



ASSOCIATION BANANIERE DU CAMEROUN

APPEL D'OFFRES N° 011/AOF/ASS/2017

MEMORANDUM OF INFORMATION – ELECTRICAL WORKS

1. General

The specified level and project framework of design, presentation, elaboration and content of the technical tender documents, is defined as “Functional & Performance”. The contractor is responsible for design and engineering, complete implementation and performance conform the specified general framework and description of the works. The contractor has certain technical freedoms and options and should present the intentions during tendering and finalize at the beginning of the project, starting points:

- Implementation according general frame work and descriptions
- Performance and functionality according general framework and descriptions

Contractor's responsibilities are at least:

- Design & engineering, build
- Coordination and communication between all involved parties, authorities etc.
- Complete implementation, delivery and installation
- Complete performance of the entire electrical works and maintainable
- Key issues:
 - o Basic and common techniques and components
 - o Flexible and safe system setup, suitable for intended project application
 - o Robust and reliable system setup and components
 - o Energy-efficient and sustainable system setup
 - o Complete and on required quality level

Expectations of the contractor:

- Cooperative, contributing own insights and experiences
- Pro-active and professional working attitude
- Works according budget and time line

2. LOT 2: electrical works –sub Lot 1 Transformers.

Are prefabricated composite-cement-fiberglass transformer substations allowed instead of containerized transformer substations as defined in the description?

No, all installation parts (including transformer substations) located at the power plant area must be containerized.

3. LOT 2: electrical works –sub Lot 1 Transformers.

Is the civil contractor for the realization of the power plant area responsibility of the structural work? Yes, power plant area will be equalized by the civil contractor (LOT 1 – civil works).

4. LOT 2: electrical works –sub Lot 1 Transformers.

Is connection to the HTA network of ENEO encrypted later and is not the subject of a quotation? In this contract insofar as ENEO must confirm the availability of this power on its network as well as the point of connection on which the HTA supply will be made.

Correct, this item must be determined later in cooperation with ENEO. Coordination and communications are part of this works.

5. LOT 2: electrical works –sub Lot 1 Transformers.

Is implementation of a single HTA and simultaneous use of the 3 transformer stations the general system setup?

Yes, this is the general system setup.

6. LOT 2: electrical works –sub Lot 1 Transformers.

Is coupling and reversing cabinet Normal Current Network and Power Supply Network part of the works?

If applicable than it is part of the works. All necessary facilities, components, materials etc. are part of this works as well.

7. LOT 2: electrical works –sub Lot 1 Transformers.

Given the main nature of loads, ie refrigerated containers. Three-phase compensators of reactive energy must be provided on each transformer station. Indeed, this type of load will generate a lot of reagent and the network dealer (ENEO) in the absence of compensation devices, will severely penalize the customer in terms of penalties at the monthly billing level; Insofar as this reagent generated by this type of charge disrupts the ENEO network.

If applicable than it is part of the works. All necessary facilities, components, materials etc. are part of this works as well.

8. LOT 2: electrical works –sub Lot 1 Transformers

Analysis of the tender dossier reveals that, apart from the 03 transformers 1.250 kVA / 15kV (Lot 1), there would be another transformer to be supplied (in Lot 3). If this assumption is correct, please indicate the characteristics of this 4th transformer.

The 4th transformer is the existing transformer in the existing hall and will be connected (cabled) to the electrical system (power station area) by civil contractor (LOT 1 – civil works). The existing 4th transformer must be integrated in the electrical system (power station area). Detailed specifications are not available, opportunity to watch was during the site visit.

9. LOT 2: electrical works –sub Lot 2 Generators

Is setup of 5 generators of 700 kVA operating in a synchronized way and their start-up conditioned by the load in case of absence ENEO the general goal?

Yes, load is depending on required need of power.

10. LOT 2: electrical works –sub Lot 2 Generators

Is equalization of the power plant area belonging to works of the civil contractor for generator sets? Yes, power plant area will be equalized by the civil contractor (LOT 1 – civil works). 11.

11. LOT 2: electrical works –sub Lot 2 Generators

Are electrical connections "output generators to switchgear and reversing switching box Normal Current and Network Rescue" integrated in this batch?

If applicable than it is part of the works. All necessary facilities, components, materials etc. are part of this works as well.

12. LOT 2: electrical works –sub Lot 2 Generators

Indeed, it is prescribed that each generating set must be housed in a container ("containerized"), and this to respond to a constraint of mobility. However, would it be possible to provide soundproofed ("soundproofed") generators, with the construction of a shelter and a system able to ensure the mobility of the equipment?

No, all installation parts (including generators) located at the power plant area must be containerized.

13. LOT 2: electrical works –sub Lot 3 Cabling

Is equalization and stabling of the power plant area for diesel tanks belonging to works of the civil contractor?

Yes, power plant area will be equalized by the civil contractor (LOT 1 – civil works).

14. LOT 2: electrical works –sub Lot 3 Cabling

Is the capacity of power of to be installed 15kV/0,4 kV transformers available in existing HTA substation of ENEO?

Project starting point is availability of 2.500 kVA.

15. LOT 2: electrical works –sub Lot 3 Cabling

Do we need transformer protection cell as well as the HV connections and the LV connections dedicated to this transformer?

If applicable than it is part of the works. All necessary facilities, components, materials etc. are part of this works as well.

16. LOT 2: electrical works –sub Lot 3 Cabling

Can you specify the characteristics of the to be provided lighting poles: Height? Type of luminaires? Are they complementary to existing lighting masts? Should new power grids be provided for their power supplies in the event of an existing masts being removed?

Lighting poles and all necessary facilities, components, materials etc. are part of the civil contractor (LOT 1 – civil works).

17. LOT 2: electrical works –sub Lot 3 Cabling

Can you specify the characteristics of the equipment inherent in the fire equipment?

Question is not clear, firefighting installation or equal is unknown

18. LOT 2: electrical works –sub Lot 3 Cabling

Can you specify the characteristics of the equipment and provide implementation plan of a computer & telecom network and a video surveillance system?

Computer & telecom network and a video surveillance system and all necessary facilities, components, materials etc. are part of the civil contractor (LOT 1 – civil works).

19. LOT 2: electrical works –sub Lot 3 Cabling

Can you specify the characteristics of control equipment?

Control equipment and all necessary facilities, components, materials etc. are part of the civil contractor (LOT 1 – civil works).

20. LOT 2: electrical works –sub Lot 3 Cabling

Regarding the installation of a photovoltaic sub-station with a power of at least 1 MW as requested in the specifications, please specify the following points:

- Is the storage of energy produced planned?

There is no long term energy storage planned.

- As for the installation of the photovoltaic panels, taking into account the required power, i.e. a minimum of 1 MW, we can position in terms of surface area all the panels at the level of the entire roof of the existing building in order to produce the Power required. However, considering the weight of the assembly "support + panels", we would like to know if the structure of the existing building is sufficiently dimensioned to support this complementary load.

Solar panels will be delivered and connected incl. all necessary facilities, components, materials etc. by the civil contractor (LOT 1 – civil works). Contractor of LOT 2: electrical works –sub Lot 3 Cabling, must integrate in the electrical system (power station area), maximal 1,0 MW and integrate in an intelligent / smart power management system with integrated Solar Management System.

21. LOT 2: electrical works –sub Lot 3 Cabling

Can you specify the number of outlets, the type of outlets (single phase, 4-pole), the amperage of each outlet, the type of enclosure of the electrical terminals.

All specifications of outgoing groups and connections etc. of works for LOT 2: electrical works has to be provided, coordinated and is part of the delivery of civil contractor (LOT 1 – civil works).

22. LOT 2: electrical works –sub Lot 3 Cabling

Is it allowed to install a separate power cable per outlet, instead to combine 3 outlets ports, see schematic page 13/31?

Yes, it is allowed to install 3x separate multiple 400 V power cables cabling between power station area and triple gang pedestal mount main reefer outlet assemblies (1 cable per outlet).

23. Can we assume solar panel system will be equipped with SMA string inverters.

Yes, the civil contractor (LOT 1 – civil works) will place, mount, cables etc. a complete solar system. This system must include SMA string inverters and also communication facilities to control by external signals. The electrical contractor (LOT 2 – electrical works) must control the SMA string inverters by intelligent / smart power management system with integrated Solar Management System.