead line structures over the past twenty years.



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TENSION STRINGING EQUIPMENT

Our specialized cable stringing equipment is purposefully built for tension stringing according to international installation requirements.

We have a variety of sizes of machines suitable for stringing up to 3 bundle Tern conductor. The machines are complimented by the necessary roller blocks, pulling ropes and hydraulic reel winders and drum stands as well as portable hydraulic crimping press machines for stringing operations.



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CIVIL WORK EQUIPMENT

All wheel drive concrete mixers are specially designed to be effective in transporting the immense weight of concrete on rough terrains. They work hand in hand with a mobile batching plant erected in strategic locations where aggregates are supplied and can also service the concrete mixer trucks on site.

Also part of our fleet are the smaller self-loading mixers which are for smaller applications where concrete volumes are less. They are complimented by water bowsters / trailers which carry the cement and necessary additives for smaller civil works.



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SPECIALIZED VEHICLES & EQUIPMENT

Sometimes terrain conditions require special equipment for installation of specialised work.

We have tailor made and adapted our engineering design concepts according to our special vehicles and equipment. Our truck mounted HHH drill rigs and compressor trucks combination are used in foundation drilling in exceptionally hard / rocky terrain to minimise construction costs against time constraints.

We also design and manufacture our own purpose-built trailers for construction purposes to handle the material specific dimensions and weights on difficult terrain.



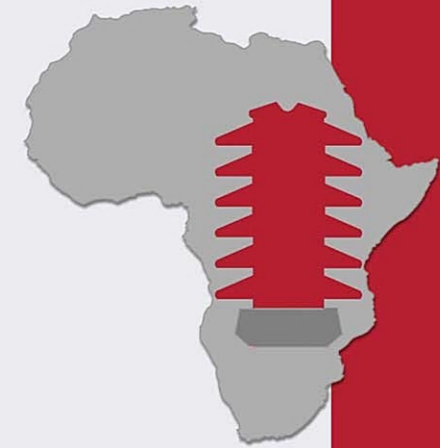
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OVERHEAD DISTRIBUTION AND TRANSMISSION LINE WORKS

Item No	Year	Country	Project Description	Distance (km)	Description of Works Performed	Type of Contract
1	1998	Namibia	132kV - Okatope Ruacana	270	132kV Single Circuit Concrete OHTL	Installation SubContractor
2	2001	Namibia	132 kV Line - Auas - Omaere	220	132 kV Single Circuit Steel Monopole	Installation SubContractor
3	2002	Namibia	132kV - Otjikoto - Asis	74	132 kV Single Circuit Steel Monopole	Turnkey Contractor
4	2003	Namibia	132kV - Harib-Rock	126	132 kV Single Circuit Steel Monopole	Turnkey Contractor
5	2004	Namibia	132kV - Omaere-Buitepos	67	132 kV Single Circuit Steel Monopole	Turnkey Contractor
6	2005	Zimbabwe	132kV - SMC Ngezi	72	132 kV Single Circuit Steel Monopole	Turnkey Contractor
7	2005	Mozambique	110kV - Nampula-Tapuita	170	110 kV Single Circuit Lattice Structure	Turnkey Contractor
8	2006	Namibia	132kV - Kokerboom-Namib	311	132 kV Single Circuit Lattice Steel Monopole	Turnkey Contractor
9	2006	Democratic Republic of Congo	110kV - Luita	24	132 kV Single Circuit Steel Monopole	Turnkey Contractor
10	2007	Democratic Republic of Congo	110kV - Kinsevere	22	132 kV Single Circuit Steel Monopole	Turnkey Contractor
11	2007	Democratic Republic of Congo	110kV - Kolwezi- Kulu	12	132 kV Single Circuit Steel Monopole	Turnkey Contractor
12	2008	Democratic Republic of Congo	220kV - Karavia-NR-Ruashi	12	220 kV Double Circuit Steel Monopole	Turnkey Contractor
13	2009	Zimbabwe	132kV - Unki Mine	33	132 kV Single Circuit Steel Monopole	Turnkey Contractor
14	2009	Democratic Republic of Congo	120kV - Mutanda Mine	24	132kV Double Circuit Steel Monopole	Turnkey Contractor
15	2009	Zimbabwe	330kV - Selous Tie-In	1	330kV Single Circuit Lattice Steel Structure	Turnkey Contractor
16	2009	Namibia	132kV - Ohorongo Cement Factory	43	132 kV Single Circuit Steel Monopole	Turnkey Contractor
17	2009	Namibia	350kV DC - Caprivi Link Interconnector	300	350kV Guyed V Lattice Structure	Subcontractor
18	2010	Namibia	220kV - Trekkopje - Kahn	80	220kV Guyed Lattice Structure	Turnkey Contractor
19	2010	Namibia	132kV - Wlotska - Trekkopje	50	132kV Kamaraad Wood Pole Structure	Turnkey Contractor
20	2010	Namibia	220kV - Omburu - Kahn	112	220kV Single Circuit Twin Lattice Structure	Turnkey Contractor
21	2011	Namibia	Optic Fibre Retrofits	200	Multiple Optic Fibre Retrofits	Turnkey Contractor
22	2011	Democratic Republic of Congo	33kV - Luita Contractor Camp	20	Wooden Pole	Turnkey Contractor
23	2012	Democratic Republic of Congo	120kV - Kyavia - RO	43	120kV Double Circuit Steel Monopole	Turnkey Contractor
24	2012	Democratic Republic of Congo	120kV BMC OHTL	6	120kV Single Circuit Steel Monopole	Turnkey Contractor
25	2012	Democratic Republic of Congo	120kV - Kyavia - Mutanda	18	120kV Double Circuit Steel Monopole	Turnkey Contractor
26	2013	Namibia	Optic Fibre Retrofits	485	Multiple Optic Fibre Retrofits	Turnkey Contractor
27	2013	Namibia	220kV - Walmund Rossing	53	220kV Double Circuit Lattice Structure	Turnkey Contractor
28	2013	Democratic Republic of Congo	132kV Lualaba Lake Crossing	1.5	132kV (110m High Self Supporting Lattice Steel Structure)	Turnkey Contractor
29	2013	Democratic Republic of Congo	11kV - Camrose - Comides	6	11kV Steel Monopole Structure	Turnkey Contractor
30	2014	Democratic Republic of Congo	22kV Mutanda Mine Works	20	22kV Single and Double Circuit Steel Monopole	Turnkey Contractor
31	2014	Namibia	132kV - Osana – Von Bach Booster	60	132kV Single Circuit Steel Monopole	Turnkey Contractor
32	2014	Namibia	132kV - Lithops – Husab	18	132kV Double Circuit Steel Monopole	Turnkey Contractor
33	2014	Namibia	66kV - Tschudi Works	3	66kV Wooden H-Pole Structure	Turnkey Contractor
34	2014	Namibia	33kV - Tschudi Works	4.5	33kV Wooden HLPD Structure	Turnkey Contractor
35	2014	Namibia	11kV - Tschudi Works	5	11kV Wooden HLPD Structure	Turnkey Contractor
36	2015	Namibia	132kV Kuiseb Walvis Bay	60	132kV Single Circuit Steel Monopole	Turnkey Contractor
37	2015	Namibia	132kV - Rundu – Shitemo	85	132kV Single Circuit Steel Monopole	Turnkey Contractor
38	2015	Democratic Republic of Congo	132kV - Mkushi Power Reinforcement	85	132kV Single Circuit Steel Monopole	Turnkey Contractor
39	2017	Namibia	132kV - Whale Rock Cement	12	132kV Single Circuit Steel Monopole	Turnkey Contractor
40	2017	Democratic Republic of Congo	120kV - Kamoa Mine	12	120kV Double Circuit Steel Monopole	Turnkey Contractor
41	2017	Namibia	132kV - Whale Rock Cement Phase 2	18	132kV Single Circuit Steel Monopole	Turnkey Contractor
42	2017	Democratic Republic of Congo	120kV - Kyavia - Fungurume	67	120kV Double Circuit Steel Monopole	Turnkey Contractor
43	2018	Namibia	400kV - Kunene – Omatando	190	400kV Guyed Lattice V Tower	Turnkey Contractor
44	2018	Democratic Republic of Congo	120kV - KICO SA	22	120kV - Rehabilitation Works	Turnkey Contractor
45	2018	Democratic Republic of Congo	120kV - Kisanfu Mining	11	120kV Single Circuit Steel Monopole	Turnkey Contractor
46	2018	Namibia	330kV - Ruacana Mass Retrofit	42	330kV - Live Line MASS Retrofit Works	Turnkey Contractor

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SUBSTATION AND GENERATOR WORKS

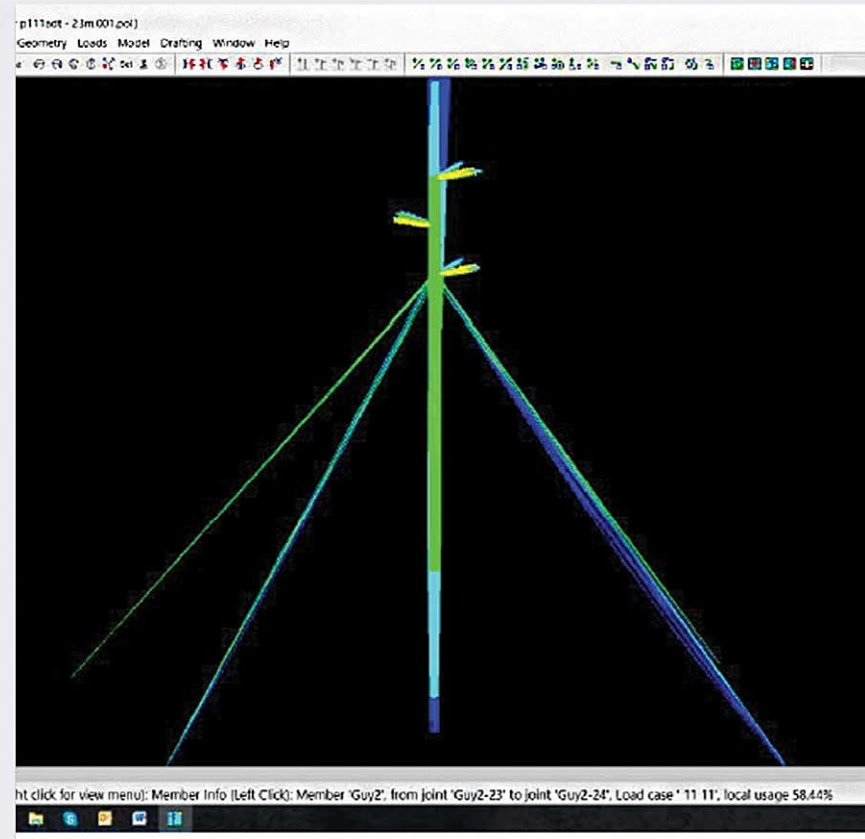
Item No	Year	Country	Project Description	Description of Works Performed
1	2008	Democratic Republic of Congo	Substation - Kyavia tee-off	Design, supply and construct 120kV tee-off substation
2	2009	Democratic Republic of Congo	Substation -Mumi 120/22kV	Design, supply and construct 120kV to 22kV substation and mine reticulation – phase 1
3	2009	Democratic Republic of Congo	Substation -Mumi 120/22kV II	Design, supply and construct 120kV to 22kV substation and mine reticulation – phase 2
4	2010	Zimbabwe	Substation -Monawood 132/11kV	Design, supply and construct 132kV to 33kV substation
5	2010	Democratic Republic of Congo	Substation -Kyavia 120kV	Design, supply and construct 120kV to 22kV switching station
6	2011	Democratic Republic of Congo	Substation -Tenke / Fungurume 220kV	Supply and install new 220kV and 120kV circuit breakers into an existing substations
7	2012	Democratic Republic of Congo	Substation -Kolwezi RO 120kV	Design, supply and construct 2 x 120kV transformer bays into an existing substation including
8	2012	Democratic Republic of Congo	Substation -BMC 120/11kV	Install, cable, test and commission a 120/11kV substation with free issue equipment
9	2012	Democratic Republic of Congo	Substation - Camrose	Design, supply and construct 120kV tee-off substation
10	2017	Democratic Republic of Congo	Substation - Kyavia - Fungurume	120kV Substation Works
11	2010	Democratic Republic of Congo	Generator Station - Mutanda Mine	Supply and install 5 x 800kVa generators for construction standby power, including step up transformers
12	2011	Democratic Republic of Congo	Generator Station - Mutanda Mine	Supply and install 3 x 1700kVa standby generators including the step up transformers integrated into the 22kV grid on the mine
13	2013	Democratic Republic of Congo	Generator Station - Mutanda Mine	Turnkey installation of a 11,375kVA generation power house
14	2013	Democratic Republic of Congo	Generator Station - Mutanda Mine	Turnkey installation of a 9,100kVA generation power house



POWER LINE AFRICA



EPC & TURNKEY SOLUTIONS

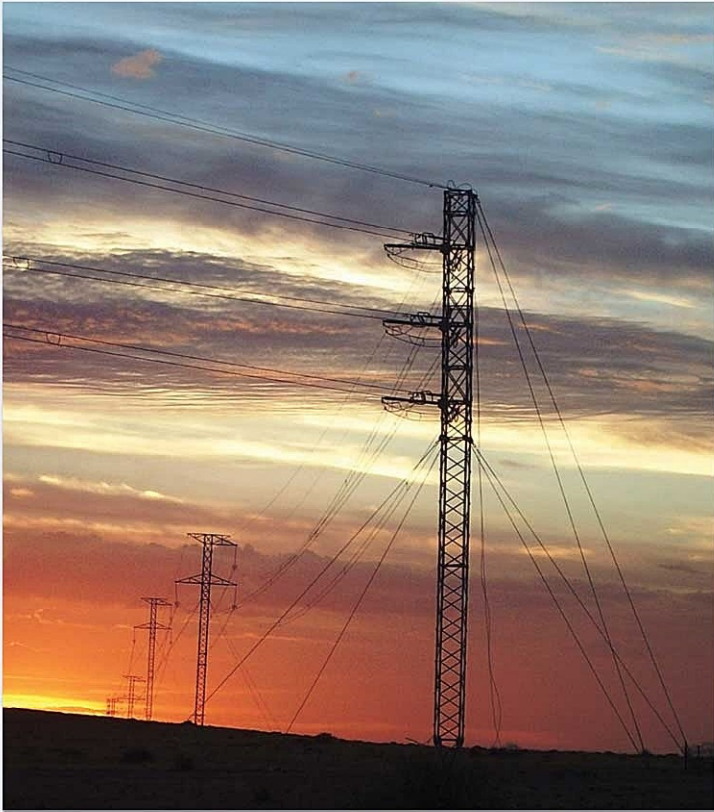


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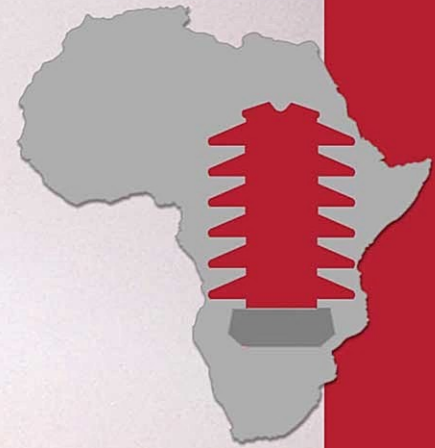


TRANSMISSION NETWORKS

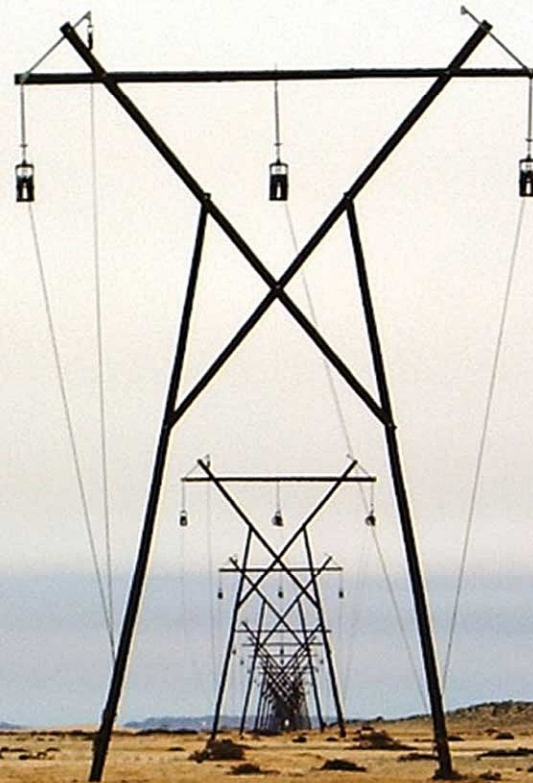
66kV – 400KV Lines. Total of 3,500km Built



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DISTRIBUTION & RETICULATION NETWORKS



Distribution = 5,500km
Reticulations = 15,000km