

## NIGERIA'S ELECTRIC POWER SECTOR REGULATION AND ENVIRONMENTAL SUSTAINABILITY- LESSONS FROM MAURITIUS

Nnenna P. Nwajiaku<sup>1</sup>

### Abstract

*Man needs the earth's resources to survive. From his use of wood from the forests to fossil fuels which have been fundamental to technological and economic development, his exploitation has resulted in harm and depletion of the environment. In order to meet human needs without compromising the health of ecosystems or depriving future generations, the world is rapidly transitioning away from fossil fuels as its major source of energy to clean electricity. This paper therefore explores the connection between electricity and cleaner environment with particular focus on how legislation can help the electricity sector to ensure that the environment is sustained. Adopting the doctrinal methodology, it examined and questioned the role assumed by Nigeria's electric power sector legislations in environmental protection while comparing the position in Mauritius. Data drawn from statutes, policy documents, textbooks, journals, internet articles, dissertations and reports all point to findings that Nigeria's electric power sector regulation is not geared towards ensuring environmental sustainability unlike its co-African country, Mauritius. To truly develop as a Nation, it is recommended that Nigeria's electric power sector legislations must include robust provisions to encourage renewable electricity generation and energy efficiency.*

**Keywords:** Sustainability, Environmental Sustainability, Electric Power Sector, Renewable Energy, Energy Efficiency

### 1. Introduction

The environment is particularly important to mankind as our entire life support system depends on the well being of other species, the land, air and water and the natural resources which can be found therein. As the sole provider of everything required for the development and survival of mankind, the environment must be protected from any act that alters its quality or

---

<sup>1</sup>**Nnenna P. Nwajiaku**, LL.B (ESUT), LL.M (LAGOS), Lecturer, Faculty of Law, Godfrey Okoye University, Enugu. [nnennanwajiaku@gmail.com](mailto:nnennanwajiaku@gmail.com), +234-706-719-6161

irredeemably depletes its resources. One of such activities that have threatened the environment for centuries is the exploration and use of fossil fuels since the industrial age for industrial activities, heating, lighting and transportation. Environmental activists have since raised concerns over the manner in which the environment has continued to be polluted and its resources depleted irreversibly beginning with the United Nations Conference on the Human Environment.<sup>2</sup> While there is no alternative to the use of resources from the environment, a smarter option remains applying the resources in ways that do not alter the giver-the environment and allows it the opportunity to regenerate in order to keep giving.

Electric power has been recognised as the more sustainable approach to using energy for development since it is the most versatile form of energy, it is essentially non-polluting having the ability to be generated from entirely renewable sources, and provides the most efficient way of consuming energy.<sup>3</sup> Consequently, the power sector is now leading the way towards a decarbonised energy system; the electrification of transport is one of the trends of the 21<sup>st</sup> century with countries already promising a shift from fossil fuels for powering vehicles and automobile companies responding by increasing production of electric cars.

A discussion of the role of the electric power sector in environmental sustenance from a legal perspective becomes necessary given the function of law in the process of social transformation, legitimisation of the process of change and introduction of orderly development. Thus, this paper examines the regulatory framework of Nigeria's electric power sector as it relates to environmental sustenance. It explains the concept of environmental sustainability, establishes the link between the electric power sector, the law and the environment; analyses the strength and weakness of the regulatory framework comparing it with Mauritius to provide a more robust framework for Nigeria to achieve environmental sustainability.

---

<sup>2</sup> The UN Conference on the Human Environment held in Stockholm in 1972 and gained popularity after the 1987 Brundtland Report of UN's World Commission on Environment and Development. The Report defined Sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

<sup>3</sup> International Electrotechnical Commission, 'Electricity: The Smart Energy-The strategic importance of electrification' < [www.iec.ch](http://www.iec.ch) > accessed 14 October 2020

## **2. Environmental Sustainability, the Electric Power Sector and Regulation**

The electric power sector, the environment and the law are interconnected yet adequate attention has not been given to the sector in the context of its role in environmental protection. Regulation has been focused on either the oil industry as the major pollutant of environment or the power sector's ability to ensure better access to electricity. This section of this paper defines environmental sustainability and puts forward the role of law in ensuring that the electric power sector assists the goal of environmental sustainability while providing electricity.

### **2.1 Environmental Sustainability**

Sustainability as a concept is attributed to Hans Carl von Carlowitz who suggested the sustainable use of forest resources by maintaining a balance between harvesting old trees and planting enough young trees to replace them. This new way of thinking arose from fears that the massive consumption of wood as fuel for ship-building, mining and many other purposes in ancient Europe would result in shortage that would threaten the basis of people's existence.<sup>4</sup> Since then, environmental sustainability has been defined differently amongst professionals. Morelli while examining the different definitions points out that while the ecologist advances a definition of sustainability that connects human needs and ecosystem services, 'meeting human needs without compromising the health of ecosystem', economists on the other hand view sustainability as requiring that current economic activity should not disproportionately burden future generations.<sup>5</sup> He rightly suggests that whichever definition is given should be in agreement that ensuring the provision of clean air, clean water, and clean and productive land is foundational to a responsible socioeconomic system.<sup>6</sup> He thus puts forward a definition of environmental sustainability:

...as a condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the

---

<sup>4</sup>Jacobus A. Du Pisani, 'Sustainable Development: Historical Roots of the Concept'[2006] (3)(2) *Environmental Sciences*, 85 <<https://doi.org/10.1080/15693430600688831>> accessed 15 October 2020

<sup>5</sup>Morelli John, 'Environmental Sustainability: A Definition for Environmental Professionals' [2011] (1)(1)

*Journal of Environmental Sustainability*; 1-9 at 2 <<http://scholarworks.rit.edu/jes/vol1/iss1/2>> accessed 15 October 2020

<sup>6</sup> *Ibid*,3-4

services necessary to meet those needs nor by our actions diminishing biological diversity.<sup>7</sup>

A unique approach to the term is in the context of capital. Goodland defines the environment as 'a stock of environmentally provided assets that provide a flow of useful goods or services which may be renewable or non-renewable, and sustainability means maintaining, or at least not depleting these environmental assets'.<sup>8</sup> He advises that this can be achieved through regeneration—encouraging the growth of natural capital by reducing the level of current exploitation of it, relieving pressure—investing in projects that expand cultivated natural capital, and efficiency—prudent use of less capital to achieve more. Finally, he further propounds that environmental sustainability would be achieved if certain input and output conditions are met, viz., (1) waste emissions from a project are within the assimilative capacity of the local environment to absorb without unacceptable degradation of its future waste-absorptive capacity or other important services (2) harvest rates of renewable resource inputs are within the regenerative capacity of the natural system that generates them. (3) Non-renewable resource inputs are equal to the rate at which renewable substitutes are developed by human invention and investment.<sup>9</sup>

While the focus of sustainable development is far broader than the environment as there are social and economic aspects, environmental sustainability- living within our environmental limits is the central principle of sustainable development. Accordingly, Morelli emphasized that 'it will be impossible to have a sustainable society without a sustainably productive environment to provide a resource foundation as a sustainable economy depends on a sustainable flow of material, energy, and environmental resources'.<sup>10</sup> Therefore the implications of implementing environmental sustainability are that we must learn how to manage the renewable resources for the long term; reduce waste

---

<sup>7</sup>*Ibid*, 6

<sup>8</sup>Robert Goodland, 'Environmental Sustainability and The Power Sector' [1994] (12)(3) *Impact Assessment*, 275- 304, <<https://doi.org/10.1080/07349165.1994.9725867>> accessed 17 October 2020

<sup>9</sup>Robert Goodland and Herman Daly, 'Environmental Sustainability: Universal and Non-Negotiable' [1996] (6)(4) *Ecological Applications*;1008 <<https://www.jstor.org/stable/2269583>> accessed 17 October 2020

<sup>10</sup> Morelli supra note 4,4

and pollution; use energy and materials with scrupulous efficiency; and invest in repairing the damage, as much as possible.<sup>11</sup>

## 2.2 The Electric Power Sector and Environmental Sustainability

The electric power sector covers participants in the generation, transmission, distribution and sale of electricity. Although fossil fuels- coal, petrol, diesel, gas have been useful to man for ages, they are unsustainable as they release pollutants that degrade the quality of the environment and are non-renewable. Thus, electricity will replace them as a sustainable application of energy in powering the activities of mankind though this can only be achieved where the processes for its production are carried out sustainably.

In the case of generation, it is only sustainable when generated from clean and renewable energy sources namely water flow (hydropower), the sun (solar power), the wind (wind power), heat from the earth's interior (geothermal power), waves and tides (ocean power), organic matter and their wastes products (bio-energy). These sources are clean, naturally replenished, are richly located across every nation and can be used more efficiently with minimal waste. They ultimately correspond with Morelli's<sup>12</sup> advice that for a resource to be sustainable, while it is exploited to satisfy human needs, the ecosystem should be able to continue to regenerate it for future use and the environment must not be diminished in the process.

In the transmission and distribution stages, a major gain from renewable energy systems is their ability to distribute electricity independent of transmission networks or directly to the low voltage distribution network (embedded generation) unlike electricity generated from fossil fuels which is transported over long transmission lines that result in restrictions on land use, clearing of forests, harm to birds, loss of large grazing areas and energy losses.<sup>13</sup> This may be achieved through the use of micro grids, stand alone hybrid systems and other distributed energy systems. These systems enable the collection of energy from many sources; reduce the need for long transmission lines and lower

---

<sup>11</sup>Goodland and Daly *supra* note 8

<sup>12</sup>Morelli *supra* note 4

<sup>13</sup>Fingrid, 'Environmental Impacts of transmission lines' < <https://www.fingrid.fi/en/grid/land-use-and-environment/environmental-impacts-of-transmission-lines/> >accessed 10 November 2020

environmental impacts. Also, their proximity to the site of use reduces the amount of energy lost during transmission thus resulting in energy efficiency. The electric power sector therefore stands in a better position in environmental sustainability as electricity when compared to fossil fuels is essentially non-polluting, can be generated from entirely renewable sources, provides the most efficient way of consuming energy and is a more versatile form of energy. An environmentally sustainable power sector is one whose participants place priority on renewable energy sources and efficiency in the generation, transmission, distribution and sale of electricity. All its activities are geared towards reducing waste and pollution; the use of resources capable of regenerating quickly and use of resources with scrupulous efficiency.

### **2.3 Electric Power Sector Regulation and Environmental Sustainability**

The power sector needs adequate regulation to drive it towards sustainability. This is essential given the function of law in legitimising the process of change and introducing orderly development. Therefore, law is vital to the development of renewable energy; as an agent of transformation, it ought to stimulate a diversion to clean sources of energy. Also, given the diverse interests such as proponents and opponents for renewable energy, and benefactors of crude oil, the law becomes even more important for reconciling and selecting superior interests for the greater benefit of all. The first role a renewable energy focused electricity regulation performs is that of giving creditability to a government's commitment to sustaining the environment in the course of developing the nation.

The most important function of electricity legislations in environmental sustainability is the setting of environmental and efficiency standards for the electric power sector and its consumers. The provision of environmental standards is particularly important as while renewable energy sources have huge advantages over fossil fuels, they are not totally free of harm to the environment and must be developed in ways that considerably reduces danger. For instance, the use of hydropower has generated long-standing environmental movement opposition due to reduced oxygen levels and altered water temperature posing danger to aquatic life.<sup>14</sup>In the case of wind generated

---

<sup>14</sup> G Pring and A.S. Haas and B.T. Drinkwine, 'The Impact of Energy on Health, Environment, and Sustainable Development: The TANSTAAFL Problem' in D.N. Zilman and others (eds.), *Beyond the Carbon Economy-Energy Law in Transition* (Oxford University Press: New York, 2008), 29

electricity, land suitable for wind-turbine installation must compete with alternative uses for the land, turbine blades could kill local wildlife like birds flying into spinning turbine blades, and lastly, turbines might cause noise and visual impacts to the landscape.<sup>15</sup> Therefore, to safeguard the environment, sustainability standards must be put in place for these renewable energy sources to achieve the purpose for which they are preferred.

Another very vital role of the law in promoting sustainable environments through electricity is that of removing barriers to private investment which is extremely relevant to renewable energy resources development.<sup>16</sup> There is need for legislation to address factors that drive the market such as market entry (licensing), fair and open access to transmission and distribution networks, and guarantees on reasonable rate of return (feed-in-tariffs). Other factors that encourage investments are the provision of capital reliefs and incentives, tax exemptions, import duty waivers, and subsidies. Again, the law can address the technological barriers especially in equipment procurement, maintenance support for renewable energy projects, technology transfer, local manufacturing of renewable energy component and also financing and investment barriers seeing that renewable energy projects are capital intensive.<sup>17</sup> Temporary waivers may remove these impediments and allow renewable energy technologies to compete on an equitable basis which will encourage manufacturers, installers, distributors of renewable energy technologies to invest.

Legislation is equally important to encourage consumers to switch away from less efficient sources of energy. Most of the equipment for renewable energy generation is imported into developing countries and high capital import duties artificially raise the price of renewable energy technologies thus discouraging their adoption. This can be achieved by setting up attractive incentive programs; tax holidays and subsidies that help make renewable energy projects both

---

<sup>15</sup> Eugene D. Coyle and others, 'Harnessing Nature: Wind, Hydro, Wave, Tidal, and Geothermal Energy' in Eugene D. Coyle and Richard A. Simmons (eds), *Understanding the Global Energy Crisis* (Purdue University Press: Indiana, 2014), 91-124 at 92

<sup>16</sup> Emem Onyejiam, 'The Energy Crisis In Nigeria and the Role of Law in Promoting Renewable Energy Development' (11 October 2015), 1-11 < <http://dx.doi.org/10.2139/ssrn.2672625> > accessed 15 November 2020

<sup>17</sup> *Ibid*, 5

economically viable for the provider and affordable for the community.<sup>18</sup> Incentives can also come by way of energy efficiency rules that reward consumers for efficient use of electricity. The law can also influence various aspects of decision-making by introducing more consumer focused and market-based instruments necessary to further promote the development of renewable energy in Nigeria. For instance, consumer protection rules and incentives to service providers with the best customer satisfaction in terms of renewable energy sources will also promote their use and ultimately increase the chances of attaining sustainability.

Finally, legislation has a role to play in the formation of strong institutions with the responsibility of monitoring compliance to rules, promoting renewable energy development and developing policies and strategies for improvement; also, in encouraging research, capacity building and fostering local content in renewable energy sector.

### **3. Nigeria's Electric Power Regulation and Environmental Sustainability**

Nigeria's power sector currently consists of 6 generation companies (GENCOs), 11 distribution companies (DISCOs) and the Transmission Company of Nigeria (TCN) all unbundled from a defunct Power Holding Company of Nigeria; the Niger Delta Power Holding Company, a few Independent Power Providers and very few renewable energy service providers. The sector produces most of the nations' electricity through thermal plants powered by gas and the rest through hydro power plants.

The Nigerian Electric Power sector is currently regulated by the Electric Power Sector Reform Act 2005<sup>19</sup> and policy documents and under the institutional control of the Ministry of Power, Works and Housing and the Nigerian Electricity Regulatory Commission (NERC). The current electricity regulatory regime was drafted and recommended through the Electric Power Implementation Committee of 2002 as a response to the failure of the sector over the years.<sup>20</sup> As a foundation for the reform, the Committee prepared a National Electric Power Policy (NEPP) in 2001 and a National Energy Policy in 2003 both

---

<sup>18</sup> Yinka Omorogbe, 'Promoting Sustainable Development through the Use of Renewable Energy: The Role of Law' in D.N. Zilman and others (eds), *Beyond the Carbon Economy-Energy Law in Transition* (Oxford University Press: New York, 2008), 42

<sup>19</sup> Electric Power Sector Reform Act (EPSRA) 2005, Cap E7, LFN 2004

<sup>20</sup> Yemi Oke, *Nigerian Electricity Law and Regulation*, (Law Lords: Lagos, 2013), 2

bearing the theme of optimal utilisation of all energy resources including renewable.

The Nigerian Electricity Regulatory Commission (NERC) was set up pursuant to the Electric Power Sector Reform Act 2005<sup>21</sup> as the sector regulator. The NERC is the engine room for effective implementation of the Nigerian electric power sector laws, regulations, rules and objectives.<sup>22</sup> Notable objectives of the Commission as it relates to ensuring environmental sustainability are to ensure optimal utilisation of resources for the provision of electricity services and ensure the safety, reliability, security and quality of service in the production and delivery of electricity to consumers.<sup>23</sup> Consequently NERC is charged with statutory functions such as the promotion of competition and private sector participation; establishment of operating codes and safety, security, reliability and quality standards, and appropriate consumer rights and obligations regarding the provision and use of electricity services; licensing and regulating persons involved in the generation, transmission, system operation, distribution, and trading of electricity; monitoring the operation of the electricity market and the undertaking of any other activities which are necessary to give effect to its objectives.<sup>24</sup>

The Electric Power Sector Reform Act has general provisions on licensing, tariffs, metering, and consumer protection and a grid code to ensure safe transmission of electricity. Notably, it provides for a Rural Electrification Fund to be set up and administered by the Rural Electrification Agency<sup>25</sup> aimed at more regional access to electricity. The Agency is to promote rural electrification subsidies, development of off grid electrification; and stimulate innovative approach to rural electrification.<sup>26</sup> By empowering the NERC to make regulations for the fulfillment of its objectives, NERC has issued regulations to enable individuals, communities, states and local governments to generate and distribute electricity within their domains. There are regulations for the licensing of Independent Electricity Distribution Networks (IEDN) either as an Isolated Off-Grid Rural IEDN, Isolated Off-Grid Urban IEDN, or an Embedded IEDN; licences for

---

<sup>21</sup> EPSRA 2005 s31

<sup>22</sup>Yemi Oke *supra* note 19, 38

<sup>23</sup>EPSRA 2005, s32(1)

<sup>24</sup>EPSRA 2005 s32(2)

<sup>25</sup>EPSRA 2005 s88(11)

<sup>26</sup> EPSRA 2005, s88(13)

embedded generation and simpler permits for Captive generation since they do not involve the commercial production or supply of electricity.<sup>27</sup>

The Electric Power Sector Reform Act further empowers the Ministry and Agencies to issue policy guidelines for the electricity industry.<sup>28</sup> Pursuant to such power, The Renewable Electricity Policy Guidelines 2006 sets out policies for the promotion and regulation of renewable electricity, proposes the setting up of a renewable electricity trust fund as a proportion of the rural electrification fund and states the regulatory institutions that would partner with the Federal Government in the implementation of the Policy Guidelines.<sup>29</sup> Also, the National Renewable Energy and Energy Efficiency Policy 2015 seeks to set out a framework for action to address Nigerians challenge of inclusive access to modern and clean energy resources, promote the increase of Nigeria's energy generated from renewable energy sources; and proposes energy efficiency as a low cost, under-utilised energy resource thus providing strategies for energy conservation and energy efficiency financing.<sup>30</sup> The 2003 National Energy Policy had envisaged the Renewable Energy Master Plan of 2006 which articulates Nigeria's vision for achieving sustainable development through renewable energy. The responsibility to meet this mandate was assigned to the old Energy Commission of Nigeria.

#### **4. The Failure of Nigeria's Power Sector Regulation in Steering it Towards Environmental Sustainability: Lessons From Mauritius**

There are several indicators that evidence a lack of true commitment to environmental sustainability in Nigeria's power sector especially under current sector reforms. The first of such indicators is a failure of the policies which formed the foundation for the current electricity sector legislation and reforms to prioritise and incentivise generation from renewable sources. For instance, the National Integrated Power Project promoted under the NEPP saw the emergence of Independent Power Providers generating electricity majorly from gas powered thermal plants and the current generation licencees under the Electric Sector Power Reform Act are highly dependent on gas. On the other hand, major

---

<sup>27</sup> Yemi Oke, *supra* note 19,53

<sup>28</sup> EPSRA 2005 s33(2)

<sup>29</sup> Renewable Electricity Policy Guidelines 2006 < <https://www.iceednigeria.org/resources/dec.-2006.pdf> > accessed 20 November 2020

<sup>30</sup> National Renewable Energy and Energy Efficiency Policy 2015 < <https://www.offgridnigeria.com/nreee-policy-2015/> > accessed 20 November 2020

achievements in the Mauritian electricity sector have been driven through well drafted policies showing clear renewable energy targets to be achieved within clear time frames.<sup>31</sup> The first Integrated Electricity Plan (2003–2012) promoted the use of indigenous energy sources especially bagasse for energy generation, energy saving activities as a form of demand management, tariff strategy that will give customers the right signals for energy saving activities and incorporation of renewable energy so as to ensure environmental sustainability.<sup>32</sup> The later Long Term Energy Strategy 2009–2025(LTES) seeks to reduce carbon emissions by increasing the share of renewable energy in the electricity mix by 35%.<sup>33</sup> It plans to achieve this by reforming the institutional and regulatory framework, encouraging private sector participation and improving energy efficiency.<sup>34</sup> The later in particular led to the establishment of the Maurice Ile Durable (MID) Fund which provides financial assistance for projects using renewable sources of energy and mitigating climate change. The LTES plan has recently been revised in the Renewable Energy Road Map to achieve 40% RE by the year 2030.<sup>35</sup> While Nigerian government remains comfortable with its overdependence on fossil fuels for electricity generation, the government of Mauritius has demonstrated commitment in ensuring the sustainability of its electricity sector. Renewable energy is prioritised to the extent that all the IPP's in Mauritius include a renewable energy component; the Central Electricity Board operates four thermal plants and ten hydroelectric plants while IPP's mainly from the sugar industry supply electricity from bagasse. The hydro electricity potential of Mauritius has been reached. However,

---

<sup>31</sup> Shingirirai S. Mutanga, 'The Future of Emerging Economies' Energy Mix: Lessons from Mauritius' Policy Brief No 103 African Institute of South Africa, January 2014 < <https://www.africaportal.org/publication/the-future-of-emerging-economies-energy-mix-lessons-from-mauritius/> accessed 21 November 2020

<sup>32</sup> Ibid. See Integrated Electricity Plan 2003-2012 (IEP 2003) < <http://ceb.intnet.mu/CorporateInfo/IEP2003.pdf> > accessed 17 November 2020

<sup>33</sup> Ibid. See Long Term Energy Strategy 2009-2025 < <https://sustainabledevelopment.un.org/content/documents/1245mauritiusEnergy%20Strategy.pdf> > accessed 20 November 2020

<sup>34</sup> Kalim U. Shah and others, 'Application of an Institutional Assessment and Design (IAD) :Enhanced Integrated Regional Energy Policy and Planning (IREPP) Framework to Island States' [2020] (12)(2765) *Sustainability*, 1-20 at 10; < <http://dx.doi.org/10.3390/su12072765> > accessed 11 November 2020

<sup>35</sup> Ibid

the nation is considering the feasibility of generating electricity from smaller rivers, solar, wind and waste.<sup>36</sup>

Beyond setting policies is the need to actually enact electricity legislations to provide legal force and strong institutions. According to Omorogbe, 'laws should follow policy and should be the instruments that promote the realisation of a particular policy'. She further reiterates that law and policy are of no effect unless they are implemented.<sup>37</sup> Legislation is required to aggressively promote investments in renewable energy; provide environmental standards to be applied by electricity sector participants; and subsidies to encourage consumers to shift to renewable electricity providers and use electricity more efficiently. An even more commendable approach for environmental sustainability in the sector is using specific legislations to pay proper attention to environmental protection and energy management. Unfortunately, the regulatory regime in Nigeria does not show consciousness or seriousness in these regard as while there are policies for renewable electricity generation and energy efficiency, they lack necessary legal force. There are no provisions in the current legislation nor is there any specific legislation to incentivise renewable electricity generation and efficiency in electricity consumption. In Mauritius, significant legislative measures for sustainability were the creation of the Renewable Energy Agency in 2015 to promote an environment conducive for the development of renewable energy;<sup>38</sup> and enactment of the Energy Efficiency Act<sup>39</sup> which established an Energy Efficiency Management Office to develop and implement strategies for the efficient use of energy and establish guidelines and standards for efficient energy consumption.<sup>40</sup> The Energy Efficiency Act mandated an energy auditing infrastructure is to be set up and financial incentives to be provided to designated energy consumers to enable them undertake energy audit. Enforcement officers carry out investigation to verify compliance and sanctions are applicable for any import, manufacture or selling of any equipment or

---

<sup>36</sup> United Nations Economic Commission for Africa and United Nations Environment Programme 'Making Africa's Power Sector Sustainable: An Analysis of Power Sector Reforms in Africa' (2007), 1-151 <https://repository.uneca.org/handle/100855/15059> > accessed 15 November 2020

<sup>37</sup> Yinka Omorogbe *supra* note 17, 46-47

<sup>38</sup> Mauritius Renewable Energy Agency Act 2015 (No. 11 of 2015)

<sup>39</sup> Energy Efficiency Act, Act 3 of 2011 (Mauritius)

<sup>40</sup> Odile J. Lim Tung, 'An Appraisal of the Energy Efficiency Regulatory Framework in Mauritius' [2013] (31)(4) *Journal of Energy & Natural Resources Law*, 425-452 < DOI: [10.1080/02646811.2013.11435342](https://doi.org/10.1080/02646811.2013.11435342) > accessed 23 November 2020

appliance that does not comply with minimum energy performance standards or labelling requirements.<sup>41</sup> Also, the government and the CEB are coming forward with innovative incentives to promote renewable energy such as the Small-Scale Distributed Generation scheme launched by the CEB in 2010 which allowed small scale IPPs to generate energy on their own through sustainable sources and export the excess to the grid through a net metering system; and the removal by the government of Mauritius in its 2016 budget of all value-added taxes on PV inverters and batteries as a means to increase the interest of investors and the population in solar energy.

Again, legislations ought to help promote synergy between the electric power sector and industries and agencies for better productivity. The situation in Nigeria is that isolated laws and agencies fail to give full consideration to their interconnectedness. One instance is the Ministry of Environment and Ministry of Power, environmental laws and electricity laws failing to realise their connections and play roles accordingly. Another instance is how the land planning laws, works and housing, waste disposal agencies fail to work with the power sector. The sugar industry played a vital role in the success of the Mauritian power sector. The Ministry of Agriculture recommended ways by which the sugar industry could be more efficiently managed by passing the Sugar Industry Efficiency Act<sup>42</sup> for optimising its by-products, thus having significant impact on *bagasse*-generated energy in Mauritius. Also, the National Development Strategy of the Ministry of Housing and Lands identified planning policies that consider electric infrastructure planning such as rights of way for power cable networks, clustering polluting industries for more effective management and relocation of power generation industries away from residential areas while a building control act of 2011 aims to improve energy efficiency in building design.<sup>43</sup>

In light of these inadequacies, the current regulatory framework for Nigeria's power sector cannot steer it towards environmental sustainability.

---

<sup>41</sup> *ibid*

<sup>42</sup> Sugar Industry Efficiency Act 20 of 2001

<sup>43</sup> IEP 2003 *supra* note 279 at 17

## **5. Conclusion**

This paper provides robust understanding of the role electric power sector regulations play towards assisting nations to achieve environmental sustainability goals. It identifies the link between the sector and the environment and analyses the capacity of Nigeria's power sector regulatory framework to put the nation on the path of sustainability. The absence of adequate policies, laws and institutions to provide for environmental standards in Nigeria's electric power sector, incentives for renewable energy development and consumption, incentives to use electricity more efficiently and collaboration between all connected sectors, are evidence that the current regulatory regime cannot direct Nigeria's power sector towards providing a sustainable environment. While Mauritius is yet to achieve total independence from fossil fuels in its electricity mix, this paper recommends that its regulatory regime is a good start for Nigeria to emulate if it must have a sector that is more considerate towards its environment.