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The challenges of power supply in enhancing integration processes in ECOWAS member countries

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THE CHALLENGES OF POWER SUPPLY IN ENHANCING INTEGRATION PROCESSES IN ECOWAS MEMBER COUNTRIES

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Abstact

The birth of the Economic Community of West African States (ECOWAS) in 1975 as an instrument for fostering regional development and unity was also due to the limited economic coherence within the sub-region. This prompted their leaders to embrace regional integration as a central element of their development strategy. There has been increased awareness among these countries that progressive integration holds great potential for minimizing the costs of market fragmentation and thus, represents a precondition for integrating the region into the global economy. Cooperation and integration is also necessary to improve West Africa's competitiveness and position it to maximize the benefits of globalization. Enhancing the region's access to global markets will inevitably dovetail into sustaining economic and social growth. Power and energy are indispensable for sustainable development. Reliable power supply is an absolute prerequisite to economic growth; jobs creation; enhancement of value-added economic activities and support of income-earning activities not only in the urban but especially in rural areas, thus improving living standards. Integration is one of the most promising and cost-effective options for the Economic Community of West African States (ECOWAS) to further the development of its energy sector, in order to gain the environmental, social and economic benefits accruing from a more efficient use of resources. It was in realization of the above that ECOWAS leaders in November 1999 conceived the idea of West African Power Pool (WAPP) and the West African Gas Pipeline (WAGP) aimed at integrating power and energy supply to the region. However, as sound and well conceived this line of reasoning might be, the region still suffers from inadequate power.

1.0 INTRODUCTION

The most significant challenge facing the West Africa today is access to adequate power supply. Energy is a significant part of the total infrastructure that allows rural and urban poor to grow beyond subsistence activity, to generate individual savings and increase their demand for modern energy services. It must be stated upfront that the region is more than adequate to meet its short and medium-term requirements, taking into account the numerous resources in terms of human and material resources, especially water which can be harnessed into hydroelectricity. For example, the bandama river in Cote d'ivoire, Cavally river that span through Liberia and Cote d 'Ivoire, River Niger which passes Mali, Guinea, Niger and Nigeria, Volta River which cut across Ghana and Burkina-Faso to mention just a few which if adequately harnessed are the drivers for growth and economic development.

Generally, infrastructures are facilities and amenities which a population needs for its welfare, some of which are basic necessities of life that every primitive society needs to be able to survive. The quality of life in a society is to a large extent determined by the quality and quantity of infrastructural facilities and services available to it at any given point in time. The importance of these especially the energy supply cannot be overemphasized.

Power is very important in the quest for economic and industrial development of any nation. With steady power supply, the simulation of indigenous technological development as well as creation of job for teaming graduates becomes inevitable. More importantly the cost of doing business in West Africa is bound to reduce with better returns to investors, and it could also lead to the opening up of new areas of manufacturing that once seemed unattractive for investors as a result of new reliance on uninterrupted power supply. The achievement of increasing returns coupled with increased output made possible by increased investment in the electricity sector would impact positively on other sectors of the economy and ultimately on economic growth.

The objective of the paper is to examine the benefits and the challenges that would accrue to ECOWAS countries by harnessing the potentials of their energy through integration for development. This is because, integration holds great potential for minimizing the costs of market fragmentation and thus, represents a precondition for integrating the region into the global economy. Cooperation and integration is also necessary to improve West Africa's competitiveness and position it to maximize the benefits of globalization. Enhancing the region access to global

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markets will inevitably dovetail into sustaining economic and social growth. Power and energy are indispensable for sustainable development.

This paper is structured into six parts. The introduction forms part one while part two reviews the literature. Part three is devoted to advantages that would accrue to the region through integration while part IV deals with the appraisal of policies with special reference to energy (electricity) for sustainable integration and development in West Africa. Part five and six concludes the paper with some recommendations.

2.0 REVIEW OF LITERATURE

Comparative economic history has shown that sustainable social development will remain a mirage in any developing country if the energy sector is neglected. The importance of energy in the economic development process particularly of developing countries is well known and documented in the literature (ADB, 1996; Iwayemi, 1983, 1993, 1998; Karekezi and Ranja, 1997; Orubu, 2004). This is because energy demand, supply and pricing impact positively on the socio-economic development, the living standards and the overall quality of life of the people (Iwayemi, 1998). The extensive use of energy and energy based inputs in the production process of nations cannot thus be overemphasised.

Historically, increases in power sector had been the traditional path to industrialization and economic development. The long-term economic and social development of any country particularly in ensuring rapid industrial production not only in the big industrial set up of West Africa but also the Small and Medium Scale Enterprises (SME) requires the effective delivery and management and use of its energy resources especially electricity. The causality between energy consumption and economic growth especially in enhancing integration was first brought to light by the seminal paper of Kraft and Kraft (1978). They averred that while the level of economic activity may influence energy consumption and enhance integration, the level of gross energy consumption has no causal influence on economic activity. The implication being that energy conservation policies can be intimated without aggravating the side effects of economic growth.

Other studies that have found unidirectional relationship running from regional growth to energy consumption are Soytas and Sari (2004) for Italy and Korea; Fatai, Oxley and Scrimgeour (2004) in New Zealand; Ghosh (2002) for India (using inter-country electricity consumption), for Taiwan (using coal consumption); Cheng and Lai (1997) in Taiwan Province of China; Ageel and Butt (2001) for Pakistan among others.

Soytas and Sari (2002) and Lee (2004) for Taiwan are some other studies that have also found unidirectional relationship from energy consumption to economic growth and not in the reverse unlike the earlier examples. Similar studies have also established bidirectional causality between economic growth and energy consumption. Examples are Glausure and Lee (1977) for South Korea and Singapore.

Ebohon (1996) investigated the causality between energy consumption and economic growth for Nigeria. He noted that power is life, consequently its quality, quantity, availability, accessibility and reliability for life sustenance in particular in boosting industrial production cannot be overemphasized. Access to electricity remains an urgent human need in many ECOWAS countries. Despite the fact that budgetary provisions were made for power, actual provision have not met the expectations of the generality of the people.

Adequate policies in the energy sector supported by adequate legal and institutional framework are essential tools for sustainable development. Indeed, throughout the world those countries that industrialized rapidly had already built up strong energy sector. Today, globalization is usually discussed as if it is only concerned with the advancement of information technology and the development of a vibrant and productive manufacturing sector. The importance of power sector for sustainable development in a globalizing economy has become critical. West Africa, like many other regional blocs, have over the past four decades stated and pursued the objective of accelerating the pace of development of the economy in the bid to transform into the group of developed or industrialised region.

3.0 REGIONAL INTEGRATION IN ECOWAS COUNTRIES THROUGH POWER SUPPLY

The delineation of West Africa into many countries with limited economic, political or geographical coherence, following political independence, led ECOWAS leaders to embrace regional integration as a central element of their development strategies. Except some few, the small size of the economy provided the rationale for pursuing mutually beneficial economic cooperation and regional integration. There is a growing realization among the regional leaders that progressive integration holds a greater potential for minimizing the cost of market fragmentation and thus, represents a precondition for integrating the countries into the global economy. Specifically, regional cooperation and integration are also necessary to increase ECOWAS countries access to global markets. Thus, the vision and commitment of West African leaders to the objective and principles of political and economic cooperation, led them to create the Economic Community of West African States (ECOWAS) in 1975 as an instrument for fostering regional development and unity.

3.1 Advantages of Regional Integration

Regional economic integration has an important role to play in accelerating economic growth and sustainable development in West Africa and in the following ways:

- Regional energy cooperation and integration offer one of the most promising and cost-efficient options for developing countries, especially in West Africa to further develop the power and energy sectors, in order to gain

the environmental, social and economic benefits from a more efficient use of resources.

- Regional energy integration has been playing an important role in securing provision of energy services to millions of people in West Africa. Market expansion, which will promote greater specialization and faster industrialization through economies of scale and will help mitigate the problems associated with smaller market size in the region.

- The growth in domestic and foreign direct investment and the increasing competitiveness of the region in the world economy.

- Rapid and extensive improvement in economic efficiency through enhanced competition among the participating countries and increased incentives for the deployment of new technologies and methods of production alongside rapid innovation.

- Economic efficiency is one of the three pillars of sustainable development. Energy helps economic development at the local level by raising productivity and enabling local income generation. The availability of jobs, productivity increases or better economic opportunities are all severely limited without access to modern energy.

- Greater regional co-operation in infrastructure projects such as energy, will reduce transaction costs; facilitate market integration; promote economic integration and growth in Africa, and increase the incentives for investment, particularly by the private sector.

- Improved energy trade coupled with energy integration programmes will contribute to accelerated economic growth; the achievement of Millennium Development Goal (MDG): the eradication of extreme poverty and hunger; through economic growth and increased availability of electricity for social purposes.

- Opportunities of buying lower cost energy through integration would be possible. The Republics of Togo and Benin, through their electricity interconnections with Ghana have sustained their economies and guaranteed a minimum quantity of electricity supplied from Ghana for a 25 year period. In addition, there have been opportunities of buying lower cost energy from Ghana compared with local resources.

- Access to electricity and other modern energy sources is crucial for economic and social development. Modern energy services are vital to the quality of life. The eradication of poverty requires, among other things, clean water, adequate sanitation and health services, a good education system and a communication network. None of these can be achieved without energy.

- Power interconnections and regional trade have gained importance as a mechanism for improving the economic efficiency of power system. The value of the power interconnection derived from the ability to achieve economies of scale as individual smaller power systems can be operated and expanded as part of a larger regional system.

3.2 Enhancing ECOWAS Integration through West Africa Power Pool (WAPP)

and West Africa Gas Pipeline (WAGP) At its 3rd meeting held in Accra, Ghana on 5 April 2002, the West African Power Pool (WAPP) Steering Committee adopted Resolution No.1 relating to the objectives of the West African Power Pool. One of these objectives is to increase the overall level of electrification within the region. The WAPP is expected to fast-track the development of the region in this respect.

Briefly, a power pool is traditionally referred to as an arrangement between two or more interconnected electric systems, which are planned and operated to supply power in the most reliable and economical manner for their combined load requirements. Pooling total production capacity from all the power plants facilitates the dispatching of excess capacity from one system to another. Accordingly, centrally dispatched power pools are expected to achieve increased efficiencies by selecting the least-cost mix of generating and transmission capacity, by coordinating maintenance of units and sharing operating reserve requirements.

A World Bank study in 2006 has indicated that an estimated saving of US$1.6 billion over 10 years could be realized through the optimal use of the regional electricity resources and installations. Such quantifiable benefits are driving other regions to diversify their energy supply base. The West Africa Gas Pipeline (WAGP) is also expected to achieve this laudable integration initiative. The study noted further that Benin, Togo and Ghana were estimated to have saved nearly US$500 million in energy costs over a 20-year period, when the WAGP-supplied gas replaces more expensive fuels in power generation. Ghana estimates that it will save between 15,000-20,000 barrels of crude oil per day by using gas from the WAGP to run its power plants. Nigeria benefits by monetizing previously flared gas and exploiting its comparative advantage to meet the energy demand of its neighbours, whilst delivering clear environmental benefits.

There is a greater awareness of energy's role for socio-economic development and also in the area of increased productivity. No country has been able to raise per capita income from low levels without increasing its use of commercial energy. The West African Power Pool project, which brings together 14 countries, is now modeling the trading of electricity across borders, in order to optimize investment response to forecast electricity demand and population growth. West Africa's huge hydropower potential could be developed for the benefit of the vast majority of regions population, in particular as regional integration projects.

While some countries have excess generation capacity, others are experiencing shortage, with serious

consequences for their economic and social development. Although it is technically feasible for each country to develop sufficient energy resources to meet their needs in the medium to longer-term, however, following this path may make the achievement of economic and environmental efficiencies through regional co-operation difficult. Such cooperation would allow under-supplied regions, or countries over-dependent on hydroelectricity, where supply can vary during drought seasons, to have immediate access to a pool of electricity, and to contribute to such a pool when water levels are high. This would facilitate uninterrupted power supply throughout the region. It is expected that sustainability of these two projects would inevitably enhance the regional integration in due course.

The table below outlined the proposed West African Power Pool for the sixteen ECOWAS countries spanning 2004 2014.

The development of the West African Power Pool (WAPP) and the West African Gas Pipeline (WAGP) are expected to enhance the generation of electricity in any part of the region and to be consumed in any part of the region. In fact, the efforts to integrate the power sector for the overall development of region fits well into the thinking that energy access has been identified as a universal priority of the New Partnership for Africa's Development (NEPAD). In this regard, NEPAD specifically states that 'energy plays a critical role in the development process, first as a domestic necessity but also as a factor of production whose cost directly affects prices of other goods and services and the competitiveness of enterprises'.

4.0 APPRAISAL OF THE POWER SECTOR POLICIES AND CHALLENGES IN SOME ECOWAS COUNTRIES

ECOWAS countries persistent energy crisis has weakened the industrialization process, and significantly undermined the effort to achieve sustained economic growth, increased competitiveness of domestic industries in domestic, regional and global markets and employment generation. Against this background, four countries would briefly be examined.

Nigeria like some other developing countries is an energy intensive growing economy. The electricity (power) sub-sector operates below its estimated capacity with frequent power outrages. To compensate for the power deficit, the domestic, commercial and industrial sectors persistently use private operational generators. Despite the huge recourses and the reforms that the government had embarked upon so as to remedy the problems in the power sector, the situation had remained unchanged.

Towards the end of his second term in office (2006), President Olusegun Obasanjo deregulated the electricity industry through the enactment of Electric Power Reform Act 2005. In line with this reform, the defunct National Electric Power Authority (NEPA) is now named Power Holding Company of Nigeria (PHCN). The law paved way for the unbundling of NEPA into the 18 companies 6 generating companies, 1 transmission company and 11 distributing companies. The bulk of infrastructural investment in Nigeria has always come from the government in spite of the much-talked-about policy of public-private-partnership (PPP) in infrastructural provision especially in the last ten years. As overall government investment fluctuates according to the ups and downs in the main sector/driver (oil production) of the economy, the increased investment in electricity has not had any positive impact on the economic development as most industries rely on generating sets for their industrial and domestic use and this has impacted negatively on the output and total performance of industries in the economy. Since the investment in this sector does not correspond with the expected returns, there were allegations of mismanagement in the electricity sub-sector. Sequel to his swearing-in as the President of the Federal Republic of Nigeria, President Umaru Musa Yar Adua highlighted a 'Seven-Point Agenda' for his administration. In particular, he declared a state of emergency in the power sector and the National Assembly instituted several probes into what transpired in the power sector of Nigeria. Knowing the importance of power toward nation building, the President in April, 2009, made a promise to Nigerians

WAPP Expansion for 2004 2014 with fully Integrated Regional Planning for ECOWAS

Country	Existing Thermal	Combined Cycle	Gas Turbine	Existing Hydro	New Hydro	TOTAL MW
Benin						
Burkina Faso						
Gambia						
Ghana		330				
Guinea	20				852	872
Guinea Bissau	15					15
Cote D'ivore		1352			360	1712
Liberia	49				69	118
Mali					95	95
Niger					70	70
Nigeria	1129	2500	1337	212	1005	6183
Senegal	1				37	38
Sierra-Leone	28					28
Togo		100			19	119
TOTAL	1195	4382	1337	212	2676	

Source: WAPP Electricity Trade Quantity and Prices with Regional Planning, January 2004.

that he would deliver 6,000MW of electricity before the end of December year.

In Ghana, it was a success story as it was on record that the country celebrateed one year of uninterrupted power supply in 2007. Prior to this time, the government realized that the development of the various sectors of the economy depend heavily on reliable, adequate and economically prized power supply, Thus, the power sector was accorded top priority in economic growth. This can be clearly seen through the articulated vision of country's energy sector which succinctly states: "To provide adequate and reliable energy supplies to all sectors of the economy to support socio- economic development, poverty reduction and also for export. Besides, the government of Ghana has committed itself to increasing the current installed power generation capacity of about 2,000MW to 5,000MW in the medium-term by 2015. This is to make electrical energy available for industrial as well as domestic use. The government also constructed some power plants, notable among which was the Bui Hydroelectric Power Project that seeks to add 400MW capacity to the existing power generation in the country. Government, indeed realized that the challenge of adding 3,000MW generation capacity over a period of five years would require huge investment which government alone could not provide, thus, the Ghanaian government encouraged the participation of Independent Power Producers into the power generation business.

Senegal relies heavily on petroleum products as fuel for electricity generation. A major portion of the country's revenues deriving from exports are used for buying imported petroleum products. In the face of the global market oil prices that are fluctuating, if the oil prices remain the same or worsen, it will continue to constrain Senegal's power sector. More than 60 per cent of Societé National d'Electricité du Senegal (Senelec) plants are old and past their normal efficient operating life. The grid has many small unreliable plants and lacks a large base-load plant to provide stability resulting in frequent power surges and blackouts. To ensure sustainable long term development of the electricity sector and recognizing the challenges of fluctuating supply levels and prices of oil, the Government of Senegal has decided to diversify their energy sources from dependence on imported petroleum products through the development of coal-based technologies and introduction of new and renewable energy sources, namely coal, domestic gas, hydro, wind, biomass and solar. Against this background, the Board of Directors of the African Development Bank (AfDB) approved a senior loan of up to Euros 55 million in 2008 to finance the Sendou Power Project in Senegal which is meant for the designing, development, procurement, construction, operation and maintenance of a 125 MW coal-fired power plant on a 29 ha site located 35 km from Dakar in Sendou, Bargny, and will produce 925 GWh of electricity annually. By adding a net capacity of 125MW and being the largest plant in Senegal, Sendou Power will stabilize the Senegalese grid and secure its base load. This grid stabilization will contribute to the local economy and support private sector development, and specifically to large industries consuming high voltage electricity.

For many years in The Gambia, NAWEC has been finding it difficult to achieve financial sustainability for its normal operations due to rising fuel prices, distribution and transmission losses and non-payment of large bill arrears particularly by large commercial and industrial consumers. As a result, the system is not robust enough to meet the growing demand and requires significant investment to operate efficiently. Thus, in 2006, the Electricity Law was passed and this opened up the generation component of the electricity sector to private investors and an Independent Power Project (IPP) of 23MW capacity which was expected to begin power generation that year.

4.1 Challenges of Power and Energy towards Integration in ECOWAS countries

The reasons for these dismal performances can be viewed from the following stand point.

- Uncertainty in continuity of energy policies, politicizing of the energy and power sector, lack of local contents coupled with weak indigenous private sector participations.

- Inadequate budget provision to finance the sector of the economies in the ECOWAS sub-region on a sustainable growth path.

- There is an enormous potential for hydropower development in Africa, and yet to date majority of that potential has not been harnessed. At present, the majority of the poor in Africa spends a significant proportion of their income on energy and relies mainly on generators. Since most of Africa's poor live in remote rural communities, there are no clear economic incentives for grid-extensions or for supplying modern power supply.

- Lack of local technical and managerial capacity. Capacity building for the power sector is an important task. However, most governments in West Africa are unable to mobilize the level of investment and commitment needed to develop and retain the wide array of skills needed by the power sector. This partly explains many of the difficulties faced by the region's power sector. Without a sufficient mass of trained and skilled professionals, infrastructure projects including power interconnections cannot be planned, implemented and maintained. Policies and strategies to promote capacity building are needed to ensure sustainability of cross-border electricity interconnections. These include; enhancement of investment in the social sectors, remuneration, support for information and communication technology, effective utilization of existing capacity and the creation of a favourable environment for the attraction and retention of professionals.

- Weak domestic capital markets that are unable to provide long-term financing that have long 'pay

back' times and earn little or no foreign currency. On the other hand, to realize the potential for regional power integration, high-level and yet flexible institutions, capable of gaining confidence of international and regional investors in the energy sector are required. However, in ECOWAS countries, the state-owned, vertically integrated electricity monopolies failed to adequately manage the electricity business, and the diverse technical and financial problems became endemic in the sector.

- Electricity consumption in most West African countries is very low and demand is mostly confined to the energy-intensive industries, commercial enterprises and load centers in urban locations. The electricity sector is often characterized by high technical losses, managerial weaknesses, illegal electricity connections and political interference.

- Poor policies and inadequate regulations, which increase risks to private investors and increase business cost. The governments participating in the WAGP (Nigeria, Benin, Togo and Ghana) have played critical roles in supporting the pipeline project. The project is also listed in the short-term priority list of the NEPAD, initially decided upon by the African leaders. Regional integration through energy is increasingly being seen as a way for individual countries facing structural and economic weaknesses to join the global economy. Today, intra-West African trade remains low and the lack of macro-economic policy convergence and insufficient infrastructure negatively affect cooperation and integration.

- One of the major causes of insecurity regarding infrastructure is political instability. Civil wars, social unrest and political instability make it very difficult to attract much needed investment for the development of infrastructure. For example, Liberia and Sierra-Leone has enormous potential for the generation of hydroelectricity (through the MANO River Authority), but the lack of political stability within the countries for many years was a disincentive to investments in the energy infrastructure.

- Closely related to the above, regional economic integration is hampered by the effects of conflicts and political instability. Foreign Direct Investment (FDI) including foreign aids inflows to West Africa have been hindered due to decades of political unrest. Investors are reluctant to invest in areas of high risks.

- Poverty and customers' inability to pay an economic and appropriate electricity tariff is very prevalent in West Africa. Youth restiveness, compensation extortion, and vandalisation of gas pipelines, restricted primary energy sources and insufficient transmission line capabilities are several challenges militating energy development in the sub-region.

5.0 CONCLUSION

From the exploration undertaken so far, it is evident that power is critical to rapid economic development through regional integration. Given our low level of infrastructural facilities, there is no doubt that the ECOWAS countries require adequate social and economic infrastructures to enhance growth and development.

The technical and economic characteristics of power make it imperative for government to play an essential role in its provision. The private sector can also be made to contribute to the development of power, particularly through the provision of an enabling environment.

Above all, West African leaders must institute a stable and democratic system of governance that guarantees economic prosperity within a culture of the rule of law. This will impart positively on all the regional sectors development thereby enhancing rapid growth of the region.

6.0 RECOMMENDATIONS

From the foregoing, energy is a significant part of the total infrastructure that allows rural and urban poor to grow beyond subsistence activity, to generate individual savings and increase their demand for modern energy services. Thus, the following are recommended to ensure regional energy integration for sustainable development.

- The absence of political disputes and social unrest is an important prerequisite to regional energy integration. Interruption of energy supply, on the other hand, can cause serious financial, economic and social losses. To support the goals of sustainable development, energy must be available at all times, in sufficient quantities and at affordable prices and the role of stable government in facilitating this cannot be over-emphasised.

- Nations should develop energy policies, which clearly set out rational objectives regarding the development of all power generation options, including hydropower, other renewable sources, and conservation and efficiency measures.

- Stakeholders should establish an equitable, credible and effective environmental assessment process, which considers the interest of the people and the environment within a predictable and realistic schedule. The process should focus on achieving the highest quality of decisions in a given period of time.

- Project developers should include environmental and social assessment criteria when comparing project alternatives, to eliminate unacceptable alternatives early in the planning process.

- Project design and operation should be optimized, by ensuring the proper management of environmental and social issues throughout the project cycle.

- Political commitment and government support have proved to be a successful factor in West Africa's regional energy

integration experience. Although the role of governments is changing due to energy sector reforms, they are instrumental in setting up the institutional and regulatory frameworks that will create an enabling environment to attract private capital and develop energy markets.

- Sustainability of policies and establishment of focal points. ECOWAS members are encouraged to create NEPAD focal points, and form an ad-hoc inter-ministerial committee to oversee the implementation of the NEPAD programme.

- Establishment of Common External Tariff (CET) that would fast track regional power supply and uniform prices. Cross-border gas pipelines require a framework for transactions to take place, harmonized arrangements for operations, a system of tariffs for use of the pipeline, gas pricing, and agreed principles and procedures for dispute resolution. In the case of WAGP, the pipeline will be extended to new markets with almost no past experience in the gas industry.

- West Africa's unfavorable investment climate has led to high transaction costs, expensive financing terms, weak domestic capital markets, low sovereign credit ratings, and a lack of local technical and managerial capacity. Successful integration of energy systems requires a framework for transactions to take place, harmonized arrangements for systems operations, a system of tariffs, and agreed principles and procedures for dispute resolution. Different legal, regulatory and licensing system existing in different countries need to be harmonized to ensure smooth transactions, and minimize the likelihood of future disputes.

- Harmonization of the statutes of the national regulatory bodies, when they exist, would facilitate cross-border trade. The role of regional institutions cannot be dismissed, in addition to securing political support; these institutions could also coordinate capacity building, information and experience sharing among regulators, if their institutional and human capacity is reinforced. The difficulty in coordinating international investments can be eased when multilateral development agencies participate. These institutions can mobilize more financial resources, help reduce transaction costs and ease the enforcement of contracts. The absence of these institutions may be a cause of the inability to secure investments towards regional energy infrastructural development.

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