

ECONOMIC COMMUNITY OF WEST AFRICAN STATES

FORTIETH ORDINARY SESSION OF THE AUTHORITY OF HEADS OF STATE AND GOVERNMENT

Abuja, 16 to 17 February 2012

SUPPLEMENTARY ACT A/SA.12/02/12 ADOPTING THE REVISED MASTER PLAN FOR THE GENERATION AND TRANSMISSION OF THE ELECTRICAL ENERGY OF THE ECOWAS MEMBER STATES

THE HIGH CONTRACTING PARTIES;

MINDFUL of Articles 7, 8 and 9 of the ECOWAS Treaty establishing the Authority of Heads of State and Government and defining its composition and functions:

MINDFUL of Article 28 of the said Treaty on the promotion, cooperation, integration and development of the energy projects and sectors of the ECOWAS Member States;

MINDFUL OF Decision A/DEC.5/12/99 of the 22nd Summit of the Authority of ECOWAS Heads of State and Government held on 10 December 1999 in Lome on the establishment of a West African Power Pool (WAPP):

MINDFUL of Decision A/DEC.7/01/05 of the 28th Summit of the Authority of ECOWAS Heads of State and Government held on 19 January 2005 in Accra on the ECOWAS Revised Master Plan for the generation and transmission of electrical energy;

MINDFUL of Decision A/DEC. 18/01/06 of 12 January 2006 on the Articles of Agreement on the establishment and functioning of the WAPP;

A 31

my of som



- 2 -

MINDFUL of Decision A/DEC 20/01/06 of 12 January 2006, granting the status of Specialised ECOWAS Institution to the WAPP General Secretariat;

MINDFUL of Supplementary Act A/SA.4/01/08 of 18 January 2008 adopting the implementation of the WAPP Emergency Power Supply Security Plan;

CONSIDERING that the priority WAPP projects are at different stages of implementation and that their commissioning should result in the implementation of a power pool mechanism for the integration and exploitation of the national systems in a unified regional energy market with the ultimate goal of providing reliable and regular energy at competitive costs in the medium and long terms to the West African citizens;

RECALLING that the Revised Master Plan for the generation and transmission of electrical energy, its financing plan and implementation strategy were considered on 21 and 23 September 2011 in Cotonou and that their adoption was recommended to the WAPP Executive Council and General Assembly by the WAPP Strategic Planning and Environment Committee in collaboration with the Technical and Financial Partners, the UEMOA Commission, the Sub-regional Organisations and the Experts of the Ministries of Energy of the ECOWAS Member States, as well as the national energy companies;

CONSIDERING that at its 6th Session held on 28 October 2011 in Lome the WAPP General Assembly considered and adopted through Decision WAPP/40/DEC.28/10/11, the conclusions of the Revised Master Plan for the generation and transmission of electrical energy, its financing plan and implementation strategy and also recommended that the Committee of ECOWAS Ministers of Energy adopt the Revised Master Plan;

NOTING that the measures being taken at national level to resolve the sub-regional energy crisis increase the investment requirements and therefore should be strengthened;

Pal

7

my 980

ADAK.

W.

8



- 3 -

DESIROUS of putting in place a coherent framework and best investments planning in the energy sub-sector of the ECOWAS region;

ON THE RECOMMENDATION of the Sixty-seventh Ordinary Session of the Council of Ministers held in Abuja, on 19 and 21 December 2011 in Abuja;

HEREBY AGREE AS FOLLOWS:

ARTICLE 1

This Supplementary Act hereby adopts the Revised Master Plan for the generation and transmission of electrical energy of the ECOWAS Member States for a total amount of twenty six billion four hundred and sixteen million US Dollars (USD 26,416,000,000).

ARTICLE 2

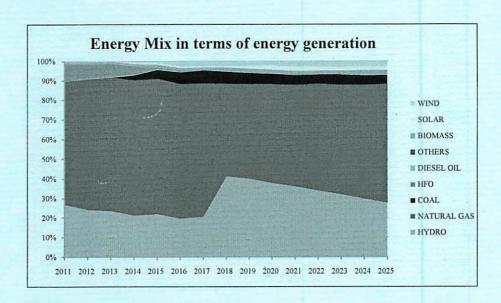
This Supplementary Act hereby equally adopts the following conclusions of the revision study on the ECOWAS Revised master Plan for the generation and transmission of electrical energy:

- 1. The urgent need of developing large-scale hydroelectric energy in the West African Sub-region;
- 2. The preservation of a balanced energy mix between the various energy sources with a view to ensuring technical and financial viability of the development plan;
- 3. The possibility of achieving 10% of renewable energy within the framework of the Master Plan;
- 4. The proposed energy mix is presented in the following chart:

AF 50 mm of 000 AD W



. 4 -



5. To resort to the clean energy mechanisms, especially the carbon credits (the benchmark is the preliminary computation of carbon dioxide emissions credits resulting from the renewable energy projects; the cumulative profit is estimated at approximately 19 million tons of CO2 per annum, equivalent to 209 million dollars per annum on the basis of 11 US Dollars per tonne).

ARTICLE 3

The projects identified in the Master Plan, annexed hereto and summarised in the table below, shall lead to total integration of the West African national electric systems:

	Number	Costs (billion US\$)
Hydroelectric Power Plant Projects (7 640		
MVV)	24	13.803
Thermal Power Plant Projects (2 375 MW)	5	4.263
Renewable Energy Projects (800 MW)	4	1.893
Transmission Line Projects (16 000 km)	26	6.457

RA

1

pm or old

ARK

W

RX X



- 5 -

ARTICLE 4

Implementation of the priority regional projects shall result in the growth of the Net Present value of US\$ 12.176 milliards for the region for the period 2012-2025.

ARTICLE 5

Installation of Power Stabilisation Systems (PSS) in the existing power generation plants, or even in future plants, shall be mandatory, and special protection and defence mechanisms such as under frequency and under-voltage shall be adopted and harmonised by the countries. Furthermore, installation of compensation equipments at strategic locations shall be required.

ARTICLE 6

To ensure effective and efficient implementation of the Revised Master Plan, the proposed implementation strategy shall be based on:

- Closer collaboration between WAPP, its members and the sub-regional organisations with a view to ensuring harmonious and coordinated development of the regional interconnected network;
- Promotion of the Specific Purpose Company (SPC) approach wherever necessary as an implementation mechanism of the project whose efficiency may alleviate or eradicate the major weaknesses that cause delays in implementation of the projects;
- Strong advocacy and support i) to individual country initiatives for greater private sector participation in the management of electricity companies, ii) for the use of prepaid meters, iii) to investments for the reduction of distribution losses and for greater energy efficiency as a means of improving the efficiency of the companies;

HE A

Fa T

from or

A &

X



- Search for financing arrangements such as concessional funds and such financial instruments as carbon credits, the Global Environment Fund and the EDF for the renewable energy projects;
- Creation of a Fund to finance development activities relating to WAPP projects such as the Fund put in place by the West African Economic and Monetary Union (UEMOA). This Fund such as the World Bank, the African Development Bank, the West African Development Bank, and the ECOWAS Commission.

ARTICLE 7

In view of the anticipated considerable finance requirements, the financing sources for the priority WAPP projects shall be diversified with a view to ensuring private sector participation and bilateral cooperation.

ARTICLE 8

Member States shall put in place the appropriate institutional frameworks to facilitate the immediate implementation of the projects by specifically creating the enabling environment for private sector participation. Member States shall allocate financial resources to the EDF Fund for the development and implementation of the renewable energy projects identified in this Revised Master Plan.

ARTICLE 9

WAPP Member States and electricity companies shall take the necessary measures to improve their technical, financial and marketing performances with a view to stimulating private sector participation in the development of the electricity sub-sector of the sub-region.

ARTICLE 10

The ECOWAS Commission shall provide WAPP with the required support for resource mobilisation with a view to accelerating the implementation of this Revised Master Plan.



ARTICLE 11

WAPP shall put in place the Information and Coordination Centre and provide it with a complete communication system to ensure, among other things, coordinated, efficient and stable exchanges of electrical energy.

ARTICLE 12

The electricity companies shall take measures to improve their technical, marketing and financial performances and become more proactive in reducing delays in project implementation in compliance with the requirements of the Technical and Financial Partners.

ARTICLE 13

Financial resources shall be allocated, within the framework of the ECOWAS Fund for Development Financing for Transport and Energy sectors (ECOWAS-FODETE), with a view to implementing the priority WAPP projects.

ARTICLE 14

The principle of using the Specific Purpose Company model as project implementation mechanism shall be strengthened in keeping with the provisions of Supplementary Act A/SA.3/01/08 of the Thirty-Third Ordinary Session of the Authority of Heads of State and Government held on 18 January 2008 in Ouagadougou.

ARTICLE 15

The President of the ECOWAS Commission and the WAPP General Secretary shall, each within his own purview, take the necessary measures to ensure effective implementation of this Supplementary Act.

ARTICLE 16

This Supplementary Act shall enter into force upon its signature and shall be published by the Commission in the Official Journal of the Community within thirty (30) days after its publication. It shall also be published by each Member State in its National Gazette upon notification thereof by the Commission.



- 8 -

ARTICLE 17

This Supplementary Act shall be deposited with the Commission which shall transmit certified true copies thereof to all Member States and register it with the African Union, the United Nations Organisation and such other organisation as Council may determine.

IN WITNESS WHEREOF WE, THE HEADS OF STATE AND
GOVERNMENT OF THE COMMUNITY OF WEST AFRICAN STATES,
HAVE SIGNED THIS SUPPLEMENTARY ACT

DONE AT ABUJA, THIS 17TH DAY OF FEBRUARY 2012

IN A SINGLE ORIGINAL IN THE ENGLISH, FRENCH AND PORTUGUESE LANGUAGES, ALL THREE (3) TEXTS BEING EQUALLY AUTHENTIC

AC PL

long of soo

April la

R



- 9 -

GENERATION

	PROJECTS		COSTS
1	Félou Hydroelectric Power Plant 60 MW 350 GWh	OMVS	170
2	PUSAE – Aboadze Thermal Power Plant 400 MW	WAPP	356
3	PUSAE – Maria Gléta Thermal Power Plant 450 MW	WAPP	401
4	Kaléta Hydroelectric Power Plant 240 MW - 946 GWh	Guinea	267
5	Mount Coffee Hydroelectric Power Plant 66 MW 435 GWh	WAPP	383
6	Sendou Coal Power Plant 875 MW	Senegal	2 532
7	Gouina Hydroelectric Power Plant 140 MW - 565 GWh	OMVS	329
8	OMVG - Sambangalou Energy Project 128 MW - 402 GWh	OMVG	433
9	Adjaralla Hydroelectric Power Plant 147 MW 366 GWh	WAPP	333
10	Balassa Hydroelectric Power Plant 181 MW - 401 GWh	OMVS	171
11	Badoumbe Hydroelectric Power Plant 70 MW - 410 GWh	OMVS	197
12	Souapiti Hydroelectric Power Plant 515 MW 2518 GWh	WAPP	796
13	Bumbuna Hydroelectric Power Plant 400 MW 1 560 GWh	WAPP	520
14	Fomi Hydroelectric Power Plant 90 MW 374 GWh	ABN	156
15	Soubre Hydroelectric Power Plant 270 MW 1 120 GWh	Cote d'Ivoire	620
16	Burkina Faso Solar Power Plant 150 MW	WAPP	549
17	Koukoutamba Hydroelectric Power Plant 281 MW - 455 GWh	OMVS	404
18	Senegal and Gambia Windfarm - 200 MW	WAPP	318
19	Gribo Popoli Hydroelectric Power Plant 112 MW – 515 GWh	Cote d'Ivoire	364
20	Boutoubré Hydroelectric Power Plant 156 MW – 785 GWh	Cote d'Ivoire	401

A T

4

Bon of go

By Mr.





- 10 -

21	Louga Hydroelectric Power Plant 280 MW – 1 330 GWh	Cote d'Ivoire	1 330
22	Kassa Hydroelectric Power Plant B 135 MW 528 GWh	WAPP	214
23	Amaria Hydroelectric Power Plant 300 MW 1 435 GWh	WAPP	377
24	Tiboto Hydroelectric Power Plant 225 MW 912 GWh	WAPP	578
25	Zungeru Hydroelectric Power Plant 700 MW 3 019 GWh	WAPP	1 077
26	Salkadamna (Niger) Coal Thermal Power Plant 200 MW	Niger	573
27	Mali Solar Power Plant 150 MW	WAPP	549
28	Boureya Hydroelectric Power Plant 160 MW - 455 GWh	OMVS	373
29	DIGAN Hydroelectric Power Plant 93,3 MW 243 GWh	OMVG	112
30	Grand Kinkon Hydroelectric Power Plant 291 MW 720 GWh	WAPP	298
31	Lome CC Thermal Power Plant 450 MW	WAPP	401
32	Mambilla Hydroelectric Power Plant 2 600 MW 11 214 GWh	WAPP	4 000
33	Northern Nigeria Windfarm 300 MW	WAPP	477

TRANSMISSION

	PROJECTS		COSTS
1	225 kV Line Ferkessédougou (Cote d'Ivoire) - Ségou (Mali) 370 km	WAPP	175
2	Reinforcement of Laboa – Boundiali - Ferkessédougou 285 km	Cote d'Ivoire	100
3	330 kV Coastal Ridge Line - Volta (Ghana) - Lome C (Togo) - Sakete (Benin)	WAPP	84
4	225 kV Line Bolgatanga (Ghana) - Ouagadougou (Burkina) 206 km	WAPP	74
5	225 kV Line Han (Ghana) - Bobo Dioulasso (Burkina) - Sikasso - Bamako (Mali)	WAPP	230
6	225 kV CLSG double-circuit Line 1060 km	WAPP	430

ED of Amy of THE



- 11

		:-	
7	330 kV Coastal Ridge Line - Aboadze (Ghana) - Riviera (Cote d'Ivoire)	WAPP	57
8	OMVG Energy Project - 225 kV Buckle 1677 km	OMVG	577
9	225kV Line Kayes (Mali) – Tambacounda (Senegal) 280 km	OMVS	6
10	330 kV Line – Internal Ridge between Prestea and Bolgatanga 640 km	Wapp	24
11	330 kV Line North Corridor 832 km between Birnin Kebi (Nigeria) – Niamey (Niger) – Malanville (Benin) – Ouaga Burkina	WAPP	54
12	760 kV Super Grid Line across Nigeria 2 700 km	WAPP	2 000
13	Reinforcement of 225 kV CLSG Second Circuit 1060 km	WAPP	69
14	225 kV Line Linsan (Guinea) - Fomi (Guinea) - Bamako (Mali) and Fomi - N'Zerekore 1350 km	WAPP	550
15	Reinforcement of the 225 kV Line Soubré - Taabo – Yopougon 2	Cote d'Ivoire	69
16	225 kV double-circuit line Linsan (Guinae) - Manantali (Mali) -	OMVS	131
17	Reinforcement of the section Manantali - Bamako - Sikasso	Mali/OMVS	151
18	225 kV Line San Pedro (Cote d'Ivoire) - Buchanan 400 km	WAPP	100
19	225 kV double-circuit Line Fomi (Guinea) - Boundiali (Cote d'Ivoire) 380 km	WAPP	111
20	Reinforcement Linsan - Fomi 430 km	WAPP	65
21	Reinforcement Boundiali - Ferkessédougou - Bobo Dioulasso - Ouagadougou 716 km	WAPP	103
22	330 kV Medium Ridge Line 713 km	WAPP	238
23	225 kV Line Salkadamna - Niamey 190 km	Niger	72
24	Reinforcement of OMVG's Western section	OMVG	141
25	Reinforcement of the Coastal Ridge section Lome C - Sakete	WAPP	46
26	Reinforcement Benin - Nigeria 330 kV double- circuit - Sakete and Omotosho 120 km	WAPP	39

RA

F0 4

my or age

AN W





H. E. Thomas Boni YAYI
President of the Republic of Benin

H.E. Jose Maria Pereira NEVES

Prime Minister and Head of the Government
of the Republic of Cape Verde

H. E. Abdou KOLLEY

Minister of Fisheries, Water Resources and National Assembly Matters for and on behalf of the President of the Republic of The Gambia

H.E. Alpha CONDE

President of the Republic of Guinea

H. E. Mrs. Ellen JOHNSON-SIRLEAF President of the Republic of Liberia

H.E. Issoufou MAHAMADOU

President of the Republic of Niger

H.E. Mamadou NDIAYE

Ambassador, Director of Cabinet to the Minister of Foreign Affairs, for and on behalf of the President of the Republic of Senegal

H. E. Blaise COMPAORE President of Burkina Faso

H. E. Alassane OUATTARA

President of the Republic of Cote d'Ivoire

H.E. Alhaji Muhammad MUMUNI

Minister of Foreign Affairs and Regional Integration for and on behalf of the President of the Republic of Ghana

H.E. Raimundo PEREIRA

Interim President of the Republic of Guinea Bissau

H. E. Badara Aliou MACALOU

Minister of African Integration and Malians Abroad, for and on behalf of the President of the Republic of Mali

H. E. Goodluck Ebele JONATHAN, GCFR

President of the Federal Republic of Nigeria, Chairman of the Authority of Heads of State and Government of ECOWAS

H. E. Ernest Bai KOROMA

President of the Republic of Sierra Leone

H. E. Eliott OHIN

Minister of Foreign Affairs and Cooperation, for and on behalf of the President of the Togolese Republic