

### L3a Kedougou (Senegal) - Mali (Guinea)

A single-circuit line 59 km long, supported by 152 triangular towers. 26 km are in the Senegalese territory and 33 km in Guinea. No construction activities have yet started on this section because of problems related to the bypass of the "Bassari country", which is a UNESCO-protected site, measures aimed at protecting areas identified as natural habitats for chimpanzees, change to the delineation due to the substation site relocation from Sambangalou to Kedougou, etc.).

### L6a Tanaff (Senegal) - Soma (The Gambia)

A single-circuit line 95.22 km long, supported by 205 triangular towers. The foundations are already in place and the assembly and lifting works have started. 90 km of this section are in Senegalese territory and 5.22 km in the Gambia. This line crosses the Casamance River and some of its branches, where it is planned to build pile foundations and erect towers suitable for this type of crossing. It has experienced start-up difficulties due to COVID-19 and the adverse weather conditions of the 2020 rainy season.

Completion date: End of 1<sup>st</sup> quarter of 2021

### L6b Soma (The Gambia) - Birkelane (Senegal)

A single-circuit line 83.8 km long, supported by 185 triangular towers. The foundations have already been laid, all the towers assembled and lifted and 69 km of conventional ground wires and fibre optic cables unrolled. This section, of which 24 km are on Gambian territory, crosses the Gambia River in Gambia, the Kaymor and the Grand Bao Bolon in Senegal. It is planned to build pile foundations at these locations and to install suitable towers for these crossings. This lot has experienced start-up difficulties due to COVID-19 and the adverse weather conditions of the 2020 rainy season.

Completion date: End of 1<sup>st</sup> quarter of 2021

#### Contracting companies

- KEC International, Indian company incumbent of the 6 Lots contracts (2 Lots of 4 substations P1a and P1b and 4 Lots of lines L1a, L1b, L6a and L6b)
- Consortium VINCI TTE - CEGELEC, a Franco-Moroccan joint venture that was awarded the contract for the L2 lines Lot
- SIEMENS SA, a company incorporated under Belgian law, holder of the Dispatching Lot (Backup Control Centre) contract in Tambacounda



Equipment of the Kaolack transformer station

### P1b Tambacounda and Kedougou substations (Sambangalou)

The Tambacounda substation will ensure the connections with the Senelec substations in Kolda and Kaolack, the OMVS network and the Kedougou substation of the OMVG loop. The Kedougou substation is to ensure the evacuation of the energy that will be produced from the future Sambangalou hydroelectric power plant and will also serve as a liaison with the Tambacounda and Mali (Guinea) substations of the OMVG loop. Both substations are equipped with six 33 kV feeder bays for the distribution of electrical energy in the regions of Tambacounda, Kedougou and their localities.

Tambacounda completion date: 4<sup>th</sup> quarter of 2020

Kédougou completion date: 1<sup>st</sup> half of 2021

### D1 Dispatching Centre (Emergency Control Centre) in Tambacounda (Lot D1)

As part of the construction works for the Tambacounda and Kedougou substations of sub-lot P1b, the construction of the building that will house the equipment of the Dispatching Centre is underway.

Completion date : October 2021

### L 700 km power transmission line carried by 1,236 towers passing by Kaolack, Kaffrine, Tambacounda, Kedougou and Sedhiou (L1, L2, L3a, L6)

#### L1a Birkelane - Tambacounda

A single-circuit line 223 km long, supported by 475 triangular towers. Les travaux ont été exécutés à 98,1%

#### L1b Kaolack - Birkelane,

A double-circuit line 35.5 km long, supported by 80 double-circuit vertical-formation towers. 99.72% of the work was executed.

For these 2 sub-lots, the finishing work and the restoration of the natural environment along the corridor have yet to be completed.

#### L2 Tambacounda - Kedougou

A single-circuit line 244 km long, supported by 597 triangular towers. The towers' foundations are at a very advanced stage and the assembly and lifting works have started. The line's construction has experienced difficulties related to environmental and social aspects (bypass of the Niokolo Koba National Park and Kedougou airport, etc.).

Completion date: End of 2021



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ORGANIZAÇÃO  
PARA A VALORIZAÇÃO  
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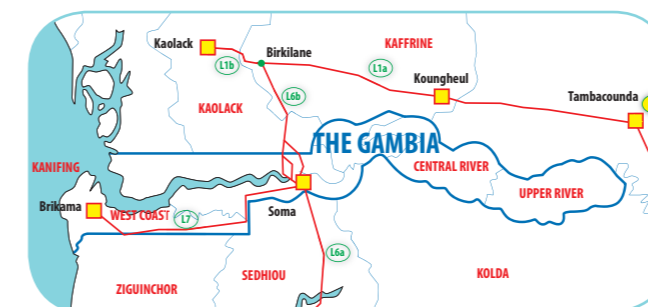
## Site visit of the Energy Project ... ... where are we?

Prior to our visit to the work sites in The Gambia, Guinea-Bissau, Guinea and Senegal, it should be mentioned that OMVG's new transformer substations are built on surfaces measuring between 2 and 15 ha, all fully free of environmental burdens and constraints. Accommodation for future operating and on-site maintenance staff is under construction at all substations throughout the OMVG loop.

All OMVG positions are expandable and may be connected to future producers of electrical energy or new consumers to meet the ever-increasing electrical energy needs in the region.

Regarding interconnection, 4,000 pylons, ranging from 35 m to 110 m in height, will connect the 1,677 km of lines with an average range of 500 m to 812 m for special crossings, such as that of the Gambia River.

## THE GAMBIA



### P Soma and Brikama transformer substations (Lot P2 - 2 stations)

The Soma substation transmits electrical energy between the networks of OMVG, Senelec (National Electricity Company of Senegal) and NAWEC (National Electricity Company of The Gambia). These two stations are each equipped with 6 33 kV feeders for the distribution of electrical energy in the regions of Soma, Brikama and surroundings.

The work of this lot, which had been progressing at a steady pace since its inception, was slowed down by the COVID-19 pandemic, which led to the closure of the borders. Consequently blocking the transport and delivery of aggregates from Senegal to The Gambia, in addition to the considerable reduction in the number of on-site personnel, which slowed down the works thus delaying completion deadlines for the 2 posts.

Work resumed with constraints such as mandatory compliance with barrier measures to avoid staff contamination and the hazards caused by the exceptional rainfall of this year 2020.

Completion date: October 2021



Brikama transformer station construction site

### L7 143 km power transmission lines connecting Brikama and Soma stations (L7)

The entire 143 km double circuit line is located in The Gambia and carried by 300 double-flagged pylons.

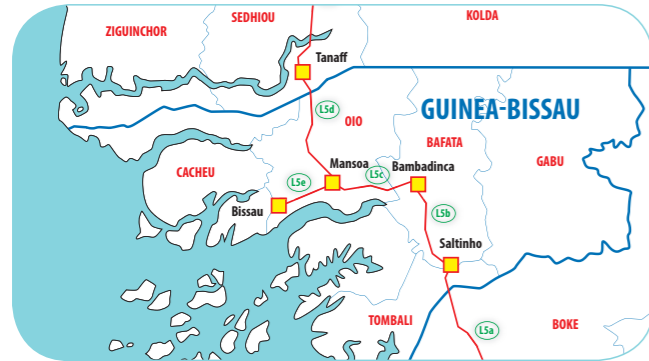
The execution of this section suffered from the pandemic and its effects (closure of borders, especially with Senegal, where most of the aggregates and other construction materials come from), forcing the contractor to stop the work on site and evacuate its supervisory staff who is mainly expatriate.

Completion date: End of 2021

#### Contracting companies

- The EIFFAGE ENERGIE - ELECNOR Group (GME), Franco-Spanish joint venture, holder of the Lot P2 contract
- The VINCI TTE - CEGELEC Group, Franco-Moroccan joint venture, holder of the Lot L7 contract

# GUINEA-BISSAU



## **P** Transformer substations in Bissau, Mansoa, Bambadinca and Saltinho (Lot P3 - 4 substations)

They are each equipped with 6 33 kV feeders for the distribution of electrical energy in these 4 regions and the surrounding localities.

Completion date: **November 2021**

## **L5** 315km power transmission line (Lot L5)

698 pylons will carry the 315km of line to connect Guinea, Guinea-Bissau and Senegal. This lot is subdivided into 5 sub-lots in order to facilitate the realisation of works straddling 3 countries.

- L5a** Boké (Guinea) - Saltinho (Guinea-Bissau)
  - 98 km of single circuit line on 193 pylons
- L5b** Saltinho - Bambadinca
  - 55 km of single circuit line
- L5c** Bambadinca - Mansoa
  - 54 km of single circuit line
- L5d** Mansoa - Tanaff
  - 73 km of single circuit line
- L5e** Tanaff - Bissau
  - 35 km of double circuit line

The first rights-of-way of this lot, in this case the L5a and L5b sub-lots were recently released (first semester of 2020). In addition, the COVID-19 pandemic has made it difficult to start physical activities on the premises, with the borders closing. Despite everything, the contractor mobilized at the beginning of September 2020 to set up its worksites in parallel with the work of marking the corridors of the liberated areas, clearing and deforestation.

Completion date: **May 2022**

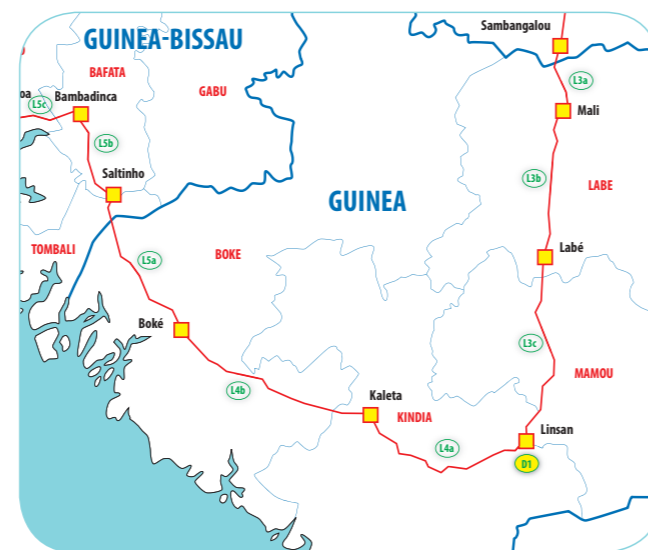


Saltinho transformer station construction site

## Contracting companies

- The EIFFAGE ENERGIE - ELECNOR Group (GME), Franco-Spanish joint venture, holder of the Lot P3 contract
- The VINCI TTE - CEGELEC Group, Franco-Moroccan joint venture, holder of the Lot L5 contract

# GUINEA



## **P** Boké, Kaleta, Mali, Labé transformer substations & Linsan and Linsan extension (Lots P4a, P4b and Lot P4c - 5 positions)

### **P4a** Boké and Kaleta stations

The Boké station is a new construction with 2 lines departures span to Kaleta (Guinea) and Saltinho (Guinea Bissau). It is equipped with 6 30 kV feeders for the distribution of electrical energy in the Boké region and its surroundings. The work started in November 2019.

The Kaleta station already exists and belongs to SOGEKA (Kaleta Energy Management Company). OMVG will carry out the extension on the HTB side (225 kV) to allow the connection of its network to the Kaleta (240 MW) and Souapiti (450 MW) power plants. The delay in the work of this lot is due to the constraints linked on one hand to the administrative, legal and fiduciary aspects of the contract's implementation, and on the other hand to the environmental and social aspects, and the relocation of the Kaleta dispatching center in Linsan, etc.

Nevertheless, the contractor has anticipated the purchase, manufacture and shipment of the structural equipment (power transformers, inductors, circuit breakers, disconnectors, lightning arresters) that are already delivered to the site.

Completion date: **August 2021**

### **P4b** Mali, Labé & Extension of Linsan stations

The Mali station has two 225 kV line spans to connect to the Kédougou and Labé stations. The groundworks lasted longer than expected (13 months instead of the 6 planned) due to the nature of the ground (bowal) which turned out to be extremely tough and difficult to develop. To date, the platform is fully completed as well as several foundations of the main electrical equipment of the external station.

The Labé substation's right-of-way is the last of all the stations to be freed (March 04, 2020). The start of work was hampered by the state of health emergency in Guinea due to the COVID-19 pandemic, the heavy rainy season and its effects. The 2 stations are each equipped with 6 30 kV feeders for the distribution of electrical energy in the Mali, Labé regions and its surroundings.

The extension of the Linsan station consists of the addition of 8 225 kV line spans for the connection of Labé (OMVG), Kaleta (SOGEKA / EDG), Maneah (EDG / Guinea) and Balassa (OMVS) stations).

Completion date: **December 2021**

### **P4c** Linsan stations

This new station, which houses the main dispatching center, is the largest of the entire OMVG network and is equipped with 6 30 kV feeders for the distribution of electrical energy in the Linsan region and its surroundings.

Linsan will be a key station in the interconnected electric power transmission system of the sub-region. It will allow the interconnection of the OMVG network with those of EDG (the national electricity company of Guinea), TRANSCO-CLSG (to connect Côte d'Ivoire, Liberia, Sierra Leone and Guinea) coming from Kamakwie in Sierra Leone and from OMVS coming from Balassa and Manantali. The electrical energy evacuation line produced by the Garafiri Hydroelectric Power Station will also be connected to the new Linsan substation.

Completion date: **December 2021**

## **D1** Dispatching Centre (Emergency Control Centre) in Linsan (Lot D1)

The Linsan station site houses the OMVG Main Dispatching Center. The Eiffage Energie Elecnor Group (GME) will build the building housing the dispatching equipment as part of lot P4a. The Company (SIEMENS) will ensure the supply, installation and commissioning of the dispatching equipment upon the building's delivery.

Completion date: **October 2021**

## **L** 582 km power transmission line (L3, L4 and L5a - 3 Lots)

### **L3** Kédougou (Senegal) - Linsan (Guinea)

**268 km carried by 673 pylons.** This lot straddles Senegal and Guinea and has been subdivided into 3 sub-lots (L3a, L3b and L3c) to facilitate management and implementation:

- L3a. Kédougou (Senegal) - Mali (Guinea), 59 km of single circuit line carried by 152 triangle lattice pylons. 33 km are in Guinean territory and 26 km in Senegal. No activity has started on this section on neither the Senegalese nor Guinean side. In addition, the area is considered natural habitats for chimpanzees.
- L3b. Mali - Labé, 89 km of single circuit line carried by 220 triangle lattice pylons. More than 150 excavations are already open.

- L3c. Labé - Linsan, 120 km of double circuit line carried by 301 double-flag type pylons. Foundation work has started.

L3 Completion: **December 2021**

## **L4** Linsan - Boké 242 km of line carried by 597 pylons. This lot was subdivided into 2 sub-lots:

- L4a. Linsan - Kaleta, 114 km of double circuit line supported by 287 pylons. The foundations are well underway and the lifting of the pylons will take place at the end of the rainy season.
- L4b. Kaleta - Boké, 128 km of single circuit line carried by 310 pylons. The construction of the foundations is in progress and very advanced.

L4 Completion date: **January 2022**

## **L5** Boké - Saltinho (sub-lot L5a) of 98 km

The company is in the process of being deployed and has started marking out the route and marking the trees to be cleared.

L5 completion date: **Mai 2022**

## Contracting companies

- National Contracting Company (NCC), Saudi company holder of the Lot P4c market (Linsan substation)
- EIFFAGE ENERGIE - ELECNOR (GME), Franco-Spanish joint venture holder of Lots P4a and P4b contracts
- VINCI TTE - CEGELEC group, Franco-Moroccan joint venture holder of the Lot L3 market
- SUMEC XD, Chinese joint venture holder of the Lot L4 market
- SIEMENS SA, a company incorporated under Belgian law, holder of the Linsan Dispatching Lot market (Main control center)

# SÉNÉGAL

## **P** Transformer substations in Kaolack, Tanaff, Tambacounda & Kédougou (Sambangalou) (Lot P1 - 4 substations)

### **P1a** Kaolack and Tanaff substations

The Kaolack substation already exists and belongs to Senelec. The OMVG Energy Project carried out the 225 kV extension of this substation to ensure connections with the Soma (Gambia) and Tambacounda substations. In contrast, the Tanaff substation is new and will ensure the links with the Senelec substations in Kolda and Ziguinchor on the one hand, and the new substations of the OMVG network in Mansoa (Guinea-Bissau) and Soma (The Gambia) on the other hand.

The Tanaff substation is equipped with six 33 kV feeder bays for the distribution of electrical energy in the Sedhiou region and surrounding communities.

Kaolack completion date: **4<sup>th</sup> quarter of 2020**

Tanaff completion date: **End of 1<sup>st</sup> quarter of 2021**