



Ubungo Gas Turbine Power Plant Expansion

Location: Ubungo, Tanzania, East Africa

Client: CDC Globeleq (project transferred from AES Sirocco)

Gryphon Contact: Henk van Ballegooyen

Project Summary The Ubungo Power Plant at Dar es Salaam, Tanzania consisting of two GE LM6000 and two ABB GT10 gas turbine generators was upgraded and converted to use natural gas supply from the Songo Songo Island. This part of the project was financed by the World Bank. The power plant was also expanded by the addition of two natural gas fired LM6000 simple cycle gas turbine generators.

Gryphon has been involved in numerous projects since the plant's inception in 1994 as an oil fired emergency power plant.

Project Services Gryphon provided technical expertise to identify, inspect, and evaluate prospective 'used' LM6000 gas turbine generators on the world market. Market conditions at that time yielded only one "used" machine acceptable to the client. The final recommendation was to purchase a second, new machine.

Gryphon was engaged as the owner's engineer and in that capacity:

- Technical coordination for the conversion and upgrade of the GE LM6000 and replacement of the ABB GT10A by GT10B gas turbine generators to increase plant output.
- Developed the detailed specification for the disassembly and packaging of the 'used' unit for transport to Tanzania.
- Assisted client in the technical evaluation of the new turbine generator package from GE including selection of optional equipment and spare parts.
- Provided preliminary conceptual engineering for the installation works.
- Prepared the detailed specification, bid documents and final contract documents for the engineering, procurement, and construction (EPC) contract for the project. Performed contract bid evaluation and participated in final contract negotiations.
- Engineered, specified, and procured long lead items including main gas metering and regulation systems and the required utility tie transformer. The expedited delivery of the latter by heavy haul air freight was also coordinated by Gryphon.
- Provided support and assistance during the construction and commissioning phase of the project.
- Prepared performance test procedures and test reports for the initial power purchase agreement performance tests and annual capacity tests.



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