



WEST AFRICAN POWER POOL

SYSTEME D'ECHANGES D'ENERGIE ELECTRIQUE OUEST AFRICAIN



ACTIVITY REPORT OF THE SECRETARY GENERAL

NOVEMBER 2015 – OCTOBER 2016

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LIST OF ACRONYMES

AfDB	African Development Bank
AFC	Africa Finance Cooperation
AFD	Agence Française de Développement
CEB	Communauté Electrique du Bénin
CEET	Compagnie Energie Electrique du Togo
CI – ENERGIES	Société des Energies de Côte d'Ivoire
CIE	Compagnie Ivoirienne d'Electricité
CLSG	Côte d'Ivoire-Liberia-Sierra Leone-Guinea Interconnection Project
CME	Centre des Métiers d'Electricité
EAGB	Empressa Publica de Electricidade Agua de Guine Bissau
EIB	European Investment Bank
ECG	Electricity Company of Ghana
ECOWAS	Economic Community of West African States
EdG-SA	Electricité de Guinée
EDM-SA	Energie du Mali
EDSA	Electricity Distribution and Supply Authority
ESIA	Environmental and Social Impact Assessment Study
EU	European Union
GRIDCo	Ghana Grid Company
HRGC	Human Resources and Governance Committee
IsDB	Islamic Development Bank
JIC	Joint Implementation Committee
LEC	Liberia Electricity Corporation
NAWEC	National Water and Electricity Company Ltd of Gambia
NBET	Nigeria Bulk Electricity Trading
NEPAD-IPPF	New Partnership for Africa Development/Infrastructure Project Preparatory Facility
OMVG	Organisation pour la Mise en Valeur du fleuve Gambie
OMVS	Organisation pour la Mise en Valeur du fleuve Sénégal
PIPES	Planning, Investment Programming and Environmental Safeguard
PIU	Project Implementation Unit
SBEE	Société Béninoise d'Energie Electrique
Senelec	Société Nationale d'Electricité du Sénégal
SOGEM	Société de Gestion de l'Energie de Manantali
SONABEL	Société Nationale d'Electricité du Burkina
TCN	Transmission Company of Nigeria
TFP	Technical and Financial Partners
UEMOA/WAEMU	West African Economic and Monetary Union
UMO	Unité de Mise en Œuvre
USAID	United States Agency for International Development
VRA	Volta River Authority
WAPP/ICC	WAPP Information and Coordination Centre
WB	World Bank

STATEMENT OF THE SECRETARY GENERAL



The year under review was full of excitement as we continue the march of progress to the fulfilment of our mission. We focused our efforts on the implementation of activities that will eventually lead us to the realization of our ultimate objective of establishing of a regional electricity market by 2019.

In effect, we continued to implement the priority projects set out in our Business Plan (2016 – 2019) and realized significant progress in the implementation of some interconnection lines, namely the 330 kV North Core Interconnection straddling Nigeria, Niger, Benin and Burkina Faso. The institutional framework for implementing the project was adopted by all stakeholders to enable us commence implementation of works soon. The pre-investment study of other projects such as the 225 kV Guinea – Mali ion, 225 kV Ghana – Burkina Faso – Mali interconnection projects are far advanced, and will hopefully be implemented within the stipulated time for the market to take off

Equally with electricity generation projects, significant progress made in the development of the 450 MW Souapiti, 147 MW Adjarala and 128 MW Sambangalou Hydropower projects and hopefully implementation of these projects will continue without a hitch.

We also remained committed to the ICC project which involves the construction of the Information and Coordination Centre for the management of regional electricity market. The contracts for the construction and equipping of the Centre have been executed and the required steps are ongoing for the effective commencement of works. An official ceremony to kick off the works will be held early next year.

Another notable milestone in our forward march towards the electricity market is the synchronization project. Studies are almost complete and implementation will begin next year. We are keeping a close watch over this project which is a sine qua non for the electricity market by ensuring that risks to its completion within the agreed time frame are mitigated to the maximum. The year 2017, from all indications will be one of hope; the 1st phase of the regional electricity market will be launched. This phase essentially involves the formalization and consolidation of the existing bilateral contracts as well as the determination of the transmission tariff. The model contracts and the rules for the phase 1 of the market have been approved by EREDA. The Market Participation Agreement have been validated by the WAPP Executive Board and will be submitted to EREDA for approval.

The viable and sustainable regional electricity market that we aspire to establish requires financially strong and resilient electricity companies. One of the challenges confronting our Member utilities is their dire financial state,

which will adversely impact their ability to trade on the regional electricity market

The WAPP Secretariat acting in concert with the other ECOWAS institutions in the energy sector initiated discussions on the financial viability of the member utilities during the 1st Edition of the ECOWAS Week on Sustainable Energy held in October 2016 in Accra. The objective of the discussion was to begin a debate on the issue in order to ultimately find appropriate solutions to this problem which affects almost all the electricity companies in the sub-region

The shared objectives which motivated us to establish a regional electricity market requires sacrifice on the part of every member utility, to ensure that the structures put in place function efficiently. It is within this context that I make a passionate appeal to the member utilities to continue to support WAPP by paying their contribution on time.

On this occasion let me express my appreciation and heartfelt thanks to our Technical and Financial Partners for their constant support to the achievement of the objectives of WAPP.

I also wish to express my deepest gratitude to the ECOWAS Commission, the Chief Executives of the WAPP member utilities as well as personnel of the WAPP Secretariat for their efforts and sacrifices that have enabled WAPP to achieve the results that we are all proud of

Siengui A. Ki



INTRODUCTION

During the period under review, from November 2015 to October 2016, the WAPP Secretariat continued to engage in activities aimed at establishing the regional electricity market; through the implementation of its priority investment program for the generation and transmission of electrical energy, the construction and equipping of the Centre for Information and Coordination, synchronization of the interconnected network, the development of governing documents of the market and strengthening the skills of the personnel of the WAPP Secretariat and the Member utilities.:

This Activity Report consist of eight (8) chapters:

- Chapter 1 provides a brief overview of the WAPP Organization, its vision and mission.
- Chapter 2 describes the activities relating to the mobilization of resources to implement the WAPP Priority Projects.
- Chapter 3 presents an update of the Pre-investment Studies and Preparation of Projects.
- Chapter 4 relates to Monitoring and Coordinating the Implementation of Projects.
- Chapter 5 sets forth activities relating to the Preparation towards the Regional Electricity Market.
- Chapter 6 sets out activities relating to the Management of Human, Material and Financial Resources. Chapter 7 WAPP Statutory Meetings held during the period
- Chapter 8 describes WAPP's Cooperation with ECOWAS Commission, and other Regional and International Organizations.



CHAPTER 1: OVERVIEW OF WAPP ORGANIZATION

The West African Power Pool (WAPP) was created by Decision A/DEC.5/12/99 of the 22nd Summit of the Authority of ECOWAS Heads of State and Government with the aim of promoting power supply in the West African sub-region.

The Articles of Agreement for the establishment and functioning of WAPP were adopted through Decisions A/DEC.18/01/06 by the 29th Summit of the Authority of ECOWAS Heads of State and Government held in Niamey in January 2006, and who also granted the WAPP Secretariat through Decisions A/DEC.20/01/06 the status of a Specialized Institution of ECOWAS.

The Headquarters Agreement was signed on the 5th of July 2006, between ECOWAS, on behalf of WAPP, and the Government of Benin, conferring on WAPP diplomatic immunities required to operate effectively within the entire ECOWAS Member States. The headquarters of WAPP Secretariat is located at Zone des Ambassades, PK6, Akpakpa, Cotonou, in the Republic of Benin.

WAPP VISION

To integrate the national power systems into an unified regional electricity market – with the expectation that such mechanism would over the medium to long term, ensure the citizens of ECOWAS Member States with a stable and

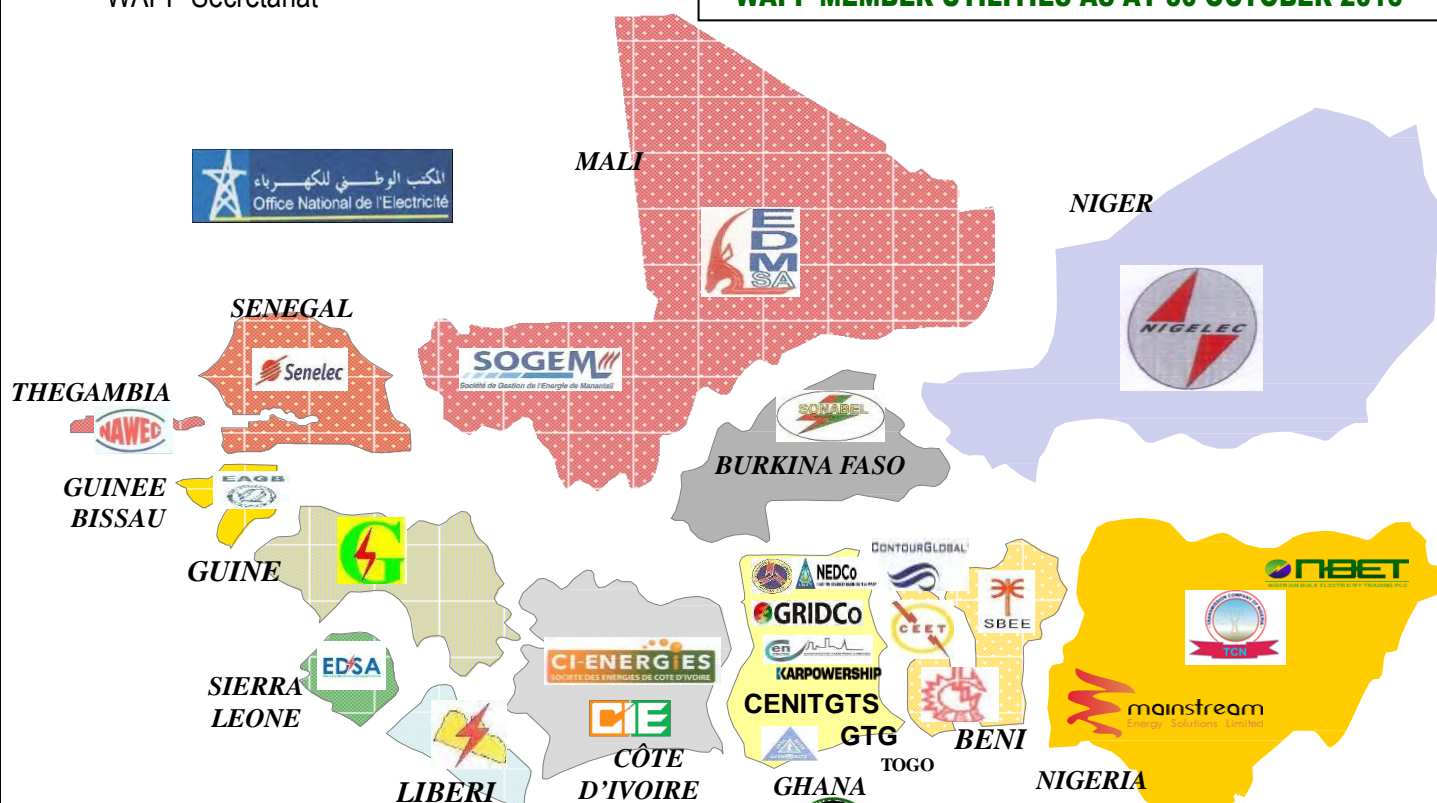
WAPP MISSION

To promote and develop infrastructure for power generation and transmission, as well as, to assure the coordination of electric power exchanges between ECOWAS Member States.

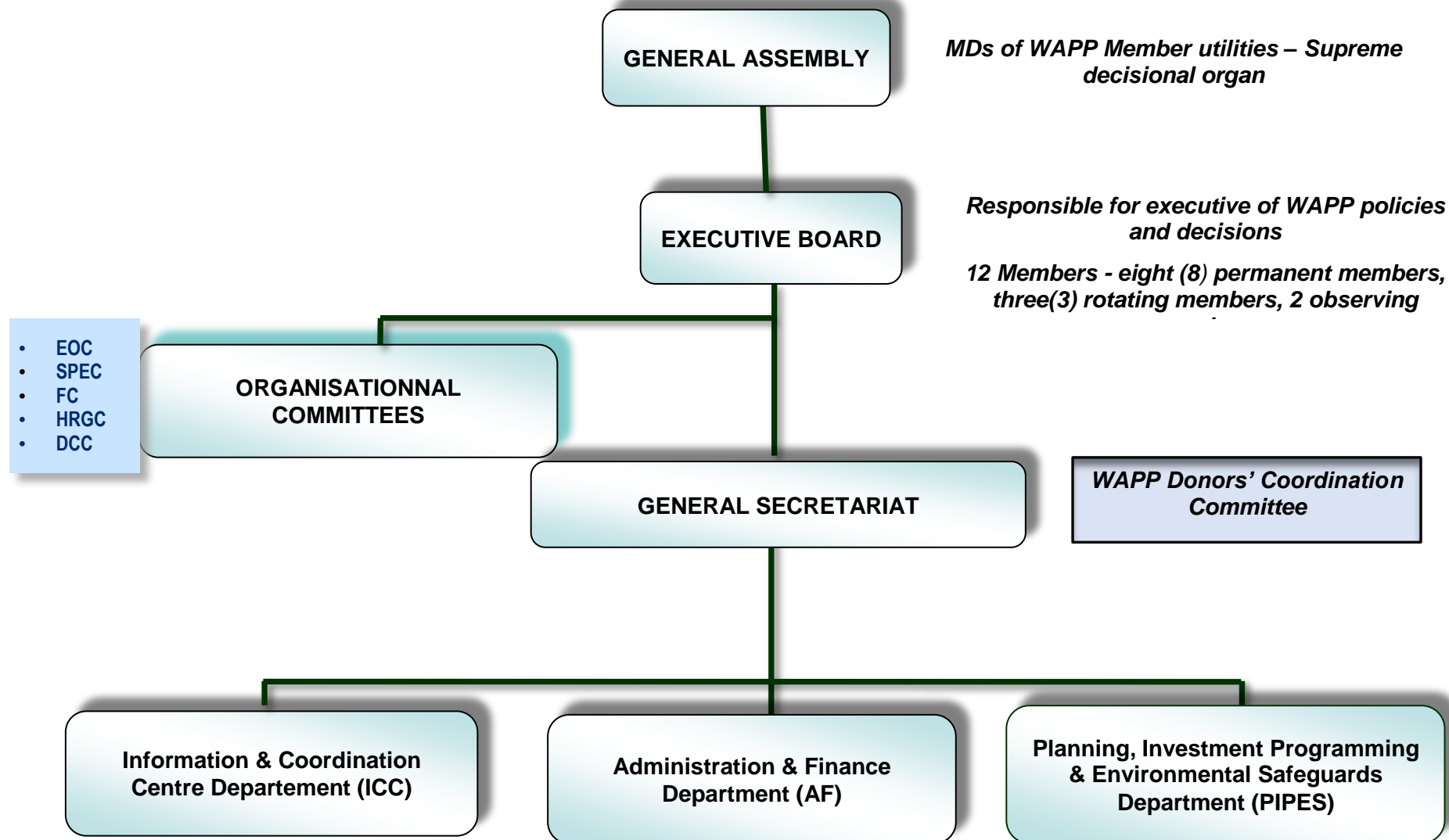
WAPP GOVERNANCE STRUCTURE

WAPP is made up of a total of four governance structures: the General Assembly, the Executive Board, the Organizational Committees and the WAPP Secretariat

WAPP MEMBER UTILITIES AS AT 30 OCTOBER 2016



ORGANIZATIONAL STRUCTURE OF WAPP



CHAPTER 2: MOBILISATION OF RESOURCES



The mobilization of resources is an important step to the preparation and implementation of the WAPP Priority Projects and has been one of the core activities of the Secretariat.

In addition to the 26th and 27th regular meetings with the Technical and Financial Partners (TFP), held on 24 November 2015 in Dakar and 13 May 2016 in Cotonou, the WAPP Secretariat, during the period under review mobilized funding for the following projects:

2.1.225 kV Guinea – Mali Interconnection Project

The WAPP Secretariat held two consultation meetings with the TFP from 27 to 28 January 2016 and on 16 June 2016 to mobilize the necessary funding to complete the project whose cost is estimated at € 481, 46 million including the cost of construction of the Linsan – Fomi transmission line.

As a result of these meetings, approximately € 281.02 million was mobilized from AFD, AfDB, IsDB, EBID, EIB and BOAD.

The intentions expressed by the TFP enable us to mobilize the funds required for the Mali section of the project. However, there is a financing gap of about 205 million euros for the Guinea portion, of which, € 53.15 million relates to line Nzerekore (Guinea) - Fomi (Guinea) - Bamako (Mali) line and € 151.43 million for the Linsan (Guinea) - Fomi (Guinea) line.

2.2. 330 kV Côte d'Ivoire – Ghana Interconnection Reinforcement Project

Following the submission of a request for finance made by the Government of Cote d'Ivoire earlier on, the Government of Ghana also submitted to EIB and KfW financing requests of € 11.3 million and € 54.7 million respectively.

A consultation meeting was subsequently held on 12 May 2016 in Cotonou between KfW, EIB, GRIDCO, CI-ENERGIES and the WAPP Secretariat to discuss the prerequisites for submitting projects to the Board of Directors of EIB and KfW.

During this meeting, the EIB and KfW indicated that the requests for funding submitted to their Boards will be approved in 2017, and as a result, a project revaluation mission will be undertaken early 2017.

2.3. 330 kV Nigeria – Benin Interconnection Reinforcement

A Grant Agreement of US\$ 1,992,721 was signed with NEPAD-IPPF in 23 May 2016, in Lusaka, on the sidelines of the Annual General Meeting of the AfDB Group, to finance the pre-investment studies of the project.

The USAID also confirmed in 31 May 2016 its preparedness to participate in the financing of studies in the amount of US \$ 500,000.

TCN will have to pay its contribution in order to conclude the mobilization of funds.

2.4. Amaria Hydropower Project in Guinea

The World Bank, as part of the WAPP Integration and Technical Assistance project (IDA Grant H77300-A), agreed US\$ 3.9 million to finance the pre-investment studies of the project

including the establishment of a panel of experts for the validation of the studies.

2.5. WAPP Regional Solar Park in Burkina Faso

The European Union on 4th May 4, 2016, granted an amount of € 152 350 out of the resources of its Technical Assistance to WAPP to fund the pre-feasibility study of the project.

2.6. OMVG Energy Project

All related financing agreements of the 225 kV interconnection line between the four countries, to the tune of US\$ 722, 453, 908, were signed by the governments of the countries concerned and the various donors.

Moreover, steps to mobilize amount of US\$ 386 352 393 from China Eximbank for the development of the Sambangalou hydropower project are underway.

2.7. 147 MW d'Adjarala Hydropower Project

Project finance agreements were signed on 21 December 2015 between the Governments of Togo and Benin and China Exim-Bank for an amount of US\$ 551.08 million.

2.8. Updating the ECOWAS Revised Master Plan for Generation and Transmission Energy

A request has been made to the EU to finance the study within the framework of the 11th EDF of the tune of € 1.87 million.

2.9. Presentation of 2016-2019 WAPP Business Plan to TFP

A delegation led by the WAPP Secretary General visited on 6 and 7 April 2016 the AfDB in Abidjan; on 4 July 2016; the EIB in Luxembourg, on 6 July 2016; KfW in Frankfurt and 8 July 2016 AFD in Paris. The objective of these missions was to present the WAPP Business Plan (2016 – 2019) with its budget of US\$ 4.1 billion to the TFP and solicit support to implement the Plan



View of the Donors meeting on the Guinea – Mali Interconnection Project, 27 January 2016, Cotonou



Group Photo – 26th WAPP Donors Coordination Meeting, Dakar, le 24 November 2015

CHAPTER 3: PRE-INVESTMENT STUDIES AND PREPARATION OF PROJECTS

The General Secretariat continued with preparatory activities related to the following projects defined in its Business Plan (2016 – 2019) and in accordance with its 2016 Work Programme and Budget

3.1.330 kV Côte d'Ivoire – Ghana Reinforcement Interconnection Project

Subsequent to the request of CI-ENERGIES to redirect the line to a new corridor between Bingerville North Cocody in order to optimize the configuration of the feeder to the Akoupé-Zeudji substation, the related ESIA study the on Côte d'Ivoire section was revised by the Consultant. The related revised report submitted on 23 September 2016 is being reviewed by CI-ENERGIES and WAPP.

Regarding the Ghana section, the preparation of the Environmental and Social Management Plan (ESMP) and Resettlement Action Plan (RAP) are ongoing, the census of project affected persons began on 14 March 2016 is being finalized.

The draft bidding documents (DAO) submitted by the consultant in charge of the feasibility study were reviewed during a meeting jointly organized by the WAPP Secretariat and GRIDCo from 27 to 30 June 2016, in Accra and are being finalized.

3.2.225 kV Guinea – Mali Interconnection Project

As part of the detailed line route survey a mission was undertaken from 29 November to 6 December 2015 by experts from the WAPP Secretariat, EDM-SA and EDG to inspect the topographic boundary of the line drawn by the consultant. The objective of the mission was also to visit some specific project sites to ensure that the public information and sensitization campaign had been conducted properly.



Topography Boundary Inspection of the Guinea – Mali Line Route



Visit of a community affected by the project in Guinea by the Experts during the inspection Mission, December 2015

The final report of the detailed topographical survey was submitted in April 2016. This marks the end of the ESIA study.

Furthermore, the tender documents previously considered and adopted by the project's stakeholders on 27 and 28 April 2016 in Conakry were finalized and submitted in June 2016 by the Consultant.

3.3. 225 kV Ghana – Burkina Faso – Mali Interconnection Project

Within the framework of updating the feasibility study, a meeting of the Joint Implementation Committee (JIC) was held from 13 to 15 January 2016 in Cotonou, to discuss and adopt the draft report submitted by the Consultant on 16 December 2015.

Thereafter, a revised draft report incorporating the comments of the experts was prepared by the Consultant, and reviewed during a meeting of the expanded JIC that included financial experts, held from 19 to 21 September 2016 in Cotonou.

With regard to the updated ESIA Study, exchanges took place on the one hand, between the WAPP Secretariat, the consultant responsible for the study and the AFD, and on the other hand between the WAPP Secretariat and the AFD to harmonize views on the scope of activities to conduct a census of the project affected persons (PAP) in order to ensure their compliance to the laws and practices in the project countries.

Furthermore, the commercial, contractual and tariff framework study is ongoing

3.4. 330 kV North Core Project (Nigeria- Bénin - Niger- Burkina Faso)

As part of the preparation of the feasibility study, the following activities were undertaken during the reporting period:

- A validation mission of the network model to serve as basis for the feasibility studies was conducted by the experts from CEB, Nigelec, SONABEL and TCN from 23 November to 4 December 2015 in Stuttgart.
- A training workshop for members of the JIC and financial framework of each of the utilities involved in the project, was held from 1 to 12 February 2016 in Stuttgart.

- A meeting of experts from the electricity companies and Ministries in charge of energy of the countries concerned, was held from 15 to 18 March 2016 in Lomé, to discuss and adopt the preliminary feasibility study report.
- A meeting was held from 10 to 12 May 2016 in Cotonou to discuss and adopt the draft feasibility study report. The meeting brought together experts from the electricity companies and Ministries in charge of energy in the countries concerned, the WAPP Secretariat as well as representatives of AfDB, WB, IsDB, BOAD, EBID, EIB, AFD, EU and KfW. The meeting provided an opportunity to receive comments from the TFP in order to finalize the Feasibility report.

With regard to the ESIA study, the related interim report as well as the ESMP and RAP were submitted by the Consultant, on 29 February 2016 for Nigeria, Niger and Benin sections of the project, and 14 March 2016 for the Burkina Faso portion. These reports were reviewed and adopted by each country during the tripartite meetings (Consultants, country experts and WAPP Secretariat) held from 25 April to 6 May 2016 in Cotonou.

The final reports integrating stakeholder comments were submitted by the Consultant on 11 July 2016 for the Benin and Nigeria sections, and on 4 August 2016 for the Niger portion of the project. The process for obtaining environmental permits is underway in all three countries, while report for Burkina Faso is being finalized.

As part of the capacity building program provided for in the Consultant's Contract, training seminars were organized for staff of the institutions involved in the project.

Within the framework of the institutional framework, study three meetings were organized by the WAPP Secretariat on 9 September 2016, on 10 October 2016 and on 25 October 2016, for members of the

JIC, the CEOs of the electricity companies concerned, senior officials of the Ministries of energy of the countries and representatives of donors, to discuss and adopt a model framework for implementing the project.

The institutional framework adopted by the Experts was subsequently approved by the Ministers in charge of energy concerned by the project during a meeting organized by the WAPP Secretariat on 26 October 2016 in Cotonou.



Group -Photo of Experts from Project concerned Members Utilities and Ministries in during the meeting for review and adoption of the Institutional Framework to implement the Project, Cotonou, October 2016

3.5.330 kV Nigéria – Benin Reinforcement Interconnection Project

Within the framework of recruiting a consultant for pre-investment studies, the NEPAD-IPPF gave its No-Objection to the evaluation report relating to the Request for Expression of Interest on 30 November 2015. Requests for proposals were subsequently sent on 24 March 2016, to the shortlisted firms.

On receipt of the request for proposals on 30 May 2016, an evaluation of the technical proposals took place from 30 May to 3 June 2016. The No-Objection of the NEPAD-IPPF was received on 7 September 2016 for the feasibility study, and on 9 September 2016 for the ESIA study. The evaluation of financial proposals took place from 28 to 30 September 2016, and the final evaluation reports (technical and financial) were submitted on 11 October 2016 to the NEPAD-IPPF for No-Objection.

3.6. 450 MW Souapiti Hydropower in Guinea



The interim report on the study of the best technical and financial option to develop the project within the PPP Framework was submitted on 8 December 2015 by the Consultant and adopted on 6 and 7 January 2016 in Conakry by the stakeholders. Subsequently, the draft final report was submitted on 6 Feb 2016.

Also, a training session was held in France from 25 March to 8 April 2016, for six senior officers from Guinea on the presentation of reports, the methodology, and the choices made by the Consultant during the study.

With regard to the implementation of the construction works, the Guinean authorities have signed a Partnership Agreement with the Chinese company CWE who have mobilized on site pending the conclusion of the project financing plan.

3.7.330 MW Amaria Hydropower Plan in Guinea

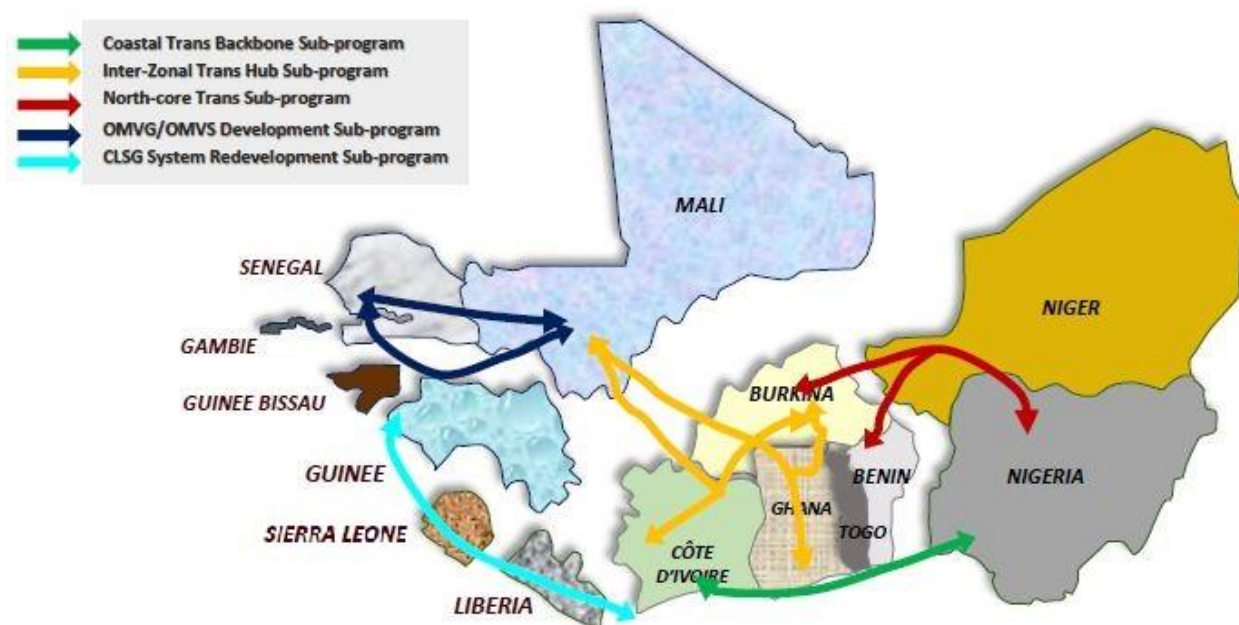
Within the framework of preparing the project, the WAPP Secretariat developed the terms of reference (ToR) for recruiting a consultant to conduct the pre-investment studies. These terms of reference were reviewed and validated by the WAPP Secretariat and the Guinean authorities during a meeting organized on 20 and 21 June 2016, in Conakry, and submitted to the World Bank on 20 July 2016. The World Bank's comments on the ToR were received on 23 August 2016.

The ToR is being finalized with the assistance of the hydropower expert recruited as part of the WAPP Integration and Technical Assistance project of the World Bank

undertaken over a period of 24 weeks was launched on 6 June 2016 in Ouagadougou. The data collected for the study was validated from 16 to 17 August 2016, in Ouagadougou and the preparation of the interim report is ongoing.

3.8.150 MW Regional Solar Park In Burkina Faso

Subsequent to the validation of Terms of Reference on 26 May 2016, the pre-feasibility study, financed within the framework of the EU Technical Assistance to WAPP, and to be



WAPP Investment Programme Implementation Strategy

CHAPTER 5: MONITORING AND COORDINATING IMPLEMENTATION OF PROJECTS

During the period under review, the WAPP Secretariat undertook missions to monitor and coordinate the implementation of the following projects:

4.1. 450 MW WAPP Domunli (Ghana) and 450 WW WAPP Maria Gleta (Benin) Regional Power Generation Facilities

As part of the updating of the feasibility studies, the strategic partner, Africa Finance Corporation (AFC) recruited Messrs Tractebel Consultants to conduct a prefeasibility study to confirm the viability of the projects. The provisional and final versions of the pre-feasibility report were reviewed and adopted by the Joint Implementation Committees on 2 and 3 November 2015 and 14 to 15 December 2015 respectively.

Again, the WAPP Secretariat held a meeting on 11 April 2016 in Cotonou, to present the outcomes of the pre-feasibility study to the Managing Directors and Chief Executives of the utilities involved in the projects. The AFC also made a presentation on the progress of implementation, structuring of the projects and the next steps. It is intended that the projects will be developed through a Special Purpose Company in which WAPP member utilities could hold up to 20% equity and with the reminder to be held by AFC and other regional investors. The General Managers and Chief Executives of the electricity companies present at the meeting requested AFC to proceed with the detailed feasibility study in order to facilitate their decision making.

Furthermore, the terms of reference and methodology of the Consultant for the update of the detailed feasibility studies were transmitted to the WAPP Secretariat on 18 July 2016, for stakeholder review, and the comments thereon were forwarded to AFC on 18 August 2016.

4.2. 225 kV Côte d'Ivoire-Liberia-Sierra Leone-Guinea Interconnection Project

The Owner's Engineer for the supervision of works has been recruited and the procurement for works should be completed by March 2017.

Also, at the procurement stage, a financing gap seem to be emerging in respect of certain lots. An action plan was subsequently prepared during the Transco CLSG Donor's Coordination meeting held on 22 and 23 September 2016 in Monrovia to mobilize additional resources to close the gap.

As part of the implementation of the rural electrification component, the WAPP Secretariat conducted on 27 and 28 June 2016, a coordination mission to Côte d'Ivoire where implementation of works are far advanced than the other three countries, and the works are expected to be completed by the end of the year.

4.3. 225 kV Bolgatanga (Ghana)-Ouagadougou (Burkina) Interconnection Project

The Joint Implementation Committee of the project comprising experts from SONABEL, GRIDCO, the Consulting Engineer AECOM, and the WAPP Secretariat met three times during the period under review to discuss issues relating to the implementation of the project. The progress realized is as follows:

- **Construction of the 225 kV line in Ghana and Burkina:** The works contracts entered into force on 29 January 2016 and 11 February 2016 for the work in Burkina Faso and Ghana respectively. Preparation of the detail engineering designs are ongoing.

- **Substation Works in Ghana:** The contract for works became effective on 15 February 2016. The construction design and civil works are underway. The topographic survey and geotechnical investigations have been completed and the construction works of the platform are ongoing.
- **Substation Works in Burkina Faso:** The contract for works entered into force on 15 January 2016. The detail engineering designs are being prepared.
- **Provision of Autotransformer 330/225 kV Reactance and:** All designs and implementation plans were approved and materials are being manufactured.

4.4. Ghana Reinforcement Network Projects within the framework of the 225 kV Bolgatanga (Ghana) - Ouagadougou (Burkina Faso) Interconnection

The status of network reinforcement works identified as necessary to ensure the efficiency of 225 kV Bolgatanga - Ouagadougou interconnection, and being implemented by GRIDCO is as follows:

4.4.1. 161 kV Atebubu–Tamale Transmission Line (200 km)

The findings of the feasibility study conducted indicated that the Atebubu –Tamale line was not economically viable and that the option of the 330 kV line Kumasi-Bolgatanga passing through the eastern part of the network would be a better option. GRIDCO subsequently signed an amendment to the Consultant's Contract for further studies on this new option.

4.4.2. 330 kV Kumasi – Bolgatanga Transmission Line

Within the framework of implementing this project, all the works contracts, transmission lines and substations in Kumasi / Kintampo Tamale and Bolgatanga were signed with the successful bidders and have entered into force. The detail design are being developed by the contractors.

Meanwhile, a compilation of an inventory of project affected assets is being finalized by the Consultant. PB.

4.5. 330 kV Volta (Ghana) – Lome “C” (Togo) – Sakete (Benin) Interconnection Project

While construction was completed in Ghana since 2014, works in Togo / Benin are ongoing and the status of implementation is as follows:

- Substation Works: the works on the 330/161/20 kV at Davié and 161/20 kV at Légbassito in Togo and the extension of the station 330/161 kV substation at Sakété in Benin are almost completed (the completion rate is 97%).
- The 330 kV line works in Benin and Togo, are ongoing and about 30% completed.



View of the works of the substation and line

4.6. 147 MW Adjarala Hydropower Project in Togo/Benin

After the sod cutting ceremony in December 2015, Sinohydro mobilized to site and preliminary geotechnical studies are ongoing while waiting for the effectiveness of the financing agreement and the fulfillment of conditions precedent to the first disbursement.



Sod cutting Ceremony for the construction of the Dam, December 2015 on the project site at Aplahoué, Bénin

4.7. OMVG Energy Project

The OMVG of Energy project comprising the development of the Sambangalou hydropower and the 225 kV interconnection line between the four countries made significant progress during the period:

- All of the financing agreements for the interconnection lines were signed and some have entered into force;
- The first installment payment of the contribution of the Member States to the project has been mobilized;
- The Technical Assistant for the construction of works has been recruited;
- The Owner's Engineer responsible for the supervision and monitoring of works assumed duty on 29 September 2016;
- The recruitment the Project Management Unit (PMU) staff was launched on 13 June 2016 is ongoing;

- The procurement of works for the 13 lots of interconnection lines launched on 24 June 2016 is also ongoing;
- The mobilization of finance from China Eximbank for the development of the Sambangalou hydropower plant is underway.

The works of the two components of the project (interconnection line and Sambangalou hydropower plant) are expected to commence by the end of the year.

4.8. ECOWAS Emergency Electricity Supply Programmes

4.8.1. ECOWAS Emergency Electricity Supply Programme in Guinea

The implementation period exceeded the agreed time frame due to the outbreak of Ebola fever in Guinea. The ECOWAS Commission and the WAPP Secretariat subsequently conducted a Joint Final Evaluation Mission from 5 to 9 January 2016 to Conakry.

The program was thus formally closed on 8 January 2016. The remaining unfinished activities of the programme were terminated in June 2016.

4.8.2. ECOWAS Emergency Electricity Supply Programme in The Gambia

The programme has an overall completion rate of 86%. At present, the components related to the supply of fuel and lubricant, acquisition of security spare parts and development of a technical and non-technical loss plan have been completed. The remaining works, the rehabilitation of generators G1 and G3, as well as the capacity building for the Staff of NAWEC and Staff of the Ministry responsible for energy in The Gambia are ongoing.

During the period under review, the WAPP Secretariat took part in the evaluation of tenders and contract negotiations & preparation from 2 to 3 February 2016 and from 12 to 15 April 2016 for the

rehabilitation and maintenance G 1 Power Plant at Brikama respectively.



Partial view of the Contract Negotiations Session for the rehabilitation of G1

4.8.3. ECOWAS Emergency Electricity Supply Programme in Mali

The programme is 80% complete with EDM-SA having to pre-finance certain activities in order to advance on the project.

To date, components related to fuel supply, the supply of vehicles and special equipment have been completed. The remaining activities related to the rehabilitation of generators, overhaul of plants situated in the occupied areas and the rehabilitation and installation of prepayment meters, are yet to be executed due to delay in the payment of the remaining 40% of the grant funding by the ECOWAS Commission.

4.8.4. ECOWAS Emergency Electricity Supply Programme in Sierra Leone

The program is 60% complete, with full implementation of the supply of fuel and lubricants, and maintenance power plants. The remaining activities related to the procurement and installation of prepayment meters, capacity building and upgrade of transmission and distribution networks have not been completed due to delay in the payment by the ECOWAS Commission of the remaining 40% of the grant for the programme



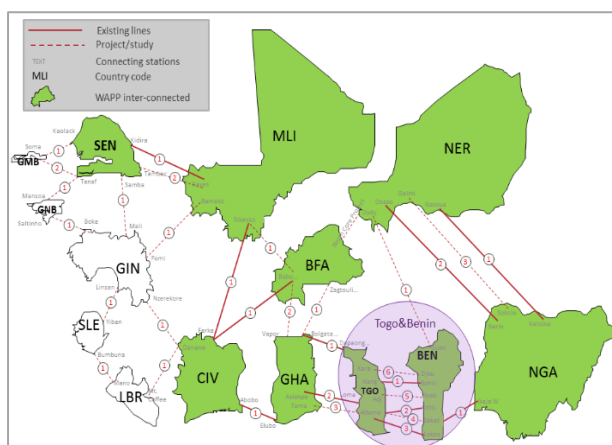
Maintenance of generators, Sierra Leone

CHAPTER 5: PREPARATORY ACTIVITIES TOWARDS THE ESTABLISHMENT OF THE REGIONAL ELECTRICITY MARKET

In tandem with the development of power generation and transmission infrastructure, the WAPP Secretariat implemented the following activities related to the establishment of the Regional Electricity Market:

5.1. Synchronization of the WAPP Interconnected Network

As part of the preparation of the study on the synchronization of the interconnected WAPP network and fine tuning of the network model, a field test and measurement campaign of the major generating plants that affect frequency and voltage control took place from November 2015 to February 2016. The draft data collection report was approved by the experts of WAPP member utilities and TRANSCO CLSG during a workshop held from 14 to 17 March 2016 in Cotonou.



WAPP Interconnected network to be synchronized

Following an update of the static and dynamic model of the network, the consultant prepared and submitted the Interim Report on the synchronization study on 12 September 2016. This report contains the results of network simulations in steady and dynamic states, recommendations for adaptations to be made in the WAPP Operations Manual, and provisional estimate of the cost of investments required to ensure synchronization and stable operation of the system.

A validation workshop on the Interim Report was held from 27 to 30 September 2016 in Cotonou with the participation of WAPP member utilities, ERERA, TRANSCO-CLSG, the World Bank and EU Technical Assistance to WAPP.

The Final Report incorporating comments from stakeholders is being prepared and is expected to be submitted and approved in December 2016.



Group-Photo of the participants at the validation meeting of the Interim Report of the synchronization study, Cotonou, 27-30 September 2016

5.2. WAPP ICC Project

The procurement process for the construction and equipping of the ICC building has been completed. Tenders were launched on January 5, 2016 and evaluation of the technical and financial proposals for the ICC Building at Abomey Calavi took place from 12 to 25 April 2016 in Cotonou while that of the "equipment for the ICC" was held from 6 to 24 June 2016 in Cotonou.

Following the EU's No-Objection to the evaluation reports on the draft contracts, the contract for the construction of the ICC building was signed

at the end of August 2016 between the WAPP Secretariat and the successful bidder, while the contract for the equipment is being finalized

Efforts are also underway to have the Beninese local government authorities to issue a building permit to enable works to start.

In addition, discussions are underway between the WAPP Secretariat and the Supervision Engineer in charge of the works to prepare an amendment to the contract due to changes in the scope of services to be provided by the Engineer.

The official start of construction works for the ICC building is planned for January 2017



Design of the CIC building at Calavi, Cotonou

5.3. Implementation of the Regional Electricity Market

Following approval by EREDA in 2015 of the Market Rules, the Tariff Methodology for Regional Transmission Cost and Tariff, and the WAPP Operations Manual, the WAPP Secretariat prepared the Agreement for Participation in the Market and the Application Form for Participants in the market. These documents, which are prerequisites for the implementation of Phase 1 of the Contract were adopted by the 32nd Session of the Executive Board of WAPP and will soon be submitted to EREDA for approval.

Within the framework of implementing the Regional Electricity Market and the "WAPP Integration and Technical Assistance" project, the WAPP Secretariat in collaboration with EREDA conducted outreach campaigns on the Operations Manual, the roadmap for the regional electricity market, and organization of the Regional Electricity market. These campaigns were held from August to October 2016 in Burkina Faso, Niger, Ghana, Senegal, Guinea and Mali, and will be held later in Cote d'Ivoire, Togo, Benin and Nigeria. These campaigns have heightened awareness of national actors in the electricity sector in these countries on the role and actions to be undertaken by each for the effective implementation of the Market.



Participants to the Operation Manual Dissemination Campaign, Bamako, 26 October 2016

WAPP – EREDA Technical Working Group: The WAPP Secretariat and EREDA, through the Joint Technical Working Group, met regularly to discuss measures to accelerate the implementation of the conditions required for Phase 1 of the market as stipulated in Article 13 of the Market Rules

5.4. WAPP Fiber Optic Project

The World Bank made comments on the Consortium Agreement on the Dark Fiber, previously approved by the WAPP Executive Board, with a view to maximizing the expected benefits to the WAPP member utilities.

A Task Force on the Dark Fibre made up of legal experts from WAPP member utilities met with representatives of the World Bank on April 5, 2016 in Accra to review and incorporate the Bank's comments into the Consortium Agreement.

The Consortium Agreement, as revised, with the support of Consultant of the World Bank has been finalized and will soon be executed by the WAPP member utilities.

5.5. Distribution Investment Development and Loss Reduction Programme

This project aims to provide to electricity distribution companies of WAPP, the tools to reduce energy distribution losses and improve their technical performance and financial viability.

The feasibility study financed by GIZ is targeted at the electricity distribution companies of WAPP and is at level of data collection and analysis

The Consultant, in collaboration with the WAPP Secretariat undertook missions to the WAPP distribution member utilities to collect the relevant data, draw up an inventory of the distribution network, and identify current losses and internal measures already taken by the companies to reduce the losses. Preparation of the related data collection and analysis report is ongoing.

5.6. WAPP Geographic Information System (GIS) Project

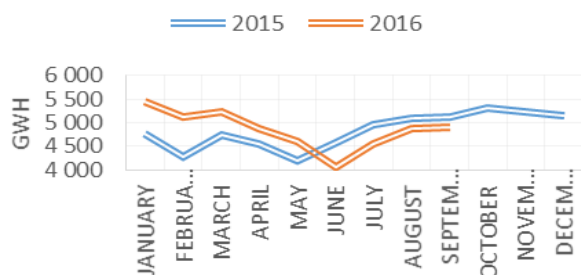
Within the framework of the EU Technical Assistance to WAPP, a GIS database and a map of the WAPP transmission network was developed to facilitate system operation, and information exchange on the WAPP network as well as the use of the data for project preparation. The GIS database has been updated with network model information defined in the synchronization study.

Furthermore, staff of the WAPP Secretariat were trained in the use of the GIS, while a training plan is being developed to strengthen the capacity of WAPP member utilities in GIS application.

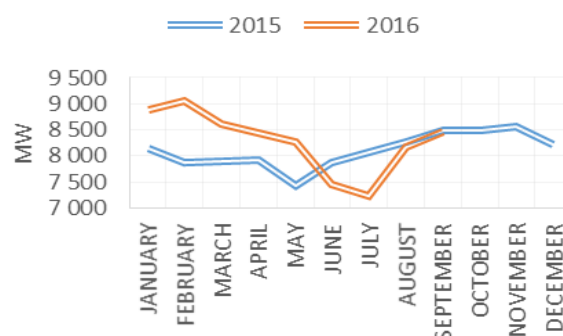
5.7. Operation of WAPP Interconnected System and Energy Exchange for 2015 - 2016

	2015	Jan - Sept 2015	Jan - Sept 2016	Jan - Sept 2015 & 2016
Installed Capacity	17,3 GW	17,2 GW	20,2 GW	+ 17,4 %
Peak Load	8,5 GW	8,5 GW	9,8 GW	+ 15,3 %
Generation	58 TWh	42 TWh	44 TWh	+ 3 %
Exchanges	5 TWh (8,6%)	3 TWh (8,1%)	4 TWh (8, 9%)	+18,1 %

ENERGY GENERATED



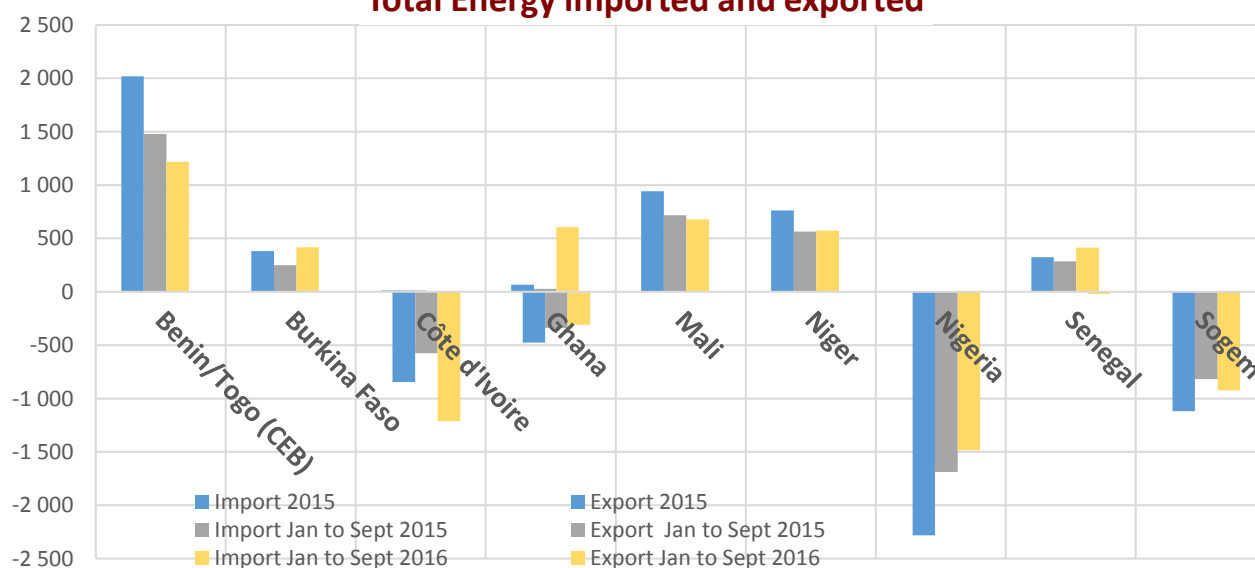
PEAK GENERATION



Energy Exchange - January 2015 to September 2016 (GWh)

Interconnection Line	2015	Jan. – Sept. 2015	Jan. – Sept. 2015	Jan. – Sept. 2015 & 2016
Ikeja West (Nigeria) - Sakate (Benin) / 330 kV	1 522,12	1 124,88	915,72	-18,6%
Birnin Kebbi (Nigeria.) - Niamey (Niger) / 132 kV	568,56	420,56	413,68	-1,6%
Katsina (Nigeria) - Maradi (Niger) / 132 kV	192,53	144,71	158,64	9,6%
Akosombo (Ghana) - Lomé (Togo) / 161 kV (X2)	496,09	354,86	302,75	-14,7%
Riviera (Côte d'Ivoire) - Prestea (Ghana) / 225 kV	66,24	27,20	605,96	2128,2%
Ferké (Côte d'Ivoire) - Bobo (Burkina) / 225 kV	382,32	250,90	416,26	65,9%
Ferké (Côte d'Ivoire) - Sikasso (Mali) / 225 kV	242,31	179,99	201,39	11,9%
Manantali (Mali) – EDM-SA (Mali) / 225 kV	700,87	537,61	475,96	-11,5%
Manantali (Mali) – Senelec (Senegal)/ 225 kV	324,58	285,62	400,08	40,1%
WAPP/EEEOA	4 509,54	3 338,70	3 910,01	17,1%

Total Energy imported and exported



CHAPTER 6: ADMINISTRATIVE AND FINANCIAL MANAGEMENT

Human resources, administrative and financial activities undertaken during the period covered by this report are described below:

6.1. Human Resource Management.

The WAPP Secretariat, during the period, recruited a Personal Assistant to the Secretary General, a Protocol Officer and a Driver.

Also, the Secretariat took part in the annual meeting of the ECOWAS Mutual Credit Union with a view to becoming a member in the near future.

The WAPP Secretariat with financial support from USAID, developed a gender policy which will be disseminated in 2017. The Policy focuses on the integration of gender issues into all processes and procedures of the WAPP. The Policy will make WAPP more compliant with the requirements of the Technical and Financial Partners, and also provides the framework for women's participation in projects and activities of the WAPP

6.2. Capacity Building Programme

Under the capacity building programme, several training sessions were organized for personnel of the Secretariat, and WAPP member utilities with the financial support of TFP.

With support from the AfDB under the CLSG Interconnection Project, a total of 108 staff made up of 80 from EDG, 22 from the WAPP Secretariat and 6 from CIE received training in areas relating to their job function.

Also, 20 technical staff of the Secretariat, TRANSCO CLSG and OMVG were trained in the use of the PSSE, a software for network calculation and simulation.

Also within the framework of the GIZ Technical Assistance to WAPP, the Secretaries and other support staff of the Secretariat received training in their areas of expertise.

Again, within the framework of the EU Technical Assistance to WAPP programme, staff of the Secretariat were trained in the use of the GIS Maps.

Additional training and certification programs are being prepared with the support of donors to ensure continuous enhancement of the skills of the staff of the Secretariat, and Member utilities.



Group-Photo of the trainees from EDG with the Secretary General at the graduation ceremony in Conakry,

6.3. WAPP Centres of Excellence Project

The terms of reference for the preparation of Business Plans for the Cap de Biches Centre of Excellence in Senegal, and the CEB Centre of Excellence in Calavi Benin were validated in June 2016. Subsequently, an evaluation of the request for of interest to short list consultants for the preparation of the Business Plans took place in October 2016. The implementation programme and the related budget for study were adopted by GIZ and USAID.

Furthermore, the WAPP Secretariat, the VRA and the CME Training Centres agreed with GIZ on a plan to enhance the human and material capacity of these centres that will be used to train WAPP member utilities during the transition to the Regional Electricity market and ultimately as Regional Centres of Excellence.

6.4. Administrative and Logistic Management

During the reporting under review, the WAPP Secretariat continued to manage the equipment and the work environment.

Given the increasing need for working space, another 40 feet container was purchased to serve as an archive for documents and a resting place was fixed up for the drivers.

6.5. WAPP Financial Management

The financial statement of the Secretariat for the year 2015 was the subject of audit by Deloitte Audit and Consulting Africa, Togo.

The audit report indicated that the financial statement of the Secretariat presents a true and fair account of its financial performance and its cash flows for the period from 1 January to 31 December 2015 in line with Public Sector International Accounting standards ((IPSAS/ NICSP).

The financial statement for the period, showed a positive cash flow of two million 244-1000 sixty-six Units of Account (UA 2,244,066).

Also, the financial statement of the following projects as at 31st December 2015 were audited by the firm Tily Yzas Baker of Cote d'Ivoire:

- WAPP Integration and Technical Assistance Project financed by the World Bank;
- Pre-investment studies for the 225 kV Guinea - Mali Interconnection Project financed by the African Development Bank.

The related audit reports were submitted to the WB and AfDB within the prescribed time frame and the outcomes of the audit were accepted by them.

The accounts of cross-border electrification projects, rural communities in Northern Togo from the network in Benin, and rural communities in Southern Togo from Ghana, financed by the European Union were also audited by PricewaterhouseCoopers (Ghana). Following these audits, the disbursement of the final tranche of the EU grant was paid into the project accounts.

An evaluation team from USAID team also assessed the internal control system of the Secretariat and concluded that WAPP had the personnel and the required control system to move from the status of reimbursement after spending to that of advance payment.

CHAPTER 7: WAPP STATUTORY MEETINGS

During the period under review, the WAPP Secretariat ensured the organization of the statutory meetings of WAPP governing bodies.

7.1. WAPP Executive Board Meeting

The WAPP Executive Board held the following sessions:

7.1.1. 30th Session of WAPP Executive Board

The 30th Session of the WAPP Executive Board was held on 23 November 2015 in Dakar as a prelude to the 10th General Assembly of WAPP. The session considered the following documents and adopted the resolutions related thereto:

- Adoption of the activity report of the Secretary General for the period from May to October 2015;
- Appointment of CIE, ContourGlobal and EAGB as rotating members of the Executive Board for the period from November 2015 to October 2017, replacing Nigelec, GRIDCO and NPA whose term had expired;
- Admission to Membership of Karpowership Ghana Company Ltd (KGCL) to WAPP;
- Appointment of Dr. A. T. Atiku, CEO of TCN Nigeria as Chairman of the WAPP Executive Board to replace Ing. Olusola AKINNIRAYE who had served his mandate.

These resolutions were tabled and adopted by the 10th General Assembly held on 25 November 2015 in Dakar.

In addition, the 30th Session of the Executive Board decided to set up an Ad hoc committee comprised of the Vice Chairman of the Executive Board, the Secretary General, the Chief Executives of VRA and SONABEL

to review the composition of the Executive Board and propose a structure that takes into account the increase in the Membership of WAPP.



View of the 30th Session of the Executive Board, Dakar on 23 November 2016

7.1.2. 31st Session of WAPP Executive Board

The 31st Session of the Executive Board was held on April 12, 2016 in Cotonou. After reviewing documents submitted to it, the Board adopted the following resolutions to:

- Appoint members of the organizational committees of WAPP for the year 2016;
- Adopt the report of the Ad Hoc Committee for the review of the composition of the WAPP Executive Board and recommending same for the approval of the 11th General Assembly of the WAPP;
- Define the rights and responsibilities of a WAPP Member with an Observer status;
- Approve the conditions for the disposal of assets allocated to Chairman, the Vice Chairman and Secretary General at the expiration of their mandate;
- Renew the appointment of the External Auditor of WAPP, Africa Audit & Consulting (AAC) Deloitte for a period of 2 years;

- Suspend new applications for membership and mandated the HRG Committee to review the current conditions of admission to Membership and propose a new procedure and terms of membership while taking account of the criteria already defined in the WAPP Articles of Agreement;
- Request the Secretariat to submit for consideration of the EOC the relevant legal texts relating to the transition of the WAPP ICC to a System Market Operator and EOC's recommendation to the Executive Board to approve the amendment of the relevant sections of the Articles of Agreement.

Furthermore, the Board subsequent to the presentation by AFC of the progress of implementation of the regional thermal power projects, the 450 MW Gléta Maria (Benin) and the 450 MW Domunli (Ghana), requested that the choice of structure for the purchase of energy that will be generated (sole purchaser and multiple purchases) be reviewed and adopted by the JIC and submitted to the Board for consideration.

7.1.3. 32nd Session of WAPP Executive Board

The 32nd Session of the Executive Board of WAPP was held October on 24, 2016 in Cotonou, during which the Board adopted the following:

- The External Auditor's Report on the Financial Statement for the Year 2015;
- Work Programme and 2017 WAPP Budget;
- The terms and conditions for Membership to WAPP;
- The rights and responsibilities of an Observer Member of WAPP;
- Proposal of an annual financial bonus for all permanent staff of the Secretariat who are at the end of the salary grade;

The Agreement for Participation in the Market and Application Form for participation in the market, were recommended for approval by the 11th General Assembly.

The Board requested the Secretariat to prepare and submit to the EOC for discussion and adoption a text to amend the WAPP Articles of Agreement to reflect the change ICC to a System Market Operator during the phase 1 of the Regional Electricity Market pursuant to Article 15 of the Market Rules.

7.2. WAPP Organizational Committee Meeting

7.2.1. Strategic Planning and Environmental Committee (SPEC) Meeting

During the period under review, the Strategic Planning and Environment Committee (SPEC) met from 13 to 15 June 2016 in Cotonou to discuss and adopt the draft terms of reference for updating the Revised ECOWAS Master Plan for the Generation and Transmission of Electrical Energy (2012-2025).

The SPEC also recommended that in order to achieve efficiency in the data collection process, the WAPP Secretariat should advocate the designation by each utility in charge of transmission planning as focal person for the data collection. To this end, it was recommended that Members of SPEC should be the focal point in their respective utilities.

7.2.2. WAPP Engineering and Operation Committee (EOC) Meeting

The Engineering and Operations Committee (EOC) held its 13th meeting from 3 to 5 October 2016 in Cotonou. The objective of this session was to discuss the progress of implementation of the ICC, the Synchronisation, and the GIS Projects as well as the Road Map of Regional Electricity Market, the Conditions precedent to the Implementation of Phase 1 of the Regional Electricity Market, to consider and adopt the Market Participation Agreement and the Participant Registration Form.

Following the presentations and discussions, the Committee, while making recommendations for the effective implementation of the various projects, adopted the Market Participation Agreement and the Participant Registration Form and recommended same for adoption by the Executive Board.

7.2.3. WAPP Finance Committee (FC) Meeting

The Finance Committee held three (3) meetings during the reporting period corresponding to its 14th, 15th and 16th session:

The 14th meeting of the Finance Committee took place on 1 and 2 March 2016 in Cotonou, to consider Resolution 132/RES.01/11/12 of the 19th Session of the Executive Board held in November 2012 in Abuja and relating to the disposal of Assets allocated to the Chairman, Vice Chairman and Secretary General at the end of their term. And also to discuss the renewal of the appointment of the External Auditor, AAC Deloitte.

After the meeting, the Committee recommended for the approval of the Executive Board, a method for disposing of assets allocated to the Chairman, Vice President and SG at the end of their mandate and renewal of the contract of AAC Deloitte for 2 years.

The 15th meeting of the Finance Committee was held on 2 and 3 June 2016 in Cotonou. The Committee reviewed a request for payment from GMKONSULT Ltd for updating the WAPP Monitoring and Evaluation Document and proposed that payment should be based on pro rata the services rendered to WAPP. The Committee also reviewed and approved the proposal for the rehabilitation of a 40ft container to serve as an archive, and a proposal to create a resting place for the WAPP drivers.

The 16th meeting of the Finance Committee was held from 3 to 7 October 2016 in Cotonou. The Committee considered and adopted the Work Programme and 2017 WAPP Budget, the External Auditor's Report and Management Letter for the 2015 financial statement. The Committee also recommended the adopted documents for approval by the Executive Board.

7.2.4. WAPP Human Resource and Governance Committee (HRGC) Meeting

The Human Resource and Governance Committee held its 11th meeting from 19 to 21 September 2016 in Cotonou to discuss among others, Memoranda relating to the proposed changes to the WAPP membership criteria and the definition of the status of WAPP observer member.

As regards to the review of membership criteria, the Committee proposed criteria and procedures taking to account among others, verification of Assets base and presence of employees and operational and technical capacity of the applicant as well as the verification of its legal status/registration.

The Committee also proposed that the WAPP observer status candidate should have presence or be established in Africa and that the procedure for admission remains the same as for the permanent membership application. It was also proposed the establishment of a Review Committee to examine the candidature of potential WAPP members and, that Committee will comprise, the Chairman of HRGC, the DAF of WAPP, the Legal Advisor of WAPP and a member from ICC.

All the propositions have been recommended for consideration by the WAPP Executive Board.

7.3. WAPP Donors Coordination Meeting

As part of WAPP's regular consultations with its Technical and Financial Partners, the Secretariat held on 24 November 2015 in Dakar on the sidelines of the 10th General Assembly and on 13 May 2016 in Cotonou, the 26th and 27th TFP Coordination meetings respectively. These meetings were an opportunity to discuss progress of implementation of WAPP Priority Projects, the preparation of the regional electricity market, seek the support of partners for new projects and agree actions to be taken to accelerate the implementation of the projects.

Also, on the occasion of the 26th Meeting, KfW made a presentation on the prospects for strengthening the cooperation between different actors in the electricity sector in ECOWAS with a view to creating synergies to meet the challenges that hinder performance in the sector.



Group-Photo - 27th WAPP Donors Coordination Meeting, Cotonou, 13 May 2016

CHAPTER 8: COOPERATION WITH MEMBER UTILITIES, REGIONAL AND INTERNATIONAL ORGANISATIONS

In order to reinforce its cooperation with ECOWAS Commission, Member Utilities, sub-regional, regional and international institutions, the WAPP Secretariat undertook and participated in the following activities:

8.1. Courtesy & working Calls of the Secretary General on the WAPP Member utilities and Partners in the Electricity Sector of the Members Countries.

In order to reinforce its cooperation with ECOWAS Commission, Member Utilities, sub-regional, regional and international institutions, the WAPP Secretariat undertook and participated in the following activities:

❖ **Freetown, Sierra Leone from 2nd to 3rd November 2015.** During this mission, the Secretary General met with the Minister of Energy, Senior Director for Strategy and Policy at the Presidency, the Financial Secretary of the Ministry of Finance and Economic Planning and the Board and Management of Electricity companies Electricity Companies, EDSA and EGTC. The discussions centred on the progress made by WAPP towards the establishment of the Regional Electricity Market of and projects involving Sierra Leone and the measures underway in Sierra Leone to improve the electricity sector.

❖ **Conakry, Guinea, on the 4th of November 2015.** The Secretary General paid separate visits to the Administrator General of EDG, the Deputy Director General of the Kaleta Hydropower Project and the Secretary General of the Ministry of Energy and Water of Guinea. The topic discussed was regional projects involving Guinea.

The Secretary General also recalled the important role of Guinea in terms of its portfolio of hydroelectricity projects and how

that would increase the energy generation in the sub-region. He also invited the Guinean authorities to continue to support WAPP to achieve its mission.



WAPP Delegation with the General Administrator of EDG, Conakry

❖ **Ouagadougou, Burkina Faso from 15th to 19th February 2016:** The Secretary General paid visits to the Prime Minister, the Minister of Energy and Mines, with whom he discussed the vision and mission of the WAPP, regional projects involving Burkina Faso and the Burkinabe government commitments to improve the availability of electricity in Burkina Faso. The Secretary General, joined by the incoming Chairman of the WAPP Executive Board met the Director General and Management of SONABEL.

They noted with satisfaction the involvement of SONABEL in the activities of WAPP and reiterated the preparedness of WAPP to accompany SONABEL and the Burkinabe authorities in the implementation of the Government's vision for the development of the electricity sector. A vision which is in sync with that of WAPP.

The Secretary General also called on Commissioner for Industry, Energy and Tourism of the West African Monetary Union and discussed areas of cooperation between the two regional institutions.

❖ **Monrovia, Liberia from 19 to 21 April 2016.**

In Liberia, the Secretary General visited the Minister in charge of Energy and CEO of LEC. The topics for discussions were the CLSG project and the expectations of the Government and people of Liberia of the project, as well as the current actions by the Liberian Government and LEC to improve the generation capacity of Liberia and increase access to electricity. The Secretary General, requested the Liberian authorities to support the actions of the WAPP and reiterated that WAPP was prepared to accompany Liberia in its quest to improve the electricity sector.

❖ **Niamey, Niger on 2 and 3 June 2016.** The Secretary General was received by the Nigelec CEO and his senior staff and by the Minister for Energy. The discussions touched on the state of the electricity sector in Niger, the difficulties of electricity supply from Nigeria, electricity generation projects in Niger and regional projects involving Niger as such the WAPP North Core interconnection Project.



Working Session, WAPP Secretariat – Delegation of the Millennium Challenge Corporation



SG and DG of SONABEL Executive Board with the Minister in charge of Energy in Burkina/ SG and Chairman of the WAPP with DG of SONABEL



SG with the Ministry of Energy of Liberia

8.2. Courtesy Call of the Chief Executive Officer of the Millennium Challenge Corporation on WAPP Secretary General

The Secretary General and his staff received on 19 October 2016 in Cotonou, a delegation from the Millennium Challenge (MCC) Corporation led by its Chief Executive Officer (CEO). During the meeting, the Secretariat made a presentation of the WAPP and the WAPP investment program and development of the Regional Electricity Market.

The MCC CEO said that the institution has supported many African countries including ECOWAS countries and that through its Power Investment Program, MCC is putting up a compact which would have a greater impact on the electricity sector.

She also said that after twelve (12) of bilateral partnership with countries, MCC now, wants to engage in regional cooperation with institutions such as the WAPP.

At the end of the visit, the Secretary General and CEO of MCC expressed the wish that this meeting will mark the beginning of a fruitful collaboration between the two institutions.

8.3. Cooperation with ECOWAS Commission

With regard to its cooperation with the ECOWAS Commission, the WAPP Secretariat took part in the following activities:

As part of its collaboration with the ECOWAS Commission, the WAPP General Secretariat participated in the following activities:

- **11th Annual Coordination Meeting of Development partners of ECOWAS**, held in Abuja on 16 and 17 November 2015 was an opportunity for the parties to renew their commitment to the implementation of the priorities of the region.
- **75th Ordinary Session of the Council of Ministers, 48th Ordinary Session of Heads of State and Government of ECOWAS**, held from 13 to 17 December 2015 in Abuja. The Conference among others, welcomed the adoption of the Paris Agreement on Climate which provides an opportunity for mobilization of funds for the electrification of Africa and proposed that a Head of State is appointed to be the spokesman for Africa. The Conference also endorsed the conclusion of the 14th Extraordinary Session of the Council of Ministers on the first phase of institutional reforms of the ECOWAS.
- **Regional Workshop on the Regional Indicative Programme of the 11th EDF** held from 7 to 10 June 2016 in Ouagadougou by the Commissions of ECOWAS and UEMOA.

During the workshop, the progress of the 10th EDF projects was reviewed, difficulties and bottlenecks were identified and lessons learnt from the implementation of the 11th EDF projects.

- **Study on the Development of Rural and Peri Urban Electrification in West Africa**: WAPP participated in a Regional Workshop on the validation of the Preliminary Report on the Study of Development of Rural and Peri Urban Electrification Master Plan in West Africa held in Conkary from 4 to 6 August 2016. The objective of the workshop was to validate the preliminary report and to make recommendations for promoting access to energy for all and especially increase rural and peri urban access to modern electricity services.
- **Validation Workshop on Study of the ECOWAS Regional Infrastructure Master Plan** was held in Lomé from 9 to 11 August 2016. The objective of the Master Plan is to regional infrastructure requirements to meet the projected economic growth and developmental needs of the ECOWAS Region over the next three decades in the transport, ICT, energy and water. Sectors. Comments were made on the draft report for inclusion in the final report.
- **Validation workshop on the Draft Final Feasibility Study Report for the Extension of the West African Gas Pipeline**. The objective of the workshop held from 30 to 31 August 2016 in Dakar, was to consider and validate the Final Draft Report on the Study on the Extension of the West African Gas Pipeline.

As part of the preparation of the report on the study two workshops were held on the data collection report from 2 to 3 March 2016 in Accra, and on the prefeasibility study report from 27 to 28 April 2016 in Ouagadougou.

The Final Report recommended that a high-level meeting with all stakeholders should be convened to discuss the security of gas supply, develop a comprehensive roadmap for the extension of the pipeline, including sources of funding and conduct detailed feasibility studies for the first phase of the project.

- **ECOWAS Evaluation Mission to Liberia: led by the ECOWAS Commission** from 20 to 25 September 2016. The objective of the mission was to assess the energy sector in Liberia and discuss with the Minister and other stakeholders to identify projects to be developed within a short time to improve access to electricity and reduce the cost of electricity in Liberia. At the end of the mission, a list of projects and actions to be taken was agreed for implementation after approval of the ECOWAS Commission.
- **ECOWAS Sustainable Energy Week jointly organized by the ECOWAS Commission, the WAPP Secretariat, ECREEE and ERERA** from 17 to 19 October 2016 in Accra. The forum was aimed at promoting the exchange of ideas that will accelerate the implementation of the regional electricity market and to improve the current policy and regulatory environment with the view to attracting the needed capital and investment into the region's energy sector especially renewable energy.

The WAPP Secretariat made a presentation on the status of implementation of its priority projects, the synchronization project, and reduction of technical losses on the distribution network.

WAPP also led a discussion on the theme "How to improve the financial solvency of WAPP Member Utilities" with a view to bringing up the issue for discussion and finding appropriate solutions.

- **5th Coordination Meeting of ECOWAS Agencies and Institution in Energy Sector** held on the 28 and 29 October 2016 in Praia Cape Verde. The meeting offered a platform to the agencies and specialized institutions of the ECOWAS to share information on the status of implementation of their activities and programme of activities for 2017.

8.4. Technical Cooperation

Within the framework of the Technical Cooperation between WAPP and other regional and international institutions, the Secretariat, participated in the following:

- **11th Annual Meeting of the Infrastructure Consortium** held from 16 and 17 November 2015 in Abidjan on "Initiatives for the Implementation of renewable energy in Africa" that allowed participants to discuss investments in renewable energy in Africa and strategies to increase renewable energy projects in Africa through PPPs.
- **West Africa Power Industry Convention 2015 (WAPIC 2015)** held from 24 to 25 November 2015 in Lagos. The forum was an opportunity for stakeholders in the electricity sector to discuss the challenges and innovative strategies to promote and attract investment in the sector. The WAPP Secretariat made a presentation on "Project in the Pipeline: Vast investment potential for the Regional Electricity Market."
- **4th Edition AFRICALLIA Forum in Ouagadougou** from 24 to 26 February 2016. The Forum is a multi-platform business meeting between entrepreneurs and investors in the ECOWAS region with their counterparts in other regions of the world. This 4th Edition discussed the investment opportunities in the energy sector in Africa and provided an opportunity to WAPP Secretariat to speak on "Issues of access to electricity in West Africa".

- **9th Consultative Meeting of the Forum of African Regional Power Pools** held March 30, 2016 in Dakar to take stock of the activities of different energy Pools and review the implementation status of African Network of Centres of Excellence project. As an outcome the Secretary General of WAPP was mandated to ensure the Presidency of the Coordination Forum of Regional African Power Pools.

The WAPP General Secretariat also participated on 29 March 2016 the workshop preceding the consultative meeting of the Power Pools, organized by the United Nations Economic Commission for Africa (ECA) and the Infrastructure Consortium for Africa (ICA). This workshop aimed to propose actions to be taken by African Regional Power Pools on the legal, regulatory and institutional framework to facilitate/encourage private sector participation in the development of regional projects.

- **PIDA Projects Validation Regional Workshops** organized by the AU Commission on 14 and 15 April 2016 in Nairobi. During this workshop the AU Commission presented to stakeholders, the New Strategic Business Plan of NEPAD-IPPF previously adopted 18 November 2015 in Abidjan and a regional catalogue eligible regional electricity infrastructure project to be financed by NEPAD-IPPF over the next five (5) years.

A following up workshop was organized by the NEPAD-IPPF on 25 and 26 October 2016 in Nairobi, to prepare and update records of regional projects in the fields of energy, telecommunications, transport and water in order to provide regular information on the projects for decision makers and investors. Project Fiches of the following WAPP priority projects identified in the PIDA were updated: 330 kV Interconnection CLSG, 330 kV Interconnection Ghana-Togo-Benin, 330 kV Interconnection Cote d'Ivoire -

Ghana interconnection 330 kV Nigeria-Niger-Benin-Burkina Faso, solar park of 150 MW in Burkina Faso and 150 MW solar Park in Mali.

- **Energy Efficiency Promotion Day** was organized in Ouagadougou from 6 to 8 May 2016, and sponsored by WAPP I Secretariat on the theme "Energy Efficiency: Challenges and Opportunities for Burkina Faso." The aim the forum was to create a framework for the promotion and exchange of ideas on energy efficiency.
- **18th African Energy Forum** held from 21 to 24 June 2016 in London. This Forum provided a meeting place between the major players in the energy industry in Africa, and offered an opportunity for the WAPP Secretariat to present its priority projects to investors and to communicate the challenges and opportunities of the sector power in the West African region.
- **50th Annual Meeting of the ASEA** held in Accra from 12 to 14 July 2016, this meeting was attended by 152 representatives from Africa, Europe, America and Asia and offered the WAPP Secretariat an opportunity not only to support the activities of ASEA, which are also similar those of WAPP. It was also an occasion to project the activities of WAPP.
- **2nd Edition of the National Council on Energy of Nigeria (NACOP)** which took place from 10 to 16 July 2016 in Kaduna, Nigeria, enabled the WAPP Secretariat to reinforce its cooperation with stakeholders in the power sector of Nigeria and encourage Nigerian generation and distribution companies to become members of WAPP.
- **Kick off meeting of the EU Technical Assistance to ECRREE for the development of a West Africa Solar Energy Corridor.** The meeting was held from 18 to 20 August 2016 in Praia, Cape Verde to kick off the activities of the Consultant recruited to conduct a study on the Solar Energy Corridor.

The ToR for the study were revised and finalized during the meeting. As part of the study, the WAPP Secretariat made a presentation on Revised ECOWAS Master Plan for generation and transmission of electrical energy (2012-2025) with emphasis on renewable regional energy projects already identified and their location in relation to the interconnection lines in the development of the Solar Corridor.

- **CLSG Annual Donor's Coordination Meeting: organized by TRANSCO-CLSG** with the participation of WAPP from 22 to 23 September 2016 in Monrovia. The objective of the meeting was to discuss among others the status of implementation of the CLSG project, the procurement process, the final cost of the project, strategies for electricity trade over the CLSG line and the rural electrification component of the project.
- **46th of the Congress of the International Council on Large Electric Systems (CIGRE)** held from 22 to 26 August 2016 in Paris. The objective of the WAPP mission to the 46th Session of CIGRE was to meet with the, Secretary General of their commitment to accompany WAPP to establish CIGRE, Committee in West Africa.

During this mission the WAPP delegation held working and information sessions with the authorities of CIGRE and RTE International and the management of the Centre National Exploitation du Systeme and the Show Room of RTE.

As an outcome of the mission the CIGRE authorities reassured the WAPP delegation of their commitment to accompany WAPP to establish CIGRE Committee in West Africa

- **High Level Think Tank Group made up of representatives of EDG, EDM-SA, ONEE, Senelec SOMELEC and WAPP** met on 5 and 6 October 2016 in Dakar to reflect on the priority projects of common interest to the six members of the Group with a view to presenting the projects to the Chief Executives of the electricity companies at their first meeting on the margins of the COP22 in Marrakech in November 2016. Discussions centred among others on the construction of the interconnection line West Africa - Maghreb – Europe, renewable energy deposits and the development of the Regional Electricity Market.
- **Meeting on Maritime Energy in Africa at the Extraordinary Summit of the African Union on Maritime Security and Development in Africa** which was held on 12 October 2016 in Lomé. The aim of the meeting was to discuss the intensification of renewable energy projects including tidal and wind power as well as the private sector involvement in the provision of energy infrastructure and the use of power pools to optimize the sharing of energy resources in Africa. The meeting recommended among others the creation of regional centers for research into renewable energy.



CONCLUSION AND PERSPECTIVES FOR 2017

On the whole, significant progress was made by WAPP in the implementation of its activities set out in the 2016 -2019 Business Plan. Even though there were difficulties during the implementation of some projects, we remained focus on our set objectives. This performance can largely be attributed to the support and cooperation received from the TFP, the ECOWAS Commission and the Member Utilities who, in spite of their difficult financial situation continued to support the 2016 Work Programme and Budget.

In the year 2017, the WAPP Secretariat will remain faithful to the Business Plan (2016-209) by updating the ECOWAS Revised Master Plan for the Generation and Transmission of Electrical Energy (2012-20125), implementation the priority projects, continuing with establishment of the Regional Electricity market, implement the Fiber Optic Project and reinforce the capacity and competences of the human capital of the WAPP Secretariat and the Member utilities.

The specific objectives to be realized by Secretariat as set out in the 2017 work program are as follows:

- Mobilize funding for the implementation of the following projects :
 - 225 kV Guinea-Mali Interconnection Project
 - 225 KV Ghana - Burkina Faso – Mali Interconnection Project
 - 330 kV North Core (Nigeria - Niger - Benin / Togo - Burkina Faso) Interconnection Project;
- Prepare the pre-investment studies of the following projects :
 - 330 kV Nigeria - Benin Interconnection Reinforcement;
 - 150 MW Solar Park in Burkina Faso;
 - Development of the Amaria Hydropower project in Guinea;
- Update the ECOWAS Revised Master Plan for the Generation and Transmission of Electrical Energy (2012-2025);
- Coordinate and monitor the implementation of the 450 MW Maria Gleta (Benin) and 450 MW Domunli (Ghana) Regional Power Generation Project;
- Monitor the implementation of the following projects:
 - 330 kV Volta (Ghana) -Lomé 'C' (Togo) - Sakété (Benin) Interconnection Project
 - 225 kV Bolgatanga (Ghana) - Ouagadougou (Burkina Faso) Interconnection Project,
 - 330 KV Aboadze - Prestea - Kumasi - Bolgatanga Transmission line in Ghana
 - 225 kV CLSG (Côte d'Ivoire, Liberia, Sierra Leone, Guinea) Interconnection Project
 - 330 kV Côte d'Ivoire – Ghana Interconnection Reinforcement Project
 - 450 MW Souapiti Hydropower Project in Guinea
 - 225 kV OMVG (Senegal, Gambia, Guinea and Guinea-Bissau) Inteconnection Project
 - 147 MW Adjarala Hydropower Project (Togo / Benin)
- Coordinate the construction of the ICC building at Calavi, Benin;
- Recruit EPC contractor for the WAPP Synchronization;
- Facilitate the implementation of the roadmap of the Regional Market of Electricity;

- Facilitate Regional Exchange of Energy
- Implement the investment program and reduction of losses on the distribution network of member utilities of WAPP;
- Recruit the Management Company for the WAPP Fiber Optic Project;
- Certify WAPP System Operators;
- Reinforce technical cooperation with Stakeholders



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