Law and Energy Infrastructure Development in Developing Countries: A Case Study of Nigeria and Ghana

Lanre Aladeitan
Department of Public and International Law, University of Abuja.

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INTRODUCTION

The development of infrastructure to support optimal energy utilization is a key challenge in most developing countries. This challenge, and other socio-political issues, has caused several developing countries to lag behind on the path of economic development. Although the developmental challenges are multifaceted, this paper examines the role of the law in the promotion of energy infrastructure development, and the role that infrastructure plays in directing both the energy process and development, or absence thereof, in a developing country. This paper is primarily concerned with energy infrastructure areas that are in acute need of development and have very poor infrastructure development indicators. To this effect, the paper examines whether there is a correlation between the State and the content of its law in terms of performance, energy sources, energy patterns and use, and levels of discernible sustainable development in the two West African countries, Ghana and Nigeria; both of which are former British colonies and share similar historical antecedents.

* Lanre Aladeitan is a lecturer in the Department of Public and International Law, Faculty of Law, University of Abuja.
The paper is divided into three major sections. The first section considers energy development laws in Nigeria by focusing on the Energy Commission of Nigeria Act, the Electric Power Sector Reform Act, and the Infrastructure Concession Regulatory Commission Act. Similarly, the second section examines energy development laws in Ghana with a focus on both the Energy Commission and the Public Utilities Regulatory Commission Acts in the country. Within this section is a comparison of the state of energy infrastructure development in Nigeria and Ghana. In the final section, a conclusion is reached based on the review and comparisons made.

I. ENERGY DEVELOPMENT LAWS IN NIGERIA

The Energy Commission of Nigeria (Commission) is at the center of coordinating the systematic development of the various energy resources of the country. The Commission is “charged with responsibility for the strategic planning and coordination of national policies in the field of energy in its entire ramification.” Specifically, the Commission is mandated to “serve as a center for gathering and disseminating information relat[ed] to national policy in the field of energy development,” as well as “solv[ing] any interrelated technical problems that may arise in the implementation of policy relating to the field of energy.”

Unfortunately, despite these functions and others, the Commission is saddled with energy crises still persist in the country. This is most felt and noticeable in the electricity subsector of the Nigerian energy industry. Taking power generation and the supply of electricity as development indicators for the energy industry, the rate of power outage and inconsistencies in electricity supply are indicative of the energy infrastructure deficits in Nigeria. In considering these challenges from a legal perspective, specifically by relying on the functions of the

2. Id. at § 4(a).
3. Id. at § 4(b).
4. Id. at § 4(c)–(h) (Some of the other functions of the Commission are advising the government of the Federation or of a State on questions relating to such aspects as the Government of the Federation or a State may, from time to time, refer to it; preparing — after consultation with such agencies of government whose functions relate to the field of energy development or supply as the Commission considers appropriate — periodic master plans for the balanced and co-ordinated development of energy in Nigeria; lay down guidelines on the utilization of energy types for specific purposes and in a prescribed sequence; inquiring into and advising the Government of the Federation or of the State on the adequate funding of the energy sector including research and development, production and distribution; collating, analysing and publishing information relating to the field of energy from all sources, where such information is relevant to the discharge of its functions and monitoring the performance of the energy sector in the execution of government policies on energy).
Commission and other provisions of the Energy Commission of Nigeria Act (ECNA), the critical question is whether there is a correlation between Nigeria’s various legal and institutional frameworks, such as the Energy Commission of Nigeria and the development of energy infrastructure. Simply put, this inquiry examines the content of the law in order to determine whether there are shortcomings within it that impede the realization of energy infrastructure development in the country.

A review of the ECNA shows that the law, which emerged as a military decree during military rule in Nigeria, retains most of the undemocratic principles of governance synonymous with military administration. Of particular note in this respect is the fact that the Commission lacks independence in the discharge of its mandate. For instance, the ECNA provides that “the Head of the Federal Military Government [President] may give the Commission directions of a general or special nature as to the manner in which the Commission is to exercise its powers and it shall be the duty of the Commission to give effect to any such direction.” It further provided that “no policy initiated by the Commission would be implemented without prior reference to and approval by the Head of the Federal Military Government [President].” This bureaucracy, the intent of which may be honorable, is nevertheless capable of being abused. Therefore, it could result in undue interference with viable and sound technical solutions by the Commission especially if it is not politically expedient for the President. Aside from Presidential interference, the roles of the Commission, which are merely advisory and information gathering as opposed to the power to plan and implement concrete policies, further confirms a weakness in the content of the Nigerian energy law for the development of energy infrastructure.

A. THE ELECTRIC POWER SECTOR REFORM ACT

Since the installation of the first power-generating plant in Nigeria in 1896, the Nigerian electricity industry has been characterized as a struggling industry. To reposition the industry for efficiency, the Electric Power Sector Reform Act (EPSRA) 2005 was enacted. The EPSRA established the Nigerian Electricity Regulatory Commission (NERC) as the regulator of the electricity sector, and the Power Holding Company

5. ECNA, supra note 1, at § 5(1).
6. Id. at § 5(2).
of Nigeria (PHCN) as the initial holding company. By virtue of section 99 of the EPSRA, the Electricity Act and the National Electric Power Authority Act (NEPA) were repealed. Therefore, EPSRA became the applicable legal and legislative framework for reform of the Nigerian electricity industry.

The general concepts and objectives of the EPSRA, as contained in its preamble are:

to provide for the formation of companies to take over the functions, assets, liabilities and staff of NEPA; to develop competitive electricity markets; to establish the Nigerian Electricity Regulatory Commission; to provide for the licensing and regulation of the generation, transmission, distribution and supply of electricity; to enforce such matters as performance standards, consumer rights and obligations; and to provide for the determination of tariffs and related matters.

Consequently, the EPSRA is an important piece of legislation that is critical to energy infrastructure development in the country, especially as it relates to the development of a competitive energy market, issuance of generation, transmission, system operation, distribution and trading licenses, and establishment of a regulatory commission.

1. Privatization and competitive electricity market development

The EPSRA contemplates the development of a competitive electricity market in two stages: 1) pre-privatization and 2) post-privatization. To drive the privatization process of the successor companies to NEPA, the National Council on Privatization (NCP) is expected to commence the process in accordance with the provisions of the Public Enterprises (Privatization and Commercialization) Act at anytime and by such

8. See Electric Power Sector Reform Act (2005), §§ 1, 31 (Nigeria) [hereinafter EPSRA].
11. See Preamble to the EPSRA.
12. The successor companies are established pursuant to the EPSRA, supra note 8, at § 8, which provides that the National Council on Privatisation shall, within eight months after the formation of the initial holding company under section 1 of this Act, take such steps as are necessary under the Companies and Allied Matters Act to incorporate such number of additional companies, limited by share as the National Council of Privatization may deem right. This shall be the successor companies for assuming the assets and liabilities of initial holding company including companies with functions relating to generation, transmission, trading, and bulk distribution of electricity.
means as it deems fit. Coupled with other bureaucracies built into the EPSRA, this latitude given to the NCP is among the factors that militate against energy infrastructure development in Nigeria. Despite the overwhelming discretion given to the Minister, section 24(2) of the EPSRA provides criteria to create potential competition of Nigeria’s electricity supply industry.

Regardless of the criteria provided in section 24(2), the pace of privatization and development of a competitive electricity market in Nigeria has been slow and hardly noticeable. It was not until the recent handing over of the 17 successor companies unbundled from PHCN on November 01, 2013 that the country recorded a significant step towards the privatization of its electricity sector. Despite this positive development, it is important to point out that if the content of the law were to be taken seriously as crucial to the development of energy infrastructure in Nigeria, then the PHCN should have ceased to exist by December 31, 2006 when its interim operating license which was valid for 18 months from the initial transfer date of its assets and liabilities to the successor companies ought to have expired.

Presumably, the prolonged and extended existence of the PHCN may have had an adverse effect on the capability of the electricity sector to develop sufficiently to meet the criteria for full privatization and the development of a competitive electricity market. Similarly, the fact that PHCN existed beyond 18 months as contemplated under the EPSRA,

Privatization (NCP) to determine political, economic and social objectives for privatization and commercialization of public enterprises.

14. One such bureaucracy is the requirement of EPSRA, supra note 8, at § 24(3), which provides that the Minister, to whom the President assigns administrative functions in respect of the electric power sector, cannot make declarations for the Nigerian Electricity Regulatory Commission to initiate the process for establishing a competitive market without a satisfactory consultation with the President and the National Council on Privatization. Ordinarily, this can be viewed as procedural but, having regards to governance challenge in the country, political rather than technical consideration may determine the decision of the President and the Council.

15. “Minister” is a public official and political appointee of the President. Specifically, Minister in this context is the Honourable Minister of Power and Steel, or any other Minister to whom the President may from time to time assign administrative functions in respect of the EPSRA.

16. EPSRA, supra note 8, at § 24(2)(a)-(c) (“the degree of privatization that has occurred; the existence of a sufficiently large number of potential competitive entities . . . and the existence of other preconditions, including the necessary metering and information technology infrastructures, required for the operation of a more competitive electricity market.”).

17. EPSRA, supra note 8, at § 7.

18. By an order published in the Federal Gazette, the National Council on Privatization gave 1st July 2005 as the initial transfer date of the assets, liabilities and staff of NEPA to PHCN. To terminate by eighteen months from that date, 31st of December 2006. However, there is a claim that the assets, liabilities, and staff of the PHCN were transferred on 1st July 2006 to the successor companies incorporated in November 2005. It is submitted that the above claim is nothing but incorrect as PHCN staff even as of October 2013 still vows to resist any such transfer.
without any evidence of an amendment to the EPSRA to permit the same, seems to justify the premise that there is indeed a correlation between the law, its implementation and energy infrastructure development in Nigeria.

2. The Nigerian Electricity Regulatory Commission

Prior to the enactment of the EPSRA, the roles of regulator and operator of the entire electricity industry in Nigeria were intertwined in the defunct National Electric Power Authority (NEPA).\(^{19}\) This negatively impacted the effectiveness of the electricity industry since it was practically impossible for NEPA to sanction itself for operational omissions and failings. The establishment of the Nigerian Electricity Regulatory Commission (NERC), pursuant to the EPSRA with regulatory functions and powers only without operational role, is considered impressive and novel to the Nigerian electricity industry.

Some of the key objectives of NERC are:

(a) “to create, promote, and preserve efficient industry and market structures, and to ensure the optimal utilisation [sic] of resources for the provision of electricity services.”\(^{20}\)

(b) “to maximize access to electricity services, by promoting and facilitating consumer connections to distribution systems in both rural and urban areas.”\(^{21}\)

(c) “to ensure that the prices charged by licensees are fair to consumers and are sufficient to allow the licensees to finance their activities and to allow for reasonable earnings for efficient operation.”

(d) “to ensure that regulation is fair and balanced for licensees, consumers, investors, and other stakeholders.”\(^{22}\)

To achieve the above objectives and others, EPSRA stipulates that NERC shall perform the following functions:


\(^{20}\) EPSRA, supra note 8, at § 32(1)(a).

\(^{21}\) Id. at § 32(1)(b).

\(^{22}\) Id. at § 32(1)(d)–(f).
(a) promote competition and private sector participation, when and where feasible; (b) establish or, as the case may be, approve appropriate operating codes and safety, security, reliability, and quality standards; (c) establish appropriate consumer rights and obligations regarding the provision and use of electricity services; (d) license and regulate persons engaged in the generation, transmission, system operation, distribution, and trading of electricity; approve amendments to the market rules: (j) monitor the operation of the electricity market; and (g) undertake such other activities which are necessary or convenient for the better carrying out of or giving effect to the objects of the Commission. 23

For the attainment of its objectives and effective performance of its functions, seven divisions with strategic roles were created within NERC. The divisions include the Office of the Chairman, which is composed of a number of support units that provide overall governance and coordination of NERC’s activities. These units include: the Commission’s Secretariat; the Strategy and Project Management Office; the Procurement Unit; and the Media and Public Relations unit. 24 The Engineering Standards and Safety Division, 25 which has the task of developing and monitoring compliance of technical codes and standards for all operators as well as active participation in the technical evaluation of all license applications submitted to NERC, is also one of the seven strategic divisions.

Recognizing the important role of support services, NERC created the Finance and Management Services Division 26 to offer support in critical areas such as human resources, finance and accounts, information technology, and protocol. In the same vein, the Government and Consumer Affairs Division was also created. 27 This division has the responsibility of developing consumer regulations and ensuring that operators meet the minimum standards of services provided in those regulations.

23. Id. at § 32(2)(a)–(g).
25. Id.
26. NIGERIAN ELECTRICITY REGULATORY COMMISSION, supra note 24.
27. Id. The Government and Consumer Affairs Division also embark on consumer enlightenment and has a mandate of ensuring the speedy resolution of consumer disputes.
For the coordination of licensing procedures, a primary responsibility of NERC, the Legal, Licensing, and Enforcement Division,\(^2\) was created. In addition to coordinating licensing procedures, this division is also expected to provide legal support and advisory services, as well as enforce all of NERC’s orders and decisions.

Another strategic division within NERC is the Market Competition and Rates Division.\(^2\)\(^9\) This division is responsible for determining tariffs, monitoring of the electricity market to prevent abuse of market power as well as conducting commercial evaluation of all license applications. In addition, there is the Renewable Energy, Research and Development Division\(^9\) which is responsible for providing NERC with the required database and policy instruments to carry out its various activities as well as to drive its renewable energy programs.

With the foregoing structure in place and pursuant to the authority given under the EPSRA of 2005,\(^3\)\(^1\) the Commission established a methodology for regulating electricity prices called the Multi-Year Tariff Order (MYTO).\(^3\)\(^2\) The MYTO provides a 15 year tariff path for the Nigerian electricity industry, receiving limited minor reviews each year in light of changes to a limited number of parameters, such as inflation and gas prices.\(^3\)\(^3\) MYTO receives major reviews every five years when all inputs are reviewed in conjunction with stakeholders.\(^3\)\(^4\) Similarly, pursuant to Section 26 of the EPSRA, market rules were developed for the establishment and governance of markets related to electricity and ancillary services, amongst others.\(^3\)\(^5\)

NERC has also provided for a procedure to obtain licenses and permits in accordance with the EPSRA.\(^3\)\(^6\) It also set regulations on all matters that are required or necessary for giving effect to the Electric Power Sector Reform Act of 2005. Some of the regulations prescribed by NERC

\(^{28}\) Id.
\(^{29}\) Id.
\(^{30}\) Id.
\(^{31}\) Id.
\(^{32}\) EPSRA, supra note 8, at § 76.
\(^{34}\) Id. at ¶ 1.
\(^{35}\) Id. at ¶ 1.
\(^{36}\) Id. at ¶ 62.
include Business Rules; Reporting Compliance Regulation in 2009; Application for License Regulation in 2010; License and Operating Fees Regulation in 2010; Regulation for Captive Power Generation; and Customer Complaints Handling Standards and Procedure.  

In the same vein, and in accordance with the EPSRA, NERC has set up performance standards, codes, and manuals for the Nigerian Electricity Industry, which is binding on applicable licensees. To this effect, the metering, distribution, and grid codes, together with the health and safety manual, have been developed and approved.

From the foregoing, the activities of NERC in terms of providing standards and regulation for the electricity industry appear to be heading in the right direction. However, this effort is yet to translate into adequate power generation and distribution as expected by the Nigerian public. Suffice it to say, the deplorable situation of the Nigerian electricity industry remains unabated without any physical sign of improvement despite NERC’s existence for over eight years. To this effect, an evaluation of NERC’s performance based on the frequency of power outages and inconsistencies of electricity supply rather than the existence of regulations, codes and standards would suggest that NERC is an ineffective regulatory authority with no positive impact on energy infrastructure development in Nigeria.

3. Licenses and Tariffs

The EPSRA in section 62(1) provides that, “no one is authorized or permitted to construct, own, operate, or engage in the business of electricity generation — excluding captive generation, electricity transmission, system operation, electricity distribution, or trading in electricity, without first obtaining the necessary and appropriate license.” A “contravention of section 62(1) amounts to an offense, and anyone found liable will be convicted and subjected to a fine not exceeding five hundred thousand Naira (₦500,000), or imprisonment for a period not exceeding two years, or to both fine and imprisonment.” There are, however, a few exceptions to section 62(1). For instance, “a

38. Id. at § 81.
39. The Nigerian Electricity Regulation Commission was formally inaugurated on October 31, 2005.
40. EPSRA, supra note 8, at § 62(1).
41. Id. at § 62(5).
person may construct, own or operate an undertaking for generating electricity not exceeding one megawatt (MW) in aggregate at a site or an undertaking for distribution for electricity with a capacity not exceeding 100 kilowatts (KW) in aggregate at a site, or such other capacity as the Commission may determine from time to time, without a license.\textsuperscript{42}

Obtaining an appropriate license is therefore essential to operating within the sector. After obtaining a license, licensees are expected to comply with the provisions of the license, applicable regulations, codes, and other requirements issued by NERC from time to time.\textsuperscript{43} Specifically, the EPSRA provides that a generation license shall authorize the licensee “to construct, own, operate, and maintain a generation station for the purposes of generation and supply of electricity”\textsuperscript{44} and that a generation licensee “may sell power or ancillary services to any of the classes of persons so specified in the license,”\textsuperscript{45} subject to such terms and conditions as the Commission may fix in the license and as the circumstances may require.\textsuperscript{46} For the transmission license, the EPSRA provides that the licensee is authorized to carry on “grid construction, operation, and maintenance of transmission system within Nigeria, or a grid system that connects Nigeria to a neighboring jurisdiction, subject to such terms and conditions as the Commission may set forth.”\textsuperscript{47}

Perhaps due to the peculiarity of the infrastructural requirement for transmission, the EPSRA allows for only one company to be licensed to undertake transmission activity in the country.\textsuperscript{48} It is important to point out that by virtue of section 65(2), the transmission licensee may also have the obligation to carry out system operations, including the procurement of ancillary services, pursuant to the terms of a system operation license which is attached to a transmission license.\textsuperscript{49} As can be inferred from the above provision, a system operation license is a separate license subject to such terms and conditions as the Commission

\begin{itemize}
\item \textsuperscript{42} EPSRA, \textit{supra} note 8, at § 62(2).
\item \textsuperscript{43} \textit{Id.} at § 63.
\item \textsuperscript{44} \textit{Id.} at § 64 (1).
\item \textsuperscript{45} \textit{Id.} at § 64 (2).
\item \textsuperscript{46} \textit{Id.} at § 64.
\item \textsuperscript{47} \textit{Id.} at § 65(1).
\item \textsuperscript{48} The Act refers to successor companies for both generation and distribution of electricity but in the case of transmission, Section 25 (b) refers to the successor company that has been issued a transmission license and a System operation license while Section 65 (2) also refers to a successor company. Furthermore, the unbundling plan and policy for the electricity sector which has now been implemented provided for only one transmission company.
\item \textsuperscript{49} EPSRA, \textit{supra} note 8, at § 65.
\end{itemize}
A CASE STUDY OF NIGERIA AND GHANA

may set forth. A system operation license authorizes its holder to carry on the following activities amongst others:

(a) generation scheduling, commitment and dispatch; (b) transmission scheduling and generation outage co-ordination; (c) transmission congestion management; (d) international transmission co-ordination; (e) procurement and scheduling of ancillary services and system planning for long term capacity; (f) administration of the wholesale electricity market, including the activity of administration of settlement payments, in accordance with the market rules; and (g) such other activities as may be required for reliable and efficient system operation.

Regarding distribution licenses, the EPSRA provides that its holder is authorized:

to construct, operate and maintain a distribution system and facilities, including, but not limited to, the following activities as may be specified in the [license]: (a) the connection of customers for the purpose of receiving a supply of electricity; (b) the installation, maintenance and reading of meters, billing and collection; and (c) such other distribution service, as may be prescribed for the purposes of this section.

Furthermore, it is important to point out that a distribution licensee may also be obligated “to provide electricity to its distribution customers, pursuant to the terms of a trading [license] issued by the Commission to the distribution licensee.” Basically, the importance of section 67(2) is that the holder of a distribution license can also be granted a trading license. The effect on a licensee having both distribution and trading licenses is that such a licensee may purchase power for resale from another trading licensee and may with the prior consent of the Commission purchase from other sources, subject to exceptions in sections 25(a) and 26. Although a holder of a distribution license can

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50. Id. at § 66.
51. Id.
52. Id. at § 67(1).
53. Id. at § 67(2).
54. Id. at § 67(3).
55. Id. at §§ 25(a), 26. (Section 25(a) provides that the trading licensee—holding a bulk purchase and resale license under section 67(2), or an interim license for this purpose, and to which the function of bulk procurement and bulk sale of power and ancillary services has been transferred pursuant to part I of this Act—shall engage in the purchase and resale of electrical power and ancillary services from independent power producers and from the successor generation companies, in accordance with its license; while section 26 provides that immediately following the declaration
perform certain functions within the terms of a trading license, the licensee is nevertheless exempted from the rights and obligations of a trading license as described in section 25(a) in relation to a distribution licensee under section 26 of the EPSRA. As for the trading license, the EPSRA provides that:

a trading licensee shall be permitted to engage in the purchasing, selling, and trading of electricity and that the Commission shall have the authority to determine the terms and conditions of trading [licenses] as may be appropriate in the circumstances, and having due regard to the nature of the activities in which the licensee intends to engage.  

The EPSRA in yet another significant provision with regard to distribution and trading licenses gives power to the NERC to issue a temporary bulk purchase and resale license, which gives the licensee “the ability to purchase electrical power and ancillary services from independent power producers and successor generation companies for the purpose of resale to one or more other licensees, or to an eligible customer.”

Section 68(3) of the EPSRA seeks to introduce and promote a transparent and competitive regime for the electricity sector by providing that all contracts for procuring ancillary services – the purchase of bulk power and the purchase of electrical power and ancillary services, respectively – “shall be awarded according to an open, transparent, and competitive manner, pursuant to a procedure established by the Commission, unless the circumstances require otherwise and the Commission allows or requires an alternative method.”

The licensing regime under the EPSRA can be regarded as standard, when compared to other regulatory and licensing regimes dealing with licenses and tariffs. As with most licenses and permits, the EPSRA provides extensive restrictions on the various licenses including the

by the Minister, under section 24(3), that a more competitive market is to be initiated: (a) the trading licensee described in section 25 (a) shall not enter into any further contracts for the purchase of electrical power or ancillary services and it shall, in accordance with its license, begin the process of novating its existing rights and obligations to purchase electrical power and ancillary services to other licensees).

56. EPSRA, supra note 8, at § 68.
57. Id. at § 68(2).
58. EPSRA, supra note 8, at § 68(3).
59. Id. at § 69(1) (A licensee shall not, except as provided in section 26(7), assign or cede his license or transfer his undertaking, or any part thereof, by way of sale, mortgage, lease, exchange, or otherwise without the prior consent of the Commission provided that, should the Commission
A CASE STUDY OF NIGERIA AND GHANA

procedure for the application of a license,\textsuperscript{60} the terms and conditions of licenses,\textsuperscript{61} and the renewal,\textsuperscript{62} amendment,\textsuperscript{63} cancellation,\textsuperscript{64} and enforcement of licenses.\textsuperscript{65} However, the test of its adequacy for the development of energy infrastructure in the country will be determined by the details and attention given to its implementation in terms of transparency, accountability, and performance evaluation.

Keeping in mind the aforementioned specific laws that seek to reform the Nigerian electricity sector, it is important to note that in 2005, the Federal Government of Nigeria – in what may appear to be a demonstration of willingness to confront the challenges of infrastructure development – enacted the Infrastructure Concession Regulatory Commission Act (ICRCA).

B. INFRASTRUCTURE CONCESSION REGULATORY COMMISSION ACT (ICRCA), 2005

The Infrastructure Concession Regulatory Commission Act of 2005 (ICRCA) empowers the Infrastructure Concession Regulatory Commission (ICRC), established pursuant to section 14 of the ICRCA, to “enter into a contract with or grant concession to any duly pre-qualified project proponent in the private sector for the financing, construction, operation or maintenance of any infrastructure that is financially viable or any development facility of the Federal Government.”\textsuperscript{66} Section 14 provides that, “the Commission (a) shall be a body corporate with perpetual succession and a common seal; (b) may sue or be sued in its corporate name; and (c) may acquire, hold or dispose of any property, determine that in any instance the circumstances so require, it may establish license terms and conditions providing its specific or general consent for any or all of the foregoing. No licensee shall, without the prior written consent of the Commission, acquire by purchase or otherwise, or affiliate with, the license or undertaking of any other licensee or person that is in the business of electricity Generation, transmission, system operation, distribution, or trading, other than as provided for in sections 65(2), 67(2), and 68, provided that the Commission may, as part of its consent, impose conditions which were approved by the Commission).

60. EPSRA, supra note 8, at § 70(1) (providing details on the procedure for the application of a license).

61. Id. at § 71 (providing the conditions attached to the licenses).

62. Id. at § 72(1) (providing that Subject to the Act, the holder of a license may apply for a renewal of the license before it expires and that an application for the renewal of a license shall be made to the Commission in the manner and within the period prescribed, and be accompanied by the prescribed fee, if any).

63. Id. at § 73 (providing the processes of amending license).

64. Id. at§ 74 (providing the procedure for cancellation of license).

65. Id. at § 75 (providing the enforcement powers of the Commission on licenses).

movable or immovable for the purpose of carrying out any of its functions under this Act." Its headquarters is located in the federal capital territory, Abuja. The Commission is saddled with the responsibility to

(a) take custody of every concession agreement made under [the ICRC Act] and monitor compliance with the terms and conditions of such agreement; (b) ensure efficient execution of any concession agreement or contract entered into by the Government . . . [and] (d) perform such other duties as may be directed by the President . . . and as are necessary or expedient to ensure the efficient performance of the functions of the Commission.

The ICRC mandates every Federal Government Ministry, Agency, and Corporation to prioritize infrastructure projects. Notably, only priority projects that are qualified for concession are forwarded to the Federal Executive Council (FEC) for approval. As a result of this requirement, it is only the FEC that can grant and issue a guarantee, letter of comfort, or undertake any concession agreement made pursuant to ICRCA.

The fact that a functional electricity industry will positively impact the overall economy of the country should qualify the development of an energy infrastructure project as a priority under the ICRCA. The application of ICRCA provisions to energy infrastructure development is also premised on the fact that the requirements for transparency and competitiveness are consistent with those of the EPSRA. In this respect, ICRCA specifically provides that any infrastructure or development project or contract for financing, construction, operation, or maintenance must undergo competitive public bidding. ICRCA, however recognizes certain circumstances where "only one contractor or project proponent applies or submits a bid or proposal, or . . . where only one contractor or project proponent meets the prequalification requirements" as an

67. Id. at § 14(2). "Body corporate" refers to a "legal entity (such as an association, company, person, government, government agency, or institution) identified by a particular name. Also called corporation, corporate body or corporate entity." Body Corporate, BUSINESSDICTIONARY.COM, http://www.businessdictionary.com/definition/body-corporate.html#ixzz2OcxlxIsr (last visited March 26, 2013).
68. Infrastructure Concession Regulatory Commission Act, supra note 66, at § 14(3).
69. Id. at § 20(a) – (d).
70. Id. at § 2.
71. Id. at § 2(2).
72. Infrastructure Concession Regulatory Commission Act, supra note 66, at § 3.
73. See EPSRA, supra note 8 and accompanying sections.
74. Infrastructure Concession Regulatory Commission Act, supra note 66, at § 4(1).
exemption to competitive bidding. In such circumstances, the ICRCA empowers the Ministry, Agency, or Corporation to undertake direct negotiation without competitive bidding.

The intention of this discretionary power given to the Ministries, Agencies, and Corporations is well intended for genuine cases deserving such exemption. The fear, however, is that the discretionary power creates a loophole for unscrupulous bureaucrats who can abuse the exemption and enter into a contract or grant a concession on considerations other than sound financial and technical capabilities of a project proponent. This exemption may, therefore, be counter-productive to achieving infrastructure development in the country because the process may be manipulated in favor of incompetent project sponsors or of proponents who may abandon the project or who simply cannot deliver.

As an assurance to encourage both foreign and domestic investment in infrastructure development projects, ICRCA provides for recovery of investment. The operation of the recovery of investment is, however, subject to the concession contract entered into by any project proponent or contractor who contracts for financing, construction, operation, or maintenance. It is important to note that "[n]o agreement reached in respect [to the ICRCA] shall be arbitrarily suspended, stopped, cancelled or changed except in accordance with the provisions of the Act."

With the far-reaching mandate described above, it is expected that the effective execution of the ICRC's functions is appropriate to redressing the infrastructure challenges bedeviling the Nigerian electricity sector. However, despite the promising provisions of the ICRCA, the limitations of filing suits against any member, officer, or employee of the ICRC, coupled with the application of the Public Officer Protection Act and the secrecy provisions, contravene the principles and fundamentals of...
ANNUAL SURVEY OF INT’L & COMP. LAW [Vol. XX

transparency and accountability which are the universally acknowledged hallmark of private sector participation. Notwithstanding these setbacks, it appears that the secrecy provision, as provided in ICRCA, which may deny interested parties access to vital public records and information within the ICRC may have been watered down by the provisions of the Freedom of Information Act recently passed by the National Assembly which sought to make public records and information more freely available. To this extent, the ICRC, if not overwhelmed by administrative bottlenecks and undue interference may be effective in delivering on energy and other infrastructure projects.

II. ENERGY DEVELOPMENT LAWS IN GHANA

Coupled with obsolete plants, the increasing demand for power by the growing customer population (about 1,500,000 in Ghana) overwhelms the electricity supply and results in an overloaded network which makes power delivery very difficult. It seems therefore, that the Ghanaian electricity industry (similar to its Nigerian counterpart) has suffered from infrastructure decay which has resulted in transmission deterioration, overloaded transformer substations, and high system losses throughout the extensive transmission system covering all regions of the country. It is important to mention here that the infrastructure challenges of the Ghanaian energy sector are not peculiar to transmission only, but have also included electricity distribution infrastructures, which were old and obsolete, “leading to frequent interruptions in power supply and relatively high system losses.”

To reposition the sector, a new regulatory policy evolved as part of a broader national infrastructure and public institutional reform program. Some of the objectives envisioned by the reform included the introduction of a transparent competitive regime in electricity supply, as

exercise of his powers or is obtained by him in the performance of his duties under this Act; (c) not disclose any information referred to under paragraph (b) of this subsection, except as required by law. (2) Any person who contravenes the provisions of subsection (1) of this section commits an offence and shall on conviction be liable to a fine of not less than N50,000 or imprisonment for a term not exceeding 2 years or to both such fine and imprisonment.


85. Id.
well as the encouragement of private sector investment for the development of a sustainable electricity industry. In this regard, two key regulatory institutions were created by acts of parliament to replace the Electricity Corporation Decree of 1967 which repealed the Electricity Act of 1961 and established the Electricity Corporation of Ghana (ECG). The ECG remained the sole entity responsible for electricity supply and the distribution networks nationwide until the commencement of the electricity reform in the mid-1990s. The two regulatory institutions are the Public Utilities Regulatory Commission (PURC), established under the Pubic Utilities Regulatory Commission Act of 1997 (Act 538), and the Energy Commission (GEC), established under the Energy Commission Act 1997 (Act 514).

Under the current regulatory scheme, “the Ministry of Energy is responsible for the broad policy direction of the electricity industry; the [GEC] is responsible for indicative national planning and licensing of electricity utilities and technical standards, while the PURC is responsible for economic regulation, monitoring of service quality, and ensuring fair competition among utilities.” The clear demarcation of responsibilities of these institutions will allow for easy coordination and accountability of each if there is a failing in the performance of their respective functions.

In order to determine the correlation between law and energy infrastructure development, the provisions of both the Energy Commission Act of 1997 (Act 514) and the Public Utilities Regulatory Commission Act of 1997 (Act 538) will be examined.

A. ENERGY COMMISSION ACT OF 1997 (ACT 514)

The Energy Commission Act (ECA) established the GEC to regulate, manage, develop, and utilize energy resources in Ghana and grant licenses for the transmission, wholesale supply, distribution, and sale of

88. See Donat-Peter Hader, THE LAW OF ENERGY FOR SUSTAINABLE DEVELOPMENT 362 (Adrian J. Bradbrook et al. eds., 2005).
89. Id. at 26.
90. See infra note 116 and accompanying text.
91. See infra note 94 and accompanying text.
92. Id. at 25-26.
electricity and natural gas. Other responsibilities of the GEC include regulating, refining, store bulk distribution, marketing, and sale of petroleum products. Typically, the GEC is a body corporate with perpetual succession and a common seal. It may sue and be sued in its corporate name. Specifically, the GEC's objectives, functions, and powers are to:

“(a) recommend national policies for the development and utilisation [sic] of indigenous energy resources; (b) advise the Minister on national policies for the efficient economical and safe supply of electricity, natural gas, and petroleum products considering the national economy; (c) prepare, review and update periodically indicative national plans to ensure that reasonable demands for energy are met; (d) secure a comprehensive data base for national decision making on the extent of development and utilisation [sic] of energy resources available to the nation; (e) receive and assess applications, and grant licences under this Act to public utilities for the transmission, wholesale supply distribution, and sale of electricity and natural gas; (f) establish and enforce, in consultation with the Public Utilities Regulatory Commission, standards of performance for public utilities engaged in the transmission, wholesale supply, distribution and sale of electricity and natural gas; (g) promote and ensure uniform rules of practice for the transmission, wholesale supply, distribution and sale of electricity and natural gas; (h) receive and assess applications and grant licences under this Act for the refining, storage, bulk transportation, marketing and sale of petroleum products; (i) establish and enforce standards of performance for bodies engaged in the supply, marketing, and sale of petroleum products; promote competition in the supply, marketing and sale of petroleum products; (k) maintain a register of public utilities, petroleum products marketing companies, retail stations and reseller outlets licensed under this Act in the country; (l) pursue and ensure strict compliance with this Act and the Regulations; (m) and perform any other function assigned to it under this Act or any other enactment.”

The explicit nature of the provisions of the Ghanaian Energy Commission Act (GECA) regarding the powers and functions of the Ghanaian Energy Commission provides the necessary enabling

93. The Energy Commission Act (1997), § 1(2) (Ghana) [hereinafter ECA].
94. Id. § 2.
environment for the development of energy infrastructure in Ghana. Particularly useful to note is the development of rules of practice and standards of performance from an analytical perspective. The successful changes recorded so far in the Ghanaian electricity industry seem to suggest that the content of energy law in Ghana, which has translated into the efficient and transparent generation, transmission and distribution of electricity, as well as the encouragement of private sector participation in the Ghanaian electricity industry is heading in the right direction.

Compared to the Nigerian Energy Commission (NEC), the regulatory role of the Ghanaian Energy Commission (GEC) is a radical departure from the mere policy formulation and central coordinating roles of its Nigerian counterpart. The GEC plays a pivotal role in the issuance of transmission, wholesale supply, distribution, and sale of electricity or natural gas.95 A notable provision regarding the application for transmission, wholesale supply, distribution, or sale of electricity licenses is that the GEC is expected to acknowledge receipt within 10 working days of receipt of an application and inform the applicant in writing of the decision of the GEC within a reasonable period after the ten days, but not to exceed 60 days.96

Although the GEC reserves the right under Section 18 to modify a license granted pursuant to and in accordance with the Act, no modifications can be made “unless [the Commission] has given at least sixty working days written notice . . . stating that [the Commission] proposes to make the modification, and . . . setting out the effect of the modification.”97 For purposes of fairness, the GEC is expected in all cases to consider any representations or objections that are made to it before the modifications are made. Notably, the notice “shall be given by publication in the manner that [the GEC] considers appropriate for the purposes of bringing the [proposed modifications] . . . to the attention of persons likely to be affected by them and by sending a copy of the notice to the licensee.”98 Furthermore, any expense incurred or damage caused as a result of modification to a license shall be considered part of the capital expenditure of the licensee,99 presumably for purposes of

95.  ECA, supra note 93, at § 11(a).
96.  Id. at § 13.
97.  Id. at § 18(2).
98.  ECA, supra note 93, at § 18(4).
99.  Id. at § 18(5).
compensation. The ECA also deals with suspension and cancellation of licenses in a fair and just manner.¹⁰⁰

Beyond the general provision on licenses, there are specific provisions about the transmission, wholesale supply, and distribution of electricity and natural gas. The provision regarding transmission pertains to both interconnected transmission systems and a transmission license.¹⁰¹ A license granted in this respect authorizes the licensee “to operate exclusively on the national interconnected transmission systems for the transmission of electricity or natural gas throughout the country.”¹⁰²

A key condition, among others, in granting a transmission license is “the safe, reliable economic dispatch and operation of the national interconnected systems for the transmission of electricity and natural gas without discrimination to a wholesale supplier of electricity or natural gas licensed under” the ECA.¹⁰³ With respect to wholesale supply licenses, the GEC is also empowered to grant licenses for the operation of facilities and installations as well as for the wholesale supply of electricity or natural gas.¹⁰⁴ A licensed public utility is authorized to produce electricity or natural gas to supply distribution companies and bulk customers.¹⁰⁵ The grant of a wholesale supply license is nevertheless subject to the promotion of safe, reliable, and economic operation of the interconnected transmission systems in the country, in addition to other conditions.¹⁰⁶

Another license provided for under the ECA is the license for the distribution and sale of electricity and natural gas, without discrimination in areas or zones as designated and specified in the license.¹⁰⁷ In granting this license, the GEC is to

take into account (a) the demand and supply of electricity or natural gas in the designated area or zone, (b) the capability to interconnect distribution facilities or installations with transmission systems in the designated area or zone, and (c) the

¹⁰⁰ Id. at § 19.
¹⁰¹ Id. at § 23(1).
¹⁰² Id. at § 23(2).
¹⁰³ Id. at § 24(1)(a).
¹⁰⁴ Id. at § 25(1).
¹⁰⁵ Id. at § 25(2).
¹⁰⁶ Id. at § 26(1)(b).
¹⁰⁷ ECA, supra note 93, at § 25(1)–(2).
ability to fulfill the obligation to provide electricity or natural gas within the designated area or zone.\textsuperscript{108}

Perhaps in a bid to ensure the effectiveness of licensees in their respective spheres of operation, the ECA stipulates performance standards for electricity and natural gas public utilities. The required performance standards that pertain to the electricity sector “include matters relating to . . . voltage stability . . . maximum number of scheduled and unscheduled outages . . . number and duration of load shedding periods, and . . . metering.”\textsuperscript{109} In the event that a licensee “fails to meet a required standard of performance . . . [the licensee may be] required to pay the compensation determined by the Board to a person adversely affected as a result of the failure,”\textsuperscript{110} in addition to any penalty provided under the ECA or any other enactment. Furthermore, “[t]he requirement for payment of compensation under this section (a) does not limit the right to any other remedy at law which is available to the complainant, and (b) does not preclude the [GEC] from taking” other legal measures that “the [GEC] has the right to impose in respect of the act or omission that constitutes the failure.”\textsuperscript{111}

The ECA established an Energy Fund, which is to be funded from government levies on petroleum products, electricity, and natural gas as may be determined by the Cabinet and approved by the Parliament, as well as by grants and money that the Commission receives in the performance of its functions.\textsuperscript{112} The Energy Fund was created for:

(a) the promotion of energy efficiency and productive uses of electricity, natural gas and petroleum products, (b) the promotion of projects for the development and utilisation [sic] of renewable energy resources, including solar energy, (c) human resource development in the energy sector, and (d) any other relevant purposes determined by” the Commission.\textsuperscript{113}

In order to ensure energy infrastructure development, the Minister responsible for Energy – on the advice of the Commission – is empowered to use legislative instruments to make regulations for electricity or natural resources; for the conservation of electricity or natural gas; and for the expansion, planning, safety criteria, reliability,
ANNUAL SURVEY OF INT’L & COMP. LAW  [Vol. XX

194

and cost effectiveness of the interconnected transmission systems.\textsuperscript{114} The Minister is also expected to make regulations:

on minimum standards and procedures for constructions, operation and maintenance of facilities and installations . . . for the protection of mains, pipes, electrical or natural gas installations and services . . . for the protection of life and property and general safety of the public in respect of natural gas and electricity services . . . for the operation of the electricity transmission utility, and . . . for the operation of the gas transmission utility\textsuperscript{115}. . . as well as the regulation of the operation of the gas transmission utility amongst others.\textsuperscript{116}

Considering the role of the GEC and the licensing procedure put in place by the ECA, it would seem that the legal and regulatory scheme of the country’s energy sector is positioned towards tackling infrastructure challenges via a myriad of public and privatized utilities. The content of the law, coupled with the level of improvements in the country’s electricity sector, tend to lend credence to the proposition that there is a correlation between the content of the law, state institutions, and energy infrastructure development.

B. THE PUBLIC UTILITIES REGULATORY COMMISSION (PURC)

The other establishment in Ghana that played a fundamental role in the development of energy infrastructure is the Public Utilities Regulatory Commission (PURC). It was established under Act 538 as a “body corporate”\textsuperscript{117} with perpetual succession and a common seal.\textsuperscript{118} It may sue and be sued in its corporate name.\textsuperscript{119} The PURC regulatory mandates are

(a) to provide guidelines on rates chargeable for provision of utility services; (b) to examine and approve rates chargeable for provision of utility services; (c) to protect the interest of consumers and providers of utility services; (d) to monitor standards of performance for provision of services; (e) to initiate

\begin{itemize}
\item \textsuperscript{114} Id. at § 56.
\item \textsuperscript{115} Id. at § 56.
\item \textsuperscript{116} Id. at § 56.
\item \textsuperscript{117} A legal entity (such as an association, company, person, government, government agency, or institution) identified by a particular name; also called corporation, corporate body or corporate entity. \textit{See Body Corporate, BUSINESS DICTIONARY, available at http://www.businessdictionary.com/definition/body-corporate.html?#ixzz2wzMRqcyP (last visited March 25, 2014).}
\item \textsuperscript{118} The Public Utilities Regulatory Commission Act (1997), § 1(2) (Ghana) [hereinafter PURC].
\item \textsuperscript{119} Id.
\end{itemize}
and conduct investigations into standards of quality of service given to consumers; (f) to promote fair competition among public utilities; (g) to conduct studies relating to economy and efficiency of public utilities. The PURC is mandated to make such valuation of the property of public utilities as it deems necessary for the purposes of the Public Utilities Commission. The PURC also has the power to collect and compile such data on public utilities as it deems necessary for the performance of its functions. Notably, the independence of the PURC is affirmed by Section 4 of the Act, which provides that the PURC “shall not be subject to the direction or control of any person or authority in the performance of its functions.”

A visible correlation between law and energy infrastructure development is noticeable in the provisions of the PURC which imposes a duty on licensed or authorized public utilities to:

(a) maintain its equipment and property used in the provision of the service in such condition as to enable it to effectively provide the service; (b) make such reasonable effort as may be necessary to provide to the public service that is safe, adequate, efficient, reasonable and non-discriminatory; and (c) make such repairs, changes, extensions and improvements in or to the service as may be necessary or proper for the efficient delivery of the service to the consumer.

By virtue of the establishing Act, the PURC may on its own discover or receive a complaint that the service provided by a public utility is not in accordance with the PURC’s expectations. Upon such discovery or receipt of complaint, the PURC shall in writing “direct the provision of the adequate or reasonable service that should be provided by the public utility and may include such other directions as to secure compliance.” A direction by the PURC may include “payment of compensation by the public utility to any consumer for damage or loss suffered on account of

120. Id. at § 3(a) – (g).
121. Id. at § 3(h).
122. Id. at § 3(i).
123. Id. at § 4.
124. PURC, supra note 118, at § 11.
125. Id. at § 12(1).
the failure of the public utility to comply with" the Act.\textsuperscript{126} Furthermore, in the event that:

the technology employed by a public utility is out of date or where any advance in technology which could result in an improvement in the service or in reducing the cost of the consumer, has not been incorporated in the service within a reasonable time, the Commission may in writing direct the public utility to take such measures as the Commission considers appropriate to remedy the omission.\textsuperscript{127}

Directions in this regard shall specify the time for compliance, as long as reasonable; and if the compliance is in stages, specify the time per stage.\textsuperscript{128}

The PURC is also responsible for monitoring the performance standards of public utilities as established by the licensing authorities of the particular public utility.\textsuperscript{129} It is important to note that where a public utility fails to meet any required performance standard, the public utility may be required to compensate any person adversely affected as a result of a failure by the PURC, in an amount to be determined by the PURC after consulting the licensing authority.\textsuperscript{130} However, the requirement for payment of compensation does not limit the right of the adversely affected complainant to any other available legal remedy and does not preclude the PURC from taking other measures or imposing other sanctions that it has the right to impose for an act or omission that constitutes the failure.\textsuperscript{131}

To guarantee confidence and the sanctity of agreements reached in respect to energy infrastructure development or expansion of energy services by a public utility, in the event of a failure or breach of such agreement, the PURC is empowered to direct the public utility who has failed or refused to implement the terms of an agreement to pay the aggrieved party within a reasonable time such sum as the PURC considers reasonable in the circumstances of the case.\textsuperscript{132} In other circumstances where payment to the aggrieved party may not create adequate sanctions, the PURC may instead recommend to the licensing

\begin{itemize}
\item \textsuperscript{126} Id. at § 12(2).
\item \textsuperscript{127} Id. at § 12(3).
\item \textsuperscript{128} Id. at § 12(4).
\item \textsuperscript{129} PURC, supra note 118, at § 13(1).
\item \textsuperscript{130} Id. at § 13(2).
\item \textsuperscript{131} Id. at § 13(3).
\item \textsuperscript{132} Id. at §§ 14(1), (2)(b).
\end{itemize}
authority of the concerned public utility, the cancellation or suspension of its license or give such other directions as it considers just in the circumstances of the case.¹³³

However, it is important to note that PURC intervention and exercise of its power shall be upon receipt of a complaint that the agreement has not been not implemented within a reasonable time in a material respect and that both the complainant and the public utility have been given the opportunity to be heard and that the public utility has been unable to provide a reasonable excuse for not implementing the agreement within a reasonable time.¹³⁴

Another significant provision of the Act which gives credence to the correlation between law, state institutions and energy infrastructure development, is Section 23. This provision provides that a "public utility may permit the joint use of its equipment and facilities by another public utility for a reasonable compensation where such arrangement is convenient or necessary and the use will not result in damage to the owner or other users of the equipment."¹³⁵ Although this is a voluntary joint use of facilities, Section 23(3) of the Act makes the joint use of facilities compulsory where the PURC "is satisfied after investigation that such joint use of equipment and facilities . . . is necessary to provide safe, adequate, and economic service to consumers [and the joint use] will not result in irreparable damage to the owners or users of the equipment or facilities."¹³⁶ Instead, the joint use must be just and reasonable with regard to the circumstances of the case.¹³⁷

This directive on joint use of facilities, even though mandatory, is subject to review by the PURC, which may upon a complaint from any public utility or consumer affected by the directives, modify or revoke such directives at any time.¹³⁸ The provision on joint use of equipment and facilities is considered significant due to the fact that the regulatory Commission is given the power to do what is necessary to be done to ensure that public utility service delivery is unhindered and that at all times, the overall interest of the country should be the primary consideration.

In putting to effect the regulatory provision of the Act, the PURC

¹³³.  Id. at § 14(2)(b).
¹³⁴.  PURC, supra note 118, at § 14(2).
¹³⁵.  Id. at § 23(1).
¹³⁶.  Id. at § 23(3).
¹³⁷.  Id. at § 23(3)(c).
¹³⁸.  Id.
has issued guidelines for setting tariffs in respect of generation, transmission, and distribution of electricity. These guidelines provided for a transparent and predictable mechanism for setting rates. In addition to this, an Automatic Adjustment Formula has been introduced to allow for quarterly revisions of tariffs to reflect fluctuations in crude oil prices and foreign exchange rates, as well as the hydro-thermal generation mix and changes in the consumer price index. With the automatic adjustment formula in place, major tariff reviews would take place every four years. The tariff review process is quite transparent and both the public and consumers are involved through the public hearings system.\(^\text{139}\)

The generation and supply of electricity in Ghana has improved tremendously because the regulation and operations are under a transparent regime. Similarly, another far reaching provision of the PURC that buttresses the argument on the importance of the state and content of law is the fact that any public utility that fails to comply with the standards of performance in the provision of utility services, or refuses to provide utility service adequately and reasonably, or charges or demands for service rates not approved by the PURC, or charges or demands a higher rate than the rate approved by the PURC commits an offense and is liable to incur penalties.

III. CONCLUSION

Nigeria and Ghana, as former British colonies, share similar historical antecedents in terms of laws and public institutions that regulated various sectors of their respective economies. Although this paper does not probe into the actual reasons for the deplorable state of the electricity sectors in both countries, it is safe to assume that because they are each a former British colony and have both adopted British common law, similar laws may have regulated the countries during the colonial period and immediately after independence. It is therefore likely that the weaknesses and inadequacies in those laws partly contributed to the decay and collapse of energy infrastructure before each country adopted its own reform strategies to reposition their electricity sectors respectively.

Whereas the intent and purpose of the reform strategies are not radically different as both emphasize private participation, competition, and a transparent licensing regime, the content of their respective laws and the role of the state institutions to drive the reform and ensure its success

\(^{139}\) GUIDE TO ELECTRIC POWER IN GHANA, supra note 86.
have played a significant role in determining the rate and stage of success achieved by the two countries.

A review of the applicable laws in both countries shows that the legal and regulatory regime of the Ghanaian energy sector appears to be more focused on tackling infrastructure challenges than the legal and regulatory regime in Nigeria. Even when it cannot be said that Ghana has successfully overcome its energy infrastructure development challenges, on account of noticeable deficits in terms of power outage, shedding and technical losses, the fact that the country has recorded some gains in the areas of the amount of power generated and reduction in power outage are indication that it is on the right track. This relative success, as compared to the Nigerian situation, may not be unconnected to the content of the Ghanaian energy sector legal reform, the independence of her institutions, particularly the Energy Commission as a central coordinating body. Also, the implementation and enforcement powers against a policy formulation and information gathering organ in the case of its Nigerian counterpart is clear evidence that a correlation exist between the content of the law and consequential outcomes.

Furthermore, the direct connection and coordination of electricity generation, supply, and distribution on the one hand, and natural gas resources of the Ghanaian Energy Commission on the other hand, may also be identified as effective approaches in dealing with the challenges of energy infrastructure development, because they afford the regulatory agency the opportunity to agree to the terms for the supply of natural gas for power generation in a very easy and less strenuous manner. The Ghanaian approach is therefore more result oriented when compared to the protracted process experienced in Nigeria among the Power Holding Company of Nigeria, the Nigerian National Petroleum Corporation, and its affiliate, the Nigerian Gas Company as well as their foreign associates in concluding a natural gas sale and supply agreement for gas to power generation. Consequently, from the review of the content of laws in both countries, the various state institutions and their performance index, which places Ghana ahead of Nigeria, it is submitted that there is indeed a correlation between the content of the law, the state institutions and energy infrastructure development.