



The democratization of electricity in Nigeria

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ABSTRACT

Nigeria's aspiration towards universal access to electricity has been hindered by a centralized and closed grid system. The country took steps in the right direction by recently unbundling and privatizing the state-owned electric power utility and introducing a renewable energy feed-in tariff and mini-grid regulations. The author advocates a full-scale democratization of the electricity sector to empower local communities and small, stand-alone producers to participate in solving the electricity crisis.

1. Introduction

Nigeria is a developing country with a poor electricity system, especially in remote areas. Many homes and communities have few or no options at all when the central electricity system fails or is insufficient to meet their electricity need. This major drawback underscores the desire for private homes, businesses, and communities to have options and more control over their electricity. It is the desire for options and control of availability of electricity that has led to what can be referred to as the democratization of electricity, or in a wider sense, the democratization of energy in some developed countries. The phenomenon that is now known as the democratization of energy is becoming increasingly popular.

Historically, in many countries, large monopolistic or oligopolistic corporations with centralized energy systems dominate or dominated the electricity sector. Centralized systems are dominant because of structures that allow electricity to flow from large central power stations¹ (Morris and Peht 2015) into centralized transmission and distribution grid systems. Also the desire of national governments to control utilities, possibly borne out of the socialist tendencies to manage public electricity utilities for the common good of the majority, makes centralized systems popular. Unfortunately, improper management and maintenance of public electric power utilities and inadequate funding of programs for expansion of generation, transmission, and distribution capacity are some of the challenges confronting governmental control of electric power utilities. This is particularly true for developing countries like Nigeria.

This article reviews democratization with a specific focus on

electricity as a sub-sector of the energy sector in Nigeria. It also discusses the rationale for democratization of electricity in Nigeria, the adequacy of recent regulatory interventions, and suggests a full-scale democratization that empowers small owners of stand-alone electricity systems.

2. Revisiting the concept of democratization of electricity

The concept of democratization of energy is broader than the concept of democratization of electricity because energy encompasses power for electricity, transportation, heating, and cooking. Although various scholars use the terms “energy” and “electricity” interchangeably, more emphasis will be placed on the use of the term “electricity” for the purpose of this article. In order to understand what democratization of electricity entails, it is important to first adopt a deductive approach at unraveling the concept of democratization of energy.

Tomain (2015)² describes democratization of energy in the context of expansion in decision-making powers that leads to decisions being decentralized and consumers having greater input in their energy choices. This democratization is brought about by the changing global energy/environmental politics.³ Tomain argues that centralized energy systems are prone to natural disasters and the best response to such risks is to restructure the electric system through greater decentralization as well as through increased competition and consumer participation.⁴ Referring to the increasing influence of merchant generators, independent system operators as well as independent transmission companies in the United States as examples, he argues that a more

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¹ Morris, C., and Peht, M., 2015. *Energy Transition: the German Energiewende*. The Heinrich Boll Foundation, p. 29.

² Tomain, J.P., 2015. *The Democratization of Energy*. Vanderbilt Journal of Transnational Law Vol. 48 p. 1125.

³ Ibid at p.1125.

⁴ Ibid at p.1126.

democratic energy paradigm affects the production and delivery of energy.⁵

According to Roberts (2013),⁶ the democratization of energy refers to more consumers also being producers, more and more municipalities taking charge of their own energy, and thus power over power, as it were, devolving into local hands. Lisa Nandy⁷ views democratization of energy in terms of “putting people back in charge” and moving to “community-based energy companies and co-operatives” to ensure a more just energy system for all. Sheik, S., (2015)⁸ describes democratization of energy as “energy municipalization,” that is, giving the people back control of their energy system. He considers this an effective way of challenging the monopoly held by the big energy companies. Farrel (2011),⁹ on the other hand, views democratization of electricity from the perspective of distributed generation, that is, the decentralization of electricity generation from centralized systems to smaller producers and the citizenry. He emphasizes the potential of distributed generation to democratize the electricity grid and create opportunities to unlock local ownership of electricity systems. The democratization of electricity could also be understood in more simplistic terms, from the perspective of Abraham Lincoln’s definition of democracy.¹⁰ Thus democratization of electricity may be defined as electricity by the people and for the people.

This author defines the democratization of electricity as the process of allowing citizens of a country either as individuals, cooperatives or communities, control electricity generation, transmission and distribution systems, for their own use in the first instance, but with the ability to make excess capacity available to a centralized system for the collective national benefit. It is the introduction of a democratic system characterized by the increased power of choice and control by the citizenry, in a way that promotes and accelerates the quest for universal access to sustainable and eco-friendly electricity.

3. Universal access to electricity through democratization

Universal access to electricity by 2030 is the major thrust of Goal 7 of the Global Goals for Sustainable Development.¹¹ The United Nations Development Programme (UNDP) estimates that about 1.1 billion people in the world have no access to electricity.¹² The poor are most affected. The urban poor typically have some access to electricity, but service is unreliable and intermittent, and their connections are often informal. In rural areas, physical access is either non-existent or usually of inadequate quality and/or quantity either from stand-alone systems or poorly run and inefficient mini-grids that are expensive and prone to frequent failure.

Universal access to electricity is important for improving livelihoods and economic activities. Rifkin (2011)¹³ considers universal access to

⁵ Ibid at p.1135.

⁶ Roberts, D., 2013. *The next big thing in energy: Decentralization*. <https://grist.org/climateenergy/thenextbigthinginenergydecentralization/>. (last accessed 26 October 2017).

⁷ Lisa Nandy, the Shadow Energy and Climate Change Secretary, at the Labour Party Conference in September 2015 cited by Sakina Sheikh. See endnote 8.

⁸ Sheikh, S., 2015. *A Just, sustainable and democratized energy is on its way*. New Internationalist. <https://newint.org/blog/2015/10/02/a-sustainable-and-democratized-energy/> (last accessed 26 October 2017)

⁹ Farrel, J., 2011. *Democratizing the Electricity System, A Vision for the 21st Century Grid*. The New Rules Project. p.14.

¹⁰ Abraham Lincoln, former president of the United States defined democracy as government of the people, by the people, and for the people.

¹¹ On Sept. 25, 2015, 193 world leaders agreed to 17 Global Goals for Sustainable Development to be achieved by 2030.

¹² UNDP. *Energy Access*. <http://www.undp.org/content/undp/en/home/climate-and-disaster-resilience/sustainable-energy/energy-access.html> (last accessed 26 October 2017).

¹³ Rifkin, J., 2011. *The Democratization of Energy Will Change Everything*. http://www.huffingtonpost.com/2011/09/26/jeremyrifkindemocratizationofenergygreentechnology_n_980222.html (last accessed on 26 October 2017).

electricity as the indispensable starting point for improving the lives of the poorest populations of the world. Lighting for schools, functioning health clinics, pumps for water and sanitation, cleaner indoor air, faster food-processing and more income-generating opportunities, among others are some of the benefits of universal access to electricity.

According to the United Nations Foundation, from the perspective of jobs, security, climate change, food production or increasing incomes, access to sustainable energy for all is essential for strengthening economies, protecting ecosystems, and achieving equity.¹⁴ Former UN Secretary-General, Ban Ki-Moon, described energy as “the golden thread that connects economic growth, social equity, and environmental sustainability.”¹⁵ Universal access to electricity has the potential for a more equitable society because more households and businesses will have better opportunity to thrive. As more homes and businesses have access to electricity, society becomes more equitable.

One of Nigeria’s most demanding challenges today is to deliver access to electricity to millions (Roche, Ude, and Donald-Ofoegbu, 2017).¹⁶ In Nigeria, electrification rate is about 45% (IEA: 2015 WEO).¹⁷ There is, however, a sharp discrepancy between cities and rural areas. The rate of urban electrification in Nigeria is 55% while the rate for rural electrification is 36%.¹⁸ Electrification in Nigeria more often than not connotes that there is access to electricity infrastructure rather than the actual stable supply of electricity. Therefore, while certain areas may be connected to the electricity grid, such areas may witness minimal electricity supply all year round as a result of generation, transmission, and distribution constraints. Nigeria has a rural electrification program that has, as its primary objective, the expansion of access to electricity as rapidly as can be afforded in a cost-effective manner (FGN 2001: National Electric Power Policy).¹⁹ Nigeria intends to achieve 75% access to electricity by 2020, 90% by 2030, and universal access of 100% electrification by 2040 (FGN 2015: Rural Electrification Strategy Implementation Plan).²⁰ To achieve this, the country plans to extend electrification to additional 1.1 million rural households each year from 2015 to 2020 and 513,000 new rural household connections each year from 2020 to 2040.²¹

Nigeria will need to embrace a more democratized electricity market and renewable energy sources, especially stand-alone solar systems for residential buildings to move rapidly towards achieving universal access to electricity. In some countries like Germany, more homes and communities have become energy producers as well as consumers by embracing renewable energy and a democratized electricity market. Technological advancement and the increasing importance of renewable energy in the electricity mix provide more opportunities for universal access to electricity. According to Farrel (2011),²² this new trend presents an electricity future with a more democratic and participatory paradigm. Hendrickson (2015)²³ considers the democratization of energy to be a very important factor in the transition to a more equitable society. According to Rifkin (2011),²⁴ the democratization of energy will reorder the way whole economies and

¹⁴ UN Foundation *Achieving Universal Energy Access*. <http://www.unfoundation.org/what-we-do/issues/energy-and-climate/clean-energy-development.html?referrer=https://www.google.com.ng/> (last accessed on July 22, 2017).

¹⁵ Ibid.

¹⁶ Roche, M. Y., Ude, N., Donald-Ofoegbu, I., 2017. *True Cost of Electricity – Comparison of Costs of Electricity Generation in Nigeria*. Ed. Matthes, F., and Verolme, H. The Nigerian Economic Summit Group (NESG) and Heinrich Boll Stiftung Nigeria. P. 7.

¹⁷ International Energy Agency: World Energy Outlook 2015.

¹⁸ Ibid.

¹⁹ Federal Ministry of Power, Nigeria. 2001. National Electric Power Policy (NEPP).

²⁰ Federal Ministry of Power, Nigeria. 2015. Rural Electrification Strategy Implementation Plan (RESIP) p. 32.

²¹ Ibid.

²² Supra see endnote 9, p. 1.

²³ Hendrickson, O., 2015. *From the grid to energy democracy: Making the renewable transition*. rabble.ca. <http://rabble.ca/columnists/2015/05/grid-to-energy-democracy-making-renewables-transition> (last accessed 26 October 2017).

²⁴ Supra, see endnote 13.

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