

4. THE REGIONAL INITIATIVE FOR SUSTAINABLE ENERGY (IRED): A COMMUNITY STRATEGY FOR ABSORBING THE ENERGY DEFICIT IN WAEMU COUNTRIES

For several years, countries belonging to the West African Economic and Monetary Union (WAEMU) have been experiencing a severe crisis in the electricity sector, as a result of the widening of the gap between supply and demand for electricity due to the rapid population growth and the rise in economic activity.

The initiatives taken by WAEMU Member States to improve the situation turned out to be very costly and did not succeed in raising the level of supply. These rather disappointing results can largely be attributed to the nature of the countries' electricity base, mainly thermal, and to outdated production tools and transportation equipment due to the lack of investment.

In view of this situation, which hampers economic growth and reduces companies' competitiveness, the Heads of State of WAEMU countries approved in March 2009 a strategy entitled "Initiative Régionale pour l'Energie Durable (IRED)" (Regional Initiative for Sustainable Energy). This community initiative should help to cover all of the Member States' needs for electricity by 2030.

This note is divided into three parts: the origins, the strategy and the implementation of the IRED.

I- THE ORIGINS OF THE IRED

1- *Situation of the electricity sector in WAEMU countries*

The situation of the electricity sector within WAEMU countries is a source of concern. The assessment conducted in 2008 pinpoints the following:

- A very low electrification rate (30% on average), with sharp disparities between countries on the one hand, and between town and country on the other;
- Relatively high kWh prices: the price of electricity, under the social consumption bracket in WAEMU, amounts to an average of 100 FCFA/kWh, compared with 16.7 FCFA/kWh in Nigeria, 56.8 FCFA/kWh in Ghana and 89.2 FCFA/kWh in Morocco;
- Largely outdated production tools and transportation equipment, due to a lack of investment, resulting in huge energy losses;
- the very shaky financial situation of public power operators;
- an electrical energy production model that weighs heavily on the public finances of Member States, on account of the large amount of subsidies to the sector;
- a low level of public and concessional investment in the electricity sector;
- hardly any private investment in the sector, due to the narrowness of national markets and the low degree of integration of networks across the Union;
- an institutional weakness that hampers the implementation of new projects.

2- *Setting up of the IRED*

In view of the observed shortcomings that contribute to limiting the supply of electrical energy, despite the large energy resources throughout the Union, the Heads of State instructed the community bodies and institutions to identify the appropriate measures to be implemented in order to remedy this situation. An "Energy and Financing of the economy" committee was set up, under the leadership of his Excellency, Dr Boni Yayi, President of the Republic of Benin.

Following these discussions, the committee submitted to the Conference of Heads of State and Government, during its session of 17 March 2009 in Ouagadougou, the Regional Initiative for Sustainable Energy (IRED) as a strategy for reaching a lasting solution to the energy crisis in WAEMU.

II- STRATEGY OF THE IRED

1- Vision and strategic priorities

The IRED represents a strategic break with the past in the electrical energy sector in WAEMU, by focusing on renewable energy for the long-term and by encouraging public-private partnerships for developing the sector.

It is based on an ambitious vision of making access to electricity more widespread, as expressed in the following statement: "In 2030, all WAEMU citizens will have access to low-cost, clean energy, within a broad market for electrical energy that will be integrated and harmonised across West Africa and will rely on dynamic public-private partnerships".

In this respect, the main objectives of the IRED are:

- to promote a universal access to electricity, by raising the electrification rate in WAEMU from 30% in 2008 to 80% in 2020 and to 100% in 2030;
- to reduce the price of electricity to reinforce competitiveness and economic growth in WAEMU countries. The objective is to lower the average price of electricity in WAEMU to 30 FCFA/kWh (production price) by 2020;
- to develop a clean energy by making an optimal use of WAEMU's potential in the areas of hydroelectricity, solar energy and biomass, and by enabling WAEMU to take the best advantage of the clean development mechanisms and the funds available on the carbon market.

The four strategic priorities of the IRED are:

Priority 1: Develop a diversified, competitive and sustainable supply

To strengthen supply, the strategy of the IRED takes into account the projects underway in WAEMU and provides solutions to short, medium and long-term deficits.

In the short run (2010-2012), the priority will be to increase the supply of electrical energy in order to reduce the deficit by rehabilitating and repairing existing groups and speeding up the projects underway in WAEMU countries.

In the longer run (2013-2020), efforts will focus on improving the supply of electrical energy in a context of greater competitiveness by increasing the share of hydroelectric power (from 38% in 2008 to 45% of total power in 2020).

Between 2021 and 2030, WAEMU will take advantage of its substantial potential in renewable energy resources (solar, biomass, hydroelectricity) to replace fossil resources and meet the demand for electricity. This phase marks the emergence of an integrated trading market and the sustainable development of the electricity sector in WAEMU. It will contribute to meeting the rise in demand spurred by less costly and more competitive energy, with supply based for more than 60% on renewable energy.

Beyond 2030, nuclear power will represent a credible source of energy, which requires WAEMU to start taking the necessary measures for developing this technology.

Overall, these initiatives for increasing the supply of electricity in WAEMU countries will represent an additional power of 21.984 MW by 2030.

Priority 2: Draw up a regional plan for controlling the consumption of electricity

This axis consists in smoothing peak demand between 2010 and 2012, then reducing the electricity consumption costs of households, general government, local and regional authorities and street lighting. These objectives shall be reached through the implementation of the Regional programme for the improvement of energy efficiency (Programme Régional d'amélioration de l'Efficacité Energétique - PREE).

The PREE will include a regional communication campaign for spreading the energy saving objectives common to WAEMU Member States, i.e. a 10% reduction in peak lighting and a decline in the use of incandescent light bulbs by replacing them by energy saving light bulbs by 50% in towns and 100% in the country.

A programme for promoting the development of renewable energy projects will also be put in place. It will include aids for setting up energy service providers, with an attractive tax treatment and higher taxation for high energy use appliances.

Priority 3: Speed up the emergence of the regional electricity market and reforms

The small size of the electrical systems in WAEMU countries and the experience of the other regions show that the electrical energy sector can only develop optimally within a regional framework. Priority 3 therefore consists in meeting the urgent necessity to set up a regional integrated market for trading electrical energy, with a common, harmonized and transparent institutional framework and regulations. It will thus contribute to the setting up of a critical sized market that is open in all countries and pools primary electricity resources. This development will help to attract independent electricity producers in the sector and eventually put an end to the deficit.

The setting up of this regional market will require a high level of cooperation between Member States in order to establish interconnections, speed up the unification of national markets and create independent regulatory structures with sufficient authority regarding the arbitrage and management of disputes and conflicts.

It will also be necessary to support the implementation, at the level of the CEDEAO (Communauté Économique des États d'Afrique de l'Ouest), of the emergency programme of the West African Power Pool (WAPP) by creating energy free zones, to encourage and promote public-private partnerships in order to mobilise public and concessional financing.

Priority 4: Set up a mechanism for financing the electricity sector

The funding needed to develop the supply of electricity will amount to over FCFA 20, 677 billion by 2030, of which 10% for the 2010-2012 emergency programme.

Setting up a financing mechanism will involve the creation of a concessional fund that will draw on community resources and be dedicated to boosting the supply of electricity, especially during the 2010-2012 emergency period.

In the longer run, private investors will be attracted by the setting up of an investment fund entirely dedicated to the financing of infrastructure projects.

2- Institutional and financial frameworks

2.1- Institutional framework

An institutional organisation has been put in place to ensure the coherence and efficiency of actions to be carried out in the framework of the IRED. In this respect, four key bodies have been set up:

- the **Steering Committee**: it is composed of the President of the WAEMU Commission, the

Governor of the Central Bank of West African States (BCEAO) and the President of the West African Development Bank (BOAD) and is charged with defining broad guidelines, overseeing the implementation of the IRED and deciding on the necessary resources. It reports on the implementation of the IRED to the Council of Ministers and to the Conference of Heads of State and Government of WAEMU;

- the **Technical Monitoring Committee**: it is composed of representatives of the WAEMU Commission, the BCEAO and the BOAD; it takes decisions regarding the eligibility of the projects submitted for financing to the Energy Development Fund (Fonds de Développement Energie - FDE) and monitors the execution of the IRED;
- the **FDE Donors Council**: it is chaired by the Governor of the BCEAO and includes the President of the WAEMU Commission, the President of the BOAD and representatives from the other contributors to the FDE. This Council receives from the Technical Monitoring Committee project proposals submitted for FDE financing and decides on the amounts to be allocated;
- the **Regional Coordination Unit**: it is the operational body of the IRED framework within the WAEMU Commission and ensures the technical coordination of the implementation of the IRED. It receives and analyses requests submitted for FDE financing. It forwards to the BOAD the requests deemed eligible for FDE financing in order for it to study them and prepare forms for inclusion in the projects portfolio .

2.2- Financial framework

Two funds have been set up to finance the actions carried out under the IRED: the Energy Development Fund (FDE) and the Private Investment Fund for financing infrastructures.

The FDE is a concessional fund of FCFA 500 billion aimed at backing the IRED in its start-up phase. It was set up in September 2009 following a decision of the Council of Ministers of WAEMU. It received an initial endowment of FCFA 250 billion, which was supplemented by the BCEAO (190 billion) and the WAEMU Commission (60 billion). This endowment will act as a lever for raising additional funds from investors and other partners in the development field.

The FDE will contribute, up to FCFA 235 billion, to the financing of projects for increasing supply, the energy saving programme, supporting restructuring programmes for electrical companies and initiatives for setting up an attractive harmonized public-private partnership framework. It will also take part in the initial capitalization of the Private Investment Fund up to FCFA 15 billion.

As regards the Private Investment Fund, it is intended to finance private investment projects in the electrical energy sector. It is aimed at financing the restructuring of electricity companies, the emergency programme and medium and long-term projects. It is a profit-making fund, which grants financing according to market terms and conditions. Its initial endowment is expected to stand at a minimum of FCFA 1,000 billion.

3- Expected impacts

Implementing the IRED should help to progressively absorb the deficit and allow the development of an integrated, adequate and secure electricity supply, by taking advantage of regional potentialities. It should also lead to a reduction, over the years, in the price of electricity in WAEMU. It should thus result in:

- restored profitability and increased performances of electricity companies, in particular on account of a decline in production costs, the modernisation of electricity production, measurement and pricing systems;
- enhanced competitiveness of WAEMU Member States, which would break out of the "vicious circle" of high production costs linked to the energy deficit;
- the development of the productive sector, in particular industries and small and medium-sized enterprises in the manufacturing sector;

- an increase in GDP growth, of roughly 0.6 point on average per year over the period 2010-2012. Overall, the IRED should provide WAEMU countries with sufficient electricity to reach an economic growth rate of 7% per year, which is required to effectively combat poverty.
- an improvement in the fiscal position of WAEMU Member States through a significant reduction in their electricity bills for street lighting or that of administrative buildings, and the sharp decline in subsidies to the energy sector;
- a higher level of development and welfare through an improvement in the population's living environment and quality of life: lighting, air conditioning, food preservation, access to information (Internet, television, etc.), and better access to drinking water, health services, education;
- an important contribution to the nature conservation efforts, as a result of the significant decline in traditional energy consumption at the root of the massive deforestation and desertification.

The implementation of the IRED should also strengthen economic integration in WAEMU, through the setting up of a regional market for trading electricity as laid down in the Strategy.

III- IMPLEMENTATION OF THE IRED

1- *Making the IRED operational*

Once the texts of the IRED had been adopted by the Council of Ministers, the WAEMU Commission, the BCEAO and the BOAD took the necessary measures for its immediate implementation. In November 2009, its governance structures were put in place by the adoption of the internal regulations of the Technical Monitoring Committee, the Steering Committee and the FDE Donors Council.

Measures were taken to ensure that the Regional Coordination Unit become operational. To this end, the WAEMU Commission was allocated a funding of FCFA 500 million by the Agence Française de Développement (AFD).

In addition, the Steering Committee set the terms and conditions for the payment of BCEAO and WAEMU Commission contributions to the initial endowment of the FDE. It also approved the approach for searching for external financing for the FDE.

The eligibility criteria for FDE funding and the intervention modalities of the Fund were specified and adopted by the managing authorities of the IRED.

In order to be eligible for FDE funding, projects will have to meet the following non-exhaustive list of criteria:

- strongly contribute to the security of energy supply and the reduction in the short-term deficit;
- contribute to the development of a diversified, competitive and sustainable supply, which guarantees the lowest possible production cost through the use of the best technologies, in particular, gas, fuel-gas, heavy fuel, hydroelectricity, renewable energy, nuclear energy, etc ;
- be an integrating project, i.e. common to at least two countries or profitable in the longer run to other WAEMU countries;
- make a significant and lasting contribution to the increase in the supply of electricity in WAEMU;
- be based in at least one of the WAEMU Member States;
- concern solvent electricity companies or with sufficient guarantees to reimburse the credit granted to them;
- have no negative or unmanageable impact on the environment;
- promote the emergence of regional markets for trading electrical energy through interconnections.

As regards intervention conditions, it should be noted that the loans granted by the FDE have an interest rate of 1.5% and a maturity of 27 years, of which 6 years of deferred payment. With regard to the private projects eligible under the IRED and submitted by WAEMU States, the loan taken out by these countries could be retroceded to private companies at a maximum interest rate of 5%.

In addition, the funding ceiling per project amounts to 10% of the initial endowment of the FDE (i.e. FCFA 25 billion) and must not exceed 90% of the total cost of the project.

2- Project financing kick-off and prospects

The resources of the Energy Development Fund are both internal and external.

As regards internal contributions, the amounts collected in 2010 stood at FCFA 61.4 billion, of which FCFA 46.4 for the BCEAO and FCFA 15.0 billion for the WAEMU Commission. A contribution of FCFA 60.0 billion is expected in the course of 2011, of which FCFA 45.0 billion for the BCEAO and 15.0 billion for the WAEMU Commission.

In order to mobilise external financing, the Steering Committee of the IRED has decided to organize a series of missions among thirteen investors identified as potential contributors to the FDE, based in Africa, Europe and the United States.

These missions started with a visit by the President of the BOAD and his staff to the Agence Française de Développement (AFD) in Paris, the European Commission in Brussels and the Banque d'Investissement et de Développement of the CEDEAO (BIDC) in Lomé from 20 to 26 November 2010. It was reported that the technical and financial partners showed a great interest in the IRED and expressed their wish to support the implementation of the Strategy.

Belgium has already contributed EUR 2 million to the FDE and plans on contributing an additional EUR 3 million.

On the basis of the resources collected, WAEMU Member States received their first loans of between FCFA 15 billion to FCFA 25 billion under the priority projects submitted to the FDE.

As regards future prospects, the implementation of the IRED should gain momentum over the coming months in order to make up for the lost time observed on the chronogram. To this end, emphasis will be placed on pursuing and accentuating the priority actions of the emergency projects, in particular the projects for enhancing the supply of electricity, the electrical interconnection projects and the Regional programme for the improvement of energy efficiency (PREE).