

COVID-19 AND NIGERIA'S POWER SECTORAfolabi Ojosu¹ and Alexander Akolo²¹Legal & Regulatory Team
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The Nigerian journey to a competitive and efficient private sector-led electricity market is full of challenges from gas constraints, inadequate generation, and transmission of power to inefficient distribution of electricity to End-Users. Unfortunately, the sector now faces the negative impacts of the prevalence of the Novel Coronavirus (COVID-19) pandemic. The myriads of issues plaguing the Nigerian power sector seems to be in constant reiteration.

This study aimed at evaluating the impacts of the COVID-19 pandemic on the Nigerian Electricity Supply Industry (NESI), from generation to distribution, and providing an outlook for the NESI going forward. Industry documents and interviews with NESI Stakeholders were consulted to elicit information on the impacts of the COVID-19 pandemic on the NESI. In the NESI value chain, the Distribution Companies are most affected by the COVID-19 pandemic. These impacts are: a Shift in Electricity Demand, Customer Apathy and Low Payment Response, Changes in Energy Load Allocation, Business Continuity Risks, Inability to Import and Install Meters, Foreign Exchange Adjustment, Unplanned Operational Expenditure, Increase in Customer Complaints and Difficulty to meet Market Obligations. There was no impact of the COVID-19 pandemic on generation as a shortage in gas supply and water management affected electricity generation. Bulk electricity allocation by the Transmission Company of Nigeria has not changed significantly. However, the Transmission Service Provider arm of the TCN continue to spend more hours on Fault Clearance.

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Going forward, the Distribution Companies will massively rollout Prepaid Meter rollouts to Customers, adopt Franchising Models, and aggressively embrace Technology (Telemarketing, Online Payment Channels, Paperless Billing Methodologies, Android and IOS Customer-Focused Applications, WhatsApp Business Bots, Open Efficient, and Effective Customer Care Operations).

1.0 INTRODUCTION

For the first time in a hundred years, the World faced a common enemy, the Novel Corona Virus (COVID-19 or 2019-nCoV) which is rampaging across the world and originated from China. Same has continued to spread exponentially throughout the world. It was first reported in Wuhan, China, with common symptoms of Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). Other symptoms are cough, fever, tiredness, difficulty in breathing, runny nose, and sore throat. The number of deaths associated with COVID-19 greatly exceeds the other two Coronaviruses (Severe Acute Respiratory Syndrome Coronavirus, SARS-CoV, and Middle East Respiratory Syndrome Coronavirus, MERS-CoV) and the outbreak is still ongoing, which poses a huge threat to global public health and economics (Bogoch et al., 2020; J.T. Wu et al., 2020).

2.0 STATEMENT OF THE PROBLEM

The impact of COVID-19 on the entire globe from the Americas to the Caribbean cannot be overemphasized. Economic activities (such as Manufacturing, Aviation, Shipping, Servicing all around the globe) and social activities have ground to a halt as a result of the prevalence of the COVID-19 pandemic which has continued to spread at an alarming rate, despite safety measures of lockdowns and social distancing put in place to stop the spread. With reports of massive loss of lives, loss of employment and investments, total disequilibrium in global market dynamics, increase in the cost of healthcare and so on, the Lagos State Government on the 27th of March, 2020, with the Governor of Lagos State exercising the powers conferred on him by the Quarantine Act³ and the Lagos State Public Health Law⁴ issued the Infectious Disease (Emergency Prevention) Regulations of 2020, which restricted movement and public gatherings of persons within Lagos State, the financial and economic capital of Nigeria, shutting down Schools and Businesses.

This was followed on the 29th of March, 2020 by President Muhammadu Buhari announcing a cessation of movement in the Federal Capital Territory, Lagos, Kano and Ogun States to reduce

³ Quarantine Act, Chapter Q2, Laws of the Federation of Nigeria, 2004

⁴ Lagos State Public Health Law, Chapter P16, Laws of Lagos State, 2015

the spread of COVID-19 and issuance of the COVID-19 Regulations, 2020. The lockdown went into effect at 11:00 pm on the 30th of March, 2020 with other State Governments mirroring same, first for an initial period of fourteen days, with a further extension of another fourteen days from the 13th of April, 2020 and a gradual relaxation of the lockdown from the 4th of May, 2020.

Since the emergence of the COVID-19 pandemic, Businesses, Industries, Educational Institutions and Offices have remained closed with people expected to stay at home. The Nigerian Electricity Supply Industry (NESI) has been enormously affected by the prevalence of the COVID-19 pandemic in Nigeria. There have been several short term impacts that have been evident in the past months.

The NESI has been in an indeterminate state and has thus been adversely affected by the lockdown, with Generation Companies (GenCos) generating below the national average due to gas shortages and Distribution Companies (DisCos) experiencing the more pronounced effect of COVID-19 pandemic by declaring *Natural Force Majeure* across contracts, disruption to supply chains for much-needed materials and Meters, freezing of the implementation of the Multi-Year Tariff Order (MYTO) Minor Review of December 2019, exposure of distribution assets to technical risks, increase in Customer apathy and finally the highest Aggregated Technical Commercial and Collection (ATC&C) Loss recorded since the privatization of Power Holding Company of Nigeria (PHCN) by the Federal Government of Nigeria till date. The situation of the NESI has never been so dire.

The foregoing has elicited some questions in terms of the impact of the COVID-19 pandemic on the NESI. Some pertinent questions to enable the study to attain its objectives are:

- i. What is the impact of the COVID-19 pandemic on the Nigerian Power Sector?
- ii. What is the outlook for the Nigerian Power Sector post-COVID-19?

The fundamental objective of this research is to provide an insight into the impact of epidemics case in point, COVID-19 on the Nigerian Power Sector. This research work will focus on the generation, transmission, and distribution components of the Nigerian Power Sector value chain. This research will be structured into six (6) sections.

3.0 THEORETICAL LINKAGE BETWEEN COVID-19 AND THE POWER SECTOR

In an interconnected and integrated global economy, the effect of the COVID-19 pandemic will be beyond mortality and morbidity. The same will transcend to businesses and the Nigerian

Power Sector is not immune to such adverse effects. The linkage between the COVID-19 pandemic and the Power Sector intersects with the threats to continued operations and commercial sustainability of Companies operating in the Power Sector and the hard choices of how to respond to such an unprecedented situation like the lockdown brought about by the COVID-19 pandemic, with no room to shy away from their essential responsibility.

3.1 Socio-Economic Linkage

In recognition of the socio-economic importance of power supply and its essential nature, the Nigerian Electricity Regulatory Commission (NERC) on the 31st of March, 2020 issued the guidelines for the continuity of service in the NESI. Via the guidelines, NERC instructed Operators in the electricity industry to ensure continuity of service during the COVID-19 lockdown and directed them to immediately activate their Business Continuity Plan (BCP)⁵. The BCP was expected at a minimum to cover:

- a. Minimum manpower requirements to maintain businesses operations;
- b. Contingency plans for accommodating essential Staff on site;
- c. Health and isolation facilities for localized outbreak of COVID-19;
- d. Provision of essential resources including Food, Medical Supplies, etc.;
- e. Plans for sourcing of essential Spare Parts and Consumables;
- f. Plans for monitoring of Assets and Equipment;
- g. Continuity arrangement for clearance of faults; and
- h. Alternative channels for engaging with Customers.⁶

The BCP was aimed at ensuring that socio-economic and economic activities in Nigeria do not ground to a halt, due to the lack of power supply, as such DisCos were obliged to continue to distribute power to Consumers without disconnection (except for illegal and harmful connections), albeit with the inability to collect payments for the power distributed to Customers, due to the lockdown.

3.2 Natural Force Majeure

Force Majeure are by their very nature means an event that no party can be held accountable for, such as a Tsunami or Epidemic, or human actions such as armed conflict. It removes liability for natural and unavoidable catastrophes, (such as the COVID–19 pandemic) which

⁵ NERC in furtherance of section 32 of the EPSRA 2005 had in 2017, developed a regulatory framework for Business Continuity and mandated all licensees to submit a Business Continuity Plan in compliance to the Business Continuity for the Nigerian Electricity Supply Industry Regulations, 2017

⁶ NERC: Guidelines for the Continuity of Service in the Nigerian Electricity Supply Industry, 2020

interrupts the expected course of events and restrict parties in an agreement from fulfilling their obligations.

It also operates as a contractual security that allows a Party to suspend or discontinue the performance of its contractual obligations under specific circumstances. Under various Industry Documents entered into individually by the DisCos with various entities of the Federal Government of Nigeria, a Natural Force Majeure Event means any event or circumstance or combination of events or circumstances that are beyond the reasonable control of a Party and that materially and adversely affects the ability of that Party to perform any of its obligations under the agreements.

It is notable that under the Performance Agreement between Bureau of Public Enterprises (“BPE”), Ministry of Finance Incorporated (“MoFI”) and the various investors in the DisCos, a Natural Force Majeure as a result of epidemic or plague can be invoked in line with several clauses. Where a DisCo decides to invoke Natural Force Majeure as a cause for relief in performance of any of its obligation under the agreement, it shall no later than ten (10) days following the occurrence of a Force Majeure, give notice to the other Parties of the circumstance, event or condition which constitute the Force Majeure event and an estimate of its likely duration. Furthermore within ten (10) days after such Force Majeure declaration, it shall provide to the other parties a report of the Force Majeure, its effects and general description of the obligations likely to be affected, estimate of the Force Majeure duration and a statement of actions taken to comply with the obligations under the Performance Agreement. It is notable that the Performance Agreement further provides that where Force Majeure continues for a period exceeding six (6) months, the investors in each individual DisCo may at its prerogative consider it as a “Natural Force Majeure Put Option Event” and may at their sole discretion decide to exercise the “Put Option”. Where the various investors in the DisCos elect the “Put Option”, it shall serve a notice to BPE informing it of this option and BPE shall be liable to pay the investors in the DisCos the Natural Force Majeure Option Consideration as contained in the agreement.

The Vesting Contract between the DisCos and NBET also provides for a Natural Force Majeure as a result of epidemic and plague, in which case parties to the agreement may be excluded from performance of their obligations. It however does not exclude payment obligations for energy received and capacity. The position under the Vesting Contract is also applicable under the Use of Transmission Network Agreement (“UTNA”) and the Grid Connection Agreement between the DisCos and the Transmission Company of Nigeria (“TCN”) respectively.

On the obligations to the Independent System Operator as contained in the various Participation Agreement for the Nigerian Electricity Market between the Independent System Operator (“Market Operator”) with the DisCos, it is of note that the agreement contains no specific force majeure clauses. However participant in the NESI are required to inform the Market Operator promptly of any change in any condition and information submitted in their admission applications. An interpretation of the forgoing will be, that the DisCos can inform the Market Operator of its inability to meet up with market expectations, due to the CoVid-19 pandemic.

In addition to the above, Rule 46.8.4 of the Market Rules for Transitional and Medium Term Stages of the Nigerian Electricity Supply Industry (the “Rules”) provides for Force Majeure in line with previous industry documents, however nothing in Rule 48.8.4 negates the obligation of a party to pay money under the Rules. In Rule 5.1 of the Rules, actions to be taken in circumstances not anticipated by the Rules are contemplated. Rule 5.1 states that if circumstances arise which have not been foreseen under the Rules and in respect of which provisions have not been made therein, the Market Operator shall, if practicable and possible, consult promptly with the Stakeholder Advisory Panel with a view to reaching an agreement on the manner of dealing with the circumstances and any Amendment to the Market Rules. We note that the CoVid-19 Pandemic and the attendant market issues may be considered circumstances which parties could not foresee and as such, it is likely most DisCos would initiate discussion along the lines of the effect of CoVid-19 on their operations, as an unforeseen event affecting market remittances and their ability to fully settle the Market Operator invoices.

Consequently, it is of note that while the declaration of Force Majeure or Natural Force Majeure as applicable, freezes the obligations of parties in all the linkage documents above, same does not suspend the obligation to pay money for energy supplied during the pendency of the CoVid-19 as a Natural Force Majeure. This has indeed created a market conundrum of how Power Companies are expected to pay collections that cannot be recovered from Customers during this period.

4.0 IMPACTS OF COVID-19 PANDEMIC ON THE NIGERIA'S POWER SECTOR

The long-term impact of the current situation would only become apparent over time. Nevertheless, some early impacts of the COVID-19 pandemic on the Nigerian Power Sector are already becoming evident. A review of the Nigerian Power Sector showed that the

prevalence of the COVID-19 pandemic in Nigeria has no significant impact on the generation and transmission components of the value chain. The distribution aspect is the most affected aspect of the Nigerian electricity value chain. These early impacts on Nigeria's Power Sector include:

4.1 Impact of the COVID-19 pandemic on Electricity Generation

Nigeria's power sector further suffered a major setback in the last one month with the loss of about N57 Billion due to problems associated with gas supply and grid infrastructure challenges.⁷ Although the Nigerian National Petroleum Corporation (NNPC) had recently resolved to supply gas to the GenCos, to curb the discomfort occasioned by the erratic power supply, during the lockdown, it was gathered that the gas problem was persisting in the country and worsened by the poor infrastructure deployed by the operators. Figures released by the Advisory Power Team (APT), Office of the Vice President, obtained by THISDAY indicated that gas shortage remains the biggest short term challenge of the supply value chain, with about 3,958mwh/h lost to the phenomenon in the period under review. During the time, the average energy supply stood at 4,179mwh while peak power was 5,316mwh, increasing by 268.2mw over the previous month. The figures revealed, for example, that on May 7, 2020, average energy sent out was 4,441 MWh/h (up by 11 MW from the previous day) while 2,993 MW was not generated due to the unavailability of gas. The report further revealed that 1,021.10MW was not generated due to high frequency resulting from the unavailability of distribution infrastructure, while 4.0 MW was recorded as losses due to water management.⁷

Accordingly, Mr. Mele Kyari, Group Managing Director, NNPC stated that the Federal Government had made payment of about 200 Billion Naira to the Power Sector towards improving electricity supply. He disclosed this while speaking with newsmen in Abuja after a closed-door meeting between the NNPC team, Minister of Power, Mr. Sale Mamman, and the Former Managing Director of Transmission Company of Nigeria (TCN), Mr. Usman Gur Mohammed. He stated that:

“Actually the Federal Government has made payment of over N200 Billion for power in the last 23 days and this will go a long way to ensure that issues around power supply are addressed. We will work as a team to ensure that all issues are settled. There will be a significant improvement in power generation in all federal government and

⁷THISDAY Newspaper. Accessed on 27 May, 2020 on <https://www.thisdaylive.com/?s=Nigeria%3A+Power+Sector+Loses+N57+Billion+to+Gas%2C+Grid+Constraints+in+30+Days>

associated power facilities. This also means that Nigerians will get better access to power during this lockdown period and going forward. There are issues around power supply process and we have discussed most of them and we are moving as a team to make sure that we resolve issues around payment and evacuation. We are very confident that this will get the desired result. We will visit some power plants tomorrow to make sure that we sort out any issue to ensure that Nigerians have access to better power. We will make sure this becomes transparent and obvious to all Nigerians.”⁸

To ensure continued gas supply to Nigerians as a result of the Stay-at-Home directives during the COVID-19 pandemic, the GM, NNPC disbursed the sum of 200 Billion Naira to Gas Companies. Unfortunately, the incidences of gas shortages and water shortages (from Nigeria’s three Hydropower Plants – Jebba, Kainji, and Shiroro) have always existed even before the emergence of COVID-19 pandemic in Nigeria. In the March and April 2020 Settlement Cycles respectively, four (4) thermal plants (Ihovbor, Olorunsogo NIPP, Sapele NIPP, and Ibom Power) and two (Geregu NIPP and Ibom Power) did not generate electricity due to gas constraints.

As such, the COVID-19 pandemic cannot be said to be the factor that affected the total amount of energy generated during the COVID-19 months. Subsequently, due to the nomenclature of GenCos’ Staff (most of who are Engineers), the COVID-19 pandemic did not affect their working hours.

4.2 Impact of the COVID-19 pandemic on Electricity Transmission

Load patterns have shifted in the wake of changes in electricity demand and energy load allocations due to the COVID-19 pandemic. The COVID-19 pandemic has not caused significant changes in the bulk energy allocations to DisCos by the System Operator (SO), domiciled at the National Control Centre (NCC) Osogbo.

However, due to the rotational shifts as a result of the COVID-19 pandemic, the Transmission Service Providers (TSP) spent more hours in faults clearing whenever they occur in the Transmission Lines (330kV/132kV), Transformers and Switchyard Equipment.

4.3 Impact of the COVID-19 pandemic on Electricity Distribution

The impacts of the COVID-19 pandemic on the operations of the DisCos are:

4.3.1 Shift in Electricity Demand Occasioning Revenue Loss

⁸Vanguard Newspaper. Accessed on 27 May, 2020 on <https://www.vanguardngr.com/2020/04/covid-19-fg-doles-out-n200bn-to-power-sector-to-improve-supply/>

The resultant effect of the lockdown led to the temporary closure of most Maximum Demand (MD) customers across all the DisCos' franchise areas. MD Customers are primarily Customers that fall in the Industrial and Commercial tariff class (C2, C3, D2, and D3). This led to an exponential increase in energy demand from the Residential Customers tariff class (R1, R2, R3, and R4) in these States. It is worthy to note that a huge portion of DisCos' monthly revenue comes from the MD Customers. Unfortunately, the 14-Day Lockdown began towards the end of March 2020, when DisCos usually drive collections from these Customers. As most of these Customers had shut down operations before the lockdown with unsettled electricity bills, DisCos have continued to suffer a colossal decrease in collections for Customers within this category from the March 2020 and April 2020 Settlement Cycles and beyond if the COVID-19 pandemic subsists. To put this into perspective, as a result of the shutdown by the MD Customers, the DisCos have and continue to experience huge cumulative market shortfalls. In line with this, the DisCos have seen a huge upsurge in their collection losses.

4.3.2 Customer Apathy and Low Payment Response Rate

The Federal Government of Nigeria had earlier declared the shutdown of all Educational Institutions (Primary, Secondary, and Tertiary) and Places of Worship (Churches and Mosques) across the Country.

In addition to the above, most State Governments have declared Curfews and/or Stay-at-Home directives in line with the position of the Federal Government. This government-imposed Curfews and Stay-at-Home directives have increased energy consumption from Residential Customers by almost 70% albeit, unfortunately, due to these directives, most of these Customers are unable to earn any income as they are Informal Sector Earners and mostly earn on a day-to-day basis. Thus, a large percentage of them are unable to pay their monthly bills for energy consumed.

Further, the misconstrued and erroneous misconception of a purported statement by the Association of Nigerian Distribution Companies (ANED) which spread like wildfire across the country, that the Federal Government would support the DisCos to give two months electricity free to Customers, ensured that even paying Customers refuse to make payments for electricity consumed (especially Post-Paid Customers).

4.3.3 Changes in Energy Load Allocation

The sharp drop in load demand of Public and Private Organizations, Factories, Educational Institutions, MDAs and other Government Offices together with Non-Governmental Entities

has made it such that only the Residential Customer tariff class is being supplied with most of DisCos' imported energy from the National Grid which unfavourably tilts the balance of the cross-subsidization framework of the MYTO. This downward trend in energy consumption has undoubtedly affected the DisCos' ability to optimize energy allocation received from the Grid. Consequently, the forecasted revenue requirement by the DisCos have been negatively affected due to macroeconomic variable changes as a result of the lockdown in the 2020 MYTO Order, due to the reduction in the quantum of energy delivered to MD Customers. This will make compliance with the remittance waterfall and other regulations of the DisCos increasingly difficult.

4.3.4 Business Continuity Risks

DisCos have experienced an acute reduction in operational efficiency and contractual performance. Due to the escalating and exponential increase in COVID-19 cases, it became expedient for DisCos to direct all Front Facing Energy Sales and Relationship Officers to desist from going to the field to read Meters, distribute bills, disconnect defaulting Customers and collect revenues in line with the Nigerian Centre for Disease Control preventive guideline for social distancing to stop the spread of the Virus and indeed, to avoid loss of life to Staff, who might be assaulted by already an agitated Customer populace.

Over the years, DisCos have targeted cash-drive activities for the last week of the month, seeking to leverage on the cash flow cycle of the average Nigerian household. This is responsible for a huge influx of revenue cumulating in an Average Customer Response Rate of about 40% to 55% monthly. The absence of cash-drive and disconnection activities have caused a decline in revenue collections from the March and April, 2020 Settlement Cycle and beyond, as DisCos are largely dependent on the physical distribution of bills (except for Ikeja Electric) and disconnection of non-paying Customers during cash-drive activities to drive revenue.

While it is noticeable that most of the DisCos have set up Media Campaigns via the Print and Electronic Media appealing to Customers to pay their electricity bills on time, using various Online Payment Channels and Applications, it was a communication coming a little too late, as finding reveals that most Customers do not have access to the various Online Payment Channels and those that indeed had access preferred to obtain physical receipts for Post-Paid payments, which consists of about 80% of revenue for DisCos.

4.3.5 Order on the Capping of Estimated Bills in the NESI 2020

The financial position of DisCos is further worsened by the recently published NERC Order on the Capping of Estimated Bills in the NESI 2020. The full implementation of the Order has a vastly negative impact on all DisCos' billing and collections and effects on DisCos' business operations as a going concern. The market shortfall as a result of the implementation of the Order has further deepened and greatly worsened the ability of DisCos to meet various market obligations to the NESI, including minimum remittance obligations to the Nigerian Bulk Electricity Trading Plc (NBET) and the Market Operator (MO), as well as other relevant Stakeholders.

Further, the NERC which directed that "All unmetered R2 and C1 Customers shall not be invoiced for the consumption of energy beyond the cap stipulated in Schedule 1 of the Order."⁹ has made sure that Customers enjoy the supply of electricity without paying a proportional amount for energy consumed. Innovations to mitigate against this regulatory driven loss have been further hampered by the challenges faced by the Meter Asset Providers (MAPs) (discussed below) and the inability to install meters for Customers during the lockdown. It is worthy to note that since the commencement of the lockdown, more electricity has been wheeled to Residential Customers across the Country. Customers enjoy improved hours and quantum of energy supplied, whilst poised to pay less for energy consumed due to the stipulated energy cap in the Order. This has continually increased the market shortfall in NESI as DisCos find it difficult to mark-up the deficit and subsequently, hamper the fulfillment of their obligations to the NESI.

4.3.6 Challenge Faced by Meter Asset Providers (MAPs)

The negative impact of COVID-19 pandemic on global supply chains, manufacturing, and shipping in China have become more evident in the NESI in the ability of MAPs to source and procure meter stock and the scarcity of metering components that have affected local manufacturing of Meters by Companies such as MOJEC International Limited, Consolidated Infrastructure Limited, MOMAS Limited, etc. Undoubtedly the inability of the MAPs to import Meters as well as the inability of the local manufacturers to meet their contracted quotas due to component shortages mean that the DisCos would be unable to implement a mass rollout of

⁹ By Order No/NERC/197/2020, dated February 20, 2020, the Nigerian Electricity Regulatory Commission (NERC) repealed the NERC (Methodology for Estimated Billing) Regulations 2012 and made an order capping estimated bill to unmetered Customers by DisCos in NESI

Meters to Customers to reduce the impact of the COVID-19 pandemic and indeed the NERC Order on the Capping of Estimated Bills in the NESI on their collections.

Besides, the MAP Meter Installers are unable to install the available Meters in stock, due to the restriction of movements by Federal and State Governments, to prevent the spread of the COVID-19 pandemic thereby further impairing on DisCos' revenue.

4.3.7 Foreign Exchange (FOREX) Adjustment

The Central Bank of Nigeria (CBN) has recently unified the exchange rate regime which has led to the adjustment of the Naira to Dollar exchange rate to N361/\$1 (CBN Website as of 27th April, 2020). However, the FOREX rate under the current 2019 December Minor Review of MYTO 2015 and Minimum Remittance Order for 2020 is inputted as N308/\$1. This change in exchange regime has directly increased operational prices, as retail capacity and energy costs and import of equipment have been affected by the new rate, leading to an increase in tariff and market shortfalls. Whilst the Gas Price and Transmission Cost have remained unchanged at \$2.50 and \$0.80 respectively, the new FOREX regime has caused an increase in the generation tariff, thereby increasing the Weighted Average Cost of Power (WACP) of electricity imported from the National Grid by the DisCos. This cost is subsequently passed on the End-Users.

For DisCos that receive additional power via other bilateral power purchase arrangements, the Sellers (GenCos) have communicated the change in prices to them, and subsequent implementation of the new FOREX regime in invoices going forward which are ultimately passed down to bilateral Customers, thereby increasing the current bilateral tariff for such bilateral Customers. For instance, under the Ikeja Electric Plc bilateral arrangement for power purchase from Egbin Power Plc, the Weighted Average Cost of power which were in an average range of Forty-Seven Naira (~~₦~~47) to Fifty Naira (~~₦~~50) respectively based on Customer location, have increased to an average range of Fifty-Five Naira (~~₦~~55) to Fifty-Eight Naira (~~₦~~58) per unit of electricity (kWh).

4.3.8 Unplanned Operational Expenditure

For Business Continuity, DisCos have had to expend unforeseen costs in the procurement of Personal Protective Equipment (PPE) such as Gloves and Hand Sanitizers for their Staff who offer essential though, skeletal services. These unplanned purchases have further exacerbated the DisCos' cash flow position. DisCos have been urgently required to undertake unplanned

operational expenditure directly attributable to both the COVID-19 pandemic and the impending lockdown. Most of these procurements are in areas of Logistics, Asset Protection and Security, Implementation of Emergency Response Plans, Remote Information Technology Infrastructure Deployments, Staff Precautionary Measures, etc. Further, DisCos have had to embark on Network reconfiguring and rehabilitation to continue to ensure regular supply of electricity to their Residential Customers during this period.

4.3.9 Multi-Year Tariff Order (MYTO) 2015 Minor Review Order of 2019

The December 2019 minor review of the MYTO 2015 was aimed at retrospective adjustment for changes in the underlying macroeconomic indices for the years 2016, 2017, and 2018 and costs outside the control of operators in the NESI in the year 2019 and projections for 2020. This review cover changes to indices for all electricity generated at wholesale contract prices, adjusted for the Nigerian Inflation Rate, US\$ Exchange Rate, Daily Generation Capacity, and accompanying Actual CAPEX and OPEX requirements. Thus, it was aimed at providing certainty about revenue shortfall that might have arisen due to tariff dis-convergence between the MYTO tariff and Cost Reflective Tariff.

Table I: Effects of Macro-Economic Indices of MYTO and Non-Cost-Reflective Tariffs

MYTO Indices	MYTO 2015 Assumptions	The Reality	% Variance
Nigerian Inflation	8.80%	12.2% ¹⁰	30%
U.S. Inflation	0.20%	1.54%	650%
Debt Interest Rate	9.7%	20%	107%
Naira Vs USD\$ Exchange Rate	₦198.97	N361.0	54%
Generation (MW)	5,465	4,369	-20.0%

Source: NERC Website

However, following pressure by the public due to the outbreak of the COVID-19 pandemic, NERC announced the suspension of the implementation of the end-user tariff, which was scheduled to commence on the 1st of April, 2020 and put the implementation on hold till the 30th of June, 2020¹¹ thereby invariable creating a further tariff shortfall in the market¹².

Due to the suspension of the tariff above, Operators in the NESI are forced to continue with the MYTO 2015 Tariff assumptions, when clearly, all the microeconomic effects have changed. The effects of this are as shown in the table above. It is assumed that based on the

¹⁰ Retrieved from www.nairametric.com on the 17th of March, 2020

¹¹ NERC Order on Transition to Cost Reflective Tariff in NESI 198/2020

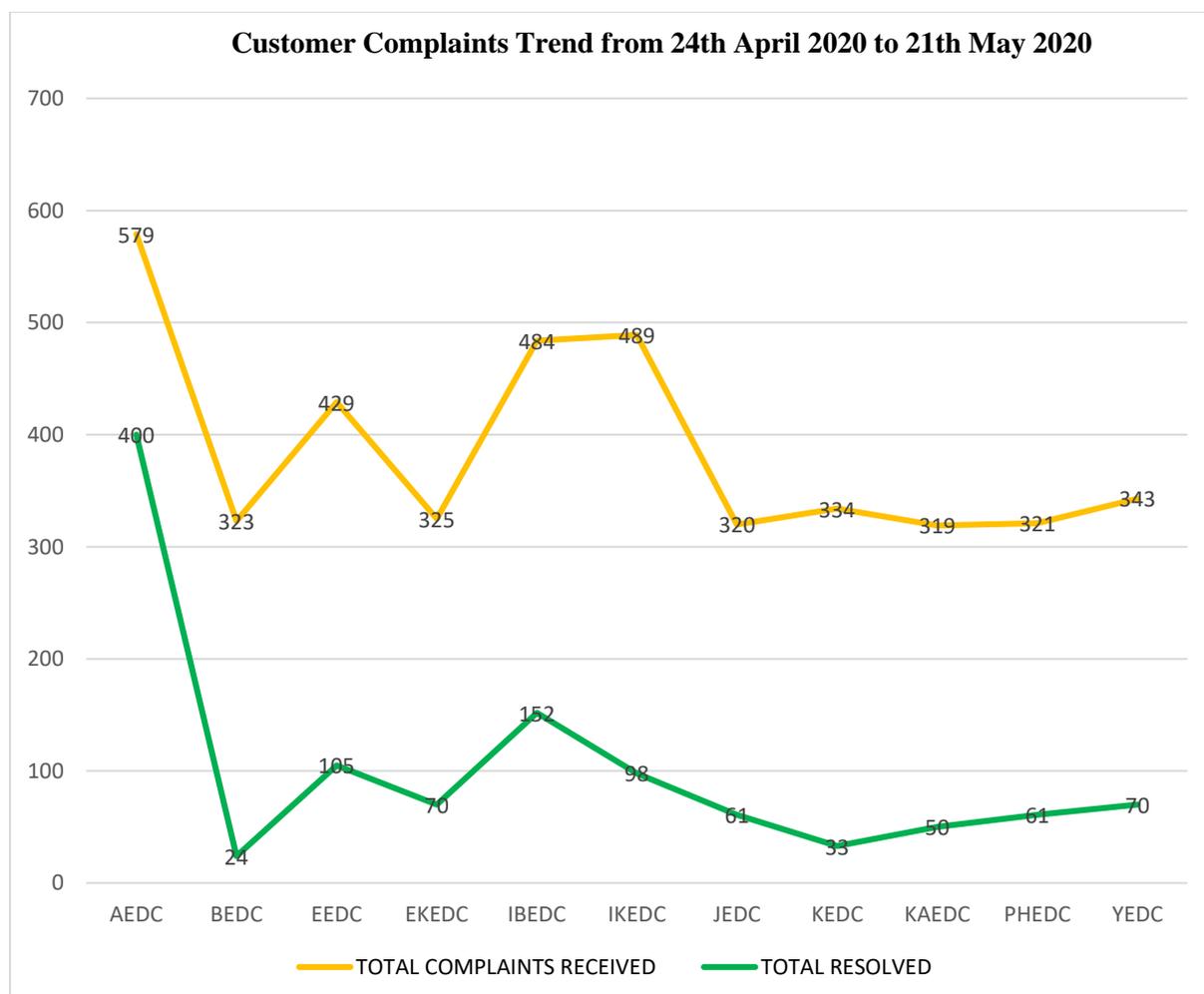
¹² Emodi, N. V., & Yusuf, S. D. Improving Electricity Access in Nigeria: Obstacles and the way forward. International Journal of Energy Economics and Policy, 5(1), 335-351. 2015.

NERC Order on Transition to Cost Reflective Tariff in NESI 198/2020 and the review of the performance improvement plans of DisCos, the NESI might be poised to move to service reflective tariffs in the foreseeable future.

4.3.10 Increase in Customer Complaints

In response to the effect of the COVID-19 pandemic on electricity Customers, the NERC activated the NESI Situation Room led by the Commissioners, Top Management Staff of the Commission and the SO, to monitor and ensure the provision of adequate electrical power supply to Customers across the country and prevent power outages in the Country. Since the 4th of April, 2020 to the 21th of May, 2020, the NESI Situation Room has monitored 2,804 complaints associated with electricity supply interruptions in the period.

Figure I: Trend of Customers Complaints to NERC from 24 April to 21 May, 2020

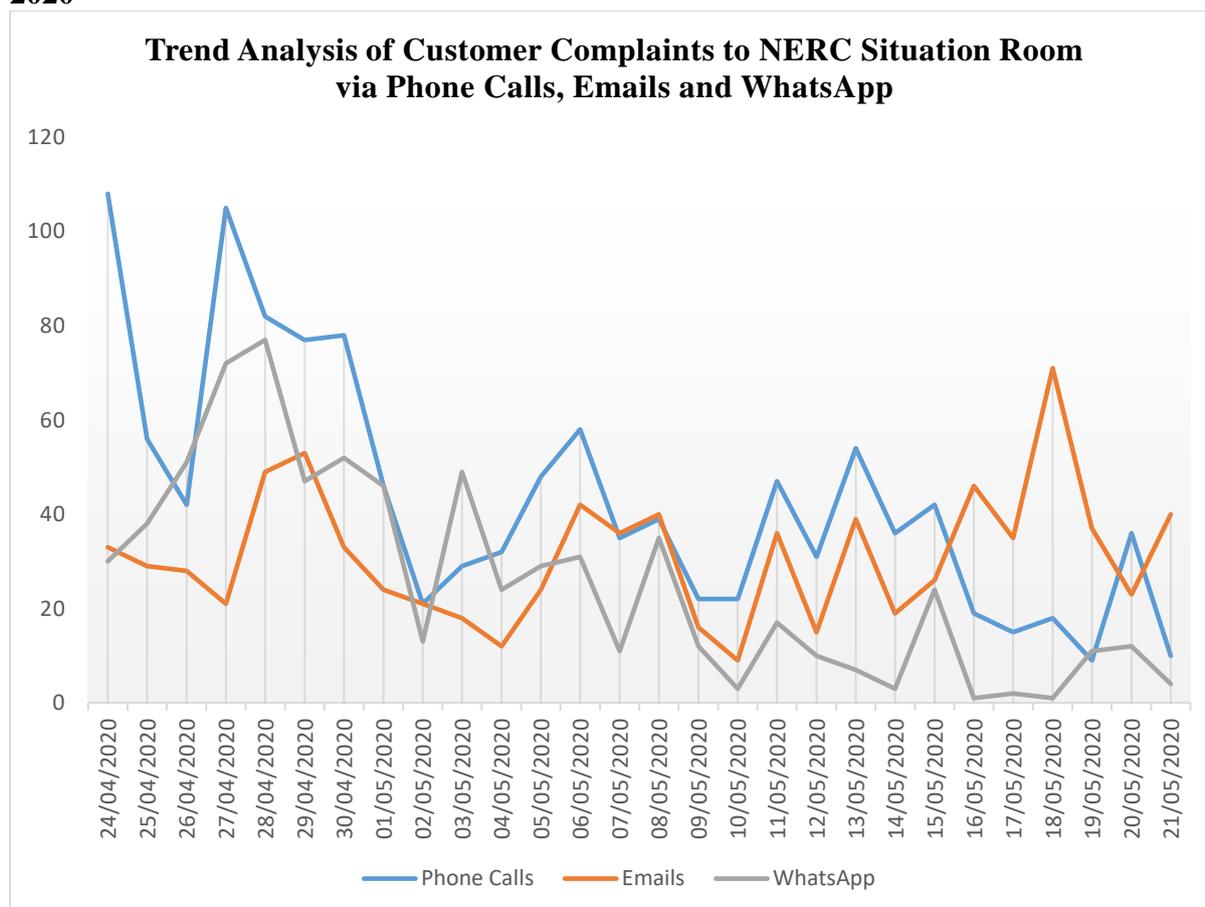


Source: Computed by Authors from NERC Report

From Figure I above, it can be seen that the Abuja Electricity Distribution Company, Enugu Electricity Distribution Company, Ibadan Electricity Distribution Company, and Ikeja

Electricity Distribution Company had the highest numbers of Customer Complaints amongst the eleven (11) DisCos. The other Distribution Companies have an average of 314 Customer Complaints over the period under review. Amongst the DisCos, Abuja Electricity Distribution Company had the highest number of total resolved complaints on interruption during the period under review.

Figure II: Trend of Medium of Customers Complaints to NERC from 24 April to 21 May, 2020



Source: Computed by Authors from NERC Report

From Figure II above, it can be seen that more complaints were lodged at the Commission via Phone Calls with a total number of 1217 Calls from 24th April, 2020 to 21th May, 2020. This was followed closely by a total of 712 WhatsApp Complaints and lastly, 875 Complaints via Emails throughout 24th April, 2020 to 21th May, 2020. Accordingly, from the above, it can be deduced that the COVID-19 pandemic has greatly impacted on the ability of DisCos to manage

and resolve system interruptions, thereby increasing the average outage duration for each customer served under the SAIDI Key Performance Index.¹³

4.3.11 Uniform System of Accounts Reports and Financial Statements

Further to the impact of COVID-19 pandemic, the NERC by a letter dated 22nd of April, 2020¹⁴ acknowledge the disruptions caused by the COVID-19 pandemic and informed all Licensees that it had granted a sixty (60) day extension of the submission of the Annual Audited Uniform System of Accounts reports and financial statements for the year ended 31st December, 2020, with the submission of same to now be due on the 30th of June, 2020.

4.3.12 Failure to meet NESI Market Remittance Obligations

On the premise of the December 2019 Minor Review of MYTO 2015 and Minimum Remittance Order for the Year 2020, DisCos are obliged to remit a monthly minimum of the percentage of invoices received from NBET. This Minimum Remittance Obligations (MROs) was said to have been arrived at after due considerations for amounts due and payable to the Central Bank of Nigeria, MO, DisCo Costs, and the amount NERC deemed payable to NBET in line with expected loss reduction targets of the various DisCos. We have in this paper highlighted how DisCo collections have been impacted by the COVID-19 pandemic and subsequent lockdown as well as the obligations of the DisCos to continue to receive and supply energy, albeit without corresponding collections.

Table II: Minimum Remittance Obligations of DisCos to NBET and MO

S/NO	DISTRIBUTION COMPANY	NBET MRO (%)	MO MRO (%)
1.	Abuja Electricity Distribution Company Plc	42	100
2.	Benin Electricity Distribution Company Plc	35.7	100
3.	Eko Electricity Distribution Company Plc	43	100
4.	Enugu Electricity Distribution Company Plc	50	100
5.	Ibadan Electricity Distribution Company Plc	28	100
6.	Ikeja Electricity Distribution Company Plc	49	100
7.	Jos Electricity Distribution Company Plc	8.5	100
8.	Kaduna Electricity Distribution Company Plc	29	100
9.	Kano Electricity Distribution Company Plc	38	100
10.	Port Harcourt Electricity Distribution Company Plc	28	100
11	Yola Electricity Distribution Company Plc	12	100

Source: Compiled by Authors from Individual DisCo December 2019 Minor Review of MYTO 2015 and Minimum Remittance Order for the Year 2020

¹³ SAIDI means the System Average Interruption Duration Index. It is commonly used as a reliability indicator by electric power utilities.

¹⁴ Nigerian Electricity Regulatory Commission Letter with REF: NERC/03/FMS/RFRA/1/20/0068 dated 22nd April, 2020. Retrieved on the 27th of April, 2020 from www.nerc.gov.ng

The Table II above shows the various MROs of the DisCos. Taking the above joint factors into consideration, the DisCos have found it impracticable to pay the CBN NEMSF¹⁵, pay Staff salaries, and also meet their MROs to NBET and MO as most DisCos paid less than their respective MROs from the March 2020 Settlement Cycle and beyond, due to the paucity of adequate collections. The DisCos have had to prioritize payments, with the NBET and MO receiving fractions/partial remittances of their invoices to the DisCos.

5.0 OUTLOOK OF THE SECTOR POST-COVID-19

The COVID-19 emergency could also exacerbate the dire financial situation of DisCos, and indeed the NESI at large. There will be a resultant effect of an accumulated shortfall in the end-user tariff, onset of non-cost reflective tariff due to inflation, and exposure to an unstable foreign exchange regime in the short term.

Overall, while the financial impacts of the COVID-19 pandemic might be in the long term, the technical impacts of the COVID-19 pandemic will be mitigated in the short term, with the return to normalcy of supply chains.

DisCos' finances and operations will more greatly recover if there is also a suspension of the Minimum Remittance Order contained in the Minor Review Order for an initial period of one (1) year; the suspension of the Cap on Estimated Billing Order for an initial period of one (1) year; the suspension of the Order on the Transitioning of Accounting of Tariff Related Liabilities in the NESI, 2020; and the suspension on the Order to Mandatory Migration to Cashless Payment Platforms. Besides, if the Federal Government of Nigeria designs and implement urgent intervention packages to the DisCo sub-sector of the NESI during this period, then the same will help speed the recovery of the sector.

Furthermore, post COVID-19 pandemic, there will be the adoption of various DisCo Franchising Models (Metering, Billing and Collection (MBC), Total Management of Electricity Distribution Function, and Distributed Generation (DG) Models) as contained in the proposed DisCo Franchising Regulation which are currently put together by NERC. This will assist the DisCos mitigate against some of the challenges encountered prior to the emergence

¹⁵ Following the privatization of the Nigerian Electricity Supply Industry in 2013, the industry has had to grapple with several challenges chief amongst which was revenue shortfalls. The shortfalls which had risen to N210 Billion by December 2014 threatened the survival of the industry and by extension, the Nigerian economy. In order to prevent a collapse of the industry, the CBN intervened to provide liquidity and stabilize the sector through the Nigerian Electricity Market Stabilization Facility.

of the COVID-19 pandemic, especially in the areas of Metering, Collections, Billing and Network reconfiguring, and rehabilitation.

Going forward, the DisCos will aggressively adopt technology for smooth and efficient operations. There will be an embrace of Telemarketing, Online Payment Channels, Paperless Billing Methodologies, Android and IOS Customer-Focused Applications, WhatsApp Business Bots, Open Efficient, and Effective Customer Care Operations, and push for massive Prepaid Meter rollouts to Customers.

Finally, we just might, with the keyword being “just”, see another NESI Market Stabilization Facility (either in financial or technical terms) being issued by the Federal Government of Nigeria, as a lifeline to DisCos.

6.0 POLICY IMPLICATIONS AND CONCLUSION

Certainly, the progress made under the Economic Recovery and Growth Plan (“ERGP”) formulated by the Ministry of Budget and National Planning to cover the period of 2017 – 2020 (Three Years) will suffer a setback, with its effort to achieve economic recovery through influencing macroeconomic stability, economic diversification, competition, human capital development and governance dissipated by the effects of the COVID-19 pandemic.

Furthermore, the Power Sector Recovery Plan¹⁶, which aims to improve the commercial viability of DisCos would suffer setbacks, as the ERGP cannot be achieved without sufficient and sustainable power distribution to End-Users that affect macro-economic indices.¹⁷ The ERGP will increasingly face the changing dynamics of the economic and governance environment, due to the COVID-19 pandemic impact. This same factors has rendered most of

¹⁶ The plan seeks to improve the technical and commercial performance of the privatized power industry, and restore its business viability based on the recommendations of a diagnostic exercise. The recovery plan was originated to turnaround the sector by helping improve its governance, reduce electricity losses both technical and commercial, and guarantee efficient sector investments; The power sector recovery plan comprises a wide range of policy actions, operational and financial interventions which intends to help improve transparency, service delivery, performance of DisCos, transmission companies and the entire value chain. In specific terms the plan provides for simplifying and reducing the cash deficits in the sector; how to make the DisCos viable, accountable, responsive to customers and to ensure stability of the grid and expansion of the grid and transparency and communication within the sector, in addition to how to improve sector governance and the quality of personnel on the board of the DisCos. Other provisions of the plan include addressing access to renewable energy using mini-grids and stand-alone solutions and implementing solutions that have been developed for 37 Federal Universities and seven tertiary hospitals as well as stopping the vandalization of gas pipelines which will help stimulate appetite for investment in Nigeria’s Power Sector.

¹⁷ To this end, NERC and FG is planning an eligible customer mechanism for manufacturers and a mini-grid/ decentralized energy generation and distribution solution that will directly supply power to agrarian communities and affect all economic indicators.

the earlier economic blueprint by the Federal Government of Nigeria rather impracticable¹⁸ and the attendant microeconomic impact of the COVID-19 pandemic might make the plan lose its momentum, while postponing the benefits of the plan to a later time than envisaged by the plan and the government.

In addition to the above, the impacts of the COVID-19 pandemic would necessitate the establishment of the Power Consumer Assistance Fund¹⁹, which is aimed at subsidizing underprivileged Electricity Consumers during times such as this. In addition the COVID-19 pandemic might also be the necessary incentive for the Federal Government of Nigeria to review the privatisation process and the ownership structures of the DisCos, in order to reposition them on a more profitable and efficient path.

In conclusion, at a time of grave threat to Nigeria's recovering fragile economy, the total economic impact of the COVID-19 pandemic on the power sector is highly uncertain and unpredictable, which makes it difficult for policymakers to formulate an appropriate macroeconomic policy response. It is not yet clear when and where the virus will hit hardest, and how economic, social and political factors may converge to spark or aggravate the current crises in the power sector, nor is it guaranteed that the pandemic's consequences will entirely or uniformly have negative implications on policy for NESI. In retrospect, natural disasters have sometimes resulted in creating innovation, business efficiency and better operational management of businesses, which the DisCos in Nigeria might benefit from.

This paper expresses the opinions of the authors and not the views of the organisations they represent.

¹⁸ Vision 2020, Seven Point Agenda, NEPAD.

¹⁹ Section 83 of the Electricity Power Sector Reform Act, 2005.

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