

Regional Energy Integration in West Africa. The journey so far

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The Economic Community of West African States (ECOWAS)-region faces significant challenges in terms of energy delivery. Despite the vast energy resources of its 15 member states, the regional energy market remains largely underdeveloped. This has obvious implications for efforts geared towards spurring on socioeconomic activities, attracting much needed foreign investment, poverty eradication, the provision of basic social services and the attainment of the Millennium Development Goals (MDGs). As part of the efforts to increase access to modern energy services in the region, ECOWAS is actively engaged in regional integration and cooperation in the area of cross-border infrastructure projects for electricity and gas supply as well as in the harnessing of its renewable energy and energy efficiency potentials. This paper, written as a follow up to the Potsdam Spring Dialogues 2013 entitled “Fostering Energy Access in Africa: Challenges and Opportunities for Regional Integration” provides an overview of the energy integration efforts of ECOWAS and the challenges it faces in this critical endeavour.

We are all familiar with the problem. Africa possesses enormous energy resources – conventional and renewable – but yet the majority of its citizens lack access to modern energy services. The ECOWAS member states’ energy resources range from hydro-electric power, crude oil, natural gas and coal to solar, wind and bioenergy. Despite these potentials

however, less than 10% of the population have access to electricity or the services it provides, with traditional biomass accounting for 80% of the domestic energy needs of the majority poor.

Compared to the continental and global level, the region’s average electricity consumption rate is among the lowest in the world. Within countries, there are significant disparities in terms of electricity access. For instance, while the region’s total household access is estimated at 20%, the rate of access in urban areas is 40%, while rural areas account for only 6% to 8%.

This has obvious implications, as the role of energy in poverty alleviation, socioeconomic development and the attainment of the Millennium Development Goals in Africa and beyond has been well documented. As part of the efforts to increase access to modern energy services in the region, ECOWAS is actively engaged in regional integration and cooperation in the area of cross-border infrastructure projects for electricity and gas supply as well as in the harnessing of its renewable energy and energy efficiency potentials. The gravitation towards a regional solution to the energy security challenges currently facing the region is born out of the capital-intensive nature of energy projects and economies of scale considerations as well as the fact that regional cooperation could help to address the region’s uneven distribution of energy resources.

Regional Energy Integration Efforts

Article 28 of the ECOWAS Treaty of 1975, revised in 1992, is concerned with the energy sector and seeks to establish a common energy policy and a collective solution for the resolution of energy development problems in member countries. In this regard, the ECOWAS Regional Energy Programme was embarked upon – with a view to improving access to modern forms of energy by developing regional resources and actively pursuing regional cooperation and integration, particularly in the area of cross-border infrastructure projects for electricity and gas supply. These are some concrete results of the regional energy integration efforts so far:

- The development of the West African Power Pool (WAPP) and its Master Plan. Both aim at the creation of a regional electricity market by 2020/25.
- The development of the West African gas pipeline (WAGP). The West African Gas Pipeline Project is a 600 km pipeline designed to transport Nigerian natural gas to power plants and industries in the neighbouring countries of Ghana, Togo and Benin.

In order to achieve the ECOWAS Energy Efficiency Policy objectives, priority regional flagship energy efficiency initiatives were launched:

1. Lighting – to phase out inefficient incandescent bulbs by 2020;
2. Electricity distribution – to reduce average losses in electricity distribution from the current level of 15 - 40% to 7%, by 2020;
3. Cooking – to achieve universal access to safe, clean, affordable, efficient and sustainable cooking for the entire population of ECOWAS by 2030;
4. Standards and Labels – to establish and adopt initial region-wide standards and labels for major energy equipment by end 2014;
5. Finance – to create instruments for financing sustainable energy, including carbon finance, by the end of 2013;
6. Buildings – to develop and adopt energy efficiency standards at the regional level for buildings;
7. Gender – to mainstream gender issues in energy access programmes.

- The establishment of the ECOWAS Regional Electricity Regulatory Authority (ERERA). The establishment of ERERA was informed by the need to promote the development of infrastructure, improve governance of the sector and attract significant private capital.
- The establishment of the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE), the first regional renewable energy promotion agency in Sub Sahara Africa, with the support of Austria, Spain and UNIDO.
- The adoption of the ECOWAS Renewable Energy Policy and the ECOWAS Policy on Energy Efficiency by the ECOWAS Energy Ministers in 2012. Both policy processes were developed with the support of the Africa-EU Renewable Energy Cooperation Programme (RECP) and the ACP-EU Energy Facility of the European Union.
- The ECOWAS Regional Renewable Energy Policy aims to ensure increased use of renewable energy sources such as solar, wind, small-scale hydro and bioenergy for grid electricity supply and for the provision of access to energy services in rural areas. The policy scenario will complement other important conventional sources for power production (e.g. large hydro and natural gas). The policy primarily focuses on the electricity sector, but also considers some additional issues regarding the use of heat in the domestic energy sector and the potential production of biofuels. The specific objective of the renewable energy policy is to increase the share of renewable energy in the region's overall electricity mix to 10% in 2020 and 19% in 2030. Around 25% of the rural ECOWAS population will be served by mini-grids and stand-alone systems by 2030.
- The ECOWAS Energy Efficiency Policy aims to implement measures that free 2000 MW of power generation capacity and in the long term, more than double the annual improvement in energy efficiency, so as to attain levels comparable to those of world leaders.

Obstacles to the Energy Integration of West Africa

While progress has indeed been made in terms of developing a regional framework condition for the provision of affordable and reliable electricity, there are, however, several constraints to the realisation of the ideals of a liberalised regional electricity market:

Free Riding

Despite attempts at reforming the region's power sector, the private sector has been reluctant to mobilise much needed investment due to the non-profitability of power generation and distribution. There is the sense that return on investment will not be commensurate given the fact that tariff structures across most countries of the region are not commercially viable. The non-profitability of the region's energy market makes it increasingly difficult to persuade the private sector to provide the significant investment outlays required for power generation and transmission facilities.

Poor Restructuring of Energy Sectors

The electricity markets in different ECOWAS Member States reveal a slow movement towards disengagement of national governments from its operational activities. That majority of the national electricity systems remain dominated by the historical operator and the liberalization process is very slow in incorporating new actors into the sector. The structure of national markets, as they currently operate, discourages private sector participation and thus constitutes a major obstacle to the development of the regional market.

Inadequate Regulatory Frameworks

Given the inadequate institutional and regulatory environment in which the West African electricity industry operates, there will be significant challenges in the implementation of liberalisation policies at the national level. This may prove even more difficult when applied to the peculiar nature of cross-border electricity exchanges between countries.

Absence of a "Best Shot" Country

Nigeria occupies a strategic position in the West African sub-region and possesses the most important hydroelectric resources, as well as almost all gas and crude oil reserves in the sub-region – and is therefore best placed to lead the region's energy integration efforts. Thus, it is imperative that Nigeria urgently develops its energy infrastructure as this will impact significantly on the region's energy security ambitions.

Recommendations

The solutions to the energy challenge facing West Africa are evident. The efficient provisioning of energy infrastructure and particularly electricity supply requires that all stakeholders work together to create incentives to attract the necessary investment in the sector.

The importance of political will, especially at the national level, cannot be over-emphasized as national governments are critical in ensuring that adequate funding (internal and external) are channelled to the energy sector. They also have the responsibility to bring about reforms targeting marginalized customers – the rural, mainly poor, population. Providing energy access to the rural population requires a combination of effective leadership, cross-sector subsidies between categories of electricity customers and low interest rates on loans to state utilities and budgetary support to rural electrification agencies. There must also be strong commitment and fruitful collaboration among governments, the private sector, the donor/lender community, civil society as well as the international community.

A no-gas flare regime must be imposed in the region and national and international oil companies operating in the sector provide incentives to invest in gas gathering infrastructure that feeds power plants and the West Africa Gas Pipeline. The recent call by the ECOWAS Energy Ministers for a feasibility study to be conducted on the optimised operation of the gas pipeline and its extension to more member states is also a welcomed development.

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