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Nigerian Regulator Moves Toward Cost-Reflective Tariff Methodology for the Energy Sector



September 2023 – The Nigerian Electricity Regulatory Commission (NERC) is making progress toward implementing a cost-reflective tariff methodology for the energy sector, which will play a large role in increasing financial viability for utilities and improving the quality of electric service for customers. With support from the United States Agency for International Development (USAID) and Power Africa, the National Association of Regulatory Utility Commissioners (NARUC) has worked with NERC since 2008 to develop the technical,

commercial, and legal regulatory frameworks that underpin ongoing power sector reform efforts in Nigeria. As part of this assistance, NARUC developed a nine-part series of training modules on fundamental tariff issues to enhance the technical capabilities of NERC staff in carrying out detailed reviews of cost of service information and rate design as part of its regular and extraordinary tariff reviews.

The training modules have provided NERC with knowledge across key topics that will enable it to strengthen customer confidence, facilitate cost recovery for utilities, and attract prospective investors to the Nigerian power sector. This also supports Power Africa goals of unlocking energy sector potential through putting an appropriate regulatory framework in place to implement tariff reform and ensuring that NERC has the expertise needed to achieve cost-reflective tariffs and increase service reliability.

The Importance of Cost-Reflective Tariffs

Cost-reflective tariffs help to ensure that pricing reflects the costs incurred to produce, transmit, distribute, and supply electricity.¹ Combined with effective billing and collections systems and comprehensive loss prevention programs, they bolster the financial soundness of utilities so that utilities can expand connections and provide reliable service.² Consequently, cost-reflective tariffs also provide financial incentives for private sector players to invest in generation, transmission, and distribution infrastructure. With this in mind, NERC plays a crucial role in helping Nigeria move toward a more cost-reflective tariff methodology for electricity and natural gas utilities. It is NERC's responsibility as a regulator to ensure the financial viability of utilities while maintaining just and reasonable rates for consumers.

Regulators adopt cost-reflective tariffs so that consumers are charged according to how much their electricity consumption costs the system. At the same time, utilities need to recover their costs for the service they provide and earn a reasonable return on their assets.³ If they are unable to do so, then they are operating at a deficit and cannot be financially viable in the long-term. This seriously undermines utilities' ability to access capital and may result in a chronic lack of maintenance leading to equipment failures and a shortened useful life of equipment. It may also hamper the ability of utilities to replace or invest in new infrastructure to maintain or expand the system and meet growth in demand.

From a customer perspective, reliable electricity service at a fair price is essential. As a result, when electricity quality does not meet this expectation, customers may resist paying for it or feel that their bills are unjustified. However, declining willingness to pay for the cost of providing service can create a negative feedback loop and accelerate the deterioration of the utility's financials.⁴ Further, the longer tariffs remain non-cost-reflective, the greater the shock will be in terms of price hikes when tariffs adjust to reflect market realities. To ensure that prices charged by licensees are fair to customers and take factors such as inflation rate and available generation capacity into account, NERC began issuing a series of tariff orders known as the Multi-Year Tariff Order (MYTO) in 2008. Since then, NERC has reviewed the MYTO in 2012, 2015, and 2019. Following requests by Nigeria's electricity distribution companies (Discos) to review their end-user tariffs, NERC issued a MYTO in 2020 (known as "the Order"), which seeks to ensure that the tariffs charged by the Discos are cost-reflective.⁵

The Cost-Reflective Tariff Training Series

To build momentum and remove barriers to enacting tariff reform as mandated by the Order, it is integral for stakeholders in the energy sector to collaborate. In the case of Nigeria, this collaboration must involve several entities such as the Nigerian Electricity Supply Industry (NESI), which is structurally separated into generation, transmission, and distribution segments. The generation segment consists of privately owned generation companies, and the Nigerian Bulk Electricity Training Plc (NBET) functions as the off-taker. All transmission assets are owned and operated by the Transmission Company of Nigeria (TCN), which is 100% owned by the Nigerian government. The eleven Discos in the distribution segment were previously owned by the Nigerian government but are now privatized such that each of them is 60% owned by private entities and 40% owned by the Nigerian government.

With this in mind, the USAID and NARUC Cost-Reflective Tariff Training Modules have provided regulatory expertise to an audience comprised of NERC staff representatives as well as Discos and the TCN, which will better prepare each of them for a more open and competitive electricity sector. Its main objective was to aid NERC with making improvements to the financial health of the Nigerian electricity sector by equipping its staff with the skills and knowledge needed to independently carry out tariff reviews and revise rate design. The series covered the following topics:

1. How to Conduct a Rate Case
2. The Utility's Rate Base
3. A Cost of Capital and Capital Markets Primer for Utility Regulators
4. Public Communication and Stakeholder Engagement
5. The Utility's Operating Expenses
6. Rate Design, Tariffs, and Terms and Conditions of Utility Service
7. Regulatory Accounting
8. Best Practices for Regulators to Oversee and Audit Utility Performance on the Generation Side
9. Simulated Rate Case

Michael Faloyesi, Assistant General Manager at NERC, stated that participating in the training sessions was a very rewarding experience. He noted, "Each training in the series was intellectually engaging, and NERC staff could not have asked for any more exposure than what we received. The subject matter experts were excellent, and the course content was rich and relevant to our everyday experience as utility regulators."

He went on to add, "The training on the treatment of operating expenses was quite applicable to the challenges in the Nigerian Electricity Supply Industry, while the trainings on rate design and mock rate cases were particularly impactful as they pointed to the direction NERC should take to ensure that tariffs charged by utilities are fair to customers and that investors can recoup their rightful return. Also, the training series' coverage of equity financing and vulnerable electricity customers presented

challenging and innovative scenarios as well as helpful recommendations on how to best handle the balancing act of regulating utilities.”

The NESI is likely to undergo many changes in the upcoming months due to the June 2023 adoption of the Electricity Act 2023. Among other features, it liberalizes Nigeria’s electricity generation, transmission, and distribution at the national level, empowering States, companies, and individuals to generate, transmit and distribute electricity.⁶ Under the Act, States can issue licenses to private investors who may operate mini-grids and power plants within their territory. The Act, however, precludes interstate and transnational electricity distribution. The Act also permits private investors to obtain (i) generation licenses, (ii) transmission licenses, (iii) system operations licenses, (iv) trading licenses, and (v) distribution and supply licenses.

Taking this emerging shift into account, the lessons NERC have learned from the training series are already paying off; NERC staff reported using some of the knowledge they learned during a minor MYTO review in 2022 to define and consider macroeconomic indices as part of the tariff review. The review resulted in a marginal change to tariff classes and some customer tariffs. NERC staff also shared that they used principles learned from the training on mock rate cases during a July 2023 rate case featuring all 11 Nigerian Discos. Additionally, NERC staff weighed comments from civil society and the public while considering the Discos’ proposed tariff changes. While taking steps to implement cost-reflective tariffs is challenging, NERC is now equipped with the knowledge and tools to mitigate negative impacts, communicate the benefits for consumers, and ensure that the tariffs charged by the Discos are fair and accurate so that stakeholders – including consumers, utilities, and investors – can gain confidence in the financial viability of the energy sector.

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Photo Caption: NERC staff participate in mock rate case in July 2022. Photo Credit: NARUC

¹ “Primer on the Impact of Electricity Tariff Reforms on Infrastructure Investment and Economic Development.” USAID and NARUC. http://pubs.naruc.org/pub/7F797D22-1866-DAAC-99FB-8095D77AA8A6?_gl=1*146frx*_ga*MTgyMjU5MzgxOS4xNjg2MzQwOTQx*_ga_QLH1N3Q1NF*MTY4OT13MT13Mi40MS4xLjE2ODkyNzE5MDguMC4wLjA.

² “The Roadmap.” USAID and Power Africa. April 2016. https://2012-2017.usaid.gov/sites/default/files/documents/1860/USAID_PA_Roadmap_April_2016_TAG_508opt.pdf

³ “Primer on the Impact of Electricity Tariff Reforms on Infrastructure Investment and Economic Development.” USAID and NARUC.

⁴ Ibid.

⁵ “The Path to Cost-Reflective Tariffs in The Nigerian Electricity Supply Industry – Key Highlights of The MYTO 2020.” Templars. <https://www.templars-law.com/app/uploads/2020/09/The-Path-to-Cost-Reflective-Tariffs-in-NESI-Key-Highlights-Of-The-MYTO-2020-1.pdf>

⁶ “Electricity Act 2023 liberalizes the sector and promotes renewables.” Investment Policy Hub. June 2023. <https://investmentpolicy.unctad.org/investment-policy-monitor/measure/4339/nigeria-electricity-act-2023-liberalizes-the-sector-and-promotes-renewables>