



Transmission and Distribution Works



Emergency Rehabilitation Works for the EDM Power Distribution Network

Zambezia Province, Mozambique

Works performed

Emergency rehabilitation and construction works involving 125 km of medium-voltage (MV) overhead lines and 20 km of low-voltage (LV) overhead lines, as well as the rehabilitation of EDM's customer support buildings and warehouse in Quelimane following Cyclone Freddy. Contract funded by the World Bank.

Key Quantities

- MV wooden poles: 420 un.
- LV wooden poles: 520 un.
- MV concrete poles: 1300 un. MV AAAC Conductor: 410 km
- LV Cable: 20 km Transformers: 6 un.
- Street Lighting: 120 un
- Factory testing and training of EDM staff and implementation of CSMP program.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Série de Preços
Construction Period	2024 - 2026
Cost	€ 5 063 398,00





Transmission and Distribution Works



Line C31 (SE Nampula 220 - SE Nampula Central Substation) Conductor Replacement and OPGW installation

Nampula Province, Mozambique

Work performed

Replacement of ACSR Dove conductor with ACCC Lisbon Work carried out on 16 towers (10 tension towers and 6 suspension towers) and installation of OPGW cable.

Work specifications

- Line length: 5.0 km
- Nominal voltage: 110.0 kV
- Maximum voltage: 123.0 kV
- Frequency: 50 Hz
- Conductor per phase: 1 x Lisbon
- Smax: 199 MVA
- Phase arrangement: Triangular
- Insulators used: Composite
- Cable/OPGW: OPGW (48 fibers)



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Valor Global
Construction Period	2023
Cost	€ 298.271,03 (19.149.000,00 MZN)





Transmission and Distribution Works



STIP Lot D 110 kV, Dondo - Munhava

Sofala, Mozambique

Description of Works

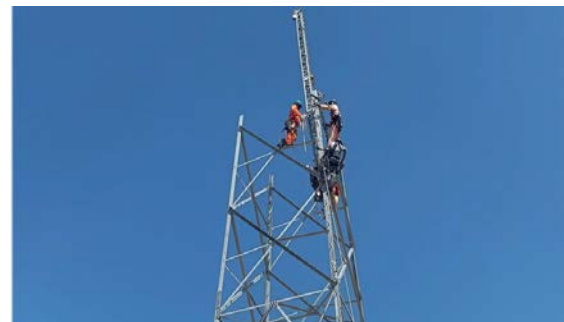
Dismantling of the existing 110kV Transmission Line between the localities of Dondo and Munhava, in Sofala Province, and construction of a new (RESILIENT) 110kV overhead transmission line consisting of micro-pile and reinforced concrete foundations, lattice steel towers, glass insulators, double circuit/single ACSR conductor, and OPGW.

Replacement of the conductor on CL71.

Embankment with granular material for access to flooded areas.

Main Quantities

- Towers – 79 units
- Conductor – 156 km
- OPGW – 52 km
- Bored micro piles – 484 units/5.812 m



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re.measurable
Construction Period	2022 - 2025
Cost	€ 8 447 128,67



Transmission and Distribution Works



PCIREP – 66 (110) kV Line Lamego - Guaraguara

Sofala, Mozambique

Description of Works

Post Post Cyclone Idai and Kenneth Emergency Recovery and Resilience Programme for Mozambique (PCIREP)– Transmission Lines. Dismantling of the existing 66kV Transmission Line between the localities of Lamego and Guaraguara in Sofala Province, and construction of a new 110kV overhead transmission line consisting of micro-pile and reinforced concrete foundations, lattice steel towers, glass insulators, single circuit/single ACSR conductor, and OPGW.

Main Quantities

- Towers – 200 units
- Conductor – 210 km
- OPGW – 70 km
- Bored micro piles – 996 units / 6131 m



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-measurable
Construction Period	2022 - 2024
Cost	€ 5 591 669,00



Transmission and Distribution Works



Rehabilitation of Distribution Networks - Perip Lot 4

Maputo – Mozambique

Description of Works

Power Efficiency and Reliability Improvement Project (PERIP) - Lot 4: Rehabilitation of Distribution Networks at Maputo and Matola (Medium and Low Voltage Systems).

Workfinanced by World Bank.

Main Quantities

- 1250 wooden posts for Medium Voltage lines;
- 1300 concrete posts for Medium Voltage lines;
- 550 km of conductor for the execution of approximately 190 km of Medium Voltage lines;
- 105 km of ADSS (optical fiber);
- 100 MT/LV transformers;
- 5000 wooden posts for Low Voltage lines;
- Connection of 6,000 new consumers;
- Two 25 m high metal lattice towers for crossing the river.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Unit Price
Construction Period	2020 – Trabalhos em andamento
Cost	USD 11 177 344,86





Transmission and Distribution Works



Reinforcement and Extension of the National Power Transmission Grid

Maputo, Gaza, Inhambane, Zambézia, Nampula – Mozambique

Description of Works

SETH is executing (in consortium) another electricity transmission and distribution contract in Mozambique.

The turnkey contract involves the construction of 140 km of 275 kV power line between Ressano Garcia and Macia, 100 km of 110 kV power line between Lindela and Massinga, the intervention / construction of 10 (ten) substations in the provinces of Maputo, Inhambane, Zambezia and Nampula, namely Ressano Garcia, Ndzimbene (Macia), Lindela, Massinga, Maxixe, Alto Molocue, Central Nampula, Chimuara, Quelimane and Maputo 275 (Beluluane).

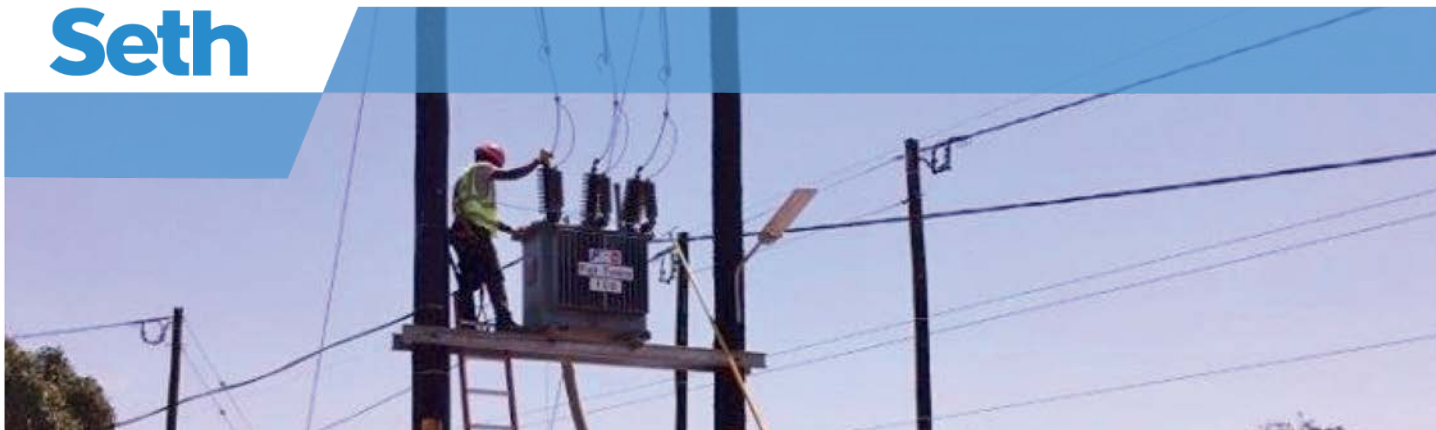
The contract value is around EUR 121 million and is funded by the Danish cooperation agency DANIDA, the client being EDM- Electricidade de Moçambique, EP.

In this contract, the technology partner for substations is ABB AB (Asea Brown Boveri) and, the implementation period is 78 months.



Work Summary

Client	EDM - Electricidade de Moçambique
Contract Type	Lump Sum
Construction Period	2013 – 2020
Cost	€ 121 000 000,00



Transmission and Distribution Works



EDAP (Energy Development Access Program)

Maputo, Tete, Nampula and Manica - Mozambique

Description of Works

A EDM- Electricidade de Moçambique, EP has awarded SETH 5 (five) lots of the Energy Development Access Program (EDAP) project.

The projects concerned consist of the construction of about 200 km of medium voltage lines at 33 kV, 1000 km of low voltage lines, including the installation of 335 (three hundred and thirty-five) distribution transformers and the connection to about 66,000 (sixty-six thousand) consumers.

The overall amount of the 5 contracts amounted to 38,850,000.00 (United States dollars).

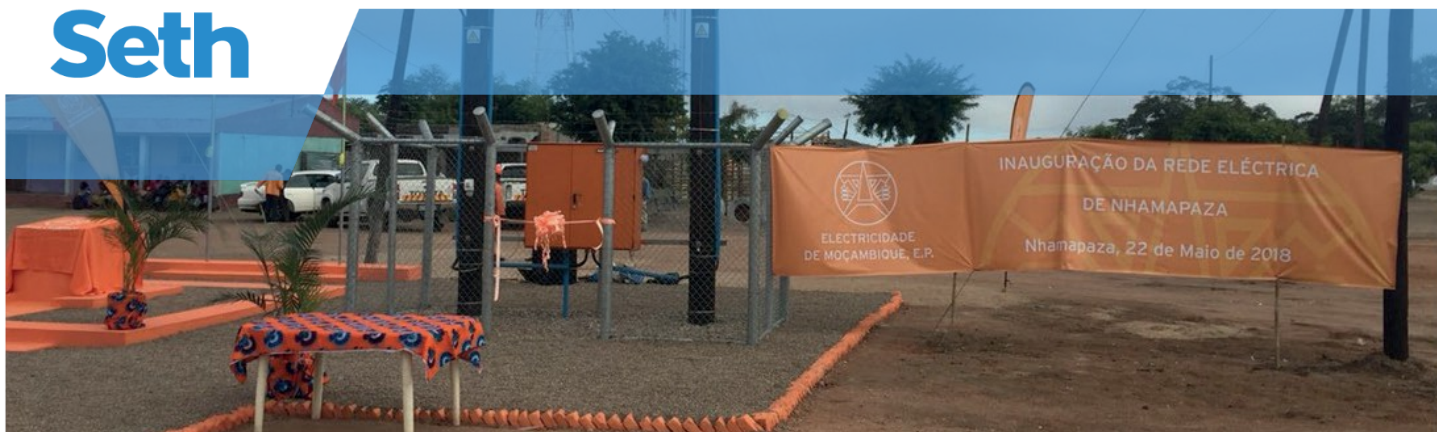
Each contract is independently executed and has a duration of eighteen (18) months, covering the provinces of Maputo, Tete, Nampula and Manica, being financed by the World Bank, OFID (The OPEC Fund for International Development), the European Investment Bank, and by the French Agency for Development.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-measurable
Construction Period	2014 - 2020
Cost	USD 38.850.000,00





Transmission and Distribution Works



New 33 kV Line to feed Nhamapaza

Nhamapaza and Canxixe (Sofala Province) - Mozambique

Description of Works

Construction of approximately 85 km of medium voltage 33 kV overhead line, supply and assembly of 11 transformer stations and execution of low voltage networks and public lighting.

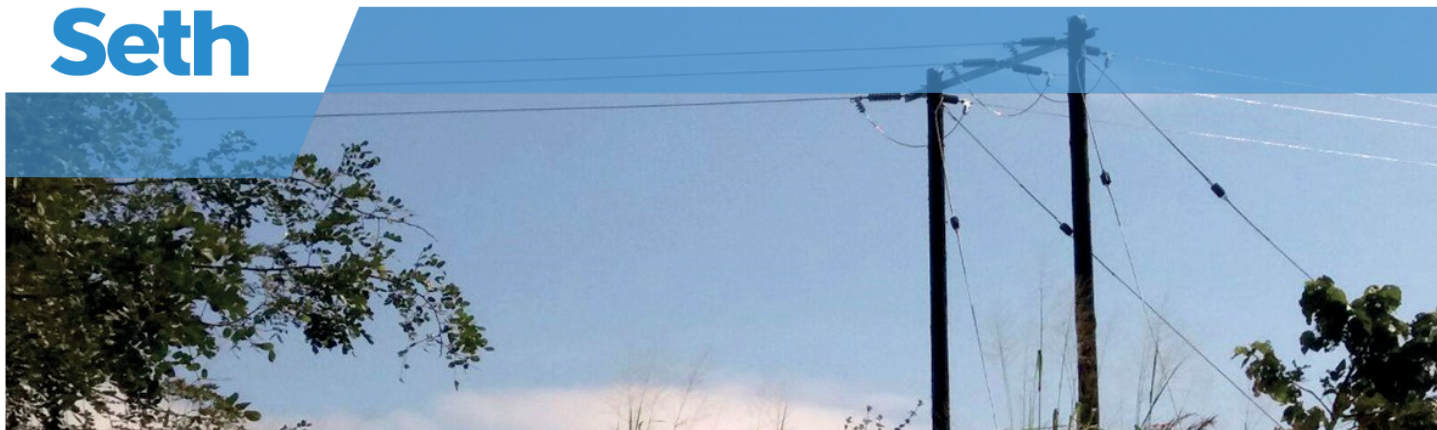
The main objective of the work was the power supply of the Canxixe and Nhamapaza Administrative Posts, from Maríngue, in the province of Sofala.

The existing clusters along the line have also been linked to the power grid.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-Measurable
Construction Period	2018 - 2019
Cost	USD 1 900 000,00



Transmission and Distribution Works



33 kV Line between Chemba and Tambara

Manica and Sofala Provinces - Mozambique

Description of Works

Installation work of approximately 100 km of 33 kV medium voltage overhead line in a very dense vegetation area. The works were part of the Electricity IV project.



Work Summary

Client	Efacec/EDM – Electricidade de Moçambique
Contract Type	Re-Measurable
Construction Period	2018 - 2019
Cost	€ 250 000,00





Transmission and Distribution Works



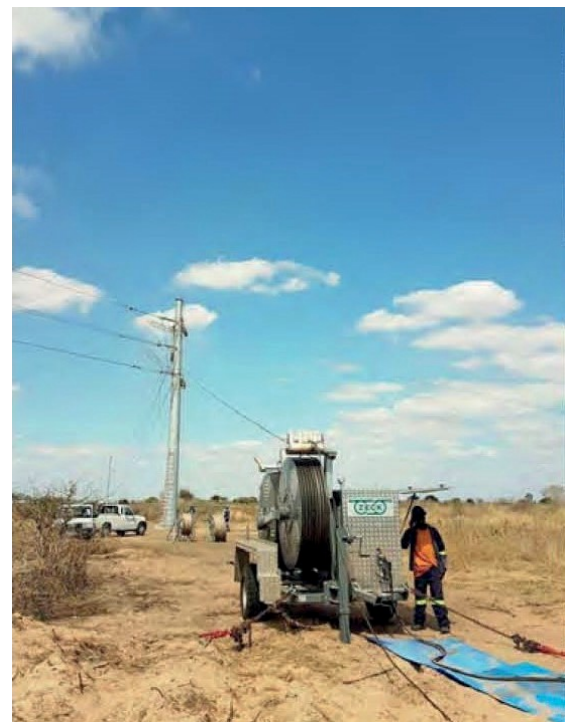
Refurbishment of a 66 kV Transmission Line

Boane, Infulene, Matola Gare - Mozambique

Description of Works

The work consisted of the design and construction of a 45 km 66 kV airline between the Boane, Infulene and Matola Gare substations, including the dismantling of some sections of the existing line and the execution of temporary deviations in order to ensure the operationality of the existing line. replace during the construction period. The construction solution adopted was made of galvanized steel poles with reinforced concrete foundations.

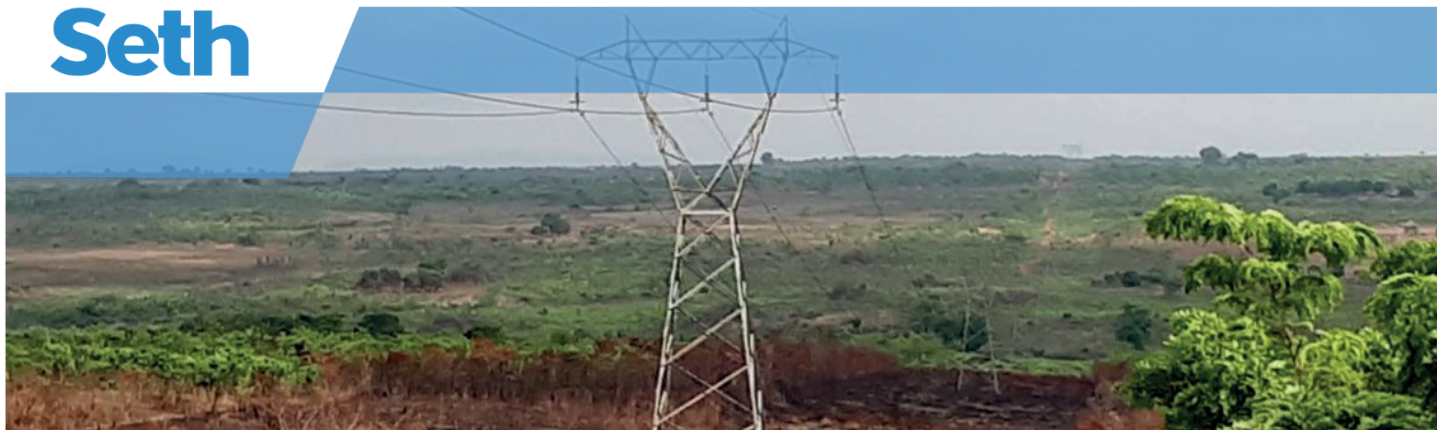
The work also included the passage of the conductor (double) and the optical fiber (OPGW).



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-Measurable
Construction Period	2016 - 2018
Cost	€ 8 400 000,00





Transmission and Distribution Works



OPGW, ADSS and OPUC installation in a 220 kV OHL between Chicamba, Mavuzi and Chibata

Manica - Mozambique

Description of Works

The work consisted of the conception and execution of the placement of approximately 100 km of OPGW, ADSS and OPUC type optical fiber in the 220 kV line between Chicamba, Mavuzi and Chibata substations, as part of the Hydroelectric Power Plants Rehabilitation project. Chicamba and Mavuzi, a project developed for the Electricity of Mozambique, EP funded by AIDS, AFD and KFW.



Work Summary

Client	Cegelec (Groupe Vinci) / EDM, E.P.
Contract Type	Lump Sum
Construction Period	2018
Cost	€ 900 000,00





Transmission and Distribution Works



New underground 22 kV UG lines in Chimoio and Beira

Beira and Chimoio (Sofala and Manica) - Mozambique

Description of Works

Construction of approximately 7 km of 22 kV buried medium voltage line, including all civil works and pavement replacement, to feed the new branches under construction of the Bank of Mozambique in the cities of Beira and Chimoio.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-Measurable
Construction Period	2018
Cost	USD 900 000.00





Transmission and Distribution Works



New 33 kV Line to feed the Vunduzi Administrative Post

Vunduzi, Gorongosa (Sofala) - Mozambique

Description of Works

Supply and installation of approximately 40 km of 33 kV medium voltage overhead line, supply and assembly of 8 160 kVA transformer stations, execution of low voltage networks and public lighting.

The main purpose of the work was the power supply of the Vunduzi Administrative Post, located on the edge of the Gorongosa Mountain Range, a region previously affected by military hostilities.

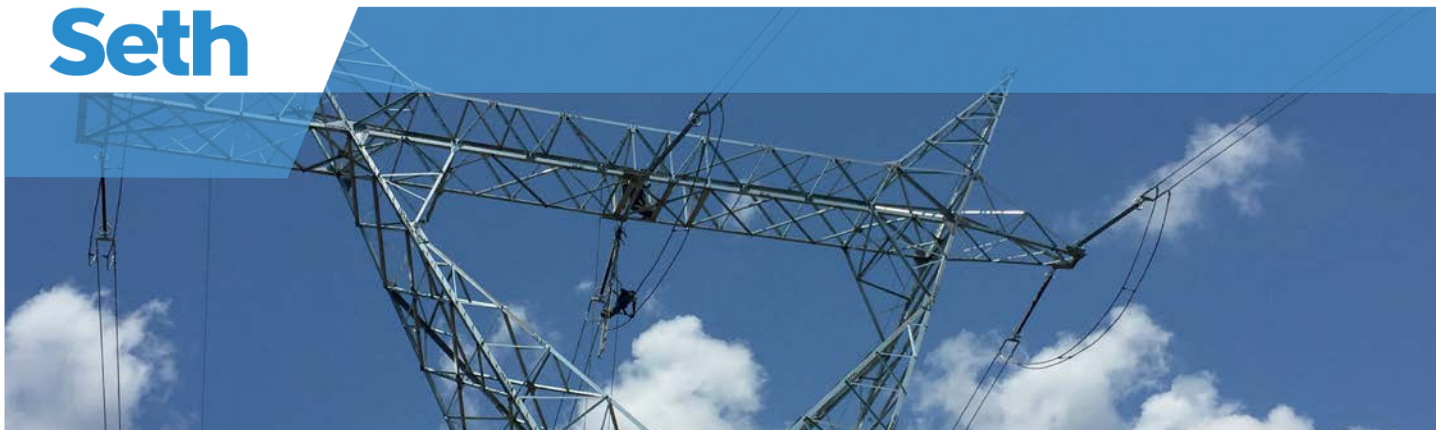
The existing clusters along the line have also been linked to the power grid.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-Measurable
Construction Period	2017
Cost	€ 1 300 000,00





Transmission and Distribution Works



Restoration of 220 kV Transmission Line Section

Mocuba (Zambezia Province) - Mozambique

Description of Works

A EDM- Electricidade de Moçambique, EP has awarded Seth an emergency repair contract for a 220 kV high-voltage section of the line, which was devastated by the January 2015 floods in Mocuba, Zambezia province.

The work was completed in six months and consisted of the repair of a 220 kV section of the power transmission line, approximately 10 km long.

Works included line engineering, supply and assembly of all materials, including 12 towers with heights between 27 and 50 m, 60 km of conductor and 20 km of GSW.

Two (2) special reinforced concrete foundations, based on micropiles, were built on the banks of the Licungo River.



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Re-measurable
Construction Period	2015
Cost	€ 3 415 377,00





Transmission and Distribution Works



Nacala Coal Harbour Substations

Nacala-a-Velha - Mozambique

Description of Works

"Nacala Coal Harbor Main (110/22/33 kV) and Secondary Substations" is the name of the contract that Siemens Pty Limited- Mozambique Branch has awarded to Seth.

The scope of the works included all the civil construction associated with the substations of the new coal export terminal of the Port of Nacala, in Nacala-a-Velha, namely the works of:

- Earth moving;
- Reinforced concrete in foundations;
- Cable channels;
- Oil and water drainage systems;
- Pavements and fences on access roads and in the yard.

Main quantities

- 5,000 m³ of earthmoving
- 2,500 m³ of reinforced concrete
- 300 tons of steel in reinforcement
- 1,000 m² of paving



Work Summary

Client	Corredor Logístico Integrado de Nacala (Vale)
Contract Type	Re-measurable
Construction Period	2014
Cost	€ 1 565 000,00





Transmission and Distribution Works



New 33 kV Mabalane – Combomune

Gaza Province - Mozambique

Description of Works

Approximately 50 km of medium voltage 33 kV overhead line under emergency conditions in a dense vegetation area during a rainy season.

The structural solution adopted was wooden poles with metal sleepers, ceramic insulators and AAAC 150 mm² conductor.



Work Summary

Client	EDM – Electricidade de Moçambique, E.P.
Contract Type	Re-Measurable
Construction Period	2013 - 2014
Cost	USD 500 000,00





Transmission and Distribution Works



Grid Intensification Component - ERAP, Package III

Maputo - Mozambique

Description of Works

Energy Reform and Access Program (ERAP), Package III is the name of the contract that EDM- Electricidade de Moçambique awarded to Seth through funding from the NDF (Nordic Development Fund).

This contract had a 21-month implementation period and involved the construction of around 295 kilometers of medium and low voltage power distribution lines in various neighborhoods around Maputo, as well as their final connection to approximately of thirty thousand end consumers.

Of course, the project included an initial survey of the neighborhoods, the implementation of the distribution project of the lines to be installed, as well as the supply and installation of all materials and equipment such as poles, lines, transformers and meters.

Three sections were part of the contract: Section 3, consisting of large farms south of Maputo, in Catuane, near the border with South Africa; Section 2 on the outskirts of Maputo; and Section 1, also in the outskirts of Maputo, where a large part of this contract was located and which represents the largest amount of the works awarded.

Main quantities

- Connection of 30000 end consumers
- 114 transformers from 25 to 315 kVA
- 137 Kms of medium voltage lines
- 158 Kms of low voltage lines



Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Unit Price
Construction Period	2007 - 2009
Cost	€ 9 439 006,00

* Job in Consortium





Transmission and Distribution Works



Electricity III Package 1 and Package 2

Gaza, Inhambane, Nampula – Mozambique

Description of Works

Electricity III- Package 1 and 2, Supply and Erection Medium and Low Electricity Networks in Mozambique is the name of the contract that EDM- Electricity of Mozambique has awarded to Seth, through financing guaranteed by the African Development Bank and the Fund for International Development.

This contract had an execution period of 18 months and involved the construction of about 700 kilometers of medium and low voltage power distribution lines in various neighborhoods in Inhambane and Nampula provinces, as well as their final connection until around 8 thousand final consumers.



Package 1- Power supply to Gaza and Inhambane Provinces:

- Supply and assembly of about 228 km of airlines, 33 kV
- Supply and assembly of about 154 km of airlines, 0.4 / 0.23 kV
- Supply and assembly of about 67 air transformers, 33/0.4 kV
- Final link to about 4,500 consumers

Package 2: Power supply to Nampula Province including:

- Supply and assembly of about 247 km of airlines, 33 kV
- Supply and assembly of about 63 km of airlines, 0.4 / 0.23 kV
- Supply and assembly of about 22 air transformers, 33 / 0.4 kV
- Final link to about 3,400 consumers

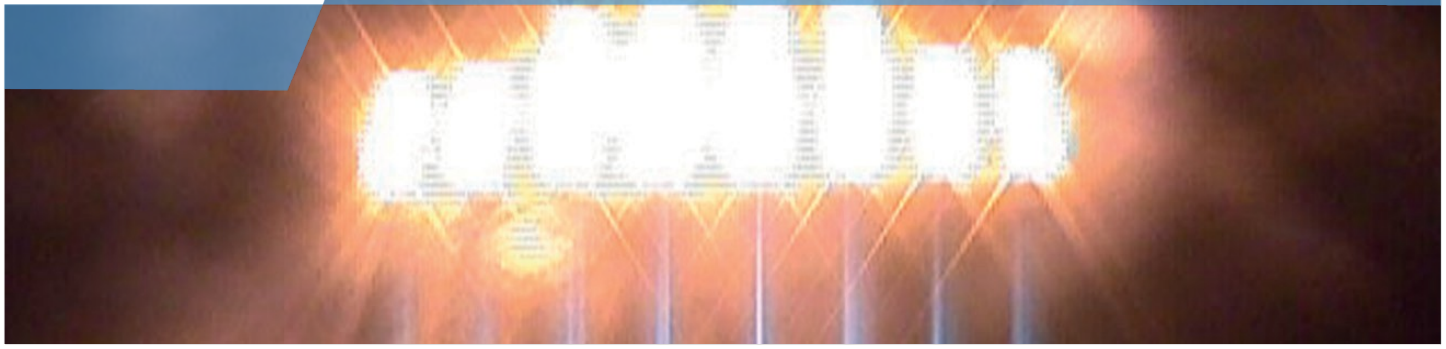


Main quantities

- Connection of 8000 end consumers
- 89 units of 33/0.4 kV transformers
- 575 Kms of medium voltage lines
- 217 Kms of low voltage lines

Work Summary

Client	EDM – Electricidade de Moçambique
Contract Type	Turnkey
Construction Period	2010 - 2012
Cost	€ 17 410 358,00



Transmission and Distribution Works

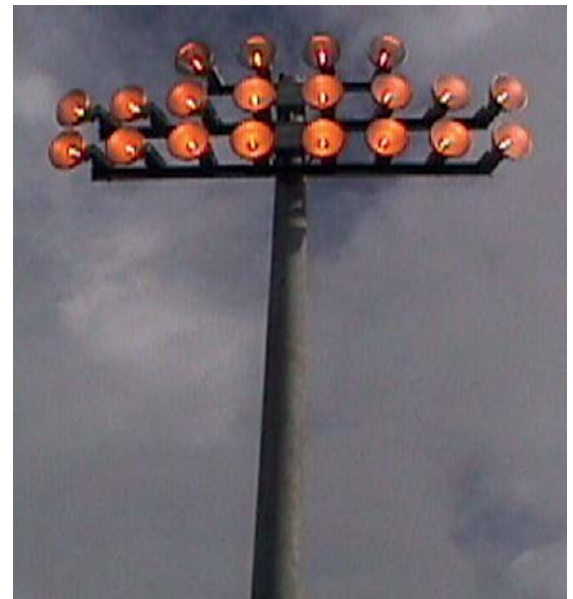


Apron Security Lighting

United States Navy, Lajes Field, Azores (Portugal)

Scope of Work

- Trenching and cabling installation.
- Installation of 26 multi-fixture (20) lighting posts (20 m).
- Buried MV cable (15 kV) for post feeding.
- Installation of step-down transformers at each post location.
- Operational testing and commissioning of the installation.



Work Summary

Client	U.S. Navy
Contract Type	Turn-Key
Construction Period	2000 - 2001
Cost	USD 1,44 million

