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TRANSMISSION REHABILITATION AND EXPANSION PROGRAM

STRATEGY FOR REHABILITATION AND EXPANSION, TO ACHIEVE GRID EXPANSION STABILITY AND RELIABILITY

PDO

"To Rehabilitate, Stabilize, Provide Necessary Flexibility, Redundancies and Expand the Wheeling Capacity of the Grid to 20,000MW"

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CONTENT PAGE

INTRODUCTION

Transmission Company of Nigeria (TCN) is the only company out of the 18 successor companies unbundled of the former PHCN that was not privatised. A management contract of four years was signed between FGN and Manitoba Hydro International (MHI) meant to provide technical and managerial expertise, to improve the operational efficiencies and overall performance of company. The MHI contract ended on August 31, 2017 without achieving its objective and government in its wisdom did not extend it further.

The Deputy Managing Director under MHI, took over the management of the company after the departure of MHI on August 31, 2016 and led the company until February 1, 2017 when a new management was appointed to take over the leadership of TCN. TCN Management in February 2017, established the Transmission Rehabilitation and Expansion Program which seeks to establish effective, well-motivated workforce and expand the Grid.

Transmission Rehabilitation and Expansion Program-1st Phase (20,000MW by 2022)

Transmission Rehabilitation and Expansion Program (TREP). TREP is a strategy which is expected to rehabilitate and expand transmission infrastructures to stabilize the grid for optimum performance, through massive

investment, in line with international best practice. TREP is also expected to expand the capacity of the Transmission Grid to 20,000MW by 2022.

Under TREP, all uninstalled transformers scattered all over the country will be installed through in-house capacity. Lines constraints noted all over the country especially those that supply substations whose installed transformers capacities that are more than the lines capacities will be up graded. Aluminium conductors and other equipment for the line upgrade would also be procured from NEGIP, FGN or IGR.

TREP seeks to reduce system instability through the procurement of functional SCADA/EMS, ensuring frequency control, provision of adequate spinning reserve, installation of

effective relays and ensuring effective relays coordination. TREP also seeks to establish functional organizational structure and provide adequate manpower with required skills and adequate motivation (incentive) to drive the reform and manage the assets under their care.

Management proposed an optimal organisational structure for TCN within a short period of time and recruited a consultant to review the proposal. The management structure left by MHI consists of 46 General Manager and 134 Assistant General Managers against 10 General Managers and 11 Assistant General Managers it inherited when it took over the management of TCN in February 2017.

TCN requires significant amount of financial resources to implement TREP but unfortunately, it has the lowest tariff in the Nigerian Electricity Market (NEM). The problem was compounded by the fact that even with the lower tariff, only less than 40% of TCN's invoice is usually paid because of the .poor liquidity of the Market. The company will aggressively seek the expansion of its revenue base through pursuing appropriate tariff from NERC, increasing its receipt from the market, and optimising all its revenue sources.

Given the paucity of funds in NEM, it became difficult to use any form of PPP to massively rehabilitate and expand the network. TCN was therefore left with the option of seeking the support of donor agencies, while pursuing the options of expanding its revenue through regular sources. Through collaboration with the Federal Ministries of Power, Works and Housing and Finance, TCN engaged donor agencies for support.

Program Development Objective

The Program Development Objective of the 1st Phase of Transmission Rehabilitation and Expansion is as follows:

"Rehabilitate and Expand the Grid, to Stabilize, Provide Necessary Flexibility, Redundancies and Expand the Wheeling Capacity to 20,000MW by 2022"

To achieve the DO, TCN needs to achieve the following four milestones; achieve System Frequency Control; have adequate Spinning Reserve, provide functional Supervisory Control and Data Acquisition (SCADA), achieve Critical Investment in Lines and Substations.

1. Achieve System Frequency Control: This basically refers to the Management of speed at which turbine generators are running at a given time. This is necessary because the National Demand (aggregate of all the loads taken by

Discos and other class of customers connected to the Grid) is not constant. The automatic monitoring and controlling of speed of generators in response to changes in demand is called "Governor Control". In May 2017, TCN achieved a Frequency Control of between 49.50Hz and 50.50Hz, which is the first of its kind in the last 20 years. This achievement has been sustained. TCN also has established a strategy for achieving the WAPP standard frequency control of 49.80Hz and 50.20Hz and is waiting for the appropriate time to implement it.

2. Provision of Adequate Spinning Reserve. At present, the Spinning Reserve of TCN on the daily load broadcast is either 40MW or 0. With a Generation of between 4,500 to 5,000MW, the expected standard spinning reserve requirement is 450MW, representing 10%. Spinning Reserve is an auxiliary service provided in grid management to meet huge shocks that may lead to system collapse.

Management of TCN established a committee under the leadership of the Current Head (ISO) with membership from GENCOs on spinning reserve.

The objective of the committee was to find out reasons why generating companies contracted to provide spinning reserve were not providing them. The Committee established that the tariff for spinning reserve was not adequate and came up with recommendations which was forwarded to NERC in 2017.

3. Provision of functional Supervisory Control and Data Acquisition (SCADA). SCADA is a system that operates on coded signals over a communication channel. It is a tool for system operations and monitoring for effective grid management. NEPA/PHCN/TCN attempted to procure SCADA/EMS/Telecoms three times and was not entirely successful. The current SCADA/EMS was financed by the World Bank but can only see about 40% of the network, with lots of deficiencies. On assumption, the management in February established a SCADA Committee with the objective of finding the causes of failures of the three attempts to establish a functional SCADA.

4. Critical Investment in Lines and Substations. Under this component, TCN plans to rehabilitate and expand the transmission lines and substations across the country, consistent with international standard N-1 stability criteria. TCN is using in-house capacity to install abandoned transformers and associated key equipments, complete lines in various substations and also assist contractors complete their contracts or takeover cancelled contracts, to ensure that they are completed within record time. Under the program, TCN will reorganise, renegotiate and

look for various forms of finance to ensure the completion of some of the existing contracts.

TCN Engagement with Donor Agencies on TREP

TCN commenced engagement with Donor agencies after the Federal Ministries of Power and Finance sent funding request for the TREP to them. However, most of them raised the issue of poor implementation capacity of TCN. After reviewing the causes of poor implementation of donor projects by TCN, the following weaknesses were discovered:

1 .There was lack of oversight function and necessary supervisory control over donor financed projects. This was partly caused by the donor agencies who encouraged unnecessary independence of the PMU from TCN, and yet failed to provide necessary supervision. This led to slowed implementation of projects and wastages.

2. Donor agencies response to procurement documents forwarded to them are slow. The implementation of TREP will require more timely response to enable TCN deliver on the program effectively.

3. Projects were implemented in silos without coordination between the donor agencies funded projects and those funded by TCN

Capacitor Bank, Apo Transmission Substation

through either IGR or FGN budget.

4. Packaging of projects were not usually done with the objective of attracting the best players in the industry. Interestingly, most high voltage power transmission equipments are not manufactured in Nigeria. Therefore economy of scale and proper packaging became central issues for the participation of the big players in procurement.

5. Most Original Equipment Manufacturers (OEM) did not want to be involved in the installation of their equipments inside Nigeria, yet they were interested in selling them to the nation. They normally enter into joint venture agreement with local partners that have little or no experience in such assignment. In most cases, they ship the equipment and get paid through LCs, but their local partners lack the capacity to clear the goods from the ports, let alone install the equipment.

6. The poor capacity of the local contractors/joint venture partners, coupled with failure of TCN to provide import duty exemption waivers (IDEC) on a timely bases also contributed to the accumulation of several stranded containers in the ports and abandoned projects.

7. The best and most experienced key project staff were not participating in projects implementation in the past. There was also little interaction between TCN management and PIU staff involved in daily implementation of the projects.

8. There was inefficient performance monitoring scheme to monitor and bench mark the performance of the project management units and its key staff involved in projects implementation.

9. Implementation of projects was over centralised in the Headquarters in Abuja. This significantly affected speed and quality of the projects. This is natural because the Regional Managers and their staff who were closer to the sites were excluded in projects implementation.

TREP has been designed to address most of the risks of failure in projects implementation noted above and equally provide the following:

1. TCN Management has started to provide complete and effective oversight and supervisory control over all donor funded projects. This has significantly improved the pace of projects implementation. A good example of such improvement is the significant increase in disbursement percentage of NEGIP which increased tremendously by November 2017.

2. The projects will still be implemented through stand-alone PIU's. However, TCN will supervise and control their implementation. TREP will be implemented in a coordinate manner so that there is synergy between the various projects and those financed through FGN budget and TCN IGR. This coordination will be led by the General Manager (Program Coordination).

3. TCN will require every donor agency to sign a Service Level Agreement (SLA) with it. The SLA will specify responsibilities of each party with respect to timelines, response to document submitted for clearance, comments and clarifications requested by donors. Breach of the agreement will be reported accordingly in the leaders hierarchies of TCN and the donors for further necessary action.

4. TREP will be packaged to attract the best and most qualified contractors. The packaging would be in scope and composition that will make it attractive enough for bidders to be interested in the bids.

5. Major contracts will be procured through two stage bidding processes starting with pre-qualification. The qualification criteria will be raised to attract only the best in the industry. Other risks associated with joint venture and other forms of association will also be addressed in each prequalification document.

6. TCN has strengthened the expediting department and moved it from Procurement Division to Finance and Account Division. The objective of the reorganization is to ensure zero payment of duties going forward. This is expected to be done by ensuring prompt processing of duty waivers and effective collaboration between units of TCN. Now, duty waivers are processed immediately contracts are signed and no importer would be allowed to ship their equipment when duty waivers are still pending.

7. The selection of Key staff that will implement TREP will be done through merit-based method. There will be internal advert, interview and sometimes written tests for most of the key staff.

a. All the project managers will be required to sign performance contracts with the General Manager (Program Coordination).

b. Monitoring and Evaluation, Audit, Environmental and Social Safeguard will be based on common framework and will be domiciled under the GM (Program Coordination).

8. Key aspects of project implementation will be ceded to the nine regional offices across the country. Projects will be packaged according to

the regional offices. The selection of the regional project coordinators will also be through merit-based method.

9. To reduce the length of time usually spent between project conception, planning and implementation, TCN will request donor agencies participating in TREP to accept the use of advanced procurement.

Projects Supported by Development Partners
The following development partners have indicated their willingness to support TCN with various projects to be implemented under the program (TREP):

1. Nigeria Transmission Expansion Project (AfDB)-$410 Million will build three 330kV quad lines (Alaoji-Onitsha, Delta Power Station-Benin and Kaduna-Kano). The project will build two 330kV Substations in Zaria and Kaduna and three 132kV Substations at Rigasa, Jaji and Kakau.

The Transmission Expansion Project will support the expansion of transmission network in the North East geo-political zone which has the worst transmission infrastructure and development index in Nigeria. The main cause of the deteriorating development index is poor access to power supply. The closest generation station to the North East geo-political zone is Shiroro which is more than 1,000km to many locations in the zone. The distance coupled with poor transmission network significantly compounds the poor energy and development index of the North East.

2. Nigeria Electricity Transmission Access Project (World Bank)-$486 Million will support the rehabilitation and reinforcement of existing (brown field) substations and lines. The project will be implemented throughout the country. The project will also support the supply and installation of SCADA/EMS and consultancies that will support PPP projects in TCN in the future.

3. WAPP North Core Transmission Project (World Bank)-$29 Million intends to build 330kV DC 62KM line between Birnin Kebbi and the Border between Nigeria and Niger Republic. This is the Nigerian component of the North Core transmission project which will connect Nigeria, Niger, Benin and Burkina Faso on 330kV DC line. The four countries have agreed to domicile the project in Nigeria.

4. Lagos/Ogun Transmission Infrastructure Project (JICA)-$238 Million, is expected to provide power supply to this part of the country that is increasingly becoming the most

industrialised part of Nigeria. The area covers Arigbajo, Ogijo, Redeem, Mountain on Fire, and New Agbara up to Badagry. The Projects to be built in these areas include 330kV, 132kV Substations and Lines. These projects would also provide the basis for evacuation of new IPP's springing up between Lagos and Ogun State. The new Nigeria-Benin 330kV DC transmission line would equally take supply from this project.

5. Abuja Transmission Ring Scheme (AFD)-$170 Million, will construct five new substations in Abuja and bring new supply route through Lafiya in Nasarawa State. This brings to three, the 330kV supply routes to Abuja; Ajaokuta, Shiroro and Lafiya. The new substations to be built in Abuja are 330kV substations in Apo and Lugbe and 132kV Substations in Lokogoma, Gwarinpa and Kuje.

6. Northern Corridor Transmission Project (AFD & EU)-330 Million, seeks to build 330kV DC line from Kainji to Birnin Kebbi, reconstruct one of the 330kV SC line from Shiroro to Abuja into 330kV quad line, and build 330kV DC line from Katsina-Daura-Jogana to Kura (this would evacuate the Jigawa Solar IPP Complex for which EU has approved grant support of €25Million). The project will build four 330kV substations in Sokoto, Bauchi, Jogana and Daura. It will also build 132kV substations in Lambata, Argungu and Birnin Gwari.

TCN Collaboration with State Governments

TCN will encourage the state governments to partner with it in executing transmission lines and substation projects within their states to enable timely completion of projects and expansion of the grid.

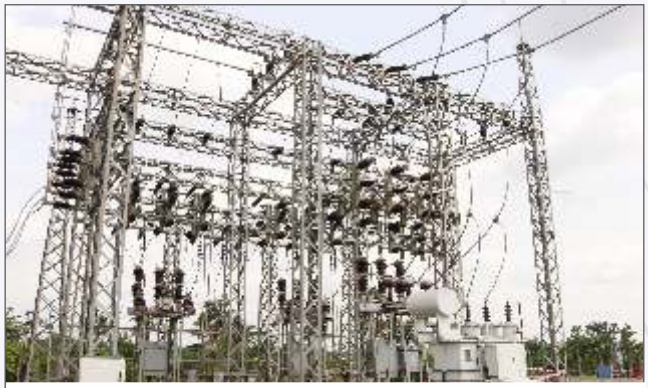
Collaborating with state governments would help resolve the usual challenges associated with acquisition of Right of Way (RoW) for transmission lines and substations, reduce cost of project implementation as the cost of RoW will reduce due to involvement of the states. Other areas of mutual support between TCN and the state governments will also be explored to promote faster delivery of projects.

Upgrading Human Capacity

No utility can successfully transform itself relying on external labour. It is also known that donor finance projects are inflexible and cannot respond to emergency needs; hence there is need for a blend of in-house capacity for less complex substations and Lines construction with the implementation of large and complex contracts to be executed through donor financed program. TCN intends to build on the success of the several in-house transformers installations carried out all over the country in 2017.

Reconductoring Transmission Lines

The wheeling capacity of TCN could easily be expanded by at least 2,000MW by removing 132kV lines constraints all over the country. Several substation reinforcement including those executed under the donor financed projects were done with reference to the capacity of the lines. Therefore, TCN intends to re-conductor several 132kV transmission lines and substations that have constraints using in-house capacity.



Switching Station

TREP will strengthen the weakest 330kV transmission line corridors through new lines and reconstruct old ones. Some 330kV lines will be re-conductored using modern higher capacity conductors.

Transmission Rehabilitation and Expansion Programme -2nd Phase (20,000-30,000MW)

There will be a second phase of TREP that will expand and take the Grid capacity to between 20,000 and 30, 000MW in the next seven years. 2nd Phase of TREP will also provide the needed lines to evacuate the 3,050MW Mambila Hydro Electric Dam Project whose contract agreement was signed in 2017. The Mambila contract provided for the construction of two number 330kV transmission lines; Mambila-Jalingo and Mambila-Murkudi 330kV transmission lines.

To effectively evacuate Mambila, there is need for an additional corridor. TCN intends to build new 330kV lines and associated substations to enable it effectively evacuate Mambila and create another transmission loop that will further strengthen the Grid, provide additional flexibility and redundancy as follows; Calabar-Ikom-Ogoja-Mambilla 330kV DC line, Kano-Dutse-Azare-Potiskum – Damaturu 330kV DC Line, Damaturu-Biu-Hong-Yola-Jalingo 330kV DC Line and Kakuri-Bali-Mambila 330kV DC line.

To complete the loop TCN will build Ughelli-Okpai 330kV Line; Ughelli-Port Harcourt 330kV DC line; Sokoto-Katsina 330kV DC line and several 132kV DC lines, as well as associated substations across the country. Under the 2nd phase, TCN will execute its first contractor finance project and also close the loop in Lagos.

TCN's 1st Contractor Finance Project

Given the significant level of generation presently coming up around Benin, there is need for bigger corridor for evacuation of power to Lagos. TCN intends to consider using contractor finance for; the 330kV line between Benin TS and Benin North to be reconstructed into 330kV quad line and a new 330kV quad line between Benin North and Omotosho. TCN intends to negotiate with the contractor doing Omotosho-Erukun to increase the line capacity by at least 100%. The Benin-Omotosho 330kV quad line will be complemented by the Omotosho-Epe-Aja 330kV DC line.

Closure of the 330kV Transmission Loop in Lagos

TCN intends to close the loop in Lagos by upgrading the existing Alagbon-Ijora-Akangba 132kV DC line to 330kV DC line and also construct a 330kV Substation at Ijora. TCN will build a 132kV DC line underground from either Lekki or Alagbon 330kV Substations to supply Eko Atlantic City in Lagos.

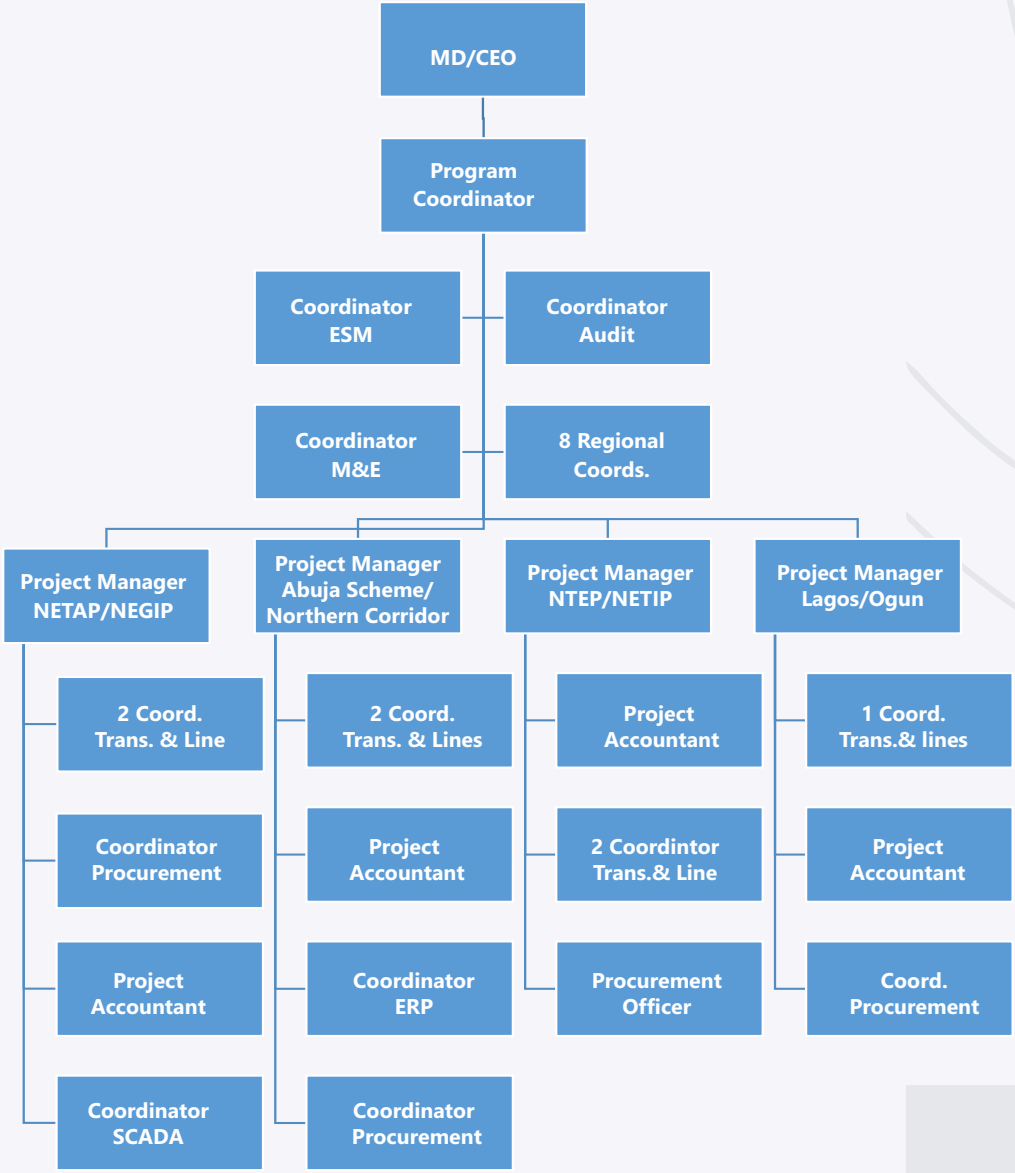
TCN will collaborate with the Government of Japan to rehabilitate several Substations in Lagos; among them are Apapa, Akangba, Isolo, Ikeja West, Ota and Ojo. TCN will re-conductor the Olorunshogo-Ikeja West DC line, using the new Thermal Resistant Aluminium Conductor Steel Reinforced with GAP to give it the required capacity.

TCN Collaboration with WAPP

The Grid will further be supported by the following WAPP transmission lines; New Agbara-Sekete 330kV DC line, Median Backbone (Shiroro-Zungeru-Kainji-Parakuo (Benin)-Northern Togo-Northern Ghana 330kV DC line, and the North Core (330kV DC line and associated substations that would connect Nigeria, Niger, Benin and Burkina Faso).

The TCN collaboration with WAPP will not only improve the energy exchange in the West African Region but it will also expand and provide flexibility and stability for TCN. The Median Backbone for example will strengthen the capacity of TCN to deliver power within Nigeria in addition to supporting the international power trade exchange in this part of West Africa.

Organizational Chart of TREP



Terms of Reference of TREP, Key Staff

Program Coordinator

The Program will be coordinated by a Coordinator who will report directly to the CEO. The scope of the work of the Program coordinator shall include coordination of the performance of the entire Program; review and resolving staffing and capacity needs of the project implementation units; review the performance of the project managers in line with their key performance indicators (KPI); supervise the monitoring and evaluation, internal audit and annual audit of the project implementation units; oversee environment and social compliances of the projects through a dedicated ERSU officer; resolve project management issues that are beyond the control of the project implementation unit; perform other functions as may be assigned by the Managing Director from time to time.

Coordinator Monitoring and Evaluation (M&E)

The M&E Coordinator shall reside in the HQ of TCN and will report to the Program coordinator. The M& E Coordinator shall be responsible for the design of result based M & E frame work for the Program and ensure its implementation. Shall be responsible for ensuring baseline data are sourced before full implementation of the Program. Shall render monthly and quarterly M & E report in liaison with contract implementation coordinator and Coordinators of the sub-projects at PMU's. Shall advice management on the performance of contracts signed with each key staff in the implementation chain. Perform other functions as may be assigned by the Program Coordinator from time to time. Shall have not more than two reporting staff.

Coordinator Audit

The Coordinator Audit shall be responsible for designing and implementing risk based audit scheme for the entire program; responsible for ensuring complete adherence to complete system of internal control and segregation of duties in the Program. Shall ensure that all rules and guidelines of the donor agencies and FGN are observed at all times in the implementation of the Program. He/she shall advice management on the best procedure of safe guarding assets of the Program at all times. Shall perform other functions as may be assigned by the Program Coordinator from time to time. He/she shall coordinate the functions of audit officers in the four projects.

Coordinator Environmental and Social Management (ESM)

Shall be responsible for the design of

environmental and social management frame work for the Program and ensure its implementation. Shall be responsible for ensuring compliance with all environment and social safeguards in the implementation of the Program. Shall render monthly and quarterly report on environment and social management policy and ensure its implementation. Shall advice management on the implementation of environment and social safeguards in the Program. Perform other functions as may be assigned by the Program Coordinator from time to time. The Coordinator ESM shall coordinate the work of the ERSU officers in the four project.

Project Managers

There will be four project managers heading four implementation units (PIUs). The scope of work of the project managers shall include the performance of the day to day management of the project implementation units comprising of multi-disciplinary personnel; supervise the work of coordinators and ensure the execution of the project in line with the project development objective; communicate with the World Bank, Federal Ministry of Finance and other relevant agencies on behalf of TCN; oversee the preparation and execution of procurement of all contracts and shall be responsible for the performance of all contracts under the project; shall be responsible for submission of quarterly progress report, annual report and ad hoc report to TCN management and World Bank or French Development Agency or African Development Bank or JICA respectively; perform other functions as may be assigned by the Program Coordinator or the Managing Director from time to time.

Coordinator Substation and Lines

There shall be Coordinator Substations and Lines for each of the four project (each coordinator shall have maximum of two staff under him). World Bank, AFD and IsDB financed components because of their sizes shall have two Substations and Lines Coordinator. The scope of the work of the Coordinator Substations and Lines includes; coordinate the planning, designing and procurement of all substations and lines contract packages; coordinates the preparation of bidding documents and bidding processes of substations and lines; coordinates the processes leading to contract effectiveness; coordinates with the implementation substations in conjunction with the project coordinators in the regions; perform other functions as may be assigned by the Manager PIU from time to time. A Substation and Lines Coordinator shall have not more than two reporting staff.

Project Accountant

There shall be four project accountants, one for each project (a project accountant shall have maximum of three staff under him). The project accountant shall be responsible for the financial management of the project; shall prepare financial monitoring reports and all financial reports as may be required by each specific donor agency; shall prepare disbursement requests and ensure adequate liquidity of the projects; ensure strict application of internal control and segregation of duties to safeguard assets; shall be responsible for opening of LC and commercial expedition of the project. TCN shall ensure no demurrages are incurred by filing duty exemptions timely; shall be a member or nominate a member in all procurement evaluation committees to ensure strict adherence to qualification criteria in a bidding document; perform other functions as may be assigned by the Manager PIU from time to time. The Project Accountant shall have not more than three reporting staff.

Coordinator Procurement

There shall be one procurement coordinator for each project. The procurement office shall be responsible for the procurement of all the project components; develop procurement plan and update it from time to time; prepare biding document and RFP for the project and launch the procurement process and answer all queries on procurement and its processes; ensure strict compliance with procurement rules and guidelines of the respective donor agency in addition to the Nigerian Public Procurement Act 2007; shall be the secretary or shall assigned the secretary of all procurement evaluation committees; perform other functions as may be assigned by the Manager PIU from time to time. The Coordinator Procurement shall have not more than two reporting staff.

Coordinator SCADA/EMS/Telcomms

NETAP (World Bank financed) has component on SCADA, hence the need for a coordinator (coordinator SCADA shall have not more than two staff reporting to him). The SCADA coordinators shall coordinate with the committee set up to review the past performance of SCADA implementation; coordinate the consultancy for the SCADA scope in consultation with SCADA review committee; coordinate the planning, designing and procurement of SCADA; coordinates the preparation of bidding documents and bidding processes of SCADA; coordinates the processes leading to SCADA contract effectiveness; coordinates with the SCADA implementation team in all the regions ; perform other functions as may be assigned by the Manager PIU from time to time.

Coordinator ERP

The project financed by AFD has ERP component to be implemented across TCN. The procurement process was halted by the Ministry and finally terminated until a clear road map for successful implementation is developed. TCN established an ERP implementation committee whose primary objective is to establish the reasons behind the previous failures at the implementation of MIS. Scope of work of the Coordinator ERP shall include coordination with the committee set up to review the past performance of ERP implementation; coordinate the consultancy for the ERP scope in consultation with ERP review committee; coordinate the planning, designing and procurement of ERP; coordinates the preparation of bidding documents and bidding processes of ERP; coordinates the processes leading to ERP contract effectiveness; coordinates the implementation of ERP. Shall perform other functions as may be assigned by the Manager PMU from time to time. The Coordinator ERP shall have one reporting staff.

Regional Program Coordinator

Each region will be assigned a Regional Program Coordinator who will coordinate the implementation of program in the region. The Regional Coordinator will coordinate progress meetings and ad hoc meeting as may be required to fast track project implementation. He/she shall coordinate the performance of the contract seeking clarification from contractors, liaise with the coordinator of substations and lines in the PMU's and supervise Program Consultants in the region. The regional coordinator shall report to the Regional General Manager.

Environmental & Social Management (ESM) Officer

Each project shall have an environment and social management officer who will be responsible for environmental and social safeguards of the project. The ESM Officer shall have dual reporting; administratively to the project manager while functionally he/she reports to the Coordinator ESM.

Audit Officer

Each project shall have project audit officer who shall be responsible for risk-based audit of the project. The project auditor shall have dual reporting; administratively to the project manager while functionally he/she reports to the Coordinator Audit.

Project Establishment
Office of the Manager
1) 1 No. Auditor
2) 1 No. Environment and Social Officer
3) 1 No. Secretary
4) 1 No. No. Clerk
5) 1 No. Driver

Coordinator Substation & Lines
1) 2. No. Engineers

Coordinator Procurement
1) 2 No. Procurement officers
2) 1 No. Procurement filing Clerk

Project Accounts Office
1) 3 No. Accounts Staff

SCADA Coordination Office
1) 1 No. Engineer

ERP Coordination Office
1) 1 No. IT Staff

Regional Program Coordination office
1) 1 No. Engineer

Role of Various TCN Offices

Corporate Headquarters
TCN Management is expected to provide general oversight over the implementation of the Transmission Rehabilitation and Expansion Program (TREP). Management shall ensure that the proper Monitoring and Evaluation of the project are carried out and result used to benchmark the performance of Project Management Unit. Management shall also coordinate relationship between the projects and Ministries of Power, Finance and other relevant MDA's. Management shall ensure the audit, environmental and social management of the projects.

Project Management Units (PMU)
PMU undertakes the procurement of all component of the project. Coordinates their implementation at the Regional Offices. Make payment for all project activities and consultants as certified by the Regional Offices. Establish and Monitor Letters of Credit. (LoC), Coordinates the procurement and implementation of Specialised Activities like SCADA and ERP. Recruits Consultant for the implementation of contracts at the Regional Offices.

Regional Offices
The Regional Office under the TREP will be in charge of the day to day implementation of contracts. Each Regional Office shall have contract implementation coordinator.

The coordinator's duties includes: coordinating the daily implementation of contracts, coordinating progress of meetings and submits regular meeting and progress reports to the Project Management Office and Regional General Managers. Supervise the daily performance of consultancy service recruited to support implementation of projects/contract.

Key

AFD - French Development Agency
AfDB - African Development Bank
EMS -Energy Management System
FGN - Federal Government of Nigeria
IGR - Internally Generated Revenue
IsDB - Islamic Development Bank
JICA - Japan International Cooperation
LoC - Letter of Credit
MHI - Manitoba Hydro International
OEM - Original Equipment Manufacturer
NEGIP - Nigeria Electricity and Gas Improvement Project
NEM - Nigeria Electricity Market
PHCN - Power Holding Company of Nigeria
PIU - Project Implementation Unit
PPP - Private Public Partnership
SCADA -Supervisory Control And Data Acquisition
TCN - Transmission Company of Nigeria
TREP - Transmission Rehabilitation and Expansion Program
WAPP - West African Power Pool

2x60 MVA 132/33kV Power Transformers