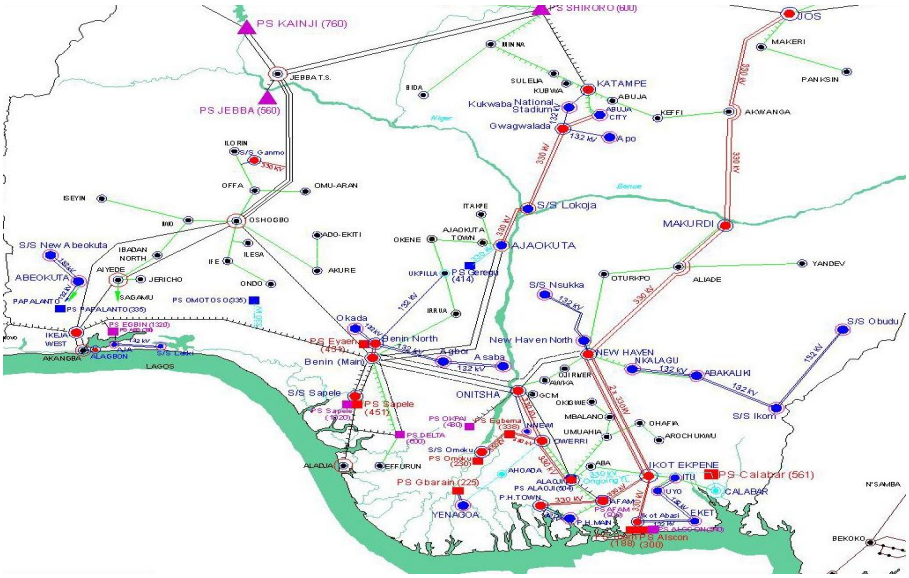
LAHMEYER INTERNATIONAL

Gas Turbine Power Plants

National Integrated Power Project (NIPP) - Niger Delta Medium Sized Power Plants and Transmission Infrastructure, Nigeria



The National Integrated Power Project (NIPP) is designed as a fast-track project to improving Nigeria's electric power supply through the implementation of Generation, Transmission, Distribution and Gas Supply projects. The National Economic Council of Nigeria approved the special funding for this project with a total budget of 3,000 Million USD in December 2004. The first generation of power is expected for the 1st Quarter of 2007 and all Projects shall be completed by end of 2007.

The Design Consultancy Services were awarded to the JV of LAHMEYER International GmbH (LI) and O.T. OTIS, Nigeria by the Federal Ministry of Power and Steel in August 2005.

The main thrust of the project is the design, manufacture and erection of seven new greenfield **Gas Turbine Power Plants**. The scope also includes the conversion of an existing operating power plant to combined cycle operation. The **Power Transmission** project addresses the evacuation of power from all new power stations to the National grid through major corridors, closing the grid loop to the north via Enugu and connection to the west through Onitsha. The transmission project consists of 22 project lots including the erection of 17 new Substations and the expansion of 32 existing Substations. The 250 identified **Distribution Projects** cover the entire country. A new system of distribution at a higher voltage level will be adopted. Villages within 5 km radius of the power plants will be connected to the stations directly.

The power plants will be supplied with **Natural Gas** from associated and non-associated gas sources in Nigeria via new gas pipeline connections. The power plant projects are designed as Turnkey EPC contracts with the separate supply of Gas Turbines. The Transmission Line Projects are Design and Build projects.

Client:
Federal Ministry of Power & Steel, Nigeria,
Niger Delta Power Holding Company

Main Data:

• 21 Gas Turbines, PG 9171E	2,444 MW_{el}
• 3 Steam Turbines	300 MW_{el}
• Transmission line (330kV, 132kV)	3,000 km
• Add. Capacity (330kV, 132kV)	8,903 MVA
• Substation Autotransformer	60 - 300 MVA
• Distribution	3,540 MVA
• New Distribution Transformers	22,600 Pcs.

Execution: 2005 - 2007

Services:
The JV of LAHMEYER International and O.T. OTIS will

- provide the project management and co-ordination of all projects for Power Generation, Transmission, Distribution and Gas Supply on behalf of the Client
- perform Contract and Claims management
- control Quality, Cost and Time
- provide competent expertise in daily business and strategic development
- attend Factory Acceptance Tests for OEM Supplies
- explore the Document Management System
- act as Project Consultant for Telecom and Grid Study
- evaluate Expression of Interest received from firms / consortia seeking to participate in the project
- prepare technical specifications, tender documents and evaluate proposals
- negotiate and finalise contracts

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