

Enhancing Renewable Energy for Sustainable Development in Nigeria

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Background

Non-renewable energy largely dominates energy supply in Nigeria. The growing concern is that they are exhaustible and adverse to the climate. In the country's electricity sector, natural gas (82 percent) and big hydro (18 percent) remain the major sources of electricity generation (IEA, 2018). No records of renewable energy exist, partly due to the fact that they are negligible in a size that will allow integration into the existing central grid system. The Sustainable Development Goal (SDG) 7 and the domestic Economic Recovery Growth Plan (ERGP), emphasize the importance of increasing energy access, especially clean energy for sustained development. With natural gas classified as a clean energy, its exploitation in Nigeria is not without negative externalities on the environment. Statistics on the breakdown of gas utilization in the country show that exportation of natural gas is more favoured than domestic gas utilization, and flaring is preferred to reinjection for productive ventures (DPR, 2016). At the heart of this, the existing pricing regime is a disincentive to domestic investment, considering that the natural gas price is regulated to subsidized electricity consumption. Also, the use of big Hydro, as adopted in Nigeria, is mostly associated with environmental degradation, making it less fashionable.

Policies promoting renewable energy

The increasing public and private interest in diversifying energy sources, and the need to stimulate investment have led to the adaption of diverse policy measures in developed and developing countries at promoting renewable energies. There is no gainsaying that Nigeria has huge renewable potentials. However, well informed comprehensive renewable policies are non-existent. In 2005 Renewable Energy Master Plan (REMP) was initiated to articulate a national vision and a roadmap for removing key barriers to renewable development in Nigeria. Accordingly, targets were set to enhance implementation. A short, Medium and Long-term target was set for the periods 2005-2007; 2008-2015; and 2016-2015, respectively, by the end of which 10 percent of energy supply is to be contributed from renewable sources. More recently, in 2015, a more comprehensive renewable policy was initiated, with strategies aimed at each element of renewable energy. Apparently, 14 years into the first plan, the development of renewables is new zero in the country.¹ Among the common barriers to renewable development in the country are: financial, market, technological, institutional, and socio-cultural barriers among others.

The renewables success story in South Africa, Ghana, and Kenya is hinged on strong national legislation

that avails these countries sustained development in the integration of renewable energy. In 2003, for instance, South Africa fostered the uptake of renewable energy as recognised in a 1998 white paper on energy policy. The focal points of the renewable policy are on financial instruments, legal instruments, technology development, raising awareness, capacity building, education, market-based instruments and regulatory instruments. These have brought about the integration of renewables into the country's energy stream as presently constituted. Of the over 40,000MW electricity generated, electricity from renewables is about 3000MW (IEA, 2018). These and other factors explain the growing integration of renewables with conventional energy of many countries.

Renewables for energy security and sustained development in Nigeria

The Nigerian national policy on renewable energy as articulated in the national energy policy (NEP) is aimed at achieving energy security through a robust energy supply mix. This is further stressed in the Economic Recovery Growth Plan (ERGP, 2017-2020) by placing particular focus on energy infrastructure to be provided by government directly or in collaboration with the private sector in public-private partnership.

Integrating the goals of energy development into National Sustainable Development Strategy (NSDS) such as the ERGP will enable the government's decision-making frameworks to track the progress of its development and accomplishment. Policy targets for renewable energy can help mobilize human and financial resources in the country toward the attainment of a national sustainable development strategy for low carbon, green development for job creation, energy security and access for the poor.

Renewable energy development in Nigeria should be encouraged through the feed-in-tariff system which guarantees preferential grid access and dispatch of electricity supply from renewable sources. The framework should have an advanced legal security for investors (where the amount of feed-in-tariff guaranteed by law is given sufficient period to at least amortize investment cost; preferably over equipment lifetime). This will lead to high effectiveness, investment security, high stimulation of domestic markets and

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See footnote at end of text.

encouragement of technical innovation, job creation and increased efficiency/cost reduction potentials for renewable energy equipment as practiced in countries like; Ghana, Kenya, and South Africa.

Conclusion

A trend in economic history the world over indicates that electricity has served as a catalyst for economic growth and development. On the contrary, Nigeria has persistently remained at the bottom of the nations, with low electricity generation and consumption, with total generation averaging 3000 megawatts and consumption per capita below 200kWh. Nigeria is blessed with an array of renewable energy resources, that when properly harnessed can be used to realize the country's power sector goal with a nationally NSDS. To achieve this, major socio-cultural and technological changes are needed along with policies and regulations as stipulated in the ERGP to ensure a sustained, efficient and effective use of renewable sources and technologies. Additionally, a conducive

business environment should be created to mobilize the much-needed human and financial resources into the sector. Finally, a local capacity development that will drive the renewable energy technology production and acquisition would be required to drive and sustain renewable energy consumption and investment required to achieve it.

Footnote

¹ In the existing electricity generation mix, the contribution of renewables is not officially documented.

References

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Tilak Doshi: *The Political Economy of Carbon Pricing After the U.S. Exit from the Paris Agreement*. Continued from page 59

The most profound blow to the international edifice of carbon pricing can of course be assigned to President Trump. His "America First" instinct pulled the U.S. out of the international accord in which he saw no symmetric and credible commitments by competitor countries such as China. As someone in tune with the pulse of his voting constituency, he also knew that higher energy prices for the average household and the cultural demonization by radical environmentalists of those working in the coal mines and oil and gas fields were issues that resonated among his supporters.

By retracting the US\$2 bn contribution pledged by the previous Obama administration to the Green Climate Fund, the UN's major climate finance initiative,

President Trump has also put paid to the idea that climate change policy was also to be a means of a massive global redistribution of funds from the developed to the developing countries. The future of the GCF itself hangs in the balance, with few projects, a looming cash shortfall and a boardroom locked in conflict.

While the consultant's report on the impact of carbon pricing around the world will be useful for policy analysts poring over details, the headline news is already out: politicians will appreciate the fact that making ends meet today is far more important to the average man on the street than speculative long-term scenarios of climate change which threaten a lower global GDP fifty or a hundred years from now.