ELMED Etudes SARL

Tunisia-Italy Power Interconnector *Project*

Resettlement Framework

JV HPC – IDEACONSULT – PROGER – ELARD - PLEXUS

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ABBREVIATIONS AND ACRONYMS

AFA	Agence Foncière Agricole
AFI	Agence Foncière Industrielle
ANPE	National Agency for Environmental Protection (Agence Nationale de Protection de l'Environnement)
AOT	Authorization for Temporary Occupation (Autorisation d'Occupation temporaire)
APAL	Coastal Zone Protection Agency (Agence de Protection et d'Aménagement du Littoral)
CET	Land Assessment Commission (Commission d'Evaluation des Terrains)
CRC	Expropriation Recognition and Conciliation Commission (Commission de Reconnaissance et de Conciliation)
CRDA	Commissariat for Agricultural Development (Commissariat Régional de Développement agricole)
DGF	National Department of Forests (Direction Générale des Forêts)
E&S	Environmental and Social
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	World Bank's Environmental and Social Standards
HVDC	High Voltage Direct Current
HVAC	High Voltage Alternate Current
HDD	Horizontal Directional Drilling
JV	Joint Venture
NGO	Non-Governmental-Organization
OHL	Overhead Line
OTC	Office of Topography and Cartography
PAP	Person Affected by the Project
PS	Performance Standards
RAP	Resettlement Action Plan
RF	Resettlement Framework
RoW	Right-of-Way
STEG	Société Tunisienne de l'Electricité et du Gaz
ToR	Terms of Reference
TUNITA	Tunisia-Italy Power Interconnector Project
WB	World Bank

1. INTRODUCTION

1.1. Project foundation

The Elmed Interconnector is a planned 600 MW sub-sea high-voltage direct-current (HVDC) link between Tunisia and Sicily with a length of 200 km that would connect the Italian and Tunisian electricity grids and enable electricity trade between Tunisia and Italy with a planned operational date of 2028. The Elmed Interconnector investments include the submarine cable between Tunisia and Italy and two HVDC converter stations in Tunisia and Italy. The project is jointly developed by Tunisian utility Société Tunisienne de l'Electricité et du Gaz (STEG) and Italian Transmission System Operator Terna. The Environmental and Social studies are prepared by the Joint Venture (JV) composed by HPC ITALIA, IDEACONSULT, PROGER, ELARD, and PLEXUS ENERGY.

The World Bank is supporting STEG for its portion of investment in the Elmed Interconnector through the Tunisia-Italy Electricity Integration Project ("The Project") which has three components: i) HVDC converter station in Mlaabi on the Tunisian side; ii) Tunisian grid reinforcement including the overhead transmission line Mlaabi/Grombalia/Mornaguia and the substation in Grombalia; iii) implementation support and technical assistance for variable renewable energy deployment. For the submarine cable on Tunisian waters, STEG is mobilizing support from other international financial institutions under parallel financing. The submarine cable on Tunisian waters is considered an Associated Facility to the Project; therefore, the World Bank Environmental and Social Framework applies to it.

1.2. Project components

The infrastructure consists of a 200 km long subsea HVDC cable connecting the Italian and Tunisian coasts and short stretches of underground transmission lines (HVDC cables) between shore landfall points and converter stations (10 km underground cable in Tunisia and 16 km in Italy). In addition, the project entails constructing an Alternating/Direct Current (AC/DC) converter station in Mlaabi municipality, in the Cap Bon area.

The Project requires a new DC/AC converter station in Mlaabi. It includes the construction of a new double-circuit 400 kV link between the converter station at Mlaabi and the bulk transmission system of Tunisia at a new 400 kV substation at Mornaguia (400 kV Mlaabi – Mornaguia project).

More specifically, the Project components will include:

Table 1: Summary of project components

Converter substation	DC/AC converter station in Mlaabi municipality of Menzel Temime, Nabeul Tunisia (E)
Land routing section	DC underground cable between the landfall point and the Mlaabi converter station (6 km) (B3);
Landfall	Transition point between DC marine cables and terrestrial cables in Kelibia
400 kV OHL	400 kV Overhead Line between the converter station at Mlaabi and the bulk transmission system of Tunisia at a new 400 kV substation at Mornaguia

1.3. Associated facilities

All project components on the Italian side are considered as Associated Facilities for the Project, because even though the World Bank will not finance them, they are directly and materially related to the project, necessary to its viability and will be carried out contemporarily with the project preparation and implementation. The World Bank Environmental and Social Framework (ESF) will not apply to the associated facilities.

1.4. Project objectives

The overall objective of the project is to increase the interconnection capacity, and thus the security and sustainability of supply, of the Euro-Mediterranean system by creating a link between the European and Northern African energy systems. For this purpose, STEG and TERNA founded the joint (50%-50%) company Elmed Etudes Sarl, with the mandate of carrying out all necessary studies and preliminary activities to construct this electricity infrastructure. Since then, the studies have identified the preferred

option as an HVDC undersea cable connection with nominal power of 600 MW between two converter stations to be built at Partanna (Sicily) and on the Cap Bon Peninsula (Tunisia).

1.5. Project area of influence

The project is located in the North-East part of Tunisia. The three terrestrial components (underground cable, Mlâabi CS and OHL 400 kV line) cross four governorates: Nabeul, Ben Arous, Zaghouan and Manouba. The project crosses six delegations in the Nabeul governorate (Menzel Temime, El Mida, Menzel Bouzelfa, Beni Khalled, Grombalia, Takelsa); two in the governorate of Ben Arous (Mornag and Mhamedia); one in the governorates of Zaghouan (Bir Mchergua) and Manouba (Mornaguia).

Table 2: Administrative units crossed by the OHL

Governorate	Delegation	Sector (Imada)	Lenght (km)
Nabeul	Menzel Temime	Beni Abdelaziz	70,9 km
		Skalba	
		Lezdine	
		El Ouediane	
	El Mida	El Mida	
		Fartouna	
	Menzel Bouzelfa	Damous El Hajja	
		Errahma	
		Menzel Bouzelfa Nord	
	Beni Khalled	Beni Khalled Echarkiya	
		Beni Khalled Sud	
		El Kobba El Kebira	
		Zaouiet Jedidi	
	Grombalia	Grombalia Est	
		Chammes	
		Khanguet El Hojjej	
	Takelsa	Bir Ezzit	
		El Arima	
Ben Arous	Mornag	Kabouti	29,8 km
		Djebel Ressas	
		El Kessibi	
		El Gounna	
		Essalem	
		Oudna	
	Mohamedia	Sidi Frej	
Zaghouan	Bir Mchergua	Jebel Oust	3,08 km
		Ain Asker	
Manouba	Mornaguia	El Fejja	9,9 km
		Hmaiem	

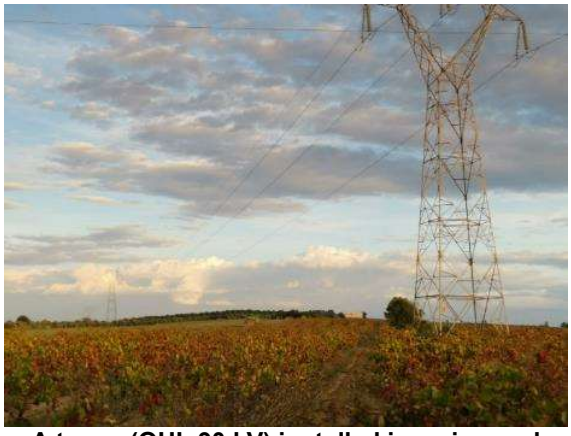
Figure 1 : Project location

Based on field visits made by the Consultant, three types of landscapes exist in the Project area: Agricultural land, Forest and scrubland areas, and Wetland and water reserve.

Figure 2 : Photos of the Project area

Agricultural land (cereal, annual crop) on flat land near Menzel Temime (Nabeul)

Agricultural land (olive tree plantations) between Beni Ayache et Bir Drassen (Nabeul)

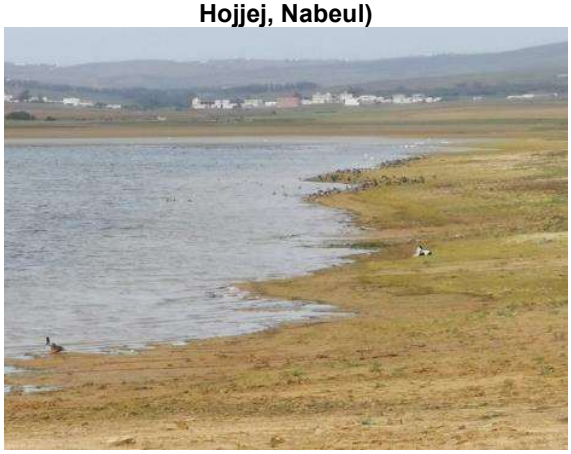


A tower (OHL 90 kV) installed in a vineyard near Menzel Bouzelfa Nord (Nabeul)

Two existing power transmission lines installed on agricultural land between El Mida et Menzel Temime

Forest area with pine and olive tree, and scrubland in the upper areas (Khanguet EL Hojjej, Nabeul)

Scrubland with Pistacia lentiscus (Between Kabouti and Jebel Ressas)



Wetland- Barrage Mlâabi (RAMSAR and IBA site) near the CS and OHL

Wetland-Barrage Chiba (a key biodiversity area) located 500 m from the OHL corridor

1.6. Purpose of the Resettlement Framework

This project, submitted to the World Bank for financing, triggers environmental and social procedures and standards to be respected in addition to national regulations, in this case Environmental and Social Standard 5 "Land Acquisition, Restrictions on Land Use and Involuntary Resettlement".

To ensure project's compliance with environmental and social standards and procedures, both national and those of the World Bank, STEG has prepared an Environmental and Social Impact Assessment (ESIA) and a Resettlement Framework (RF) for each of the two countries. This document constitutes the RF for the Tunisian part of the project. As the detailed technical studies for the Tunisian part have not yet been completed, this resettlement framework will propose the strategy and measures needed to comply with national regulations and processes and the requirements of World Bank procedures in this matter.

The Resettlement Framework (RF) aims to clarify the principles guiding resettlement, the organizational arrangements and the conceptual criteria for the project. The document specifies the principles, guidelines and processes related to the mitigation and compensation of impacts pertaining to involuntary resettlement, following the requirements of the World Bank. The RF also clarifies the methodology and procedures that will be used to prepare the Resettlement Action Plan, which will be prepared later.

The RF is a document through which STEG formally undertakes to respect, according to the requirements and procedures of the WB's ESS5, the rights of compensation of any person or entity potentially affected by a project financed or co-financed by the World Bank. This mitigation instrument is used whenever a project involves risks of impacts in terms of physical and/or economic displacement and land acquisition. Still, these cannot yet be precisely identified, which is the present case. Given that the detailed technical studies have not yet been carried out and therefore the exact extent of the impacts on the assets and revenues linked to the project's activities remain to be determined, it is not possible to develop a more precise document. , such as a resettlement action plan at this stage of the project.

The RF guides STEG in identifying affected assets, assessing losses and the compensation process, consultation and disclosure as specified by national regulations and ESS5 and ESS10. It determines the types of losses and is not a final document of losses likely caused by project activities. The various project activities are currently at a preliminary stage with preliminary line layouts.

In line with the indications described in ESS5, the RF covers the following elements:

- Brief description of the Project and the components requiring land acquisition and resettlement;
- Legal framework examining the adequacy between the laws and regulations of the borrowing country and the requirements required by the Bank's policy, and the measures proposed to resolve any differences and/or discrepancies;
- Principles and objectives governing the preparation and execution of resettlement;
- Description of the process for preparing and approving resettlement plans;
- Criteria adopted for the definition of the different categories of displaced persons;
- Methods for valuing the property and people affected;
- Description of the complaints management mechanism;
- Description of resettlement financing arrangements;
- Description of the mechanisms envisaged to consult, during the planning, execution and monitoring, the displaced populations and involve them in these phases;
- Monitoring arrangements by the implementing agency.

1.7. RF justification

No physical displacement is expected due to the project during the construction phase. According to the data provided by STEG, the options/alternatives for the underground part of the project are all located on or adjacent to existing roads/trails, so it is anticipated that the works will not generate any physical displacement. Similarly, the converter substation of Mlâabi, where the chosen area is public land bought by STEG. Generally, STEG power transmission line projects do not require any expropriation but rather temporary occupation in accordance with Decree of 30 May 1922 related to the construction, maintenance and operation of electric power lines. This Decree allows the State to cross private properties without any need for land acquisition. Therefore no property transfer or expropriation will be carried out for this project.

For the overhead line connecting Mlâabi to Mornaguia, the project will require only an aerial easement for the line and the pylons. This easement may generate an economic displacement caused by the temporary occupation of lands needed to install pylons and open trails and roads.

For the social issues, STEG has a procedure for compensating and managing economic displacement of power line projects. STEG starts by avoiding the impacts of constructing its power lines (underground and overhead) as much as possible. The procedure for developing new power lines is the following:

- Elaboration of the preliminary line route by the DEQ (Direction Equipment) services of STEG, trying to reduce potential environmental and social impacts as much as possible. This is a desktop study using satellite images (Google Earth) to develop a preliminary line of the route;
- An administrative investigation by sending the technical file of the project to the administration and relevant ministries for non-objection. The purpose is to obtain their opinion on the proposed line route and get information about any other constraints to be considered;
- If there is no objection from the administration, STEG prepares a topographic survey to elaborate the plot plan for the whole line and identify the cadastral zone affected by the project.

The JV met on 01 February 2022 with ELMED and STEG to discuss the project's social issues. The main points discussed are described hereafter:

- Given the current status of the project, the data needed for the elaboration of a RAP study is not available at this stage of the project. Significant data such as final line route, the exact location of pylons to be installed, access roads, and a list of affected properties/people will only be available at the project's very advanced stage phase. Technical studies providing these data will be launched during the execution phase.
- The process with the authorities to agree on the final route for the OHL line will take a long time and is, therefore, likely to impact on the planning of the present consultancy service. For example, the World Bank-funded OHL line between Skhira and Kondar (a 197 km line) is very similar to the OHL line of Mlâabi-Mornaguia and encountered the same constraints of the elaboration of a detailed RAP during the studies phase. To address this situation, the World Bank approved STEG's proposal to initially develop a Resettlement Framework (RF) during the studies phase, and to elaborate the full RAP during the execution phase in accordance with STEG procedures.

Since the detailed design studies will only be completed during the execution stage, it will be difficult to identify the exact magnitude of impacts on assets and people. As a result, developing a RAP is not feasible at this project stage. Following discussions with STEG, the JV will develop a Resettlement Framework (RF) according to the World Bank ESS5. This will exclude a complete census and focus on what can be done remotely using all the details from the existing stakeholder engagements/public consultation the client has undertaken and using web-based research to obtain cadastral information. This approach does not eliminate the need for the Client to prepare a fully-fledged RAP. Still, it implies that the preparation and presentation of the RAP will come after the completion of all detailed technical studies and once the project authorization/permitting process has been completed. It is quite standard for projects to start with the RF, which conforms to the World Bank's ESS5 standard, before proceeding with the RAP/LRP stage when the final line route is fixed. This framework will guide the subsequent preparation of the RAP/LRP towards the execution phase, including a complete census of PAPs.

1.8. RF Preparation Methodology

The preparation of this RF is based on the collection and analysis of documentation relating to the project, the legislative and regulatory texts governing land management and expropriation in Tunisia and comparison with the procedures and standards of the World Bank. Close consultations with the central and regional operational directorates of STEG and other actors concerned with the project and field visits made it possible to visualize the areas proposed for installing the substations, the pylons and the corridors of the route's line. This made it possible to identify the different types of losses that could result from the project (acquisition of land, loss of agricultural land, loss of crops, etc.). More specifically, the report has been prepared based on the following methodological approach:

- Analysis and review of existing documentary sources (laws and regulatory texts governing STEG projects on resettlement aspects, project documents and sheets, examples of land appraisal reports);
- Meetings with stakeholders (Coastal Development Protection Agency, General Directorate of Rural Engineering and Water Exploitation, CRDA, Delegations concerned, General Directorate of Forests);
- Site visits and monitoring of the preliminary layout of the HV lines proposed by STEG;
- The comments received during consultations can be found in Chapter 6. The final version of the RF, has been published on STEG and World Bank websites before project appraisal.

2. PROJECT DESCRIPTION

2.1. General overview of the project

The connection will have a nominal power of 600 MW and nominal DC voltage at +/- 500 kV.

The works planned for the implementation of the HVDC connection and for the HVAC lines for connection to the national grids are summarized hereafter and presented in the following paragraphs:

1. Works B: A monopolar power connection via underground cable and undersea cable, composed of:
   - Works B2: an undersea-cable pole connection, with a length of approximately 200 km between landing sites on each side coast.
   - Works B3: an underground-pole and electrode cable connection between the new converter substation in Tunisia and the landing site in Kelibia (total length approx. 6 km), where a joint box will be installed connecting the underground and undersea cables and the undersea cable.
2. Works C: An electrode system composed of:
   - Works C2: of a section in undersea cables stretching for approximately 10 km that, starting from the land-sea joints with the underground electrode cables, will connect to the undersea electrode to be created in the sea about 4.5 km from the coast.
3. Works E: an AC-DC converter station in Tunisia
4. Works F: two 400 kV overhead lines with a length of approximately 113 km will connect the converter substation area with an existing hub on the transmission grid of Mornaguia.

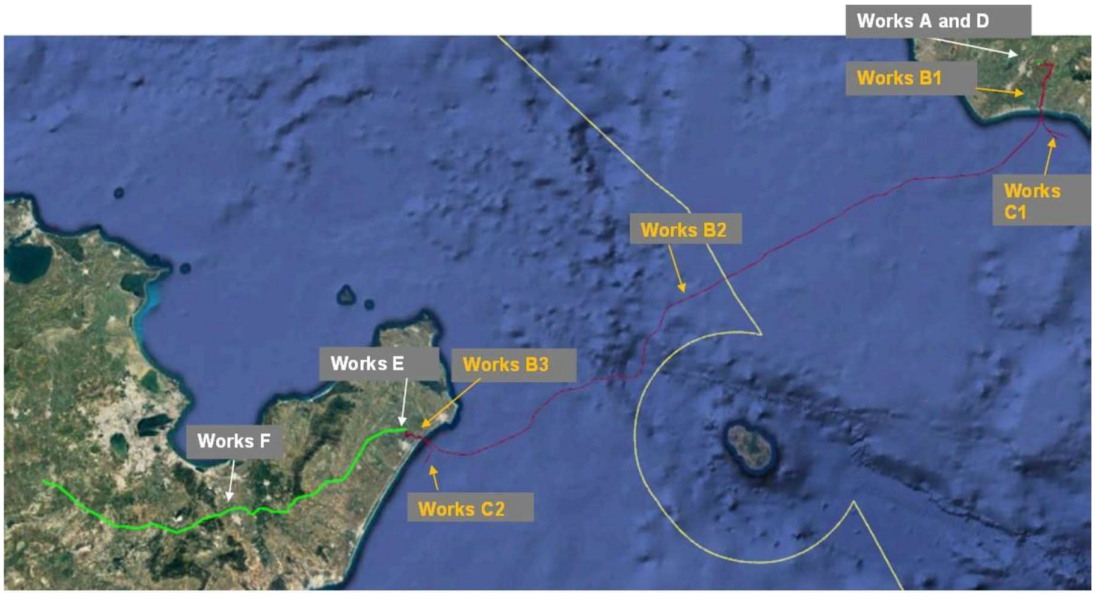


Figure 3 : General overview of the works

The location of the works was defined taking into consideration the following basic planning principles:

1. limitation of land use, giving preference to areas that are already built on;
2. limitation of the length of cable connections, to minimise impacts on local areas during works;
3. minimising use of overhead lines;
4. site accessibility (substations);
5. minimising environmental impacts;
6. minimising interference with existing subservices and infrastructure.

The following paragraphs illustrate the technical characteristics of the planned works. Of note, because the project features significant technical complexity, the illustrated elements may undergo non-major

changes in the final planning and execution phases, depending on technological solutions adopted by suppliers and contractors and possible technology sector developments.

2.2. Landing point

The landing point is inside an industrial zone of Menzel Yahia, at Kelibia beach, as shown in the figure below. The analysis of alternatives concerning the underground cable can be found in Chapter 2.5 below.

Figure 4 : Landing Point located at Kelibia beach

2.3. Underground cable

It consists of Works B3, described below

2.3.1. Route

Each of the above illustrated landfalls determined a set of possibilities for the terrestrial route of the underground cables; the studied alternative terrestrial routes are shown in the following figure.
The length of the route from the landing point to the Mlâabi converter station is about:

- 9 km for the Kelibia landfall;
- 13,5 km for the Menzel-Horr landfall.

Component/option	Location and description of the crossed zone	Comments and observations
Variant 1 ***Landing point of Kelibia***	- Two delegations involved by the underground cable route: Kelibia and Menzel Temime; - The crossed area in Kelibia is mostly rural; - The landing point is located near an abandoned military base. The line route (about 1 km) to reach the regional road N°27 (RR27) is large enough to pose the cable between the landing point and the conversion station in Mlâabi. - Concerning the part located in Menzel Temime: a portion	→ Line route between the landing point and RR27 is large and accessible; → The suggested landing method (Horizontal Directional Drilling - HDD) will avoid/reduce the project's impact on the dune and coastal component; → No significant constraints along the rural portion: the RR27 and RR45 regional roads have a good space, and the works can be carried out on the roadside without disturbing buildings and economic activities along this portion;

Component/option		Location and description of the crossed zone	Comments and observations
		essentially rural outside the urban area over 6km; and an urban portion over 3.95km between Sidi Jameledine and Menzel Temime (heavily populated area with a commercial market located along the line route).	→ The primary constraint concerns the passage through the agglomeration of Menzel Temime: the works will seriously impact the existing infrastructures (water, internet, electricity, etc.), economic activities and the traffic in the city. → It is recommended to avoid the urban area of Menzel Temime.
Landing point of Menzel Horr	***Variant 3.1***	- The longest route compared to the other options; - The proposed line route pass through an existing road that crosses an agricultural area (annual crops) and its size seems to be enough for the cable pose; - Among the 14 km of this option, about 4 km crosses the urban area (3 km in Menzel Temime and about 1 km in Menzel Horr); - The rest of the proposed line route is in a rural area with significant agricultural activity (cereal and horticultural).	→ RAMSAR site (N°1707) near the landing point. → This option affects a sizeable urban area compared to other variants. It will cause more problems on existing houses and facilities and affect traffic in Menzel Temime and Menzel Horr. → It seems the most constraining option, passing through two populated areas. The costs for compensating PAPs during construction would be very high. → Avoiding these urban areas by following the routes/tracks outside the two agglomerations of Menzel Temime and Menzel Horr or the by-pass proposed in the PAU document.
	Variant 3.2	- This option avoids the city of Menzel Horr and follows a route (about 6 km) before reaching the RR27 of Menzel Temime. The first part of this option is rural with agricultural activities along the line route; - The line route will cross a RAMSAR site and a Sebkha; - The second portion will follow the RR27 through Menzel Temime (west and north of the city) to reach after that the RR45 and the industrial zone of Mlâabi.	→ A RAMSAR site (N°1707) near the landing point. → As with the others options, this variant will affect the urban area (about 4 km in Menzel Temime). → By passing through the agglomeration, the cable may cause perturbation of the traffic, damage to the urban facilities/networks (water, internet, electricity, gas, etc.) and pollution. → Avoiding the urban area of Menzel Temime by following the existing trails in the city's northern or by choosing the by-pass proposed in the PAU.
	Variant 3.3	- This option follows the same line route proposed for variant 3.2 except for a 2.6km portion connecting Menzel Horr to the RR27. The cable will cross an agricultural area before reaching the industrial zone near RR27. - After that, the cable will pass through the city of Menzel Temime and the RR45 to reach the conversion station of Mlâabi.	→ A RAMSAR site (N°1707) near the landing point. → The cable will pass by the city of Menzel Temime, and generate impacts on infrastructure, commercial activities and other facilities. → As with other options, it is recommended avoiding the urban area of Menzel Temime.

The option parallel to Oued Tafekhsite is also assessed as an alternative to variant 1. The following table shows the underground cable length for the proposed options, separating those sections crossing urban areas (heavily constrained during construction) from other sections crossing rural or unoccupied zones.

	Total distance (km)	Portion crossing an urban area (km)	Portion crossing a rural/unoccupied area (km)
Variant 1	9.61	3.95	5.66
Variant 3.1	13.4	4	9.4
Variant 3.2	14.2	4.01	10.19
Variant 3.3	14.7	5.34	9.36
Option parallel to Oued Tafekhsite (alternative to variants 1 and 2)	4.88	0	4.88

Constraints on the terrestrial route guided the landfall choice: discussions with municipalities and economic evaluations were the drivers for the landfall point in Kelibia. After deciding on the Kelibia landfall, the line route of the underground cable was optimized in terms of length/cost (parallel to Oued Tafekhsiite) and avoidance of environmental and social constraints. Compared to the other alternatives, the selected alternative has the economic advantage of being the shortest, while considering other environmental and social constraints (mainly land tenure). The route of the underground cable connecting the landing point (Kelibia) to the Mlaabi Converter Station extends over approximately 5.6 km. It crosses a rural area with a section parallel to Oued Tafekhsite, which makes it possible to avoid crossing urban areas, except on a reduced section of 460 m through the agglomeration of Sidi Jameleddine (parallel to a fairly wide road).

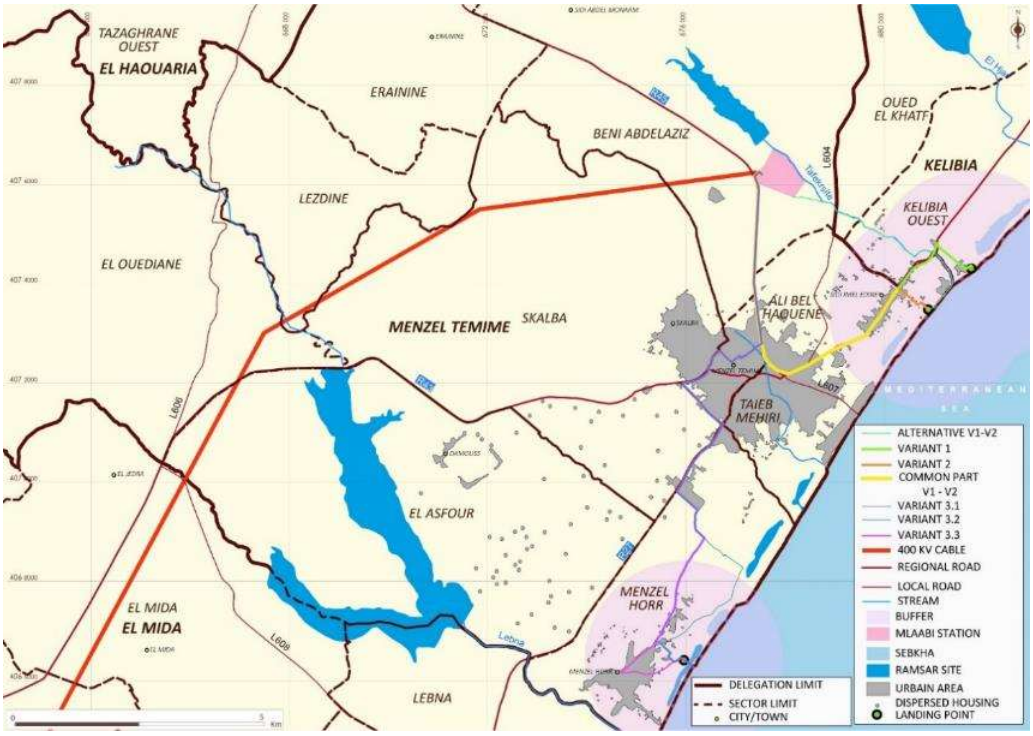


Figure 5 : Underground cable route

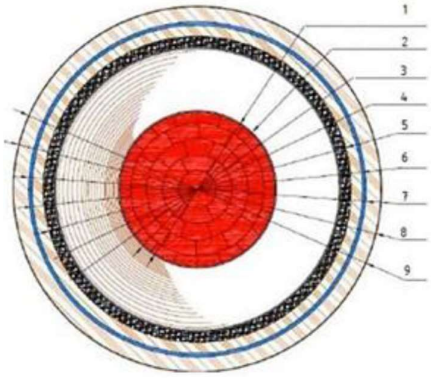
The HVDC cable will link the junction box (HDD site) to the Mlâabi CS and will have an overall length of 5.67 km. The cable route is located on existing roadways, it will follow the MC27 road passing through residential areas (part of the agglomeration of Sidi Jamel Eddine) to continue along unpaved roads (agricultural and rural environment) before reaching the CS. An underground pole and an electrode cable will connect the new Converter Station of Mlâabi and the landfall site of Kélibia, in the Municipality of Kélibia. The landfall site represents the connecting point, where a joint box will be installed to connect the undersea and the terrestrial cables.

The terrestrial cable will cross the city of Jameledine and pass through existing roadways (the regional road that links Menzel Temime to Kélibia). To avoid major interferences within the city of Menzel Temime (and to prevent potential impacts on the social environment), the route has been planned to make use of existing roads outside the urban area: more than 2/3 of the route is on rural area (using existing agricultural roads with sufficient width to facilitate the transit of vehicles). The route is illustrated in the following figure.

Figure 6 : Converter station area and HVDC terrestrial cable route

2.3.2. Technical characteristics of cables

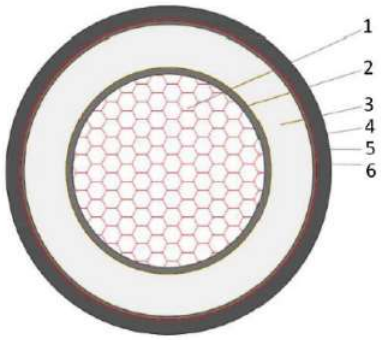
The underground power cable may have impregnated-paper insulation (MIND) or cross-linked polyethylene insulation (XLPE). The type of cable indicated is in any case only a guide and may change based on the technological choices made by the contractor. As an example, below is a standard cross-section of a MIND cable. The external diameter of the cable will be in the order of 110-120 mm.



Key	
1	Segmented copper conductor
2	Semiconductive layer
3	Insulation in layers of paper or paper and polypropylene impregnated with high-viscosity compound
4	Semiconductive layer
5	Lead alloy sheath
6	Polyethylene sheath
7	Galvanised steel tape reinforcement
8	Corrosion-proof polythene sheath

Figure 7 : Characteristics of the underground power cable

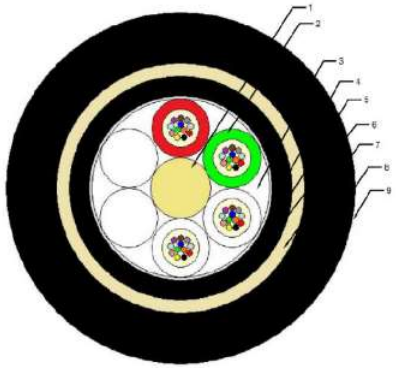
An electrode connection cable will be laid in the same trench with the DC pole cable: this cable will have the standard characteristics of medium-voltage cables. The external diameter of the cable will be in the order of 55-70 mm, and the weight in the order of 6/8 kg/m.



Key	
1	Copper conductor
2	Semiconductive layer
3	XLPE insulation
4	Semiconductive layer
5	Metallic shield
6	External sheath

Figure 8 : Typical cross-section of the electrode cable

An optical fiber telecommunications cable will be laid in the same power cable trench from the Partanna Converter Station to the landfall: the cable will have the data transmission scope for the protection, command and control system. The external diameter of the cable will be in the order of 13 mm, and the weight in the order of 130 kg/km. A typical cross-section is presented in the following figure.



Key	
1	Central support
2	Loose tubes
3	Filling compound
4	Waterproof seal
5	Ripcord
6	Internal sheath
7	Non-metallic yarns
8	Ripcord
9	External sheath

Figure 9 : Typical cross-section of optical fiber cable

2.3.3. Joint holes

The underground cables are divided into stretches, connected by joints housed in special joint holes. Underground joint holes will be realized approximately 700–800 m from each other along the DC cable route and 500 m along the AC cable route (Works D). The number of underground joint holes will depend on various factors, including the maximum transport capacity of the cable reels, sizes available, and the total length of the route. The maximum dimensions for the joint holes for the DC cable are length 20–30 m, width 3–5.5 m and depth 2–2.5m. The AC cable's maximum dimensions are 8–12 m, width approximately 3 m and depth approximately 2 m. For the electrode cable, underground joint holes will have smaller dimensions than those used for the power cable, depending on the cable type used. They are typically 10 m x 2.5 m, with a depth of approximately 2 m.

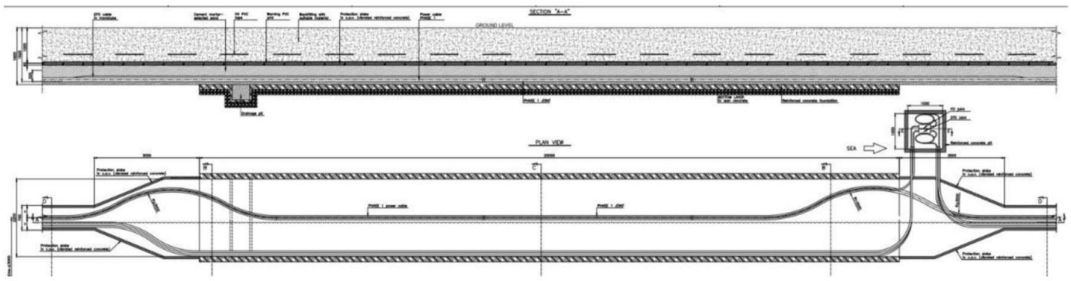


Figure 10 : Typical of DC underground joint

2.4. Mlaabi's Converter Station

2.4.1. Location

The power interconnector project includes the construction of a new AC/DC Converter Station in Mlâabi to connect the Tunita project and the national grid through an overhead transmission line. This site was a part of the original ESIA. The new converter station (CS) will be located in Mlâabi, in the Municipality of Menzel Temim, in the Governorate of Nabeul:

- The total area occupied by the station will have a surface of 100,000 m2 (10 ha) ; the area is located in a future industrial zone, which will be developed by the Agence Foncière Industrielle (AFI), and which covers a total area of 55 hectares. The development of the zone will start in about one year.
- The reservation by AFI to STEG of a 10 ha plot (266 m x 434 m) in the planned industrial zone of Mlaabi for establishing a converter station was formalized by the meeting minutes held between the representatives of both parties on October 20th 2020.).
- A lease agreement for 170 hectares was signed in 2014 between the state domain and a private agricultural company (Errouki) for a 20-year operation until 2034. The private agricultural company Errouki has committed to use all the land only for fodder cultivation on condition that it cedes 55 hectares for the AFI on the day of the development of its industrial zone.
- They currently employ approx. 80 workers, approximately 5 of whom might be affected when the 55h are used for the industrial zone, and an estimated 1 or 2 who might be affected by the taking of the 10h for the converter station.
- The competent authorities (Ministry of Agriculture, Governorates) will identify and make available for renting a plot of land of at least an equivalent size to rent to SMVDA in the project area to compensate for the 55 ha of the industrial zone.

Once impacts are clearly defined, such economic impacts would be covered by the RAP to be prepared during project implementation. This station will form the Tunisian terminal of the new connection. It will be comprised of alternating/direct conversion modules and equipment necessary for the connection with the sections of the existing transformer station. The following figures show the main components of the HDVC part of the project: the converter station (polygon in yellow inside the red one, which is the industrial zone of Mlâabi) and the proposed line route for the underground cable (in yellow).

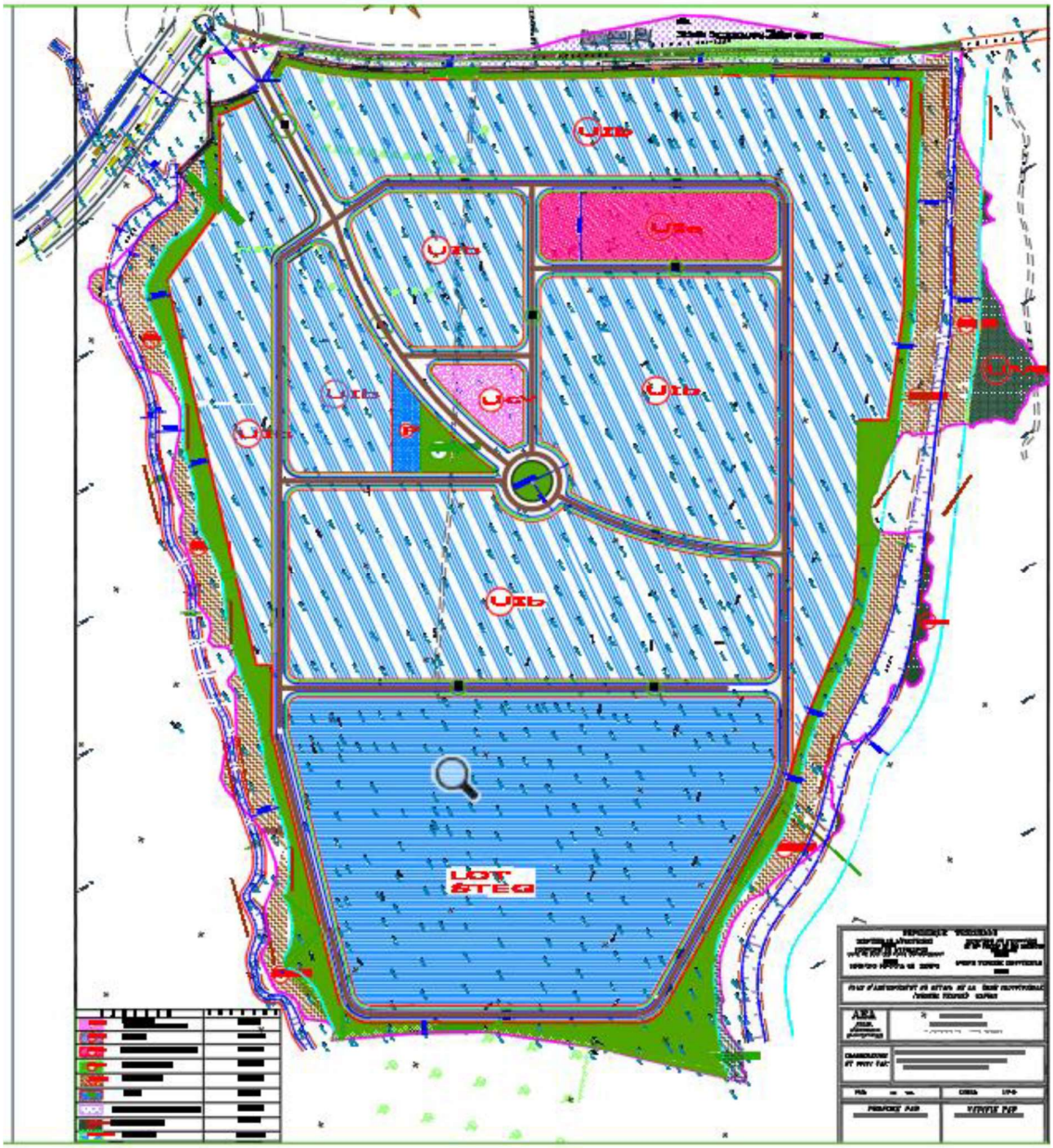


Figure 11 : Urban planning for the Mlâabi area

Figure 12 : Converter station area and HVAC cable route

The main transport infrastructure linking the new industrial zone of Mlâabi to the nearest agglomerations (Menzel Temime, Sidi Jamel Eddine) is based on road network. The CS area is accessible through the major regional road RR45 linking the city of Menzel Temime (RR27) to Zouiet EL Mgaiez (RR26). The area is currently used for agriculture purposes. A company uses the land to produce feed (annual crops) for livestock through a rental contract with the Ministry of Agriculture. This land was transferred to the Industrial Land Agency (Agence Foncière Industrielle, AFI in french) to develop the new industrial zone (IZ) of Mlâabi on 60 hectares. STEG and AFI concluded an agreement for the establishment of the Mlâabi CS on a lot of 10 hectares in the IZ. The map below shows that the team started its trip from the projected converter station by passing through the regional road RR45. The station will be located in a future industrial zone, to be designed by the authorities (Agence Foncière Industrielle AFI), and it will cover an area of 100.000 m^2.According to the regional service of the AFI Agency, based in Nabeul, the procedure was initiated in 2016, and validated in June 2021 by the municipality of Menzel Temime.

Figure 13 : The RR45 road leading to the industrial zone of Mlâabi

Such infrastructure (RR45) makes access to this area more accessible, and we can observe the presence of an MV power line along the regional road. Some houses are also located a short distance from the proposed site, inhabited by approximately 4 families working there as farmers.

Figure 14 : The entrance of the industrial zone with its fences

An agricultural company currently occupies the area to produce fodder

The land situation of this zone doesn't present any problem, and STEG received approval from the AFI Agency to locate the converter station in the planned industrial area.

The surrounding area is rural, with significant agricultural activities, especially cereal farming and some olive plantations. Not far from the chosen area for the Mlaabi station, a dam (about 300 meters from the site) called the Mlâabi Dam is an important site that provides several functions: it allows groundwater recharge. It ensures water for irrigated crops in Mlâabi.

Figure 15 : Mlâabi Dam I in the North of Menzel Temime Delegation (36°49'44"N 010°59'07"E)

It is a freshwater storage area used for groundwater recharge and to provide water for irrigated crops

Figure 16 : Farming and breeding activities near the Mlâabi site

2.4.2. Equipment and buildings

The new Mlâabi Converter Station will consist of a 600-MW AC-DC conversion module, connected on the DC side to the lines cable of the pole at ±500 kV and AC side to a newly built 400-kV kV OHVL.

The module will be operated at a nominal power of 600 MW in a monopole configuration. It will consist of nr 2 bays for the 400-kV overhead line, connecting the existing Mornaguia Electrical Station with the 400 kV busbar planned inside the Converter Station.

These bays will consist of vertical busbar disconnecting switches, circuit breakers, CTs, power line disconnecting switches with plates for earthing, VTs, arresters and air/cable terminals

- Nr 1 220-kV/400-kV single busbar system consisting of at least 4 busbar steps, busbar earth connecting switches and busbar VTs
- Nr 1 line bay at 220 kV/400 kV, for connecting between the 220-kV/400-kV busbar planned inside the Converter Station with the conversion module: this bay will consist of vertical busbar disconnecting switches, circuit breakers, CTs, power line disconnecting switches with plates for earthing, VTs and the addition of more VTs and CTs necessary for measurements and protections
- Nr 1 220-kV/400-kV busbar system consisting of:
    - Nr 3 bays with 220-kV/400-kV power supply of the respective three-cable filter banks in AC in turn derived from the line bay
    - Nr 5 220-kV/400-kV bays available
    - Nr 1 power supply bay for the converter transformers
    - Nr 3 three-cable AC filter banks, housed outdoors
    - Nr 1 bank with three single-phase transformers with two windings, kept outdoors (plus 1 spare machine serving the two poles)
- Nr 1 RI filter bank
- Nr 3 conversion reactors contained within a building (Reactor Building)
- Nr 1 converter with ± 500-kVdc voltage and 600-MW nominal power contained within a building (Valve Building)
- Nr 1 500-kVdc smoothing reactor and a set of direct current equipment required for the connection between the module and cable line at 500-kVdc pole, contained in a building (direct current building)

For the conversion module, the following will be installed:

- ✓ Nr 1 box for the generator set for emergency power supply of the Auxiliary Services
- ✓ Nr 2 MV/LV transformers for the safe power supply of Auxiliary Services
- ✓ Nr 7 kiosks

The CS area will also house various buildings:

- Reactor Building: contains structures and equipment making up the phase reactors. It will consist of a single-floor building with a rectangular plan of approximately 50 m x 62 m and a height of 24 m.
- Valve Building: contains structures and equipment making up the power converters. It will consist of a single-floor building with a rectangular plan of approximately 50 m x 70 m and a height of 24 m.
- Direct current (DC) building: adjacent to the valve building, it will house the 200-kV equipment. It will consist of a single-floor building with a rectangular plan with dimensions of approximately 40 m x 55 m and a height of 24 m.
- Control Building: contains the auxiliary service equipment and the command-and-control equipment necessary to operate the converter substation. It will be divided into two floors with a rectangular plan of approximately 36 m x 30 m and a maximum total height of about 11 m. The first floor will house the personnel rooms. The ground floor will house the ventilation and air conditioning equipment, batteries and electrical distribution switchboards, DC and AC1 of ancillary services and maintenance equipment.
- Warehouse Building: it will consist of a single-floor building with a rectangular plan of approximately 40 m x 20 m and a height of 12 m.
- Transformer fire extinguisher system building: it will house the pumping unit.
- MV and TLC delivery points building: contains the equipment necessary for the Medium-voltage power supply of auxiliary services and for the measurement and accounting systems; it will consist of a single floor building with a rectangular plan with dimensions of approximately 24 m x 3 m, and a height of approximately 3.20 m.
- Medium-voltage switching building: it will consist of a square-shaped structure of approximately 6 m x 5 m and a height of roughly 4 m.
- Kiosks for electrical equipment: intended to house the protection, command, and control switchboards; they will have a rectangular plan with external dimensions of 3 m x 5 m and a height from the ground of about 3m.

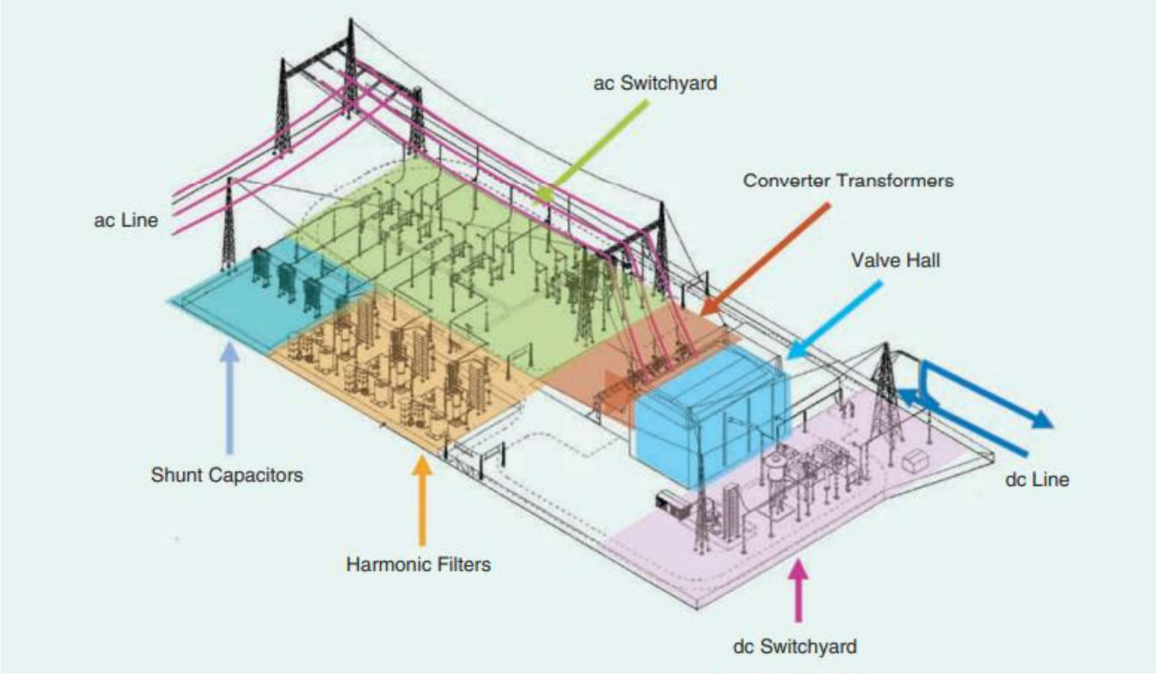


Figure 17 : Example of a converter AC-DC station layout (source: IEEE Power & Energy Magazine)

2.5. Mlâabi to Mornaguia Overhead Line (OHL)

The connection will begin at the 400 kV section of the new Mlâabi Converter Station and end at the 400 kV section of the existing Mornaguia Electrical Station.

The consists of a double-circuit line on separate pylons with a length of **approximately 113 km**.

The overhead line (OHL) crosses areas belonging to:

- Six delegations in the Nabeul governorate: Menzel Temime , El Mida, Korba, Menzel Bouzelfa, Beni Khalled and Grombalia;
- Two delegations in the governorate of Ben Arous: Mornag and Mhamedia;
- One delegation in the governorate of Zaghouan: Bir Mchergua;
- One delegation in the governorate of Manouba: Mornaguia.

The information on the OHL line component is based on data provided by ELMED and STEG and on observations made by the Consultant during field visits.

2.5.1. Route

As shown in the following figure and table, the project crosses six delegations in the Nabeul governorate (Menzel Temime, El Mida, Menzel Bouzelfa, Beni Khalled, Grombalia, Takelsa); two delegations in the governorate of Ben Arous (Mornag and Mhamedia); one delegation in the governorate of Zaghouan (Bir Mchergua); and one delegation in the governorate of Manouba (Mornaguia).

The list of the administrative units crossed by the OHL and corresponding lengths is provided in Chapter 1.3. (*see* Table 1 and Figure 1).

he proposed 400 kV OHL line extend for 113 km between the 4 governorates mentioned in the table above.

The alternatives studied for the line connecting the CS of Mlâabi to Mornaguia Station are:

- Underground cable versus overhead line.
- Line route alternatives.

For purely economic considerations, the alternative of installing an underground cable over 113 km between CS Mlaabi and the Mornaguia Station was ruled out; the cost of a kilometer of underground cable is in fact, ten times more expensive than that of an overhead line.

As for the route of the overhead line, three alternatives were studied (see Map below):

- **Alternative 1 (Green line):** This is the basic alternative, designed by STEG following the first field visits. It does not consider land tenure constraints, nor significant constraints such as its passage near a newly built school and its superimposition on a section of the SERGAZ pipeline.
- **Alternative 2 (blue line):** This route alternative was studied mainly based on data newly made available to STEG on land tenure. Its main objective is to pass the line as much as possible through lands belonging to the State and this to avoid the constraints relating to resettlement.
- **Alternative 3 (Red line):** This is the result of the optimization between the two other alternatives, taking into consideration the new station planned at Grombalia to which OHL will be connected. This is also the chosen alternative because it has the following advantages over the other two options:
  - Avoidance of the primary school and the gas pipeline;
  - Passage as much as possible through State's lands;
  - Interference with the bird migration corridor reduced to 10 km (comparatively to 23 km for alternative 1);
  - The length of the three routes is substantially the same (more or less 113 km).

Figure 18 : OHL route alternatives

2.5.2. Main components of the OHL line

Based on the data provided by ELMED and STEG, the OHL line of Mlâabi to Mornaguia will have the same characteristics of the Kondar-Skhira overhead line project. An overview of the essential technical characteristics of the transmission line is presented in the following table.

Table 3: Overview of technical parameters of the 400 kV OHL Mlâabi Mornaguia

Parameter	*Description*
Nominal voltage	400 kV (Highest voltage 420 kV)
Type of towers	Steel-lattice hot zinc-coated[1], single circuit self-supporting towers with horizontal configuration of conductors. Different types of towers will be used for the proposed line: - Type ''A2'' as an alignment support for low angle (< 2 degree); - Type ''B2'' used as a support angle when the angle is between 2° and 15° and anti-cascade; - Type ''C2'' when the angle is comprise between 15° and 30°; - Type ''D2'' used when the angle is between 30° and 60°; - Type ''E2'' used for angle comprise between 60° and 90° The final design of towers, by the contractor company, shall be compliant with specifications of the international standard IEC 60826.
Foundation	Foundations will be defined by the contractor company in charge of the construction of the OHL line and based on the results of field surveys (soil and topography). Bases of foundation will be made of steel section with equal sides (as for the towers).

	Materials to be used : concrete type HRS 42,5, water (according to the requirements of NF EN 1008 standard), sand and gravel, concrete armature with steel bars (with a minimum elastic limit of 4200 kg/cm^2)
Conductor	Type AAAC 570 Minimal cross section: 570 mm^2 Maximum work stress (with a 20° temperature): 0.0585 Ω/km
Protective wire	A tubular cable containing optical fiber (around 48 fibers type G 652 D and type G 655 D) covered by aluminum steel wires and/or aluminum alloy wires. Dimension: ≥2.5 mm
Insulators	The conductor to be used for the present line double circuit will be equipped with composite as an insulator. The external insulation section is made of HTV (> à 50%) silicone.
Tower earthing	Type NFA 91 131 and/or NFEN 50189 Section: ≥43 mm^2
Insulator set fittings	Material: Steel hot zinc-coated. Dimension: Ø 8,4 ± 0,1 mm
Climate parameters	Wind pressure: average value 25 m/s / maximum 40 m/s External temperature: maximum 55° C/ minimum -5° C Moisture: up to 100 %

The main components of the OHL line are described hereafter.

- **Towers**

For the proposed line between Mlâabi and Mornaguia, several types of towers will be used, based on the result of the technical studies conducted later by the contractor company in charge of the construction. Double circuit towers (pylons) will be used, directly built on-site from a steel framework composed of individual structural sections. For overhead transmission line projects, several types of towers are used including the following:

- Suspension towers support the conductors/cables on straight stretches of line.
- Tension towers: generally used at points where the route changes directions.
- Terminal towers: used where the route terminates at converter stations.

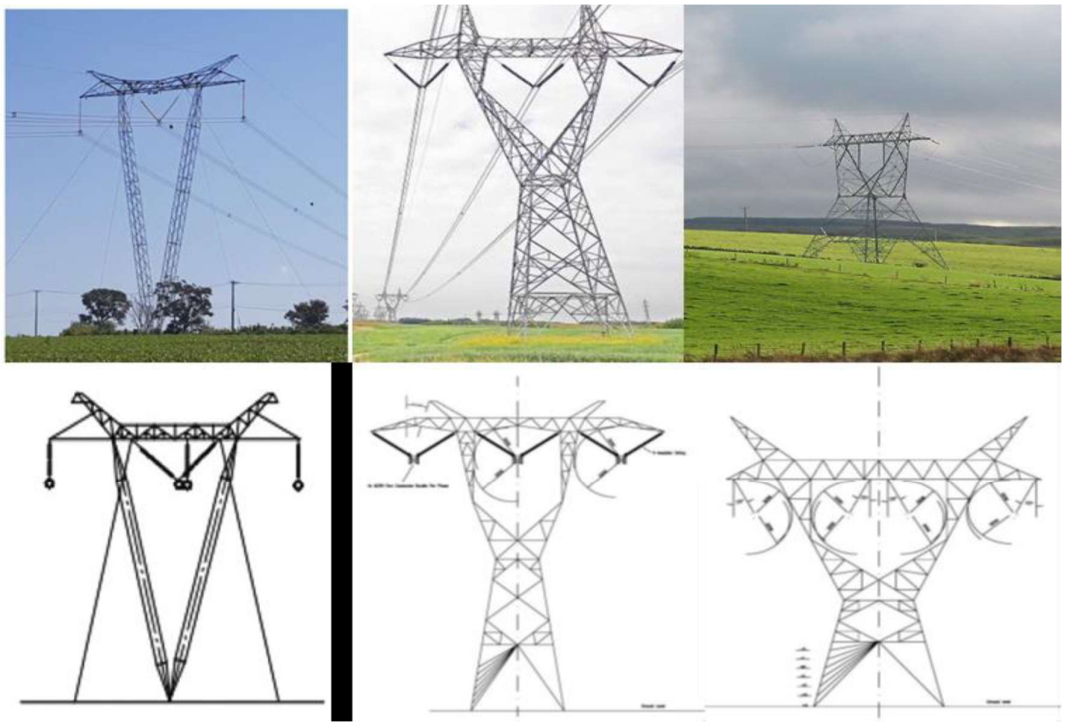


Figure 19 : Typicals of towers used on OHL projects (from left to right Suspension V tower - Self supporting suspension tower - Self supporting Y tower)

The towers will be steel lattice design; each tower will have four legs and a single foundation per leg. The total number of towers and their exact location will be fixed just before the construction phase by the company in charge of the design of the OHL. The typical footprint area that the tower's four legs will occupy is expected to be around **200 m² (dimension of 14 m x 14 m)**. The distance between towers will vary between 350 m and 600 m, depending on the conditions of the crossed area and its nature (soil, presence of wetlands etc.).The average length spans between two towers is around 450m.

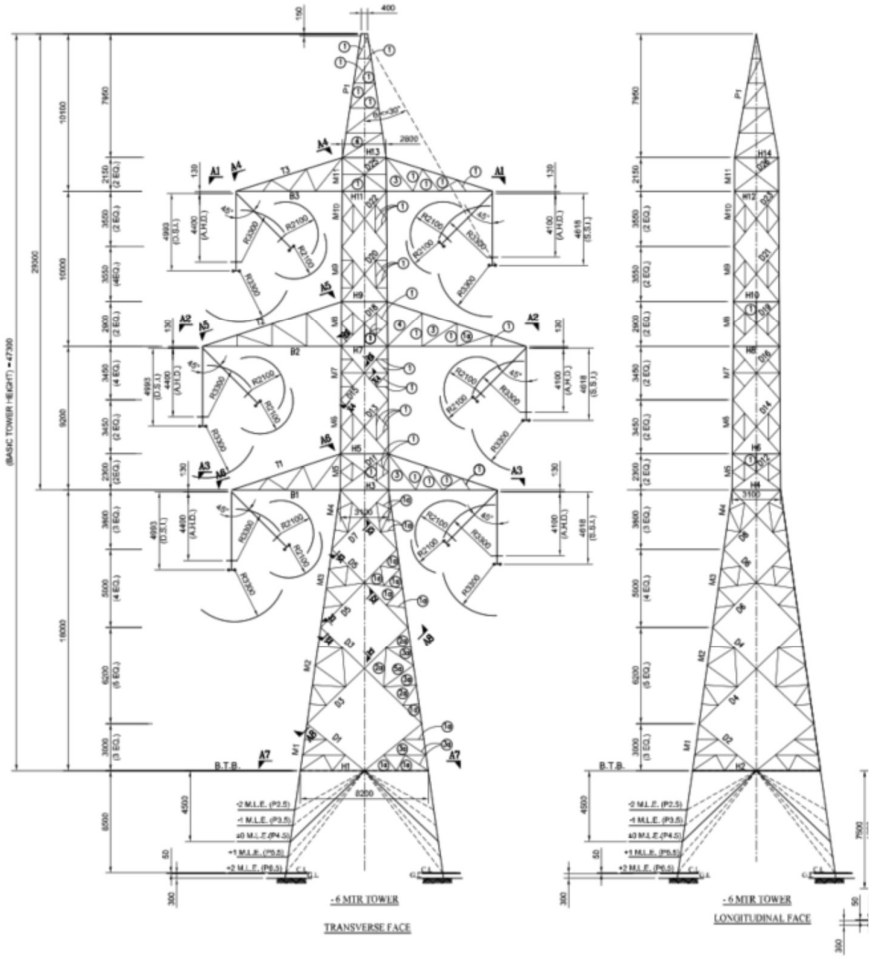


Figure 20 : Typical of a double circuit 400 kV OHL tower (source STEG)

- **Foundations**

The towers' foundations will be built using reinforced concrete blocks (type HRS 42,5 generally used for STEG's power transmission lines). Based on the geo-technical investigation to be carried out later, a specific technical solution will be proposed for each tower.

- **Earthing**

To reduce the effect of electric shock and ensure safety at work, particular focus will be given to the tower earthing during both construction and operation phases. All towers will be earthed using a 43 mm² steel cable connected to each tower leg through a ground block.

- **Conductor**

The selection of the type of conductor to be used for OHL lines is based on three criteria: meet the requirement of current-carrying capacity and the requirement of electromagnetic environment, the good mechanical conditions and its cost.

The line conductors will be ALL Aluminum Alloy Conductor (AAAC) 570 type with normal cross section of 570 mm². The following figure shows a typical structure of an AAAC 570 conductor.

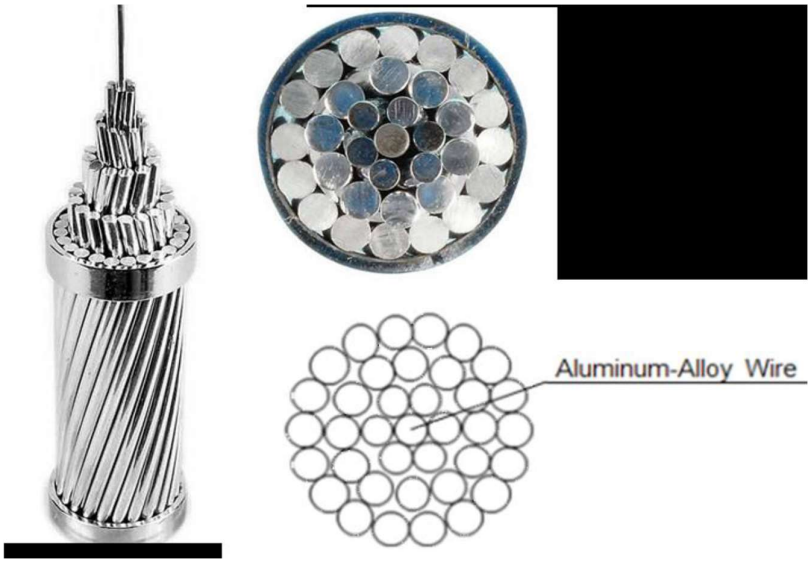


Figure 21 : Typical structure of an AAAC 570 conductor (source HONGDA CABLE)

- **Insulators**

The insulator to be used for the OHL shall be of composite type, as commonly employed by STEG for its power lines. The external coating of the insulator will be made of HTV silicone material.

Figure 22 : Insulators for OHL (left: Toughened Glass type; right: Porcelain type)

2.5.3. Support components and activities

The implementation of the 400 kV OHL line will require several additional activities, which are necessary to facilitate the project's construction and other maintenance actions during operation phase. These include the following:

- **Clearance to ground and crossing**

For the 400 kV OHL line, the suggested minimum clearances between the line corridor and houses and other facilities (roads, existing transmission lines, railway projects, telecommunication cables, etc.) and between conductors and other objects are presented in the following tables.

Table 4: Minimal distances between conductors and existing obstacles/facilities (STEG standards for OHL projects)

Receptor / description		Minimum Height to be respected for 400 kV OHL
Common land/proprities		9 m
Paths accessible to traffic	Common road	10 m
	High traffic road	11 m
Other crossings	Plantations (olive tree, citrus orchads)	10 m
	Powered Railway lines	12 m
	Railways	20 m
	Telecommunication lines	6 m
	Power lines HTA	6 m
	Power lines HTB	7 m

The table below presents the minimum distances to be respected between conductors and existing residential buildings and other structures.

Table 5: Minimum clearance with residential building (source STEG)

Description	Minimum clearance for 400 kV line
From conductor location	16 m
From tower location	Tower height

For safety reasons project design should avoid placing towers near major and classified roads (national, regional, etc.). The following table shows clearance values, between tower's location and road axis, to be considered during the line route design.

Table 6: Minimum clearance between axes of roads and OHL towers (source STEG)

Description	Clearance from tower (m)
Agricultural roads	40
Classified roads (national and regional)	50
Highways	65
Intersections of roads	200

The conductor must be installed with a specific spacing, this clearance is calculated based on it median sag as indicated in the table below.

Table 7: Clearance values based on the sag of conductors (source STEG)

Description	Clearance (m) for 400 kV
Conductor sag between 0 and 20 m	7
Conductor sag between 20 and 30 m	8
Conductor sag between 30 and 40 m	8,75
Conductor sag between 40 and 50 m	9, 25

- **Establishment of right-of-way (RoW)**

The proposed double circuit transmission line will fix a land corridor as a Right of Way. It will include access roads to be used for construction and maintenance purposes. The RoW is required to protect the equipment (avoid contact with trees to protect the system from any potential hazards as power failures or forest fires).

The development of the OHL component does not include any major access roads.

2.6. Grombalia Substation

A new electrical substation is planned in Grombalia to connect the OHL to the existing electrical grid. This substation will be the subject of a specific ESIA, and it will be part of the project components covered by

the Resettlement Action Plan (RAP) to be prepared and implemented during project implementation, before the commencement of works.

The site chosen by STEG for the establishment of the new Grombalia substation is state land currently used by an agricultural cooperative which operates it mainly for field crops (wheat, barley, etc.).

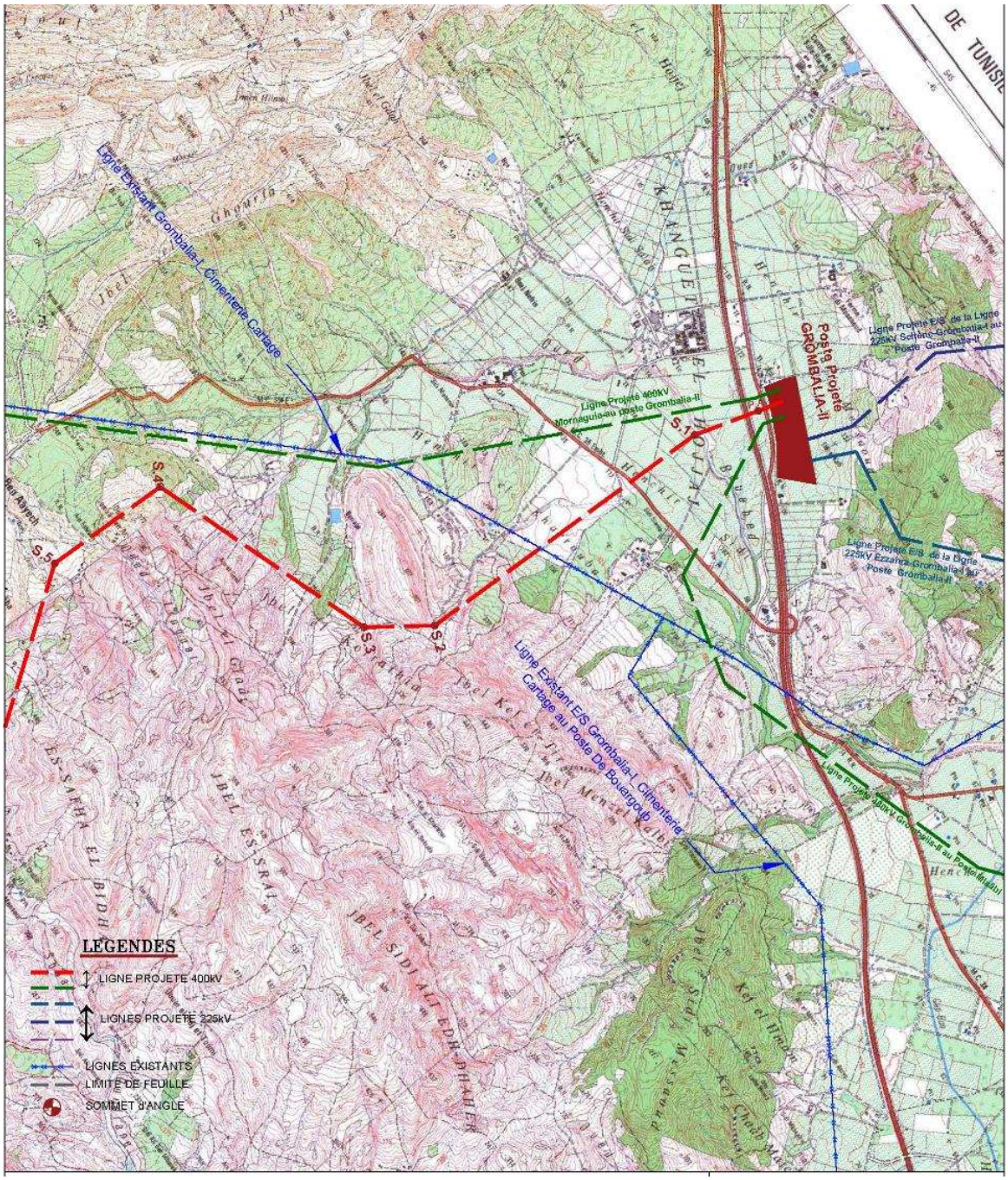


Figure 23 : Proposed site for the Grombalia Substation

3. REGULATORY AND INSTITUTIONAL FRAMEWORKS

3.1. Land Tenure System in Tunisia

The main features of the land tenure system in Tunisia are presented below:

- ✓ **Private land:** These are lands that belong to individuals exercising full ownership rights, including registered lands, lands subject to notarial deeds and lands subject to certificates of possession.
- ✓ Registered land: The land law of July 1, 1885 indicates the land registration system, revised by the code of real rights (law of February 12, 1965). The legal and material consistency of the registered buildings is determined by the registration which will be the subject of a land advertisement by making available to the public all the land titles (Land Book). About 60% of these titles are not updated; they have not been subject to transfer of ownership in the event of inheritance or sale.
- ✓ **Land subject to notarial deeds:** These are lands whose documents are notarial deeds which mention the origin of the property and the various transactions concerning the building and which attest to the right of ownership of the holder.
- ✓ **Land subject to a certificate of possession:** farmers who own agricultural land without a title may possess an administrative document called a "certificate of possession" which requires the farmer to work on a rural property for five consecutive uninterrupted and unequivocal years and especially in good faith as an owner. This certificate offers the possibility of having agricultural credits.
- ✓ **State lands:** These lands belong to the private domain of the State managed by the Ministry of State Domains and Land Affairs.
- ✓ **Collective lands:** Traditionally, these lands were used collectively and were the property of tribes or ethnic communities. Since the 1960s, the privatization of collective land has considerably reduced its surface area. State supervision over collective land is exercised under the authority of the Minister of Agriculture by the local guardianship council (at the level of each delegation), the regional guardianship council (at the level of each governorate) and the Governor. Each group owning collective land is represented by a Management Council composed of members elected by the community and members appointed by the Governor. The local and regional guardianship councils coordinate and control the management councils.
- ✓ **The "habous" lands:** These are lands definitively ceded to the habous; a practice of Muslim origin which designates elusive, inalienable and imprescriptible lands whose revenues are dedicated to social works. The abolition of these properties was pronounced by decrees in 1957 and 1965. The liquidation of the habous lands was made for the benefit of the state lands.

3.2. National expropriation process for public utility

Expropriation for public utility is governed by Law n°2016-53 of July 11, 2016 on expropriation for public utility in return for fair compensation and with the guarantees provided for by said law.

Expropriation for reasons of public utility is pronounced for the benefit of the State, local authorities, establishments and public companies being authorized to do so by their constitutive laws, as well as other public establishments and companies within the framework of their missions. provided for by law (Art. 3).

The law authorizes expropriation and taking possession for reasons of public utility, subject to compensation fixed amicably or by legal means, after deposit or payment of a provisional indemnity as the case may be (Art.5).

This Law has been recently amended and supplemented by the decree-law n°2022-65 of 19 October 2022 which provides the possibility of compensation in kind for all expropriated immovable property and not only compensation for the loss of agricultural land in protection zones. It indicates (article 5) that within the limits of the reserves available to the expropriator, an agreement may be reached with the owner of the property in the form of compensation in kind in accordance with the legislation and regulations in force. This option could reduce the pressure on the public purse as the state could use its land holdings and allocate state land for compensation in kind to owners.

Under article 16 of this decree, a permanent administrative commission was created in each governorate, called the "recognition and conciliation commission", responsible for recognizing the legal and material situation of the properties to be expropriated. It is an administrative commission chaired by a judge, which makes administrative decisions

An **Acquisitions Commission** for the benefit of Public Projects is a permanent administrative commission created in each Governorate.

The Commission is responsible for:

- to complete all the preliminary procedures for proposing the draft decree of expropriation for public utility at the level of the region;
- to publicize the intention to expropriate by posting and depositing a descriptive list comprising the names of the owners or presumed such, the plot plan of the project, the value of the provisional compensation for the buildings necessary for its implementation, plantations, buildings and constructions as fixed by the appointed expert, at the headquarters of the Governorate of the delegation, of the municipality, of the regional management of State domains and land affairs of the place of building and at the headquarters of the regional services of the party concerned by the project for two months, and through auditory and written communication;
- registration and study of objections in a recognition register;
- update the list of people affected and the compensation accepted; and
- to prepare the files necessary for the formalities of the contracts with the affected persons.

At the end of the Commission's work, the Chairman of the Commission sends the expropriating party (STEG in this case):

- a copy of the recognition register,
- reasoned report of oppositions,
- and a certificate of deposit and publication.

The expropriating party thus draws up the draft expropriation decree which mentions:

- the nature of the public project,
- indications on expropriations, and
- the list of all the owners (or presumed such).

As soon as the expropriation decree is established, the amount of the compensation is thus defined according to discretionary criteria, the expropriating party sends a copy of the decree with the fragmentation plan to the Governor for display at the Governorate level and at the at the local level (headquarters of delegations, municipalities and the regional management of state domains) for one month, in addition to information by means of the audio and written press.

The expropriating party (STEG) also sends a registered letter with acknowledgment of receipt to the various expropriated parties informing them of the amount of compensation due to them by STEG.

During this period (1 month), the Governor keeps a register of complaints and additional supporting documents (names, title deeds, etc.). After this period, the expropriating party registers the expropriating decree in the Land Register with proof of deposit of the provisional indemnity and the final division plan.

After all these steps, the State can proceed directly to the expropriation.

The law of July 11, 2016 refers in its title 8 "Miscellaneous provisions" to the old laws 2003-26 of April 14, 2003 and law N ° 76-85 of August 11, 1976 and even law n ° 64-28 of June 4 1964 relating to collective lands.

- In its Article 45, the 2016 law specifies that it is necessary to expropriate the collective land as defined by l and the texts which have modified and supplemented it, from the group which manages it. The provisional indemnity in this respect is consigned to the general treasury of the Republic of Tunisia until the deliberation which determines the beneficiary or the beneficiaries of the said indemnity by the management board of the said group. The rightful claimants may request an increase in the value of the indemnity based on the approval of the Minister in charge of State land on the aforementioned deliberation. The provisions of article 45 will be applicable to plots expropriated within the framework

of law n° 76-85 of August 11, 1976, relating to the revision of the legislation on expropriation for public utility, modified and supplemented by Law No. 2003-26 of April 14, 2003.

- Art. 46 - There is to expropriate the lands of private or mixed Habous which have not been liquidated or are in the process of being liquidated from all the assignees. The compensation due in this respect is consigned to the profits of the beneficiaries of the general treasury of the Republic of Tunisia unless the commission or the court in charge of the liquidation decides to appropriate one or more beneficiaries among others. Only those entitled to said compensation may request an increase in the value of the compensation. The provisions of this article shall apply to plots expropriated under Law No. overhaul of the legislation relating to expropriation for reasons of public utility amended and supplemented by law 2003-26 of April 14, 2003.
- Art. 47 – Exceptionally, certain provisions of the 2016 law (article 10) are applicable to expropriation decrees published before the entry into force of law n° 2003-26 of April 14, 2003.

3.3. Valuation of agricultural assets affected

The "Commissariat Régional au Développement Agricole" (CRDA) and the "Agence Foncière Agricole" (AFA) take care of the procedure for temporary occupation in the event of a friendly agreement with the owner on the damage caused to trees and cultures. The AFA only estimates the agricultural damage in the irrigated perimeters; the CRDAs are responsible for agricultural land in their territory (other than irrigated perimeters). Two experts (CRDA and AFA) are appointed to estimate the damage if necessary. Restoration at the end of the work is assisted by the Authorization for Temporary Occupation (AOT).

Expropriation: In the event that there is no agreement on the fixed price, a State expert and another registered on the list of experts draw up 2 reports in order to estimate the value of the plot. But if there is not yet an expropriating-expropriated agreement, the expropriation compensation will be fixed on the basis of the value assessed according to its consistency of the effective use to which it was assigned on the date of publication of the expropriation decree. taking into account the prices used on that date for similar properties located around the plot.

Amicable acquisition: Chaired by a judge and in collaboration with elected officials from the Ministries of Agriculture, State domains and the agricultural land agency, the Land Assessment Commission (CET) located in each region supports the assessment of the value of the plot, this is done when the acquisition occurs amicably. In the case of acquisitions made amicably, two scenarios arise: (a) Acquisition free of charge (in the symbolic dinar); (b) Acquisition for Compensation. In addition, the law also allows the acquisition of a plot for a Public Utility Project to be the subject of an exchange with a plot of the same value located in the private domain of the State. This option can be proposed to the transferor owner insofar as the availability of land allows it.

Compensation

Temporary occupation (Droit de servitude): For the performance of certain works, the law provides for compensation to cover damage to crops, trees and to compensate for the felling of trees and water and soil conservation works. . The Authorization for Temporary Occupation (AOT) also needs to restore the plot to its original state at the end of the work or the site. For an amicable settlement, the compensation is recorded in an accounting document and generally paid before the start of the work (the operator, whether he is the owner or not, is the person compensated). Otherwise, if there is no amicable agreement, an inventory is drawn up before the works and compared with that carried out after the works. On this basis, the damage will be estimated and the compensation will be fixed.

Voluntary transfer: The voluntary transfer of small plots is done free of charge within the framework of Public Utility Projects. For these small areas, the owner can accept this free insofar as the Project brings him something in return, a benefit other than financial.

Expropriation: The compensation for expropriation is fixed according to the value of the building assessed according to its consistency and the effective use to which it was assigned on the date of publication of the decree of expropriation and by comparison with the prices practiced at this date for comparable buildings located in the same area.

3.4. Temporary occupation and right of way

Two decrees, dating from the time of the beylical dynasty, regulate the right of easement or right of way in terms of power lines:

- **Decree of October 12, 1887** relating to the establishment, maintenance and operation of telegraph and telephone lines.
- **Decree of May 30, 1922,** relating to establishing, maintaining and operating power transmission lines.

These decrees allow power line projects to cross private property (including agricultural land or land used for other productive purposes) without requiring a land acquisition. There is therefore no transfer of ownership or expropriation to be carried out in the context of the power lines, neither directly above the line nor in line with the pylons.

These decrees are completed by Tunisian Law 2016-53, amended and supplemented by Decree-Law 2022-65, on expropriation for public utility.

According to these regulations:

- ✓ Easements are compensable: compensation must be paid when they cause damage to the land crossed. In addition, Tunisian Law 2016-53 (amended and supplemented by Decree Law 2022-65) requires provisional payment to be provided to PAPs in case of contentious cases on compensation amounts, before the commencement of any works, in line with ESS-5 provisions.
- ✓ The operators of the land crossed, whether they own it or not, are eligible for compensation. When the land is owned by an owner but operated by another person, the latter is entitled to receive compensation.
- ✓ The passage of a power line is prohibited through any fenced property and overhanging existing buildings. Therefore, Tunisian law minimises the impacts a line project could have on physical movement by prohibiting it. As part of the easement right, STEG concludes temporary occupancy agreements with owners and/or farmers before the start of works. The same agreements are concluded with the owners and farmers using the land where the pylons will be installed, even if the occupation will last much longer.

These agreements give rise to the payment of compensation when damage is caused to crops.

3.5. Aerial easements

Regarding aerial impacts, buildings are not allowed under the OHL for safety reasons and as per the Tunisian regulation. In contrast, agriculture and pastoral activities are still allowed in the corridor with some restrictions (mainly the height of trees).

When these restrictions to land use in the corridor affect the land owners, STEG will look for an alternative or compensate the PAP for the land (i.e. extension of residential unit, social infrastructure, etc.).

3.6. Regulations relating to social development

The main Tunisian regulation concerning social issues are:

- Decree of 18 August 1958, Code of Personal Status stating equal rights between the sexes regarding divorce, employment, business property and the banking sector: but also prohibiting polygamy, establishing a legal age of marriage at 18 for girls.
- Article 21 and 46 of the Tunisian Constitution (January 2014), all citizens have same rights and obligations, and the State guarantees to protect all women's acquired rights.

  Article 12 ''the State acts to ensure social justice, sustainable development and balance between regions, taking into account development indicators and the principle of positive discrimination''.
- Law 85-68 of 12 July 1985 ratifying the CEDAW convention about discrimination's elimination against women (modified in 17 April 2014). Withdrawal of reservations of the CEDAW convention on April 17, 2014 regarding Labor and Marriage.
- Government Decree N°2016-626 of May 25, 2016 establishing the Peer Council for Equality and Equivalence of Opportunities between Women and Men.

- Law n°2017-58 of 11 August 2017 concerning the elimination of violence against women. The law aims to put all measures to eliminate all forms of violence based on gender discrimination in order to ensure equality and respect for human dignity, according to a comprehensive approach focused on the fight against its different forms, through prevention, prosecution and repression of its perpetrators, and protection and care of victims.
- Law N°2018-35 on Corporate Social Responsibility (CSR).

3.7. Public Consultation and Information Disclosure

The main Tunisian regulation concerning public consultation and information disclosure are:

- Decree n°328-2018 of 29 March 2018 concerning public consultation.
- Decree N°2005-1991 regarding EIA process. To date, there is no obligation for publishing ESIA reports.
- Law n°2011-41 of 26 May 2011, regarding access to administrative documents of public agencies and administrations.
- Article 32 of the Tunisian Constitution (2014), the State must guarantee the right of access to information
- Article 139 of the Constitution, local authorities shall adopt all mechanisms of participatory democracy and open governance to guarantee citizens' participation in the preparation of land use planning and development projects.
- Organic law n°2016-22 of 24 March 2016, on the information access right, which defines the access right to any information concerning programs, projects, benefits, financial aspects, owners, etc.

3.8. Institutional framework for resettlement

The stakeholders playing a role in the resettlement process in Tunisia are presented below.

3.8.1. At the national level

- ✓ **Ministry of State Property and Land Affairs:** It ensures the control, management and use of movable and immovable property belonging to the State, the design of State policy relating to public and private and also The acquisition and expropriation of real estate for the benefit of the State and public establishments of an administrative nature at their request in collaboration with the ministries concerned;
- ✓ **Agricultural Land Agency (AFA):** the only public body authorized to carry out land redevelopment operations in agricultural areas in addition to its land consolidation operations, the AFA gives opinions on real estate operations in its areas of intervention. The agency is placed under the supervision of the Ministry of Agriculture.
- ✓ **Office of Topography and Cartography (OTC):** The Office of Topography and Cartography (OTC) is responsible for the following activities:
  - Carry out the work necessary to ensure, throughout the national territory, the establishment and conservation of a geodetic network and a precision leveling network;
  - Execute and control the technical work of registration of land ownership and cadastre;
  - Delineate public lands and domains, as well as administrative districts;
  - Carry out subdivision work on the ground and in co-ownership;
  - Ensure the restoration of property boundaries;
  - Carry out various topographical works;
  - Ensure aerial photography and the establishment of large-scale topographic plans.

Particularly for the ELMED Project, other stakeholders may be directly or indirectly involved by the resettlement process:

- ✓ **Ministry of Industry, Energy and Mining:** energy sector in Tunisia is under the responsibility of this Ministry, which is in charge of developing and implement government policies concerning industry, agroindustry, energy and mining, industrial cooperation, energy and mining security sectors.
- ✓ **Tunisian Company for Electricity and Gas (STEG), created in 1962, is the main/exclusive actor for producing, transporting and distributing** electricity in Tunisia. STEG ensure the development and the maintenance of electric and gas infrastructure. It also ensures the electrification of urban and rural areas and the gas network development.
- ✓ **Industrial land Agency (Agence Foncière Industrielle – AFI):** is a public establishment, created in 1973 and placed under the authority of the Ministry of Industry, to promote the industrial sector and contribute in the economic and social development of Tunisia. The major missions of the AFI agency are: the creation and development of industrial areas equiped whith modern infrastructure and Construction of adjustable industrial buildings to be rent or sold to Tunisian and foreign investors. The AFI will be involved as a major actor for the present project as the landfall and the junction box will be placed within the industrial zone of Menzel Yahia and the Mlâabi converter substation will be implemented in the proposed industrial zone of Mlâabi.
- ✓ **Ministry in charge of Environment and Sustainable Development:** the structure in charge of environmental policies in the country. Under the supervision of the Ministry of Environment, many agencies and departments implement its strategies at national, regional and local levels in order to enhance the protection of the environment and natural resources.

  National Agency for Environmental Protection (Agence Nationale de Protection de l'Environnement - ANPE): responsible for ensuring all applications for the environmental assessment preparation, review and approval process in Tunisia. The ANPE is the authority responsible for EIA studies. Environmental impact assessment for development projects must be carried out in accordance with the terms of reference fixed by the ANPE agency and in compliance with national rules.

  Coastal Protection and Development Agency (Agence de Protection et d'Aménagement du Littoral - APAL): the principal mission of APAL is to ensure the management of the Maritime Public Domain (DPM in French) and the management and the protection of coastal areas (coastal dunes, sebkhas, marine natural reserves, etc.). Its missions include setting an observatory for coastal ecosystems, enhancing natural reserves and sensitive areas, and protecting wetlands, coastal forests and islands. With the collaboration of the National Department of Forests (Direction Générale des Forêts – DGF), APAL participates in the management and protection of wetlands and coastal forests, islands, etc.
- ✓ **Ministry of Agriculture:** represented especially by the National Department of Forest (DGF) and the Regional Commissariat for Agricultural Development (CRDA) in the regional level. The mission of the DGF is to manage the forest domain (including parks, reserves, wetlands, etc.) and protect natural resources. The CRDA must be involved to get authorization, especially for the terrestrial part of the project.

  At the regional level, the services of the Ministry (vegetal production, animal production, water, irrigated perimeter, etc.) are grouped together within the CRDA agency. The CRDA must be strongly involved in the present project due to their roles in the management and conservation of natural resources (DGF), the conservation of soil resources (soil department), the conservation of surface and ground water resources (water department), the protection of agricultural land (irrigated perimeter, agricultural safeguard zones as the case with citrus plantations).
- ✓ **Ministry of Social Affairs:** in charge to implement social policies and to ensure a fair social development between all categories and generations of the Tunisian society. The Ministry is in charge to consolidate social welfare in the areas of health, occupational safety, social security, promotion of vulnerable categories and special needs, adult education, supervision of the Tunisian community abroad and social housing. Its services draws up plans at the national, regional and sectoral levels, develops projects, ensures the participation of civil society, implements cooperation projects, supervises and assists in the promotion of communication and social information.

- ✓ **NGOs and Civil Society:** several NGOs and associations operate to protect the environment and to promote sustainable development, to improve human rights, to enhance health and security, to promote income-generating activities, etc. A collaborative platform exists (http://jamaity.org) that brings together different associations and NGOs working throughout Tunisia.

3.8.2. At the regional level

The project will cross four Governorate (Nabeul, Ben Arous, Zaghouan and Manouba) including 10 Delegations and 29 Sector or Imadas as detailed in Chapter 1.3 *(see* Table 1 and Figure 1)..

In each of these administrative regions, the following stakeholders play a role in the resettlement process:

- ✓ **The Governor:** He chairs the Acquisitions Commission for the benefit of public projects, displays and informs the public, and monitors the process from resettlement to expropriation.
- ✓ **The Regional Commissariat for Agricultural Development (CRDA):** is placed under the supervision of the Ministry of Agriculture. The CRDA is responsible within the framework of the Governorate for implementing the agricultural policy adopted by the Government. Each governorate has its own CRDA. The CRDA can participate in assessing crop damage and other damage to trees.
- ✓ **The Acquisitions Commission for the benefit of public projects:** Under Law N°2016-53 of July 11, 2016, amended and supplemented by the decree-law n°2022-65 of 19 October 2022, the Commission is responsible, under the chairmanship of the Governor or his representative, for carrying out all the preliminary procedures for the proposal of the project. of the decree of expropriation for public utility at the level of the region.
- ✓ **Expropriation Recognition and Conciliation Commission (CRC):** Under Decree No. 2003-1551 of July 2, 2003, a CRC was created in each of the 24 governorates of Tunisia. The CRC is made up of a magistrate, a representative of the governor, the general director of state land and land affairs, a representative of the expropriating ministry, the state land expert, a representative of the conservation of land ownership and a representative of the affected municipality(ies). The members of the commission are appointed by order of the Minister of State Domains and Land Affairs on the proposal of the ministers, governors, presidents of municipalities and heads of the companies concerned. The CRC monitors the progress of all the preliminary measures of the expropriation operation and the investigations carried out concerning the building to be expropriated, the beneficiaries and other holders of existing rights on the building to be expropriated.
- ✓ **The Real Estate Court:** A real estate court is set up by region to rule on:
  - Optional land registration by the requests of individuals and compulsory by the cadastral census throughout the territory of the Republic,
  - Update of land titles,
  - Requests for review and rectification of judgments,
  - Appeals against the decisions of the regional commissions for updating titles or the decisions of the registrar of landed property.

3.8.3. Tunisian permitting process and procedures applied by STEG

At STEG level, the **DCEQ Department** (Direction Centrale des Equipements) is responsible for designing, finalizing and monitoring work on the lines and associated infrastructure (substation and pylons), pulling the cables up to updating the lines. Currently, this Department works closely with the **Legal Department** (Direction Juridique) to obtain the necessary permits and decrees, including the expropriation decree, the line construction permit and to carry out the compensation process. The Line project manager provides the interface with the Manufacturer for all aspects related to the reinstallation.

The current procedures are as follows:

- STEG draws up an initial route based on topographic maps and Google-Earth, first ensuring that environmental and social impacts are avoided and reduced by bypassing protected areas, residential areas and individual houses, in accordance with Tunisian law;
- STEG launches a call for tenders to choose a manufacturer for:

- Prepare a plot plan;
- Develop the execution studies to arrive at the final route of the Line and a plan for the location of the pylons, and
- Construction of the line;

- The Contractor and the STEG supervisor, with the help of the Regional Department of State Property and Land Affairs:
  - Obtain the names of the owners corresponding to the land titles;
  - The land tenure of each of the plots (private, agricultural state land, state domain, etc.).
  - Any rental agreements to which the titled land is subject (lease, usufruct, etc.) and which make it possible to identify the farmers who are not the owners of the land.
  - Any land sharing agreements between all the heirs in the event of the owner's death.
- The STEG supervisor then compiles the lists of owners potentially affected by the project.
- This route is subject to consultation with the other stakeholders (DGF, INP, OACA, ANGED, ANPE, etc.) for non-objection.
- If there is no objection from the government stakeholders, these same lists are submitted to each Governorate concerned by the project and displayed by the local authorities as part of the expropriation decree file. This process is managed by the Procurement Commission within the Governorate.
- After approval of the file, the head of government publishes an order authorizing the construction and operation of the power line. This decree authorizes the agents of the Ministry of Energy, STEG and the contracting company to "enter unbuilt and unenclosed properties with walls or other equivalent fences and listed in the lists deposited at the headquarters of the governorates".
- The decree, published in the Official Journal, is displayed at the headquarters of the governorates concerned and notified individually to the owners. **This decree has the value of the eligibility cut-off date**: any construction or development carried out after the decree's publication will be considered illegal and will be the subject of legal proceedings by STEG.
- The owner of the plots authorizes STEG in writing to access his land via a commitment to compensate the damage which a legal expert assesses after 1 or 2 weeks of work.
- An expert is appointed to estimate the amount of compensation over the entire linear. Each phase of work (creation of the foundations, assembly of the pylon, pulling of the cable) can cause damage to agricultural land, and a piece of land can therefore be subject to several series of compensations.
- For pylons and access, there is no permanent acquisition of land, STEG compensates for damage to land and crops, caused by the works and this, in three stages: civil engineering, installation of pylons and finally pulling the cables. These three stages can be spaced out in time.
- The expert then submits an expert report that makes it possible to assess all the damage to the agricultural land and the compensation amounts.
- Affected persons can accept these amounts, in which case the amount is remitted to them by bank check via the Districts or STEG agencies. They must then sign an agreement confirming receipt of the amount of compensation and committing to sharing it with the beneficiaries of the plot.
- In general, STEG sets up an amicable negotiation procedure and only resorts to expropriation, governed by Law N°2016-53 of July 11, 2016 amended and supplemented by the decree-law n°2022-65 of 19 October 2022 only when the owner opposes the purchase of his land.

Concerning ELMED Project, including the 400 kV OHL, the Transmission Power Line construction procedure involves the following steps:

- Preliminary line route (desktop study): the service of the Equipment Department (DEQ) of STEG identifies an initial route based on Google Earth, avoiding residential areas and protected sites to reduce social and environmental impacts. The axis of the route must be away from homes (at a distance of 50 m or more).
- Visual recognition of the proposed preliminary route: the team of the DEQ (topography service) carries out a field visit to verify if there are any other critical issues/constraints for the implementation of the transmission (residential areas, sensitive sites, etc.).
- Consultation process with stakeholders: based on the route validated by the field visit, STEG launch an administrative inquiry with several ministries to ask for their opinions on the proposed route. Through an official request, STEG consults the following ministries/agencies:
    - Ministry of Defense
    - Minstry of Interior
    - Ministry of Planning and Equipement (Bridges and Roads Departement)
    - Governorates concerned by the project
    - Ministry of Agriculture, through the DGF and CRDA
    - General Agency of Civil Aviation
    - Regional Agency of Public Domain
    - National Company of Highways
    - General Agency of Information and Telecommunication
    - National Heritage Institute (INP)
    - APAL agency

  These stakeholders can ask for a field visit to identify the area crossed by the line and the presence or not of any specific issues.
- In case of non-objection from the above stakeholders, STEG starts topographical surveys on a strip of 100m and the plot survey to identify the cadastral area affected by the passage of the power line. This work aims to determine the parcel and owner boundaries potentially affected by the route.
- Publishing, in the Official Gazette (JORT), a Ministerial Order as an approval for the construction and operation of the proposed project.
- Landowners approval: all owners/users affected by the project must provide any proof/evidence of their land right/use to the STEG district in the concerned delegation.
- Signature of an agreement between STEG and land owner/user
- Approval of the final line route (STEG/the company in charge of the construction activities can start staking the line and perform all technical studies)
- Compensation process: the department in charge of the compensation process is the DEG at STEG. At this stage, an independent agricultural legal expert (authorized by the Ministry of Justice) is commissioned by the DEQ to assess the compensation amount for every affected person.
- Signature of a compensation agreement between the affected person and STEG. In case of disagreement on compensation amount, affected person can use different channels to register its complaint (STEG district, citizen affairs office of STEG, delegation office).

3.9. International Standards

3.9.1. World Bank Environmental and Social Standards (ESSs)

The financing of the project by the World Bank implies the need to comply with the World Bank standard on land acquisition, restrictions to land use and involuntary resettlement (ESS-5). Other World Bank standards, adopted since 2001, cover the economic and social consequences that result directly from investment projects financed by the World Bank.

ESS-5 applies in all cases of land acquisition and restriction of access and/or reduction of resources. Specifically, ESS-5 applies if:

- People affected by the Project would have to lose property and be physically displaced for the needs of the project, or
- Whether there would be a loss of sources of income and/or access to resources.

This project will generate temporary and permanent loss of land, crops and access, hence the applicability of ESS-5 to this project.

A resettlement is considered 'involuntary' if the affected people do not have the opportunity to maintain livelihood conditions similar to those they had before the implementation of the Project.

The policy defines physical and economic displacement (loss of sources of income) and requires compensation for both. It insists on avoiding resettlement by exploring all viable alternatives. The policy requires the preparation of a Resettlement Action Plan before the project's implementation, which identifies the eligibility criteria for compensation or resettlement assistance, the property and people affected by the project, the process of compensation, the resettlement budget, its implementation and monitoring. The objective is to assist the affected population to restore at least their initial standard of living before the project.

The policy favors in-kind compensation over monetary compensation to ensure the sustainability of compensation, but leaves the choice to the affected population during consultations.

Persons eligible for compensation under this policy may fall into one of the following three categories:

- ✓ Holders of a formal right to land (including customary and traditional rights recognized by the legislation of the country),
- ✓ Those who have no formal land rights at the time the census begins, but who may have land or other titles later
- ✓ Those who have neither formal rights nor titles likely to be recognized on the lands they occupy (the case of occupations in good faith of the lands of others)

Affected persons must be consulted and informed of the options and their rights, and then promptly compensated at full replacement cost for losses of property directly attributable to the project, before the project is carried out. (Before constructing each pylon or each section for overhead lines).

3.9.2. Convergences and divergences between national regulation and the WB standards

Several convergences and divergences are identified between the national legislation, the procedures as practiced by the STEG and the E&S standard of the World Bank in terms of involuntary resettlement (ESS-5). This process has several non-compliances with Bank policy that need to be remedied:

- The consultation period is limited to a period of 1 month for the posting of the lists at the regional and local level, while the validation process by the government authorities can exceed one year;
- Affected people are not informed of the method of assessing losses or the amounts of compensation;
- Verbal agreements with landlords and/or tenants are not always documented. STEG only holds payment receipts;
- Consultations are not regular or documented;
- Even if the person affected opposes the project, STEG is authorized to begin works subject to the publication of the expropriation decree and the deposit of the amount of compensation as assessed by the legal experts;
- If the person affected accepts the amount of compensation, he signs an authorization to STEG to access the land and he is paid for the amount;
- STEG does not consider "squatters" or agricultural workers for compensation or resettlement assistance;
- No monitoring of compensation and the responsibility of the populations affected by the project. STEG does not have an information system allowing it to monitor the implementation of compensation and corrective measures if necessary.

The table below summarizes these convergences and divergences and proposes the corresponding actions to apply them within the framework of this project. In the event of discrepancies, the most stringent procedures beneficial to the affected population will be followed.

These recommendations are taken up later in the report in terms of actions and procedures to be adopted in the preparation and implementation of the project.

Table 8: Convergence and divergence between World Bank procedures and policies and Tunisian resettlement regulations

Topics	Tunisian National Legislation (Expropriation 2016 Law, 2022 Decree-Law and Temporary Occupation Law 1922)	World Bank Standard (ESS-5)	Proposed Action
Compensation eligibility criteria	a/ holders of formal title deeds b/ property recognized by local chiefs (elected sector chief) c/ collective ownership recognized by the regional councils d/ crop loss	a) holders of a formal right to land (including customary and traditional rights recognized by the legislation of the country), b) those who have no formal right to land at the time the census begins, but who may have land or other titles later, c) Those with neither formal rights nor titles are likely to be recognized on the lands they occupy (the case of occupations in good faith of the lands of others).	In the case of discrepancy, ESS-5 must be applied. Any loss of sources of income and access to the resource must be compensated. Informal "squatter" users will be eligible for compensation under this project. This will be taken into account in the compensation matrix
Goods eligible for compensation	The construction of a transmission line calls for the temporary occupation of land	Land permanently lost (i.e. site of pylons) must be compensated as is (i.e. acquired by the project)	STEG compensates the loss of land at the market and full sale price and signs a protocol of permanent easement.
Socio-economic profile	A socio-economic survey of affected people is not required by Tunisian law	The resettlement plan requires the carrying out of a socio-economic survey of the affected people	The procedures for carrying out the resettlement plans proposed in this RF include the carrying out of a socio-economic survey of the affected persons
Vulnerable groups	No specific action for affected populations considered vulnerable.	Eligible for additional assistance from the resettlement budget. A socio-economic survey identifying vulnerable PAPs is required.	ESS-5 must apply. The project should identify vulnerable groups and their needs and provide targeted assistance for these vulnerable populations. This will be taken into account in the compensation matrix and the procedures for preparing the RAP
Total or partial loss of means of subsistence	Not covered by legislation. Crop compensation is estimated by experts based on the current market without calculating the	Consider a livelihood restoration plan.	Application of ESS-5 is required: Guarantee livelihoods at least at the same level as before the project. This is taken into account in the compensation matrix.

Topics	Tunisian National Legislation (Expropriation 2016 Law, 2022 Decree-Law and Temporary Occupation Law 1922)	World Bank Standard (ESS-5)	Proposed Action
	restoration times of these revenues.		
Compensation	Monetary compensation is offered.	The bank's policy favors compensation in kind but accepts monetary compensation if it is the preference of the PAPs.	Monetary compensation is accepted if the consultations prove that it is the preference of the PAPs. In the case of massive loss, compensation in kind should be encouraged.
Cut-off date for informal occupants	Not planned	Planned	ESS-5 must prevail: Provide for the publication of a cut-off date at the end of the census of people and goods in the event of physical displacement and restriction of access. This is included in the principles of the RF
Consultations regarding compensations	The State can proceed with the resettlement if the expropriation decree has appeared subject to compliance with the Law 2016-53 (amended and supplemented by Decree-Law 2022-65) and consignment of the compensation budget, even without formal acceptance of the PAPs.	In certain cases there may be significant difficulties related to the payment of compensation to particular affected persons, for example, where repeated efforts to contact absentee owners have failed, where project affected persons have rejected compensation that has been offered to them in accordance with the approved plan, or where competing claims to the ownership of lands or assets are subject to lengthy legal proceedings. On an exceptional basis, with prior agreement of the Bank, and where the Borrower demonstrates that all reasonable efforts to resolve such matters have been taken, the Borrower may deposit compensation funds as required by the plan (plus a reasonable additional amount for contingencies) into an interest-bearing escrow or other deposit account and proceed with the relevant project activities. Compensation placed in	Bank Policy must be applied: losses must be identified, compensation budgets discussed, accepted and received by the PAPs before the works.

Topics	Tunisian National Legislation (Expropriation 2016 Law, 2022 Decree-Law and Temporary Occupation Law 1922)	World Bank Standard (ESS-5)	Proposed Action
		escrow will be made available to eligible persons in a timely manner as issues are resolved.	
Timing of compensation	The Tunisian Law 2016-53 (amended and supplemented by Decree-Law 2022-65) requires advance payment before resettlement.	The Borrower will take possession of acquired land and related assets only after compensation in accordance with this ESS has been made available and, where applicable, displaced people have been resettled and moving allowances have been provided to the displaced persons in addition to compensation.	Apply Law 2016-53 and Decree-Law 2022-65 concerning the timing of payment of compensations
Aerial Easements	For safety reasons and as per the Tunisian legislation (Decree of May 30, 1922), buildings are not allowed under the OHL. Agriculture and pastoral activities are still allowed in the corridor with some restrictions (mainly height of trees).	Aerial easements are part of the land-use restrictions regulated by ESS-5 and therefore subject to compensation.	If the restriction to use the lands in the corridor is affecting the land owners, STEG should look for an alternative or compensate the PAP for the land (ie. extension of household, social infrastructure, etc.). Potential restrictions to land use because of aerial easements will be evaluated on a case-by-case basis during the RAP study.
Resettlement assistance	Not planned	Planned	ESS-5 must be applied: provide a resettlement assistance budget.
Complaint management mechanism	Recourse to the Reconciliation Commission and the national judicial system if negotiations with the Reconciliation Commission fail.	The establishment of a "complaints management mechanism" specific to the project, displayed and accessible to all PAPs.	ESS-5 must prevail: A "complaint management mechanism" specific to the project must be prepared, displayed and accessible to all PAPs.
Budget	Required but no provision for travel assistance, assistance to vulnerable people, and non-eligible PAPs according to national regulations.	The budget must necessarily be included in the overall budget of the project, with identification of the budgetary sources.	ESS-5 must prevail: The budget must include the cost of investments / acquisition, cost of implementation, cost of monitoring and auditing and contingencies.

Topics	Tunisian National Legislation (Expropriation 2016 Law, 2022 Decree-Law and Temporary Occupation Law 1922)	World Bank Standard (ESS-5)	Proposed Action
Implementation schedule	Not required	A detailed schedule for implementing the resettlement plan is required. This schedule should be overlaid with the project implementation schedule to ensure compliance with Bank policy.	ESS-5 must prevail: A timetable for the implementation of the resettlement action plan must be prepared.
Institutional arrangement for the implementation of a remediation plan	No specific arrangement is required. Generally the legal department of the expropriator works in close collaboration with all the stakeholders involved	An institutional implementation arrangement is required for all phases: preparation, implementation, monitoring & evaluations and audit.	ESS-5 must prevail: the project must put the structure or implementation unit-f of the resettlement plan in place.
Monitoring and evaluation	Not planned	A resettlement monitoring & evaluation plan should be prepared and implemented.	ESS-5 must prevail: a detailed monitoring plan must be prepared and implemented and included in resettlement plans
Consultations on the Resettlement Framework/Plan	Not formalized or documented	Requires regular and documented consultations throughout the project cycle	The RF has been presented during the consultations held in the four governatorates (see Chapter 8). In addition, the RF provides guidance for the engagement process to be carried out while preparing the Resettlement Action Plan (RAP) towards project implementation.

4. PROJECT'S POTENTIAL IMPACTS

4.1. Land use along the area crossed by the Project's lines

Annex 1 illustrates different land uses in the study area, with agriculture (irrigated and rainfed) remaining the main land use in the region. The flatlands between Menzel Temime and El Mida are used mainly for cereal growing and some areas of arboriculture (olive and citrus). This area contains irrigated perimeters. Areas around Menzel Bouzelfa, Beni Khalled and Grombalia is mainly used for arboriculture with citrus plantations and some areas of olive trees. The areas between Bir Mchergua and (Zaghouan) and Mornaguia (Manouba), are used for cereal growing. Forest formations and scrub occupy the hilly areas, it is mainly the areas between Bni Ayach and Bir Drassen (Jbel Abderrahman) and the parts located between Jbel Ressas and the hilly areas of Zaghouan.

The area is characterised by a predominantly flat morphology for the whole area concerned by the HVDC cable and the Mlâabi CS. On the other hand, for the OHL component, the latter crosses flat land between Menzel Temime and El Mida, between Beni Khalled and Grombalia and towards Mornaguia, It also passes by relatively uneven grounds (towards Beni Ayech, Khanguel El Hojjej and over a large part located in Ben Arous). There is an agricultural use of the soil, with the presence of tree crops, mainly olive groves and, to a lesser extent, vineyards and orchards (citrus groves especially in Menzel Bouzelfa and Beni Khalled delegations) and annual crops (cereal) very present in the delegations of Menzel Bouzelfa and El Mida (Nabeul) and in the sections located in Zaghouan, Ben Arous and Manouba. Although most of the study area is heavily influenced by agricultural activities, the OHL line will also cross natural areas occupied by forest species, especially for the part located on the administrative boundary between Nabeul and Ben Arous (Khanguel El Hojjej and Kabouti).

Table 9: Statistics on the land use in the AoI of the OHL

Land Occupations	Surface Area (ha)	Percentage
Urban area	5 432	3.8%
Forest	21 606	15.0%
Bare ground	660	0.5%
Irrigated perimeters	5 408	3.7%
Wetlands	929	0.6%
Farmland	109 080	75.6%
Pastureland	1 134	0.8%
TOTAL	144 248	100%

4.2. Areas crossed by the line route

The OHL route can be divided into four sections:

- ✓ The first part of the line route (section between S1 and S8): land is relatively flat and the main activity is agriculture (annual crops rainfed or irrigated by the waters from Lebna and Mlâabi dams). This presents no major constraints except the presence of the two RAMSAR and IBA sites (Mlâabi and Lebna dams) that will be subject to further analysis during the elaboration of ESIA study in order to propose necessary mitigation measures.
- ✓ The second part between S8 and S17: an arboricultural area with lands mainly occupied by citrus plantations and it concerns especially Menzel Bouzelfa and Beni Khalled (considered as citrus safeguard areas in Tunisia). The main constraint is due to these private plantations (citrus orchards) and to the damage potentially caused during the project's construction phase.
- ✓ The third part located between S17 and S32 includes agricultural (Nabeul side) and forest areas (especially in Ben Arous). In this section the line will pass through flat lands occupied by agriculture (olive tree plantations and vineyards) and areas with hilly relief covered by scrublands and forests.
- ✓ The last part of the line route: a flat lands with some hilly zones where the principal activity is annual agriculture (cereal crops). This section has no significant constraints for the proposed project.

A detailed description of the areas crossed by the OHL is given in Annex 2.

4.3. Different types of potential impacts of the Project

The impacts on the assets and incomes of the affected populations are of three types:

- **Permanent impacts**, linked to the loss of agricultural land for the bases of the pylons;The impacts on the structures are likely to be limited but at this stage cannot be entirely excluded.
- **Temporary losses/agricultural damage:** linked to access to the bases of the pylons, installation of the pylons and the pulling of the cables. This will cause a loss of mainly agricultural and less important commercial sources of income. Impacts on structures are limited but possible but not identified at this stage.
- **Temporary and permanent easements.**

4.4. Property and people affected by the project

4.4.1. Property and people affected by the project

The property affected by the project will be agricultural land and plantations, mainly olive and fuit trees :

- Permanent losses that require compensation are those related to positions. In this case, the only new substation is that of Mlaabi extending over 10 ha and projected in an industrial zone to be developed by AFI. Once impacts are clearly defined, such economic impacts would be covered by the RAP to be prepared during project implementation.
- Losses related to the opening of access for the installation of pylons and the pulling of cables:
  - Agricultural losses on the pylon site and surroundings and the access necessary for installing the pylons and pulling the cables.
  - Loss of land and crops for the installation of pylons.
- Collective infrastructure (roads and tracks, etc.).

The assumptions used to estimate losses are:

- Average distance between pylons = 400 m
- Surface occupied by pylon = 200 m2
- Access for the installation of a pylon and the pulling of cables (the average length of 300 m of a track 4 m wide)
- Density of 40 olive trees per hectare
- Olive trees occupy 60% of the land affected
- Compensation of around 2000DT/olive tree and 6000DT/hectare of agricultural land affected.

4.4.2. Categories of people likely to be affected by the project

People potentially affected by the project are:

- The owners of the agricultural land on which the pylons will be placed (permanent losses and permanent aerial easements);
- Owners of agricultural land who may suffer damage from the installation of pylons and the pulling of cables;
- Owners of access land (agricultural or not) who may suffer damage by the passage of machinery;
- Farmers who may lose their crops temporarily (cereal crops, market gardening) or permanently (olive trees, fruit trees, market gardening, etc.);
- Permanent and/or occasional agricultural workers;
- Breeders who may experience limited access to usual grazing areas during work or maintenance;
- People whose economic activities will be disrupted by the project.

4.4.3. Estimated number of people affected by the project

As the project does not generate physical resettlement but rather the permanent and temporary loss of land, mainly agricultural land, crops and economic activities, it is not possible at the framework preparation stage to estimate the number of People Affected by the project. The socio-economic surveys carried out as part of the social studies and the resettlement action plan will be used to estimate the number of landowners, stockbreeders, farmers and traders and other persons economically affected by the project.

5. COMPENSATION AND INDEMNIFICATION PRINCIPLES, PROCESS AND MATRIX

Based on the comparative analysis of government arrangements and the World Bank's ESS-5, the RF will adopt the following guidelines, definitions, principles, compensation matrix and process for the project.

5.1. Principles

Adopted principles are:

- The Project will try to avoid, minimize, mitigate and compensate displacement or resettlement by applying the World Bank's mitigation hierarchy and the following principles:
  - STEG should review the design of the project to avoid impacts on structures and the displacement and resettlement they would entail. This principle has already been adopted by STEG by regulatory obligation (decree of 1922);
  - Where the impact on a household's land is such that that household's livelihood is challenged, and even if it is not necessary to physically relocate that household, design teams will need to review designing the activity to avoid or lessen this impact to the extent possible;
- The cost of the acquisition or compensation of land and their compensation will be included in the estimate of the cost of the project, to allow its complete evaluation;
- Insofar as it is technically possible, the pylons will be located on public spaces or existing and free rights-of-way;
- Affected communities will be consulted and included in the planning process;
- Eligible and affected people should be assisted in their efforts to restore or improve their livelihoods;
- Natural or legal persons who lose sources of income (temporary or permanent) must be compensated and assisted at the appropriate time, even before the development and/or construction work begins;
- Foreseen permanent and temporary easements will be compensated according to ESS5.

5.2. Eligibility criteria

The RF will follow the following eligibility principles consistent with the Bank's standards for Involuntary Resettlement:

- Holders of a formal right to land (including customary and traditional rights recognized by the legislation of the country);
- Those who have no formal right to land at the time the census begins, but who have land or other titles—provided that such titles are recognized by the laws of the country or can be recognized in the part of a process identified in the resettlement plan;
- Those who have neither formal rights nor recognizable titles to the lands they occupy.

As part of this project, the people most likely to be affected are:

- Operators and owners of land who will suffer damage to their land, interruption of access to their land and damage to crops;
- Farmers (owners of the land or not) who will see their crops damaged by the construction of the line and by the maintenance;
- Breeders who will be deprived of access to grazing areas or who will see their tents and equipment damaged or displaced by the works;
- Farm workers who will lose their income temporarily or permanently;
- People who could lose, permanently or temporarily, their economic activities (small businesses, transport, etc.).

5.3. Vulnerable groups

Within the framework of this RF and according to the first field surveys and the documentary review, vulnerable people will be defined as follows:

- Households below the poverty line (according to the official national definition);
- Female heads of household alone,

- People with disabilities,
- Elderly people living alone,
- People with chronic diseases,
- Families without support
- Unemployed graduates,
- People without training who are unemployed,
- Any other person who will be considered vulnerable by future detailed socio-economic studies.

5.4. Cut-off date

For the PAP holding the land, the cut-off date will be the date of publication of the decree authorizing the construction and operation of the power line. The Order, published in the Official Journal, is displayed at the headquarters of the governorates concerned and notified individually to the owners: any construction or development carried out after the publication of the said Order will be considered illegal and will be the subject of legal proceedings from STEG.

For non-holders, the cut-off date for granting rights will be the start date of the census operations intended to determine the persons and property eligible for compensation. From this date, people who arrive to occupy the rights-of-way will not be eligible for compensation except for those absent at the time of the census or other cases proving eligible according to national regulations and/or World Bank standards.

The cut-off date will be announced publicly and disseminated at project sites.

5.5. Compensation Matrix

Table 10: Compensation Matrix

Type of loss	Category of affected persons eligible for compensation	Compensation strategy
1. Loss of land		
1.1 Loss of private land • Agricultural land • Collective land • Bare land • Urban lands	• Owners of land with certificate of possession • Owners of registered land • Owners of land with notarial deed • Community with a Regional Management Board • Informal users of land (squatters) • Land tenants	• Monetary compensation based on the market price (Assessed by a legal expert) • The rate of compensation must be following the cost of replacing the losses incurred • For agricultural land, the replacement rate must include: - the market value of nearby land with similar production and use potential to the affected land; - the cost of preparing cultivable land and - the cost of any registration and transfer fees. • For land located in urban areas, the replacement cost must include: - Market value of land of the same size and use, with similar or improved infrastructure and public services and located near the affected land, and - Cost of registration and transfer taxes. • “Non-legitimate” land users will be compensated on infrastructure or constructions on the land but not on the land
1.2 Loss of land for the right-of-way of the pylons	• Legal owners of land • Customary and informal owners with proof of ownership (Valid but other document that is not an	• Land rehabilitation • Compensation for loss of agricultural activities in the field

Type of loss	Category of affected persons eligible for compensation	Compensation strategy
	official title deed: agricultural agency sales contract, operating certificate, delegation certificate)	• Compensate for the market value of the land and sign a memorandum of understanding for the entire duration of operation.
1.3 Loss of state land	• Belonging to any administration (OTD, ONAS, SONEDE, Ministry of Equipment, etc.) • Informal users of land (squatters) • Land tenants	• Monetary compensation based on the cost of replacing lost land • Compensation for loss of agricultural activities in the field • "Non-legitimate" land users will be compensated for land activities but not for land
2. Loss of structures		
The project is unlikely to affect any structures. STEG is not authorized to impact private or state structures according to the Decree of May 30, 1922. This compensation measure has been included in the matrix proposing the compensation strategy as a contingency.		
2.1 Individual structures	• Structure owners • Structure users (merchants, etc.)	• Replacement compensation for lost structures • If it is a partial loss, compensation on the affected part if the rest of the structure is still usable • If it is a partial loss and for security or other reasons, the structure is no longer used, compensation for the loss of the entire structure • Monetary compensation for finding another alternative (rental and transport costs)
2.2 Loss of collective infrastructure (tracks, markets, shepherds' tents,.)	• Structure owners • Structure users	• Monetary compensation to set up similar structures • Monetary compensation for finding another alternative (rental costs, living expenses, income restoration costs, transport costs)
3. Loss of trees and crops		
3.1 Loss of trees and crops	• Legal holder / Owner/tenant/untitled	• Notice for permanent harvest and seasonal crops before damage • Compensation for standing crops based on an annual crop cycle at market value; • Compensation for perennial crops and fruit trees at the annual net market value of the product, multiplied by the remaining productive years. • For olive trees: the feet will be moved by the project, in addition to the replacement value.
4. Loss of Revenue		
4.1 Permanent or temporary loss of sources of income	• Permanent and/or occasional agricultural workers, • Breeders who may experience difficulty in accessing the usual grazing areas during work or maintenance;	Compensation for income restoration: • Compensation of sufficient wages (3 to 6 months) to find another job for agricultural workers • Avoid the olive picking period in construction works

Type of loss	Category of affected persons eligible for compensation	Compensation strategy
	• People whose economic activities will be disrupted by the project: trade in local products, transporters of agricultural workers, water transporters, etc.	• Assistance to herders to find alternative access to grazing areas • Assistance to mobile traders to set up in other areas and encourage them to set up in markets (ensure continuity of their activities) • Compensation for disruption/cessation of sources of income
5. Assistance to vulnerable affected people		
5.1 Impacts on vulnerable people	• Households below the poverty line, • female heads of household alone, • People with disabilities, • elderly people living alone, • people with chronic diseases, • families without support • unemployed graduates, • unemployed people without training, • as well as any other person who will be considered vulnerable by future detailed socio-economic studies	Vulnerable people are entitled to additional assistance: • Transportation, • Financial aid, • Training, • Facilitation of access to microcredits and existing government programs
6. Other compensation mechanisms		
6.1 Amicable negotiations (purchase)	Can be carried out with land owners or informal occupants	Negotiations must be done in a transparent manner, at a fair price and without intimidation. Their result must not have a negative impact on the economic and financial conditions of the affected person

5.6. Compensation calculation methodology

The compensation rate must be per the replacement cost of the losses suffered following WB's standards. Replacement cost is the valuation basis for determining the amount sufficient to replace losses incurred and cover transaction costs.

For agricultural land, the replacement rate represents:

- ✓ The market value, pre-project of nearby land with production and use potential similar to the affected land;
- ✓ The cost of preparing cultivable land and
- ✓ The cost of any registration and transfer fees.

For land located in urban areas, the cost of compensation represents:

- The pre-project market value of land of the same size and use, with similar or improved infrastructure and public services and located near the affected land, adding,
- The cost of registration and transfer taxes.

For the loss of access to services such as grazing, as it is difficult to assess or compensate in monetary terms, STEG must establish access to equivalent and culturally acceptable resources and income.

When the national legislation does not provide for compensation at a level corresponding to the full replacement cost, the compensation under the national legislation will be supplemented by STEG to make up the difference with the replacement cost in force.

6. PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

6.1. Public Consultation

The Environmental and Social Standard 10: Stakeholder Engagement and Information Disclosure (ESS10) applies to the borrower's ongoing engagement activities throughout the project life-cycle.

In addition, a Stakeholder Engagement Plan (SEP) has been prepared as part of actions completed before project appraisal. This SEP states the requirements and processes for STEG to manage and facilitate future engagement through the Proposed Project's life in Tunisia.

It is a guide to engagement focusing on stakeholder identification, consultation planning and execution, including providing information and recording results and commitments by STEG to stakeholders. The SEP defines a technically and culturally appropriate approach to consultation and disclosure, and aims to improve and facilitate decision-making, create a platform for communication that actively involves and fosters a common understanding between all project stakeholders, and ensure that all groups are provided sufficient opportunities to voice their opinions and concerns, which may influence project decisions. The SEP is also useful for managing communications between STEG, their proposed project sponsors, project beneficiaries and project-affected persons. Along with the ESIA, the SEP can be consulted and disclosed on STEG and the World Bank's websites.

The preparation of the SEP is supported by an engagement process that includes stakeholder identification, analysis and mapping, engagement planning, and disclosure of information to interested and affected stakeholders. The SEP will be updated as project development proceeds. This is particularly the case after stakeholder ESIA review, project appraisal, and final route selection. The SEP provides for tools such as the Stakeholder Data Base as the means for ongoing maintaining ongoing documentation in these areas. Of note, STEG will ensure that a grievance redress mechanism (GRM) is established for the Project, as described in ESS10, which is culturally appropriate and accessible to project-affected persons and considers the availability of judicial recourse and customary dispute settlement mechanisms.

The first public consultation related to the Project was held on June 8, 2021 in the Governorate of Nabeul with the presence of the authorities, public administration representatives, ELMED, the ESIA Consultants (IDEACONSULT) and other stakeholders. This meeting collected their concerns and introduced the relevance of this strategic Project for the region and the country.

After this first contact, the Consultant initiated interviews with the regional and local authorities during July through December 2021. These interviews focused primarily on providing information about the landing points and the underground part of the Project (the cable and the substation of Mlâabi).

During these public consultations, the Consultant met with the Municipality of Menzel Temime (The Delegates and its Omdas), the Municipality of Menzel Horr and other public services in Nabeul (Agriculture, STEG, Forest, AFI Agency, Regional Development Agency in Nabeul, etc.).

The subject of these interviews was to present the three alternatives for the landing point of the Project and collect their suggestion and comments and present the other options for the underground cable between the proposed landing point in each delegation (Kélibia, Menzel Temime and Menzel Horr) and the location of the Mlâabi sub-station.

To strengthen the participatory process, the Consultant organized public consultations in each of the four concerned Governorates, in coordination with STEG, during February-March 2023. The specific objectives of public consultation sessions include:

i. Presenting the main results of the ESIA, the RF and the SEP;
ii. Collecting opinions, comments and recommendations from stakeholders, including on draft project alternatives;
iii. Describing and considering the different feedbacks;

Targeted audiences include:

iv. Representatives of the Regional Authorities: Governorates (Nabeul, Ben Arous, Zaghouan and Manouba);
v. Representatives of the Regional Directorates of Agriculture (and Forests), Equipment, Energy, State Domains, Environment, ANPE, APAL, Culture and Heritage:
vi. Representatives of Local Authorities, including those of the Municipalities concerned;

vii. Representatives of Civil Society: NGOs and other associations active in the field of environment and local development;
viii. Representatives of the local populations/communities.

During these public consultations, particular attention was given to the potential impacts of the Project in terms of physical and economic resettlement, with a reminder of the requirements of the World Bank in this area and of the Tunisian regulations applicable to the Project, in particular the new decree-law n°2022-65 of 19 October 2022 and Decree of 30 May 1922 related to the construction, maintenance and operation of electric power lines which is still valid.

For this purpose, STEG representative recalled during these meetings that power transmission line projects do not require any expropriation but rather temporary occupation in accordance with Decree of 30 May 1922, that this Decree allows the State to cross private properties without any need for land acquisition and that no property transfer or expropriation will be carried out for this kind of project but only compensation for loss of crops and temporary land occupation (easement) according to the requirements of ESS5.

In addition, STEG is conducting an administrative consultation with several ministries and administrations for the OHL component to get their opinion about the proposed line route.

The ESIA study describe and consider the feedback provided by the public and the specific stakeholder engagement process. Records of stakeholder engagement activities are summarized in Annex 3.

6.2. Information Disclosure

In the first stage, information on the Project was limited to the meetings held with the regional authorities (Governorates and delegations) and the notice of inquiry displayed in the headquarters of the delegations. This is established by the Ministry of Industry, Mines and Energy (Ministry supervising STEG) pursuant to the decree of May 30, 1922 (see Figures in Annex 3).

The Notice of Inquiry posted in Arabic and French provides some information about the ELMED Project and states that:

- The technical file relating to the Project, including the list of private owners concerned by the passage of the line will be made available to the public, at the headquarters of the governorate of Nabeul, from the publication of this notice of inquiry and until at the end of a period of three days from its insertion in the Official Journal of the Republic of Tunisia.
- The interested parties will be able to read this file and submit their observations or possible complaints to the governorate concerned.

Related to this, the Project Proponent received responses from the stakeholders involved in the Project to the correspondence sent by the Ministry of Industry, Energy and Mines. The synthesis of the different opinions is presented in the following table.

Table 11: Synthesis of the different opinions of consulted stakeholders

Date	Stakeholder(s)	Opinion
September 22, 2022	Regional Director of State Domains and Lands Affairs (Nabeul)	- Assign a representative from STEG to participate in the necessary topographic survey - Provide the plans of the Project's perimeter of intervention
October 06, 2022	Minister of Interior	- The need to meet international safety standards - Carry out the work at a distance of 25 m from the axis of regional road 27 and 20 m from the axis of other roads - Take into account the existing irrigation channels around the Mlâabi dam - Coordinate with the different competent administrations for the installation of the water chambers

Date	Stakeholder(s)	Opinion
October 10, 2022	Representatives of Industrial Property Agency (AFI)	Minutes of meeting: - The agency agrees to the granting of a subdivision for the station in the Mlâabi in the industrial Zone - The plot boundaries for the station have been determined - The lines should not cross the allotments in the industrial estate
October 24 2022	Minister of National Defense	- The Ministry has no objections to the implementation of the Project - Send the details of the project components to the Consultative Commission for Maritime Activities in accordance with Decree No. 1836 of September 15 1997

Since February 2023, STEG has set up a complete team for the management of the Project and has organized in each of the four governorates a day of information and consultation of stakeholders on the Project as well as a meeting of information and consultation of NGOs and institutions active in the field of the environment. The results of these consultations are summarized in the previous chapter.

In addition, the French version of the ESIA summary (in two parts) has been published on the STEG website (www.steg.com.tn) for wide dissemination, pending the finalization of the environmental and social studies reports and their publication on the websites of STEG and the World Bank.

7. GRIEVANCE REDRESS MECHANISM (GRM)

Affected persons can use different channels to lodge their complaint:

- The STEG District
- The STEG Citizen Relations Office (BRC): this office is based in Tunis and the telephone and e-mail contact details are available on the STEG website. A service number made available to the general public on the STEG website.
- The office of the head of the delegation.
- Local commercial agencies in each of the governorates.
- The DEQ project managers: during the construction phase, they are privileged interlocutors for people who wish to express their complaints.
- The Equipment Department (DEQ): when STEG publishes an opinion on the performance of an impact study on its website, it specifies that "all comments or complaints made by citizens concerned by the passage of lines on their properties" should be addressed to the DEQ.
- The communities can also address their complaints to the local authorities who should normally relay them to STEG.

The Facilities Department then handles grievances in collaboration with the Legal Department and the legal departments of the Districts.

It happens that some owners refuse the installation of a pylon in their field. These cases are rare according to STEG. When they occur, they are managed by an internal STEG Committee which is in charge of dealing specifically with cases of opposition which seem irresolvable. If it can, STEG will try to deflect the pylon to avoid the field but if this is impossible, it may take legal action against the owner who refuses to comply with the interministerial decree. If the amount is disputed, the owner can enter into negotiations with STEG to resolve the disagreement amicably. Most of the time, amicable negotiation makes it possible to end the conflict. If necessary, he can turn to the competent courts which should a priori be able to offer an "impartial resolution of disputes.

For this project, it is recommended to strengthen this mechanism with procedures specifically dedicated to resettlement. This mechanism will allow STEG to formalize its complaints management mechanism for implementing Resettlement Action Plans. Each complaint and its resolution will be documented in a register kept by the RAP implementation unit.

These procedures will involve:

- ✓ The prior preparation of a standard **complaint form** and a database at the level of each sub-project;
- ✓ The organization of public awareness sessions on the procedures for submitting complaints;
- ✓ The handling of any grievances and claims.

However, if the nature of the complaint falls outside the prerogatives of the RAP implementation unit and its limits of intervention, the complaint will be forwarded to the Legal Affairs Department, which will deal with it appropriately.

8. RESETTLEMENT PROCESS

8.1. Identification and compensation of Populations Affected by the Project

The process of identification and compensation will follow these steps:

❖ **During the finalization of the detailed pre-project studies**

The Resettlement Action Plan (RAP) will be conducted in accordance with World Bank ESF, and in particular ESS-5 and national regulations, following the Resettlement Framework provisions.

In agreement with ESS5, the RAP will:

- Include alternatives considered to avoid/minimize resettlement impacts;
- Include the cut-off date to be established and disseminated;
- Identify PAPs and vulnerable peoples and groups;
- Conduct baseline socio-economic studies;
- Conduct household-level census survey;
- Make inclusive consultations with PAPs, including female stakeholders and vulnerable groups;
- Include the identification of the people affected by the project and the socio-economic census which makes it possible to identify all the owners, operators and other affected people and the consolidation of this database in a computerized manner;
- Consider people eligible according to World Bank criteria even if they are not eligible under Tunisian regulations;
- Follow a participatory approach to consultation with affected people and stakeholders;
- Ensure close consultation with regional and local authorities to propose a resettlement plan that also respects the national process (national commission, expropriation order, building authorization order);
- Inform the affected people once the list is finalized of the details of the proposed compensation amounts;
- Ensure the acceptance of the affected population (or at least the majority) before applying for the line construction order by presenting the results of the RAP at the local level.

❖ **Implementation of RAP and payment of compensation**

The start of work on each section of a line or each pylon can only be done once the people affected in this section have been informed and compensated.

In addition, the payment of compensation will follow the phasing of the work but must be made sufficiently long (3 months) in advance:

✓ Permanent losses: Compensation will be made before the work is carried out. It concerns:
- Land for the landing station: STEG buys the land for the landing station through amicable negotiations.
- The bases of the pylons: STEG compensates the people affected based on the full cost of the land and signs memorandums of understanding with the PAPs.

✓ Temporary losses: STEG will compensate people affected by temporary access opening works based on the RAP estimate. This concerns the following works:
- Access
- Installation of pylons
- Cable pulls
- Line maintenance

✓ Permanent aerial easements

✓ Additional compensation: STEG undertakes to pay any additional damage due to the work and not covered by the compensation received by the person affected (greater damage or damage due to several passages spaced out over time, etc.).

8.2. Implementation process

The table below proposes an action plan for managing social issues related to local communities and land use (Extracted from the ESMP).

Table 12: Action Plan proposed for the management of social issues related to local communities and land use

Environmental/Social Component	Potential Impacts	Sources of Impact	Management Measure	Implementation Timing [Responsibilities]	Performance Indicators	Costs
Project Development Phase						
Land Acquisition, Restrictions to Land Use and Involuntary Resettlement	• Risk of non-identification of PAPs • Gaps in Entitlement Framework (focus on legal compliance/ informal settlers) • Lack of focus/gaps in livelihood restoration • Unmitigated social conflicts • Absence of social license to operate and community support • Lack of compensation for physical/economic displacement	• Incorrect design of the OHL • Line route designed without consultation with stakeholders (authorities, local communities, NGOs, etc.)	• **Develop and implement an ESS5-compliant Resettlement Action Plan (RAP) based on the Resettlement Framework (RF)** • Identify actual impacts and PAPs (landowners/users, land use, valuation, etc.) Effective participation of local stakeholders and PAPs and authorities in the entire process	RAP is to be developed at least six months before the start of the construction phase [STEG]	• All PAPs, including informal settlers, are consulted and compensated before the commencement of construction works • Absence of complaints from stakeholders and PAPs • RAP adopted before construction works commencement	Development of Resettlement Framework budgeted in TA Project Development of RAP, including LRP: $ 90,000
Pre-construction and Construction Phase						
Land Acquisition, Restrictions to Land Use and Involuntary Resettlement	• Permanent impacts related to the OHL, linked to the (i) economic displacement of farmers within the RoW of the OHL (with or without legal compliance such as farmers on state-owned land), due to loss of agricultural land for the bases of the pylons and/or restriction of access to farming; (ii) restriction of access to use of land below the OHL for construction purposes (aerial easements). • Potential permanent impacts related to the converter station and substation sites: - CS Mlaabi: Potential economic impacts on the workers (max. 5-	• Corridor vegetation cutting and clearing for the installation of towers (OHL) • Earth movements • Construction yards • Construction of access roads • Exclusion/safety zone along RoW	• Clearance and vegetation removal activities are to be restricted to the minimum area • Full implementation of the RAP before the commencement of civil works • Monitoring and updating the RAP/LRP: socio-economic baseline that screens and identifies PAPs, additional assistance for severely affected persons/ vulnerable groups, compensation at replacement value, reinstatement after construction etc. The borrower to ensure full compensation is paid to PAPs in	Development before, and implementation during construction phase • Development: Contractor • Approval and control: STEG	• All PAPs fully compensated • Absence of non-compliance reports • Number of complaints received from stakeholders • Number of public grievances	Included in the cost budgeted in the Resettlement Framework and to be updated in the RAP

Environmental/Social Component	Potential Impacts	Sources of Impact	Management Measure	Implementation Timing [Responsibilities]	Performance Indicators	Costs
	6 workers) of the private agricultural company (Errouki), currently conducting fodder cultivation and cattle raising. - Grombalia Substation: This substation will be the subject of a specific ESIA and part of the project components covered by the RAP prepared and implemented before the commencement of works. Temporary losses/agricultural damage: linked to access to the bases of the pylons, installation of the pylons and the pulling of the cables. This will cause a loss of mainly agricultural and less important commercial sources of income. Impacts on structures are limited but possible but not identified at this stage.		compliance with the RF and RAP before the commencement of civil works.			
Decommissioning phase						
Land Acquisition, Restrictions to Land Use and Involuntary Resettlement	• Temporary use of land and restoration of land use during decommissioning activities	• Corridor vegetation cutting and clearing • Earth movements • Construction yards • Construction of access roads	• Clearance and vegetation removal activities to be restricted to the minimum area • Strictly follow procedures of the RF and RAP • Ensure full compensation is paid to affected persons in compliance with the procedures of the RF and RAP	Development before, and implementation during the decommissioning phase • Development: Contractor • Approval and control: STEG	• All potential affected persons (PAPs) are fully compensated • Absence of non-compliance reports • Number of complaints received from stakeholders (authorities and civil society) • Number of public grievances	Included in the decommissioning contract

9. MONITORING AND EVALUATION OF THE RESETTLEMENT PROCESS

Monitoring and evaluation are key components of resettlement actions:

- Monitoring the preparation and implementation of Resettlement Action Plans to ensure that the procedures comply with the provisions and conditions set out in this RF, Tunisian legislation and World Bank standards;
- Monitoring the compliance of the procedures and measures implemented to quickly remedy the difficulties encountered during the implementation of the RAP;
- The establishment of an information system that makes it possible to follow up on compensation and complaints. This will include a digital database of affected assets and people.

To do this, it is recommended:

- ✓ Internal monitoring at STEG;
- ✓ External monitoring (by external experts), and
- ✓ A final audit of the implementation of the RAP.

A semi-annual RAP implementation report will be submitted to the World Bank.

10. MODALITIES AND RESPONSIBILITIES FOR IMPLEMENTING THE RESETTLEMENT PLAN

Under the terms of the detailed technical studies resulting in the final choices of the line routes (underground line and overhead line), STEG will be called upon to draw up a detailed Resettlement Action Plan (RAP) and its implementation.

In February 2023, STEG set up a project team of about twenty experts, mainly from the DCEQ (see figure below), among which the following experts will oversee the implementation of the ESMP and RAP:

- Authorizations and Permits Expert;
- Legal Affairs Experts ;
- Environmental Expert;
- Risk Management Expert;
- Safety and Health Expert.

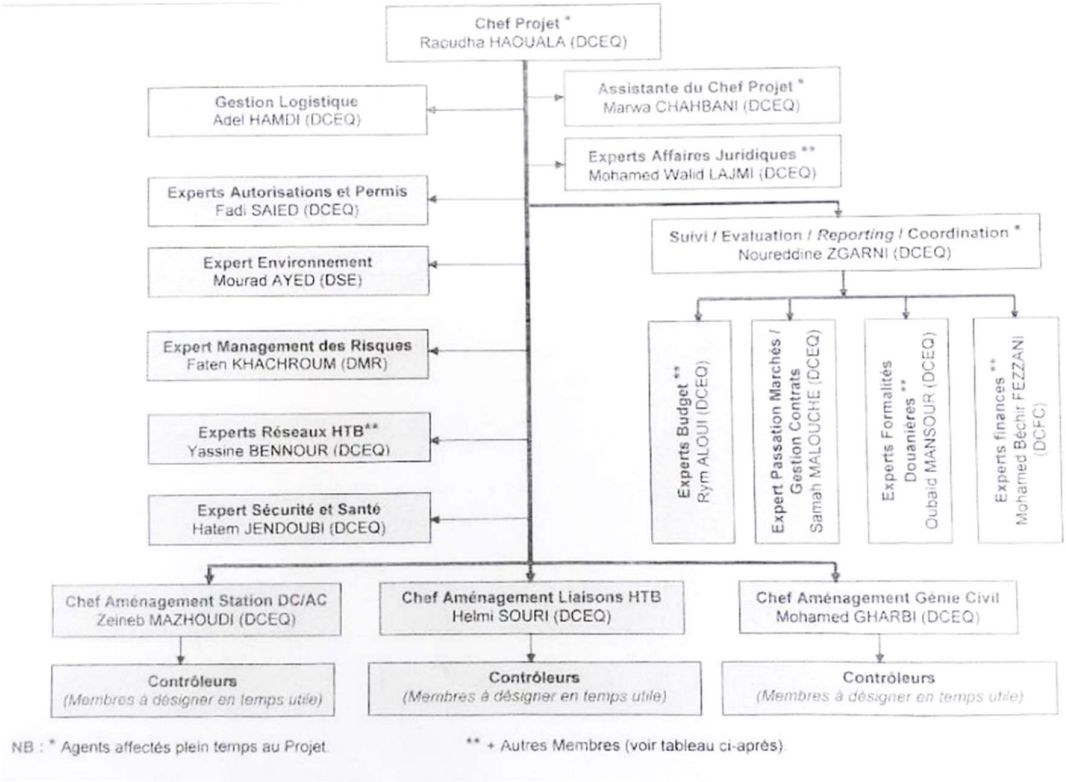


Figure 24 : Organization chart of the Project Team assigned by STEG

This team would need to be reinforced by a Gender and Social Inclusion Expert who would oversee the coordination and implementation of the measures adopted under this component (for both ESMP and RAP activities implementation).

It is proposed to create a "RAP Implementation Unit" that can be composed by:

- A project manager, sociologist or other population resettlement specialist and good local context knowledge. He/She will be responsible for guiding and monitoring the implementation of the RAP;
- Representatives of the DCEQ (who will monitor and report to the World Bank);
- Representatives of the Legal Affairs Department for the follow-up of the "authorizations" and "Permits" aspects and the processing of grievances not resolved amicably;
- A database manager, responsible for updating the databases of listed persons and assets.

The main missions assigned to the RAP Implementation Unit are as follows:

- ✓ Update/instruct data from demographic, agricultural, land and property surveys;
- ✓ Develop the final list of PAPs;
- ✓ Organize the holding of negotiations on compensation with the PAPs;
- ✓ Draw up and have the compensation certificates signed;
- ✓ Organize the payment of compensation and the release of rights-of-way;
- ✓ Monitor the resettlement of PAPs;
- ✓ Provide specific assistance to vulnerable groups before, during and after resettlement ;
- ✓ Prepare all the documents necessary for the implementation of the RAP: notes and reports, etc.;
- ✓ Constitute the archiving of project documents.

11. PUBLICATION AND DISSEMINATION OF THE RF

This RF will be published on the websites of STEG and the World Bank.

Annexes

Annex 1 – Land use and typical landscapes in the study area

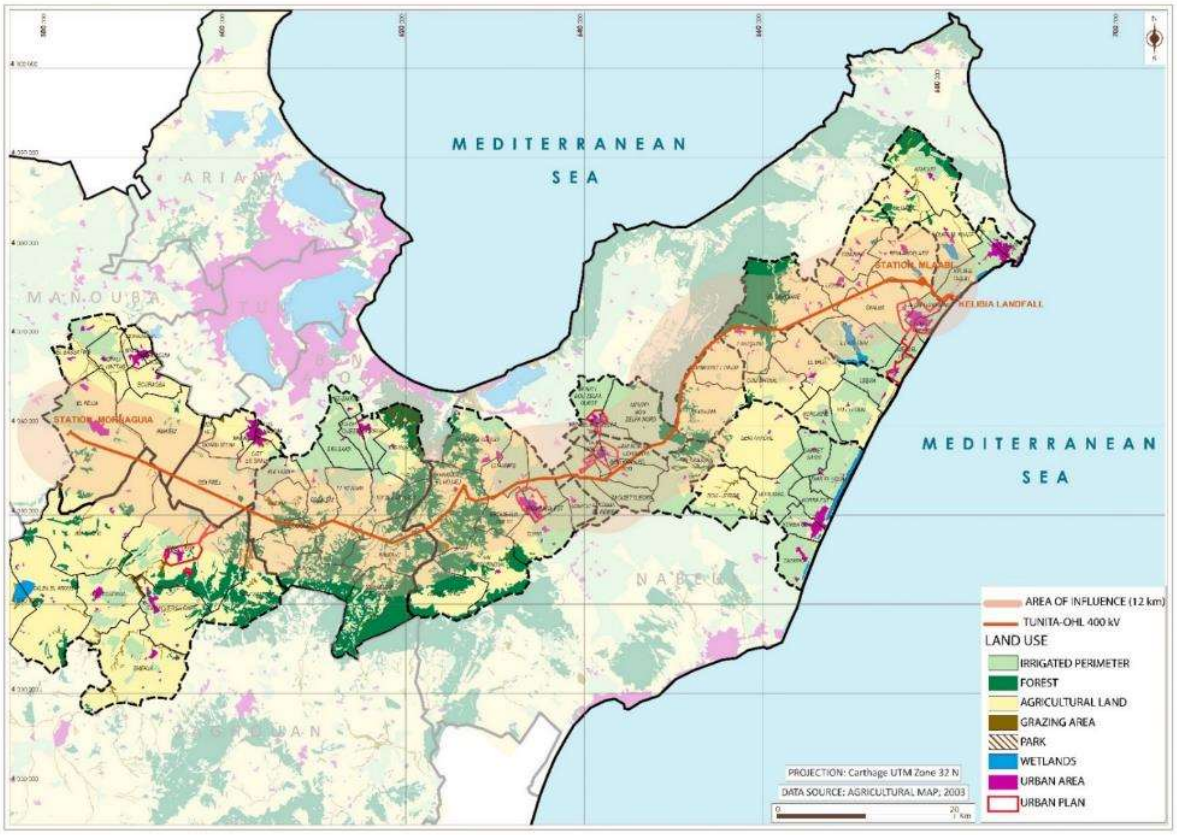


Figure 25 : Land use map

Based on the observations made in field, the following landscapes have been identified:

Landscape	Key characteristics
Residential and commercial (including industrial areas)	landscape dominated by human activities housing, commercial, roads and traffic and industrial activities 

Landscape	Key characteristics
	
Agriculture/annual crop	Areas of agriculture Medium to large scale farming land Annual crop (cereal) within an open landscape 
Agriculture/arboriculture	Areas of agriculture: citrus orchards around Menzel Bouzelfa, Beni Khalled and Grombalia Small to medium scale land An area for citrus safeguarding 
Forest and scrubland areas	Areas occupied by forest and scrub cover on the mountains between Nabeul, Zaghouan and Ben Arous

Landscape	Key characteristics
	
Wetlands	Natural and artificial wetlands (constructed for drinking water supply and agriculture) in the Cap Bon region 

Annex 2 – Detailed descitption of the areas crossed by the OHL

Section	*Description of the crossed areas*
S1-S2	✓ Section located in the Imada of Beni Abdelaziz (Menzel Temime Delegation, Nabeul Governorate); ✓ S1 is located inside the site proposed for the converter station of Mlaabi ✓ S2 is located inside an olive tree plantation (a new one). The installation of a pylon at S2 will probably require the uprooting of one or more olive trees in this plantation (see image below); ✓ Houses identified in the Mlâabi area are located at a distance of approx. 270 m from S2. ✓ STEG will respect the commitments made with the AFI not to cross the industrial zone of Mlaabi by the OHL.  **Figure 26 : Olive tree plantation near the Mlâabi zone**
S2-S3	✓ Section located between two Imadas (Beni Abdelaziz and Skalba); ✓ Rural zone between the two points, large plain;

	✓ Open territory with easy access and presence of several routes that can facilitate works during the construction phase of the project; ✓ The principal activity in this area is agriculture: mainly cereal farming (wheat, barley, fodder, etc.);  **Figure 27 : Cereal cultivations in the area proposed for the OHL line** ✓ For Alternative 1, the line will cross a dry wetland (probably dried by human actions as we can see on the picture below the presence of several artificial drainage channels);  **Figure 28 : Dry wetland crossed by the OHL line** ✓ S3 is near two small villages: 750 m from El Gobaa and about 300 m from Ghriss; ✓ The line will cross agricultural lands. ✓ Alternative 3 will pass near Jbel Sidi Abderahmen Moutain on a State lands.
S3-S4	✓ Section situated between Skalba and Lezdine Imadas (Menzel Temim Delegation, Nabeul Governorate); ✓ Same landscape as the one observed before (from S2 to S3), a rural area and lands occupied by cereal crops;

	✓ Presence of sheep and cattle breeding in this area; ✓ No environmental constraints to report for this section. The most relevant issue is the passage through private lands (farmers), with consequent need to propose compensatory measures for PAPs (populations affected by the project);  **Figure 29 : Existing road between El Gobaa et Ghriss (presence of an MV line power) and the relief in the area concerned by the project (mostly agricultural use)**
S4-S5	✓ Section located between two delegations (Menzel Temime and EL Mida) and concerns 4 Imadas (El Ouediane, El Asfour, EL Mida and Oum Dhouil); ✓ The line route follows the regional road RR43 with intersection (36°46'55.91"N, 10°52'16.03"E); ✓ Same relief as the other sections described above with the same land use (cereal farms, vast plain, etc.); ❖ ***Nearby OHL lines in the same area*** ✓ At 300 m from the proposed line route (in the north), we identified the presence of two HV power lines,: the 90 kv line Sidi Abdelmonaam Menzel Temime-Grombalia and the 90 KV line Sidi Abdelmonaam Menzel Temime-Korba (see photo below); ✓ These two lines confirm the possibility of installing the OHL line of Mlâabi-Mornaguia in this area (if no other constraints exist). Normally STEG should not have problems with PAPs (farmers) to install the pylons in their lands in this section;

Figure 30 : The two 90 KV power lines between Menzel Temime, Korba and Grombalia

Figure 31 : Pylon inside an agricultural area with its covered surface,

As we see the owner (farmer) can still use his land even in the area directly under the pylon (but only for annual crops but not for arboriculture)

❖ ***Presence of a gas pipeline***

✓ At a short distance or directly in correspondence with the proposed route of the 400 kv OHL line (represented in green color in the image below), we observed the presence of some markers that signal the existence of a gas pipeline (SERGAZ Company) : these markers are located at points P16 (36°46'55.91"N, 10°52'16.03"E) and P17 (36°46'35.81"N, 10°52'1.26"E) (see image below);

The alternative route chosen (Alternative 3) makes it possible to avoid this major constraint.

Figure 32 : Presence of a gas pipeline near the area proposed for the OHL line at P16 and P17

Figure 33 : Markers for the gas pipeline Algeria- Italy (SERGAZ Company)

✓ At 2 km from point P17, a station for the same gas pipeline is located at 50 m from the line route proposed for OHL Mlâabi-Mornaguia.

Figure 34 : The Gas station observed (36°45'17.83"N, 10°51'1.92"E)

- ✓ More details related to this pipeline are needed (STEG should request from SERGAZ) in order to adjust the line route proposed for the Mlâabi-Mornaguia project. After the review of this report, STEG explained that its technical services have already studied all possible interference between the two projects without finding any problem, so this pipeline is not an issue anymore. In any case, the Consultant requests the pipeline route of SERGAZ (a kmz file) to validate this finding and verify that the minimum distance between the two projects is respected.

❖ ***RAMSAR site (Lebna Dam) N°1698***

- ✓ The biggest artificial dam built in Cap Bon in 1987;
- ✓ The dam provides water for irrigated crops in Lebna (cereal cultures, fodder, etc.);
- ✓ The RAMSAR site is close to the proposed line route (at approximately 1.5 to 2 km).
- ✓ The Lebna Dam is also classified as an IBA site (TN042) according to its importance for migratory and nesting waterbirds (number exceed 20.000 birds);
- ✓ Since then, this dam has been considered a favorite destination for many waterbird species, which migrate from Europe to North Africa. Some of these species are considered as endangered/vulnerable, especially the Marbled Teal (*Marmaronetta angustirostris*), the White-Headed Duck (*Oxyura leucocephala*), the Ferruginous Duck (*Aythya nyroca*), the Glossy Ibis (*Plegadis falcinellus*), the Eurasian Spoonbill (*Platalea leucorodia*), the Little Bittern (*Ixobrychus minutus*), the Western Swamphen (*Porphyrio porphyrio*), etc.;
- ✓ This site has a significant role in the protection and conservation of Palearctic migratory birds;

➔ This site is a biodiversity hotspot, especially for waterbirds, and the construction of the 400 KV OHL line in this area may impact these birds (electrocution and collision, habitat changes caused by works and the installation of pylons).

➔ Recommended to ensure mitigation measures to protect birds.

For this line section, the landscape is still the same as the other parts observed above: an agricultural region dominated by cereal crops (rainfed in winter and irrigated in summer) with a good acces using roads and routes.

Figure 35 : The Lebna Dam: a RAMSAR site and an IBA area

Figure 36 : Protection markers on an MV line near the line route proposed for the Mlâabi-Mornaguia project

S5-S6-S7	✓ Section located in the Imada of Oum Dhouil (EL Mida Delegation) and in the Imada of Beni Ayache (Korba Delegation); ✓ Same landscape, without any constraints (open field with agricultural activity dominated by cereal crops and some olive tree plantations); ✓ A dam located at 500 m from the line route: the Chiba Dam; ✓ It is not an IBA site but some waterbirds species have been reported often, such as the White-headed duck (*Oxyura leucocephala)*[1] and the Red crested Pochard (*Netta rufina*) observed in 2015 and reported by the AAO (Association les Amis des Oiseaux) association[2];  **Figure 37 : The Chiba Dam (36°41'41.99"N, 10°45'48.78"E)** ✓ At point (36°41'35.39"N, 10°46'27.33"E) the proposed line route crosses a water pipeline (see photo below);

[1] Cited in the ''Elaboration du Registre National des Espèces Sauvages REGNES 2010'' Study
[2] https://northafricanbirds.wordpress.com/page/10/

Figure 38 : Water pipeline near the Chiba dam

- ✓ From S6, we observe a change in the landscape, arboriculture is more present and dominates the area (many irrigated perimeters, olive tree plantations). The installation of pylons in this section will probably require uprooting some olive trees;

Figure 39 : Olive tree plantations near the dam

S7-S8	✓ Located inside the Imada of Errahma (Menzel Bouzelfa Delegation); ✓ This section passes through hills with difficult access;

	✓ It is a rural area and the main activity observed is agriculture (olive tree plantations); ✓ The line route crosses some scrubland and maquis area, where we can observe species such as *Erica multiflora, Pistacia lentiscus, Phillyrea angustifolia* and other. ✓ To install pylons in these areas, STEG must request an authorization from the National Authority of Forest (Direction Générale des Forêts – DGF) in order to open access in the scrubland and maquis; ✓ No protected areas on this section, STEG must replace the uprooted trees and provide indemnities to farmers.  **Figure 40 : The section between S7 and S8, hilly land with natural vegetation (scrubland and maquis) and olive trees**
S8-S9	✓ A section located between two delegations: south part in the Imada of Bir Drassen (Beni Khalled Delegation) and north part in the Imada of Menzel Bouzelfa Nord (Menzel Bouzelfa Delegation); ✓ As the S7-S8 section, the line route will pass through a hilly area with the same land use (scrubland and maquis and some olive tree plantations); ✓ No specific environmental constraint in the area; ✓ The proposed line route crosses the existing 90 KV OHL line connecting Menzel Temime to Grombalia at point (36°39'12.48"N, 10°41'20.15"E);  **Figure 41 : Section S8-S9, land covered by natural vegetation (scrubland and maquis) and olive tree plantations**

S9-S10	✓ Located inside the Imada of Menzel Bouzelfa North (Delegation of Menzel Bouzelfa) and the Imada of Beni Khalled East (Delegation of Beni Khalled); ✓ From S9, we oberve a change in the land use: citrus become the principal crop or culture in the area both in Menzel Bouzelfa and Menzel Beni Khalled. The line will pass through fenced orchards; ✓ In this section, some pylons will be placed inside citrus orchards (around 4 if we consider a distance of 450 m between each two pylons); ✓ The main constraints in this section are the irrigated perimeters and citrus plantations: the area covered by the pylons (and its access route) will cause the removalof citrus and olive trees. Consulting stakeholders, especially PAPs, the CRDA Agency (Commissariat Régional au Développement Agricole) and the AFA Agency (Agence Foncière Agricole) on this issue is essential to estimate damage compensation related to the installation of pylons.  **Figure 42 : Line route between S9 to S10**
S10-S11	✓ The section is located between two Imadas in Beni Khalled : East and South from the same Delegation; ✓ The proposed line route is located only 90 m from an existing OHL line (the Menzel Temime-Grombalia 90 KV line); ✓ The area is exclusively agricultural with a high density of citrus trees especially in the southern part of the section; ✓ The second part is occupied by natural vegetation with the presence of a waste management center at a distance of 10 m from the line route. This waste transfer center is not an issue for the OHL line ✓ The line route crosses the regional road RR42; ✓ Similar to the section S9-S10, in this section some pylons will be placed inside citrus orchards and consequently cause removal of several trees.

Figure 43 : S10-S11 section: first plan open land with natural vegetation and second plan we can see the citrus plantations and presence of the 90 kV OHL line of Menzel Temime and Grombalia

S11-S12

- ✓ Located inside the Imada of Beni Khalled South;
- ✓ The line passes through agricultural land (mostly for cereal crops) and it also crosses a river;
- ✓ It will also cross some and scrubland;
- ✓ The line route still follows the existing 90 KV OHL line of Menzel Temime and Grombalia (at a distance of approx. 85 m);
- ✓ No other constraints were reported for this section, except an olive tree plantation near S12.

Figure 44 : The 90 kV OHL line in the same area

As we can see the owner/farmer still uses the area under ther pylon installed in his vineyard

S12-S13-S14

- ✓ The section is located between the Imada of Beni Khalled South and the Imada of Zaouiet Djedidi (Beni Khalled Delegation);
- ✓ An agricultural zone with a large presence of citrus and some olive tree plantations;
- ✓ The nearest houses are situated at a distance of more than 150 m from the line;

	✓ The main constraint in this section are the irrigated perimeters and citrus plantations; ✓ From the S12 point, the land is mostly occupied by citrus plantations with fenced orchards, windbreaks, solid fences, or barriers (metal or cement). Such plantations and irrigated perimeters can limit the installation of pylons and other facilities for the project. ✓ No other environmental constraints are reported in the area, except a watercourse near the proposed line route.  **Figure 45 : Land use in the S12-S13 area: houses near the line, olive tree plantations close to the river and the fenced citrus plantations**
S14-S15-S16	✓ Located within Zaouiet Djedidi Imada (always in Beni Khalled Delegation); ✓ An area characterized by its high production of citrus fruits; the main land occupation is citrus orchards. Pylons will be installed inside these plantations and may need the removal of some trees; ✓ This section is characterized by the presence of a small river near the proposed line route (about 50m); ✓ The line route crosses the road connecting Beni Khalled to EL Gobba; ✓ The S15 is located in a fenced area (a citrus plantation surrounded by a brick wall) and is to close to the cited watercourse above (only 25 m). The position of this point (S15) must be revised because

the line must not pass through a fenced private property as indicated by the Decree of May 30, 1992[3] concerning the installation, maintenance and exploitation of electrical transmission lines in Tunisia.

Figure 46 : Area crossed by the line route at S15: citrus plantations (with brick fence), a road and a MV line power near the watercourse

✓ A few houses are located about 80 m from the proposed line route (at S16 side);

[3] https://www.steg.com.tn/dwl/Textes_legislatifs_et_reglementaires_regissant_l_activite_de_la_STEG.pdf

Figure 47 : Area selected for S16: citrus plantations with fence

S16-S17

- ✓ A portion located in the Imada of Zaouiet Djedidi;
- ✓ Same land occupation: a lot of citrus plantations and irrigated perimeters. No other constraints are observed in this section, except a building (house, villa or other) at 50 m from the line route (36°37'28.11"N, 10°33'53.55"E);

S17-S18

- ✓ A section located between two Delegations: Beni Khalled (Imada of El Gobba) and Grombalia (Imada of Niano);
- ✓ Same landscape is observed, with the same type of vegetation (high presence of citrus plantations);
- ✓ The line crosses the regional road RR42.

Figure 48 : The road crossed by the line

On the left we observed a fenced plot with a concrete wall and on the right a windbreaks plantations and a MV power line (36°37'13.92"N, 10°33'30.85"E)

S18-S19

- ✓ A section located in the Imada of Niano (Grombalia Delegation);
- ✓ Around 80% of this section is located in a new olive tree plantation;
- ✓ The line route crosses a watercourse (near the S219, at 70 m);
- ✓ Some buildings are located at about 150 m from the axis;
- ✓ The main constraints in this section still remain the agricultural lands and irrigated perimeters.

	 **Figure 49 : Position of S18 (on the left) and the olive tree plantation (on the right, presence of an existing HV power line)**
S19-S20-S21-S22	✓ Section located in the Imada of Grombalia East (Grombalia Delegation); ✓ The line route goes outside the agglomeration of Grombalia and the area's vocation remains agricultural with a lower presence of citrus plantations but with more vineyards in the area (a characteristic of Grombalia); ✓ In addition to vineyards, other species are also practiced such as olive trees and fodder crops; ✓ The line crosses the C42 road (between Grombalia and Beni Khalled); ✓ The proposed route finds again the 90 KV ohl line of Grombalia-Menzel Temime and crosses it at (36°37'27.87"N, 10°30'53.74"E); ✓ Some houses and buildings are located near the line route (approx. 50 to 100 m); ✓ The pylon S22 will be placed inside an open private plot occupied by fodder crops; ✓ Some houses are located at 100 m from the line route; ✓ Except the private lands (vineyards, olive trees, etc.), this section does not present any particular environmental constraints.

Figure 50 : The area chosen for S22

Figure 51 : An OHL power line close to the proposed line route of Mlâabi Mornaguia,

As we can see a mitigation measure by adding perches to electricity pylons in order to reduce electrocution for birds (a nesting support for Storks) (36°36'44.09"N, 10°31'34.76"E)

S22-S23-S24	✓ The section is located inside the Imada of Chammes (Grombalia Delegation); ✓ The area crossed is agricultural: vineyards, olive trees and fodder plantations, with size of farms less than 3 ha; ✓ Some buildings are located near the line (S23 side); ✓ The line route crosses a railway line that connects Tunis to Nabeul at (36°37'1.01"N, 10°28'17.79"E); ✓ No other constraints to mention;  **Figure 52 : Section S22-S23-S24: an agricultural area (vineyards, olive and almond trees)**
S24-S25	✓ Section located between two Imadas: Chammes and Khanguet El Hojjej; ✓ Like the other sections, the area crossed by the line is agricultural and the main crops are olive trees, almonds, etc. ✓ The line route will pass over the A1 highway (36°36'18.16"N, 10°26'17.11"E); ✓ The S25 is located on a hill (on the other side of the A1 highway) covered by natural végétation: Aleppo pine, *Tetraclinis articulata* (Thuya de Berberie), *Ceratonia Siliqua* (Caroubier) and other species (scrubland);

Figure 53 : Landscape showing the vegetation in the area between S24-S25 (olive trees at the bottom and natural species)

- ✓ The area is characterized by the presence of an HV line near the proposed line route of Mlâabi Mornaguia (about 260 m, in parallel). This existing power line connects the station of Grombalia to the cement company of Carthage (located at Jebel Ressass, Ben Arous Governorate).

S25-S26-S27

- ✓ These summits are located in the sector/Imada of Khanguet El Hojjej (Grombalia Delegation);
- ✓ It is a forest area with some agriculture activities (olive trees, annual crops, etc.);
- ✓ It is a mountainous area with a hilly relief. The flat areas are occupied by agriculture, especially olive trees and vineyards while the hills are covered by natural vegetation (thuya, pines, carob, scrubland and other species).
- ✓ According to the local authorities: Delegate of Grombalia, Omda of Khanguet El Hojjej and the agent of the agriculture administration, lands in this area (Khanguet El Hojjej) are mostly state owned lands unlike the Chammes Imada (section S22-S23-S24) where land is in majority privately owned;
- ✓ On this section, the proposed line route still follows the existing HV power line of Grombalia-Cement plan of Carthage. The distance between the two power lines is 150 m for the S25-S26 section but it becomes only 35 m for the S26-S27→ STEG shoud confirm the feasibility of this especially with the interference problems and mutual impacts);
- ✓ No other constraints to be reported for this section.

Figure 54 : Landscape from S25 to S27 with the presence of an existing line power

	✓ At (36°34'54.35"N, 10°22'36.81"E) the line crosses the road that leads to Beni Ayech Village and an existing MV line power; ✓ No residential zones/habitations near the proposed route except the village of Beni Ayech located at 135 m from S27;  **Figure 55 : Left: the village of Beni Ayech, Right: the proposed area to install the S27**
S27-S28	✓ The most part of this section is located in the Imada of Kabouti (Mornag Delegation, Ben Arous Governorate); ✓ It is an agricultural area with olive tree plantations and annual crops (cereal); ✓ An area with hilly relief and the line route is close to Ressas montain (Djebel Ressas); ✓ The presence of two dams characterizes the area: the first one Elhamma Dam (at 1 km) and the second one Bakbaka Dam (at 700 m): the Little Grebe (*Tachybatus ruficollis*) has been identified on this site[4]; ✓ The line will cross scrubland areas:  **Figure 56 : Landscape around S28 pylon: agricultural lands (cereal and some olive trees) and natural vegetation (scrubland, lentiscus, rosemary, thyme, etc.)**

[4] study of counting of waterbirds in Tunisia conducted by the AAO association in 2010 and cited in the a scientific paper ''Importance Écologique Et Rôle Des Zones Humides Artificielles Du Nord De La Tunisie Dans La Conservation Des Oiseaux D'eau En Hivernage, 2008'' : https://www.researchgate.net/publication/282336873_Importance_ecologique_et_role_des_zones_humides_artificielles_du_nord_de_la_Tunisie_dans_la_conservation_des_oiseaux_d'eau_en_hivernage

Figure 57 : The ELHAMMA Dam (36°35'3.15"N, 10°18'11.20"E)

- ✓ Livestock sector is also present in this area;
- ✓ Some scattered houses around this section and the Merghna village near S28 (at 150 m from the line route);
- ✓ Access is ensured by a road that leads to the cement company of Carthage (located at 2 km from S28);

S28-S29	✓ This section goes through 3 Imadas (sectors) in the Delegation of Mornag: Kabouti, Djebel Ressas and Elkessibi; ✓ The section includes flat lands (agriculture) and hills (scrubland and natural vegetations); ✓ The main activity in this area is cereal crops with some olive tree plantations with the presence of a lake at 900 m from the line route; ✓ No habitation areas around the line route on this section except 3 or 4 houses located at 500 m from S29; ✓ The proposed line will cross an existing HV power line, the 225 KV line of Naasan-Sousse, at (36°34'10.73"N, 10°17'55.32"E), it will pass also a local road in 2 points (36°34'53.91"N, 10°15'16.83"E) and (36°34'55.31"N, 10°15'7.67"E) ;

Figure 58 : Landscape around point S29: annual crops, olive tree plantations and Djebel Ressas (36°34'56.14"N, 10°15'9.67"E)

S29-S30

- ✓ A section located between two Imadas: Elkessibi and Elgonna (Mornag Delegation);
- ✓ The area is mainly agricultural, with a mixture of cereal crops and olive tree plantations (especially on hills);

For Alternative 1, the S30 would have been passed close to the village of Borj Essougui: **the proposed line would have passed in front of an elementary school at a distance of only 10 m.**

However, the alternative route chosen (Alternative 3) makes it possible to **avoid this significant constraint**.

Figure 59 : The area around S30: a school on the left; the line (Alternative 1) will cross an existing LV power line near the road

S30-S31-S32	✓ This section will cross three Imadas in Mornag: Elgounna, Ain Rekad and Oudna; ✓ The area is mostly agricultural with some natural vegetation on hills; ✓ The line will pass near two small dams (at about 250 m);  **Figure 60 : The area between S30 to S32** ✓ No residential areas in this section.
S32-S33	✓ A section located between two Governorates: Zaghouan (Imada of Jebel Oust) and Ben Arous (Imada of Sidi Frej); ✓ The first part that crosses Jebel Oust is a hilly area occupied by agriculture (cereal crops) and scrubland; ✓ The line will cross the road leading to the Jebel Oust city and its industrial zone and railway line at (36°35'29.91"N, 10° 6'15.87"E); ✓ The area is also characterized by the presence of two HV power lines: the 225 kv of Naasan-Bir mcharga and the 225 kv of Mnihla-Bir Mcharga and the proposed line route will pass over these two lines at (36°34'57.92"N, 10° 7'26.90"E) and at (36°36'4.78"N, 10° 4'56.36"E); ✓ The line route will cross also Wad Meliane.  **Figure 61 : The area between S32 and S33: presence of a HV power line and a railway line and some buildings close to the line route of Mlâabi**

	✓ The line is located at 1100 m from the limit of the urban development plan PAU (Plan d'Aménagement Urbain) of Jebel Oust municipality; ✓ The principal activities in this area are agriculture (cereal crops and olive tree plantations) and industry, especially with the industrial zone in Jebel Oust.
S33-S34	✓ This section concerns two governorates: Zaghouan (two Imadas Jbel Oust and Ain Asker) and Manouba (Imada of El Fejja); ✓ The area is relatively flat and with good access and the main activity is annual agriculture (rainfed cereal) with some olive tree plantations; ✓ No residential areas near the proposed line route;  **Figure 62 : Lands near the S34: an open landscape with annual agriculture, the line route will pass through the road connecting El fejja to Jebel Oust**
S34-S35-S36	✓ The last part of the line route is entirely in Manouba Governorate (Imada of El Fejja) where the STEG station of Mornaguia is located; ✓ Many HV power lines exist in this area; ✓ An industrial zone is located 800 m from the line route; ✓ The line will cross agricultural lands (cereal crops); ✓ Two small lakes are located at 100 m from the line route.

Figure 63 : The area around S35 and S36 (annual crops)

Figure 64 : Existing HV power lines in the area

Figure 65 : The Mornaguia station (36°40'41.57"N, 9°55'25.05"E)

Annex 3 – Records of stakeholder engagement activities

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
June 8 2021	Governorate of Nabeul o Local Authorities o Governor	ELMED IDEACONSULT	Governorate of Nabeul	Local authorities and administration expressed their concerns regarding the Project, notably as regards: - The need to present the plans and technical data of the Project to the competent authorities before the start of the works to obtain the necessary authorizations/permits; - The consultants in charge of the technical and environmental studies must consult the local and regional authorities, in particular: the Regional Directorate for Equipment and Housing, the Coastal Protection and Planning Agency and any other service deemed important for the realization of the Project; - Presentation of a technical file of the boat to be used by the marine consultant with the characteristics of the equipment to be used during the investigation work on the submarine cable; - The possibility of creating a management unit at the regional level to ensure the progress of the studies and the realization of the Project; this unit could be chaired by the Delegate of Menzel Temime (location of the Mlâabi converter station and the underground cable).
August 12 2021	Local authorities, representative of Menzel Temime, local sectoral Chiefs (Omdas) and community representatives	IDEACONSULT	Menzel Temime	- To discuss the route of the underground cable in the Menzel Temime area (see Map 1), from the landfall of the cable to the converter station, specifically the two landfall options on the table. Key points on options are as follows: ✓ **Kélibia Landing Site (Option 1):** - No constraints for the rural section of the underground cable - Problems in the urban part of Menzel Temime: works envisaged will significantly impact the existing infrastructure, street furniture, economic activities and traffic. - The Urban Development Plan of Menzel Temime includes a planned ring road which could be a solution for laying the cable between the underwater part and the Mlâabi converter station. This option will avoid residential areas. However, the planned ring road is unlikely to be built before 2027 at the earliest. It would be better to avoid the urban center of Menzel Temime to avoid this problem. ✓ **Sidi Jameledine Landing Site (Option 2)**

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
				- No specific environmental constraints to report for this variant. - The width of the track leading from the landing point to the RR27 and the roads RR27 and RR45 is sufficient and does not pose any access problem. - Like variant 1, the Sidi Jameledine option crosses the urban area of Menzel Temime and Sidi Jameledine. The installation work will significantly impact these two agglomerations (traffic disruption, damage to street furniture, contamination, etc.). - It would be appropriate to modify the route of this variant is to follow the existing tracks outside the urban areas mentioned. The planned ring road option (described in the Urban Plan) is also possible for variant 2. ✓ **Menzel Horr Landing Site (Option 3)** - Presence of a RAMSAR site (No. 1707) on the cable crossing line (at the level of the landing point). - The urban part affected by the cable passage is the largest among the three variants proposed. This option will cause more damage to existing homes and infrastructure and disrupt traffic in the town of Menzel Horr and Menzel Temime. - This option seems to be the most restrictive from a terrestrial point of view, the variant passes through two very populated agglomerations and the costs related to the compensation of people affected by the works during the construction phase may amount to very high sums. It would be preferable to avoid the urban task of the two cities in question by following the tracks outside the agglomeration or the planned ring road (proposed in the Plan d'Aménagement et d'Urbanisme PAU de Menzel Temime). ✓ **Mlâabi Converter Station** - Presence of the Mlâabi dam: environmental constraint given the importance of this site for migratory birds (IBA site). - We must not forget another important impact on birds of all Ramsar-classified ecosystems, which risk flying over the station and the HV overhead lines. This is data to be considered by the appropriate measures in the ESIA. - A potential risk of pollution for Oued Tafekhsite - Absence of another alternative for setting up this station. - The AFI has not started development work on the industrial zone in question.

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
				- The Project will impact the agricultural activity practiced with the need to put in place compensation or compensation measures for the people affected.
November 30 2021	Delegation of Grombalia, Town hall of Grombalia and its technical services, Town Hall of Fondouk Jedidi, Head of sector/Imada Grombalia Est, Head of sector/Imada Niano, Head of sector/Imada Chammes, directorate of equipment and housing, representative of SONEDE, representative of STEG, agricultural services).	IDEACONSULT	Delegation de Grombalia	- For the administrations, it is necessary to target state lands (public) to install this new Project. This approach will make it possible to reduce/avoid conflicts with the populations in the event of passage on private land. - The route proposed by STEG for the 400 kV HV line is outside the area covered by the urban development plan of the municipality of Grombalia. The representatives of the town hall recommended the passage through state lands in order to reduce the impact of the line on private properties and to avoid conflicts with local populations, in particular in areas of arboriculture. - A buried alternative following the existing roads is the C43 road linking Menzel Temime to Menzel Bouzelfa and the one leading to Borj Cedria. The equipment management representative thinks proposing an underground cable instead of an aerial component is more appropriate. According to him, this alternative will minimize the impact on the landscape and the damage to private properties (agricultural land); an idea not shared by the STEG services which justify their choice (overhead line) by the high costs associated with the installation of an underground cable. - Fondouk Jedidi town hall: the municipal area encompasses 3 sectors or imadas (Fondouk Jedidi, Khanguet El Hojej and Chammes). The area of Khonguet El Hojej is dominated by state land (belonging to the state), unlike Chammes where most land belongs to individuals (private land). According to the town hall and heads of sectors, the proposed OHL will cause more problems in the Chammes area.
29 November 2021	Local Authorities of the Delegation of Menzel Bouzelfa	IDEACONSULT	Délégation de Menzel Bouzelfa	- According to the representatives of the delegation, the southern part of the delegation (ERRAHMA) is dominated by land owned by the State (state land) but illegally occupied by farmers (field crops: cereals). - As for the bordering area with Beni Khalled (AITHA): arboriculture is the main occupation (citrus and olive groves) with several orchards and irrigated perimeters (having a status of safeguard and protection by Tunisian law). The lands in this part of the delegation are mostly private lands. - According to the delegate, the social impact of the HT line will be greater in the second part of the delegation (bordering with Beni Khalled) than in the southern part (Errahma) because of the land. Farmers located in the border area with Beni

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
				Khalled often ask to be compensated differently by claiming new land equivalent to that impacted by the Project instead of receiving a sum of money.
December 1 2021	Local Authorities of the Delegation d'El Mida (Representatives, Maire's Office, Heads of Services of d'El Mida and Oum Dhouil).	IDEACONSULT	Délégation d'EL MIDA	- The delegation comprises six sectors or imadas and a single commune (El Mida). The total population of El Mida is 28,000 with approximately 8,000 households. - The main activities are agriculture (rainfed cereals, livestock) and some industries (textiles and agri-food). - The proposed route of the line is outside the area covered by the urban development plan of the municipality of El Mida and crosses agricultural land (rainfed cereals). - The authorities request to consult the populations who will be impacted by the Project, and to define an indemnity and compensation process that meets their expectations. - In order to guarantee the acceptability of the Project by the local populations, the town hall representatives asked for the improvement of the existing electricity network (transition to the three-phase system).
December 10 2021	Representatives of Beni Khalled including: o Maire's Office, o Maire's office of Zaouiet Jedidi o Sectoral Chiefs of Beni Khalled, Sidi Toumi and Kobba Kebira o Local Infrastricture and Habitat Services o Agricultural Services Water Distribution	IDEACONSULT	Délégation de Beni Khalled Délégation de Zaouiet Jedidi	- The delegation of Beni Khalled is made up of two municipalities: Beni Khalled and Zaouiet Jedidi. - Stakeholders have expressed some concerns about the implementation of the Project according to the configuration proposed in the delegation of Beni Khalled: - Towards the southern part of the delegation, the town hall of Beni Khalled plans to develop an industrial zone and a residential subdivision (procedures in progress according to the town hall) over 50 ha and the 400 kV overhead line risks having a negative impact on the completion of the Project. They ask to move the route to the northern part of the delegation or even go directly through the delegation of Soliman. This point was widely discussed between the STEG services and the mayor, each party defended its Project (residential development vs 400 kV power line). - The town hall's primary concern is protecting homes (populations) and agricultural land (citrus orchards). - Representative of CRDA (agricultural services): according to him, the indemnification/compensation procedure practiced by STEG for electricity transmission lines does not meet the expectations of populations and farmers.

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
	Services (SONEDE) ○ STEG ○ Sanitation Services ''ONAS''			They consider that the sum granted to the affected people (270 Tunisian dinars or about 85 euros for each pylon installed). - The Beni Khalled area is crossed by a HT line (90 kV), this line since its installation has blocked the phytosanitary treatment operations, applied by plane, from the northern part of the region (Soliman). Citrus orchards behind the line (southern part of Beni Khalled) are no longer treated automatically (by plane) but manually by supplying phytosanitary products to farmers to apply directly to the trees. According to the agricultural services, the manual treatment did not achieve the expected results. The installation of a new HV line, along the route proposed by STEG, risks aggravating the situation by depriving other orchards of the aerial spraying operations of phytosanitary products. They recommend changing the preliminary route further south behind the existing line.
December 10 2021	Local Authorities of the Delegation of Korba	IDEACONSULT	Délégation de Korba	- Urban planning and passage of the overhead line in the delegation (towards the Beni Ayech area, northern limit of the delegation): the municipality of Korba has an urban development plan and the municipal area currently covers 18,436 ha. The sector or *imada* of Beni Ayech (*imada are* administrative division in Tunisia governorates are divided into delegations, which are further divided into sectors or *imada*), has a old and not updated development plan (only available in paper format). - The people met, particularly from the town hall of Korba, mentioned the problems encountered during the construction of the trans-med Project (gas pipeline) between Algeria and Italy. The compensation process has been the subject of several complaints and disputes from the people affected by this Project. - The area/sector of Beni Ayech is an agricultural area and the populations cultivate annual crops. - A recommendation expressed by the delegation and shared by the town hall is the improvement of electrification in the Beni Ayech area. According to the delegation, this area is poorly served by electricity with many cuts, especially in summer. Improving household electrification (switching to the three-phase system) could ensure the Project's acceptability among local populations.
December 30 2021	Local authorities of Kélibia Commune (Representatives of the Maire's Office)	IDEACONSULT	Délégation de Kélibia	- The main activities present in the delegation: fishing, agriculture (arboriculture and cereal growing), tourism, industry, etc. - The industrial zone of Menzel Yahia houses certain industrial units (packaging of sardines, tobacco, etc.).

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
				- The area chosen for the landing is located outside the area covered by the urban development plan of Kélibia but inside the plan of the industrial zone of Menzel Yahia. - The Delegate of Kélibia pointed out that the site chosen by ELMED for the landing of the submarine cable (near the industrial zone of Menzel Yahia) is an area which could contain certain archaeological and historical monuments. He asks that STEG consult the competent administrations, notably the National Heritage Institute (INP), and recommends carrying out investigations to ensure that the Project will not impact local cultural heritage. This information was transmitted to ELMED (meetings were organized between the INP, ELMED and IDEACONSULT and georadar investigations have since been conducted by the Technical Consultant COLENCO, the results of which are available in the archaeological study). - The representatives of the commune of Kélibia recommended that the impact of the Project on the port of Kélibia, the wetlands of the region, and the avifauna be carefully studied, in particular for the aerial component (although this part does not directly impact delegation).
October 10 2022	Representatives of : ○ Industrial Property Agency (AFI) ○ STEG	ELMED	AFI Nabeul	The main decisions were: - The agency agrees to the granting of a subdivision for the station in the Mlâabi in the industrial Zone - The plot boundaries for the station have been determined - The lines should not cross the allotments in the industrial estate
October 19 2022	Governorate of Manouba ○ Governor ○ General Secretary Manouba's Governorate ○ Delegate of Mornaguia ○ Maire of Bassatine ○ Maire of Mornaguia ○ Head of District STEG (Manouba)	ELMED	Governorate of Manouba	The local and regional authorities and the regional administration have expressed comments and recommendations on the Project, including: - The Project is very important for Tunisia, as it will strengthen the national electricity network in a challenging global energy context. - The local and regional authorities will support the implementation of the Project by facilitating administrative procedures and obtaining the necessary permits; - The need to present the technical details of the Project components to the competent authorities at local and regional Levels; - The consultants in charge of the technical and environmental studies must consult the main stakeholders; - To reduce/avoid possible conflicts with local communities and individuals, it will better target "State Owned Land";

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
	○ Regional Director (Ministry of Equipment) ○ Representatives of the Regional Directorate of: - Agricultural development - State Domains - Ministry of Energy			
February 22 2023	Governor, Delegates, Ministry of National Defense, Maritime Guard of Kelibia, General Directorate of Forestry (DGF), Industrial Land Agency (AFI), National Environmental Protection Agency (ANPE), Coastal Protection and Development Agency (APAL), Industry Promotion Agency (API), Regional Directorate of Equipment (DREH), Regional Commissariat for	ELMED, STEG, IDEACONSULT	Governorate of Nabeul	**Stakeholders' interventions** **i.** **Representative of the Regional Directorate of Equipment:** STEG has been given the necessary authorizations to conduct the necessary studies. A copy of the project route must be provided before the works start. **ii.** **Representative of the General Directorate of Forestry:** The Project's route crosses private and public forest areas, which requires the necessary licenses to be obtained before work starts. STEG could create an application for all petitions and a follow-up to avoid any disruption of the Project. A meeting between STEG and the GD of forestry could be organized. **iii.** **Representative of the Coastal Protection and Development Agency (APAL):** The project concerns, in part, the public maritime domain, which makes it necessary to sign a concession between the ministries of energy and environment, which requires a financial, technical and environmental feasibility study. iv. **Representative of the Ministry of National Defense:** He highlighted the need to respect the data confidentiality, provide the Ministry with the geophysical study, and mark the project route on national and international maps. v. **Representative of the Industrial Land Agency (AFI)**: he noted the need to coordinate with AFI before the creation of a junction chamber in the industrial zone of Sidi Yahya in Kelibia, and to provide STEG's network requirements (water, sanitation, telecommunications, etc.) to be taken into account in the development studies for the industrial zone.

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
	Agricultural Development (CRDA), Regional Development Directorate (DDR), Regional Delegation of State domain and land affairs, State Lands Board (OTD), Tunisian Union of Agriculture and Fisheries (UTAP), Civil protection, Private Promoter of the Mlaabi agricultural land			vi. **Representative of the Maritime Guard of Kelibia:** The decree n° 1836 of 1997 of September 15 1997 must be respected. A coordination with the Naval Guard services is required when using the vessels during the project implementation stages. **<u>Comments from the representatives of ELMED ETUDES</u>** • Coordination has been made with all the ministries concerned • STEG will contact all the services concerned to obtain the necessary authorizations. • For the maritime line, a call for tender will be prepared with specialized international companies. • Concerning the underground cable, a route will be followed along the roads, with the commitment to restore the situation to what it was after the completion of the works. • A meeting will be scheduled with the Ministry of Defense and APAL's representatives to provide further clarification and to adjust the procedures. **<u>Governor's recommendations</u>** ✓ The regional authority supports the efforts of all parties to facilitate the timely launch of the works ✓ The need to comply with the necessary arrangements with all stakeholders to avoid any delay. ✓ Carry out field visits to the selected roads in coordination with the relevant departments ✓ The need to provide all concerned services with the necessary documents and data before the launch of the Project. The need to establish local committees under the supervision of the delegates to solve the various problems that may be raised by the citizens concerned by the progress of the Project.
February 24 2023	Governor, Delegates, Regional Directorate of Environment, Regional Commissariat for	ELMED, STEG, IDEACONSULT	Governorate of Zaghouan	**<u>Stakeholders' interventions</u>** **i. Representative Regional Directorate of State Domains and Land Affairs:** He underlined the need for coordination with the central and regional services of the Ministry as the aerial route crosses a lot of state-owned land, and to carry out authorization operations for the construction of pylons and lines. In order to

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
	Agricultural Development (CRDA), Regional Development Directorate (DDR), Regional Delegation of State domain and land affairs, Water exploitation and distribution company (SONEDE), Tunisie Telecom,			evaluate the required compensation, tests must be carried out by agricultural forensic experts. ii. **Representative of Water exploitation and distribution company (SONEDE - Zaghouan):** She wondered whether the increase in the production capacity of the Mornaguia power plant and the gas turbines had been taken into account iii. **Representative of the Regional Commissariat for Agricultural Development** (Water Department): He questioned the extent of the impact of the power line on the farm and stressed the need to carry out the necessary tests and to highlight the percentage of this impact, even if it is low or lower than what has been determined by the World Health Organization (WHO). iv. **Representative of the regional telecommunications services**: He asked about the impact of the electromagnetic field on the local population's health. **<u>Comments from the representatives of ELMED ETUDES</u>** • The construction of the pylons will occupy an area of about 200 m^2 so the land remains for its owner. However, the files will be studied on a case-by-case basis and tests related to the erection of the pylons and the passage of the power lines will be carried out. • 04 studies have been prepared, including the study of the consolidation of the network, which took into account these data mentioned, so that we can optimally achieve exchanges between networks. He also pointed out the existence of an ambitious programme within the framework of the country's strategy for exporting electrical energy to Italy. This programme is known as 30-30-30, planned for the year 2030, with 30% of energy production from renewable energy sources, and 30% reduction of carbon emissions. • STEG has been asked about the impact of electromagnetic fields for similar projects in other regions. The results of the measurements have shown that the effect is insignificant. **<u>Governor's recommendations</u>** He stressed the need to coordinate with the various public actors and make a concerted effort to overcome difficulties, particularly those relating to land, while ensuring that the administrative steps are taken to ensure the Project is launched on time.

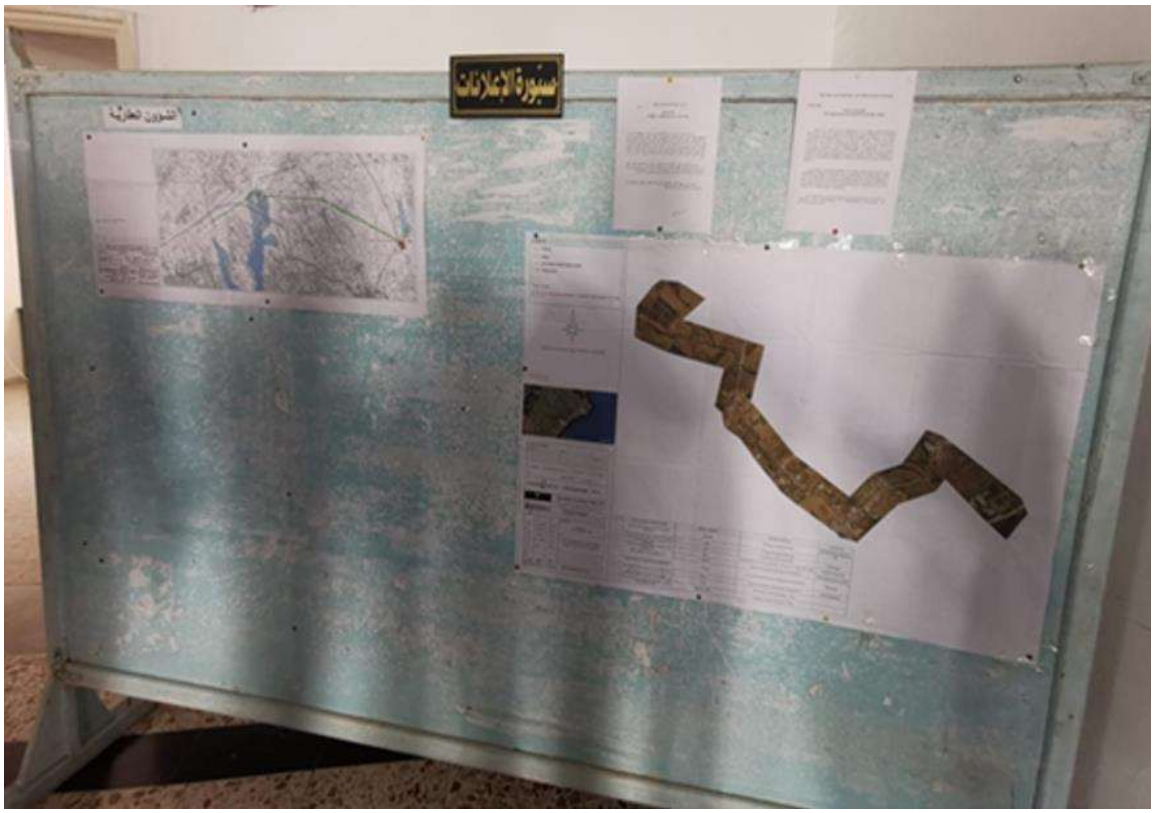
Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
February 28 2023	Governor, Delegates, Municipalities, Industrial Land Agency (AFI), National Environmental Protection Agency (ANPE), National Heritage Institute (INP), National Sanitation Office (ONAS), Agricultural Investment Promotion Agency (APIA), Regional Commissariat for Agricultural Development (CRDA), Regional Development Directorate (DDR), Regional Delegation of State domain and land affairs, regional office of consumer protection, Regional Directorate of Social Affairs, Regional Women's Commissariat, Regional Directorate of Employment	ELMED, STEG, IDEACONSULT	Governorate of Manouba	**Stakeholders' interventions** i. **Representative of the regional administration of the State domains:** She requested the necessary documents (plans, certificates of ownership of agricultural land) so that her services can determine the land titles and the land tenure of the farmers, which will avoid all obstacles during the construction phase. ii. **The representative of the Regional Commissariat for Agricultural Development** indicated the need to provide the technical files and plans of the agricultural land that may be affected by the Project. This will avoid problems related to the irrigation canals. She asked to involve the CRDA services during the field visits. iii. **The representative of the National Heritage Institute (INP):** She asked to involve the services of the INP during the field visits to enable them to understand the route. iv. **The Mayor of Borj El Amri** mentioned the repeated interruption of electricity in the delegation of Borj El Amri. He asked to study the possibility of reinforcing the delegation's network in the framework of the Project. v. **The president of the regional office of consumer protection in Manouba** called for intensifying the awareness and information campaign on this Project. **Comments from the representatives of ELMED ETUDES** • Project representatives have committed to providing the necessary documents to the various stakeholders and to involve them in the field visits. • Concerning the repeated interruption of electricity in Borj El Amri: STEG is in the process of reinforcing the network, notably at the level of the El Fejja station, and consequently, the region will no longer experience interruptions in electricity as of June 2023. **Governor's recommendations** He stressed the strategic importance of the Project, its involvement in strengthening the national network and the need for local authorities to support its implementation.

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
March 22 2023	Governor, Delegate, Municipalities, National Environmental Protection Agency (ANPE), National Sanitation Office (ONAS), Regional Directorate of Equipment (DREH), Regional Commissariat for Agricultural Development (CRDA), Regional Delegation of State domain and land affairs, Regional Union of Agriculture and Fisheries, Technical Service of the municipality of Mornag, NGO "Amal", Water exploitation and distribution company (SONEDE), Tunisie telecom,	ELMED, STEG, IDEACONSULT	Governorate of Ben Arous	**Stakeholders' interventions** i. **The Delegate of Mohammedia** insisted on the need to extend the Project to the delegation of Mohammedia, stressing that it will be a support to its success. ii. **The Representative of the Regional Directorate of Equipment** suggested prior coordination to designate interventions on the public road domain. iii. **The representative of the Regional services of State Domains** called for providing the necessary technical documents and creating a regional working group to identify owners and estimate easement needs. iv. **The representative of the Regional Commissariat for Agricultural Development** insisted on obtaining all authorizations and taking the necessary precautions to preserve migratory birds and avoid fires. v. **The representative of the Technical Service of the municipality of Mornag** insisted on avoiding the Project's negative impacts on the populations. vi. **The President of the Regional Union of Agriculture and Fisheries** noted that farmers are suffering from the pressure of projects that cross the irrigated perimeters. They are unable to develop their activities for fear that their land will be affected. He asked to consider this aspect and move away as much as possible from the irrigated perimeters. vii. **The local civil society representative (NGO "Amal") asked to conduct** preliminary consultations with agricultural lands' owners, which will be included in the Project. **Comments from the representatives of ELMED ETUDES** • Project officials have indicated that all stakeholder recommendations are, or will be, considered. **Governor's recommendations** He recommended the need for coordination between the various central and regional administrations involved in the implementation of this Project, in order to avoid possible delays in its implementation.
March 28 2023	Technical Director of SMVDA Rokye exploiting the Mlaabi site agriculture land	IDEACONSULT	Phone call	• Mr. Khalil DACHRAOUI, the Technical Director of SMVDA "Rokye", already participated to the public consultation held on February 22, 2023 in the Nabeul Governorate, where he recalled the situation and the context of the land exploited

Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
	(Mr. Khalil DACHRAOUI)			by the SMVDA Rokye, part of which will be developed (by the AFI) into an industrial zone (ZI) • The SMVDA Rokye (Société de Mise en Valeur et de Développement Agricole), which operates the 169 ha of agricultural land in Mlâabi, has been informed since 2014 (the first year of exploitation by the SMVDA) of the State's intention to create an Industrial Zone (ZI) on 55 ha and gave its consent. • This is well documented through the Minutes of the Meeting of December 17, 2014. The reason put forward and accepted by the SMVDA is that it is a public utility project. In addition, the SMVDA has recognized that the 55 ha plot is not fertile land on which a long-term development project can be carried out. It has undertaken to continue to exploit it by only growing fodder crops, which are annual crops, until the Agence Foncière Industrielle (AFI) proceeds with the development of the ZI. • The rental contract between the State (represented by the Ministry of Agriculture) and the SMVDA extends from 25/12/2014 to 24/12/2034. • The land rented by the SMVDA from the State extends over 169 ha of which approximately one third (55 ha) will be taken over by the State for the development of the Industrial Zone by AFI. • According to the Technical Director of the SMVDA, the Useful Agricultural Area (UAA) is limited to 136 ha because about 40 ha are occupied by forests and uncultivated land. • The olive grove occupying 80 ha, there remains for fodder crops only the 55 ha which will be subject to the development of the industrial zone by the AFI. However, the main activity of the SMVDA is cattle and sheep breeding. The Company has a herd of around 500 dairy cows, 600 calves (imported for fattening), 1,000 sheep, in addition to raising free-range chickens. • For the needs of its livestock, the SMVDA cultivates (mainly on the 55 ha object of the creation of the industrial zone) fodder crops such as ryegrass, corn, alfalfa and oats. • The main activity of the SMVDA is off-ground breeding. It has modern stables for cattle and sheep breeding. • The 55 ha of land in question which is cultivated with fodder provides only part of the needs. The rest of the needs are supplied from the concentrate production plants

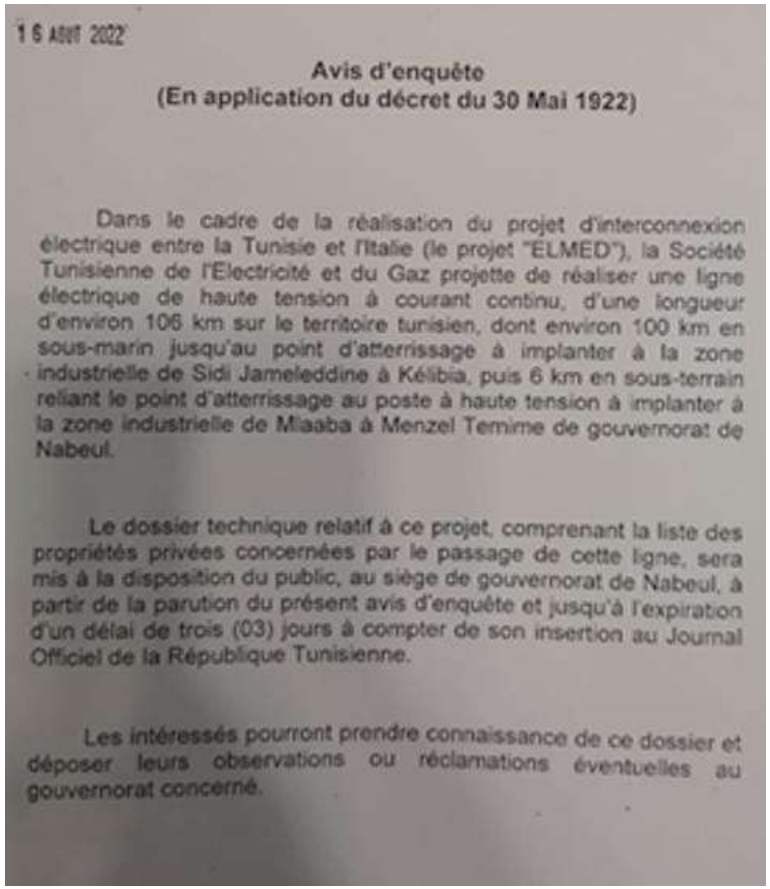
Date	Stakeholder(s)	Project Representatives	Location	Issues Raised
				• The 55 ha plot in question is part of a public irrigated perimeter (PPI). • According to the Technical Director of the SMVDA, the company had to invest in the 55 ha for stone removal and installation of the underground irrigation network. • The annual rent is approximately 500 DT/ha. • The SMVDA currently employs about 80 workers, all permanent. • According to the Technical Director of the SMVDA, the reduction in the area of the land leased from the State by 55 ha is likely to lead the Company to reduce the number of employees, but not in a proportional way (The reduction of the area of 1/3, will not imply that the number of workers will be limited by 1/3). • **The wish expressed by the representative of the SMVDA** is that the State rents him land of at least an equivalent area in order to be able to continue his cattle and sheep breeding activities.

Annex 4 – Media used for Information Disclosure



Display on the ELMED Project in the delegation of Menzel Temime

Notice of inquiry (pursuant to the Decree of May 30, 1922) in French



16 AOUT 2022

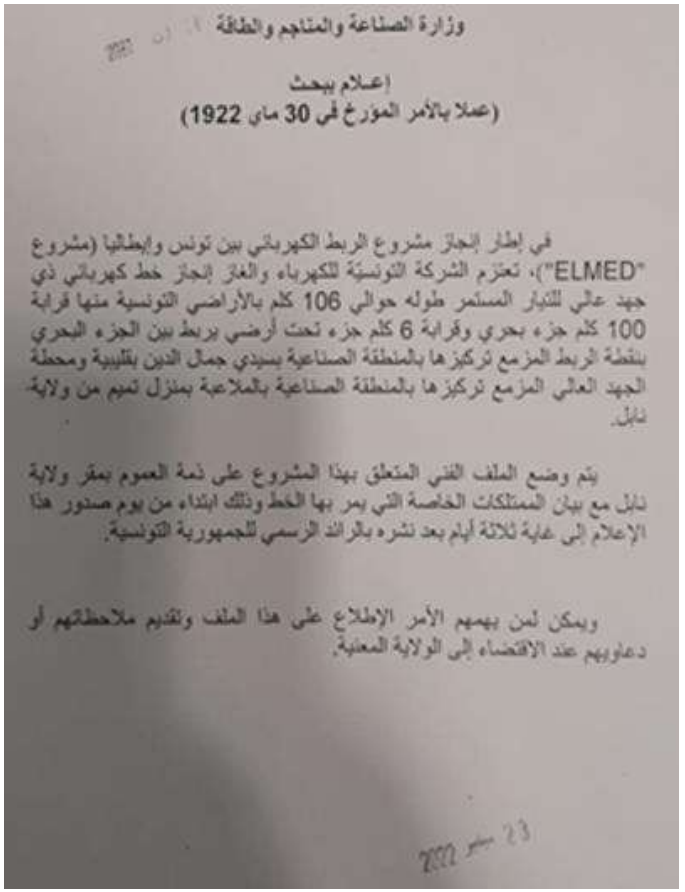
Avis d'enquête
(En application du décret du 30 Mai 1922)

Dans le cadre de la réalisation du projet d'interconnexion électrique entre la Tunisie et l'Italie (le projet "ELMED"), la Société Tunisienne de l'Electricité et du Gaz projette de réaliser une ligne électrique de haute tension à courant continu, d'une longueur d'environ 106 km sur le territoire tunisien, dont environ 100 km en sous-marin jusqu'au point d'atterrissage à implanter à la zone industrielle de Sidi Jameleddine à Kélibia, puis 6 km en sous-terrain reliant le point d'atterrissage au poste à haute tension à implanter à la zone industrielle de M'aaba à Menzel Temime de gouvernorat de Nabeul.

Le dossier technique relatif à ce projet, comprenant la liste des propriétés privées concernées par le passage de cette ligne, sera mis à la disposition du public, au siège de gouvernorat de Nabeul, à partir de la parution du présent avis d'enquête et jusqu'à l'expiration d'un délai de trois (03) jours à compter de son insertion au Journal Officiel de la République Tunisienne.

Les intéressés pourront prendre connaissance de ce dossier et déposer leurs observations ou réclamations éventuelles au gouvernorat concerné.

And in Arabic



وزارة الصناعة والمناجم والطاقة

إعلام ببحث
(عملا بالأمر المؤرخ في 30 ماي 1922)

في إطار إنجاز مشروع الربط الكهربائي بين تونس وإيطاليا (مشروع "ELMED")، تعتزم الشركة التونسية للكهرباء والغاز إنجاز خط كهربائي ذي جهد عالي للتيار المستمر طوله حوالي 106 كلم بالأراضي التونسية منها قرابة 100 كلم جزء بحري وقرابة 6 كلم جزء تحت أرضي يربط بين الجزء البحري بنقطة الربط المزمع تركيزها بالمنطقة الصناعية بسيدي جمال الدين بقليبية ومحطة الجهد العالي المزمع تركيزها بالمنطقة الصناعية بالملاعبة بمنزل تميم من ولاية نابل.

يتم وضع الملف الفني المتعلق بهذا المشروع على ذمة العموم بمقر ولاية نابل مع بيان الممتلكات الخاصة التي يمر بها الخط وذلك ابتداء من يوم صدور هذا الإعلام إلى غاية ثلاثة أيام بعد نشره بالرائد الرسمي للجمهورية التونسية.

ويمكن لمن يهمهم الأمر الإطلاع على هذا الملف وتقديم ملاحظاتهم أو دعاويهم عند الاقتضاء إلى الولاية المعنية.

Example of correspondences sent by the Ministry of Industry, Energy and Mines to project stakeholders (Ministry, Governorate, Public Agencies)

الجمهورية التونسية
وزارة الصناعة والمناجم والطاقة
الإدارة العامة للكهرباء والانتقال الطاقي
إدارة الكهرباء والغاز

من المدير العام
للكهرباء والانتقال الطاقي
إلى
السيّد المدير العام للغابات
وزارة الفلاحة والموارد المائية والصيد البحري

11 أوت 2022 — 151

الموضوع : إنجاز خط كهربائي هوائي ذي جهد 400 كيلوفولت يربط بين محطتي الجهد العالي ملاعبة والمرناقية.

المصاحيب : ملف فني.

***

في إطار إنجاز مشروع الربط الكهربائي بين تونس وإيطاليا (مشروع "ELMED")، تعتزم الشركة التونسيّة للكهرباء والغاز تدعيم شبكتها لنقل الكهرباء وذلك عن طريق انجاز خطّ كهربائي هوائي ذي جهد 400 كيلوفولت طوله حوالي 120 كلم يربط بين محطتي الجهد العالي ملاعبة والمرناقية وفقا للملف الفني المصاحب.

فالرجاء التفضل بموافاتي بملاحظاتكم حول إنجاز هذا الخط الكهربائي حتى يتسنى لمصالح وزارة الصناعة والمناجم والطاقة إصدار القرار المتعلق بالترخيص في إقامته.

والسّلام
المدير العام للكهرباء والانتقال الطاقي
بلحسن شيبوب

الجمهورية التونسية
وزارة الصناعة والمناجم والطاقة
الإدارة العامة للكهرباء والانتقال الطاقي
إدارة الكهرباء والغاز

من المدير العام
للكهرباء والانتقال الطاقي
إلى
السيّد المدير العام للعقارات الفلاحية
وزارة أملاك الدولة والشؤون العقارية

11 أوت 2022 — 150

الموضوع : إنجاز خط كهربائي هوائي ذي جهد 400 كيلوفولت يربط بين محطتي الجهد العالي ملاعبة والمرناقية.

المصاحيب : ملف فني.

***

في إطار إنجاز مشروع الربط الكهربائي بين تونس وإيطاليا (مشروع "ELMED")، تعتزم الشركة التونسيّة للكهرباء والغاز تدعيم شبكتها لنقل الكهرباء وذلك عن طريق انجاز خطّ كهربائي هوائي ذي جهد 400 كيلوفولت طوله حوالي 120 كلم يربط بين محطتي الجهد العالي ملاعبة والمرناقية وفقا للملف الفني المصاحب.

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والسّلام
المدير العام للكهرباء والانتقال الطاقي
بلحسن شيبوب

Inquiry Notice (pursuant to the Decree of May 30, 1922), posted in the Public Notice section of "the Official Gazette of the Tunisian Republic" No. 105 of September 6 2022

- Lecture du rapport moral et financier de l'année 2021
- Lecture du rapport du commissaire aux comptes d'exercice 2021
- Débat et approbation des rapports
- Déchargement de quotient des membres de conseil d'administration
- Prise en compte des demandes de retrait
- Prise en compte des demandes d'adhésion
- Attribution du résultat
- Détermination de la prime de président du conseil d'administration
- Détermination de la prime de présence aux membres du conseil d'administration

Observation : Tous les rapports sont à la disposition des adhérents au siège de la société pour l'accès.

2022402180SODB3

DIVERS

Avis au public

Avis d'enquête

(En application du décret du 30 Mai 1922)

Ministère de l'Industrie, des Mines Et de l'Energie

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2022R02166DIVD2

Perte de titre de propriété

Monsieur Adnan Ben Othman Abid annonce la perte du titre de propriété n°15/36460 relatif au titre foncier n°87138 Monastir sis à Jemmel gouvernorat de Monastir, suite à l'attestation de perte délivrée par le poste de police de Jemmel et enregistrée sous le n°519 le 23 août 2022.

Cette annonce a été publiée le 31 août 2022 au journal le Quotidien.

2022S01024DIVD2

Perte de titre de propriété

Monsieur Walid Ben Moncef Ben Ahmed Khlif déclare avoir perdu son titre (acte de partage daté le 26/3/2017 dressé par les notaires Karwi Wassim et Triki Ali) de propriété du Solde d'un terrain d'une superficie de 2504 m² situé à route Saltania km 8.5 Sfax.

Et il veut en extraire un autre au lieu du titre perdu.

Aucune réclamation ne sera acceptée auprès du notaire Bouaziz Abdlmajid dans son bureau rue des notaires Rahbet Remed n°12 Sfax après un délai de 30 jours.

2022X01092DIVD2

Avis

Monsieur Ali Ben Ibrahim El Bahri et son épouse Moufida bent Mohamed Blibich avisent être propriétaires du reste d'une parcelle de terre nue d'une superficie de 650 m² à la route Elmharza km5 Sfax et que leur titre de propriété étant perdu il veulent en extraire un deuxième original.

Tout celui qui porte plainte est tenu d'intervenir auprès du notaire Karoui Wassim domicilié à la rue des notaires à Sfax dans un délai de 30 jours à partir de la date du présent. Toute opposition hors délai sera rejetée.

2022X01093DIVD2

Vente d'un immeuble sis à Sidi Daoued La Marsa Tunis

SOCIETE WIRNET SPECIAL CABLES SA

TF n°57304 Tunis

Le liquidateur de la société WIRNET SPECIAL CABLES lance un appel d'offres pour la vente d'un immeuble objet de titre foncier n°57304 Tunis sis à Sidi Daoued La Marsa.

Tout intéressé peut retirer le cahier des charges auprès de bureau de liquidateur : 86 Avenue Habib Bourguiba Ariana, 1er étage Bureau n°G1.

Fin délai de réception des offres le 30 septembre 2022.

2022402183DIVD2

Rectificatif

Rectificatif

Annonce n°2022R02125SODB2 parue au journal officiel annonce n°103 du 31/8/2022 page 1855 en français ligne 34 :

Lire : Monsieur LASSOUED Mustapha

Au lieu : Monsieur MERHBEN NEDHIR.

2022R02172RECZ9

Pour la légalisation de la signature : le président de la municipalité *ISSN 0330.9258* *Certifié conforme : le président directeur général de l'I.O.R.T.*