

# APPLICATION FOR TARIFF RATE ADJUSTMENT & RESET

BY

# **EKO ELECTRICITY DISTRIBUTION PLC**

**July 2023** 

#### 1.0 BACKGROUND AND APPLICATION:

- 1.1 In furtherance of the Commissions effort to establish a robust and incentive-based electricity market, the Commission via a letter dated 21st of June 2023, availed Eko Electricity Distribution Plc (EKEDP or the Company) the opportunity to undertake a rate review to accommodate various concerns on tariff parameter(s) in line with extant rules.
- 1.2 By this document, we seek to present to the Commission, an update to our customer tariffs to reflect the nation's current economic realities, as well as to communicate the tariffs' justifications for considering an electricity rate reset for the Company.
- 1.3 The reset is aimed at ensuring fair and equitable pricing for electricity consumption while considering various economic and environmental factors. The following points outline the rationale behind our proposal:

#### 1.3.1 Market Conditions:

The Nigerian energy market is constantly evolving, and electricity rates should be periodically reviewed to align with prevailing market conditions to ensure service delivery and business sustainability. Changes in fuel prices, generation costs, infrastructure investments, exchange rates, capital expenditure, etc. can significantly impact the overall cost of electricity production. A rate reset allows us to adjust our prices, accordingly, reflecting the current market dynamics.

#### 1.3.2 Cost Recovery:

As applicable with most service-related industries, over time, the costs associated with generating, transmitting, and distributing electricity may change. A rate reset helps in recovering the actual costs incurred by the utility company in providing reliable power supply to its customers. This ensures a sustainable business model and facilitates infrastructure improvements and maintenance to enhance the overall efficiency and reliability of the electricity grid.

#### 1.3.3 Enhanced Efficiency and Conservation:

The call for adjusting rates applicable for the determination of electricity tariff is not borne out of arbitrary disposition but to reflect the realities of our micro and macro-economic realities. To sustain service delivery, a reset is necessary and implementation of which will encourage consumers to adopt energy-efficient practices and reduce wasteful consumption. By promoting responsible energy usage, a rate reset aligns with sustainability goals and contributes to the overall energy conservation efforts.

#### 1.3.4 Consumer Affordability:

While considering the need for a rate reset, we are not oblivious of the implication of this for the economy and it consequent impact on consumer's affordability. A thorough analysis of customer usage patterns, income levels, and socio-economic factors was evaluated towards our rate adjustments making the output tariff reasonable and one that does not impose an excessive burden on consumers.

#### 1.4 Introduction of Special Band:

- 1.4.1 The Company upon review of its service performance, required OpEx and CapEx needed for the provision of premium services in certain demographics has decided to introduce a new service band referred to as **Special Band**. This band focuses on optimised service delivery to targeted group of feeders to enjoy certain value-added services beyond the current Band A service commitment.
- 1.4.2 Beyond this, other rationale behind the creation include the deployment of special operational, human and capital resources required to provide good service due to the environmental and geographical peculiarities of such areas. This would allow the Company to improve supply beyond the current Band A service requirement, provide better customer experience, and most importantly, enable the Company fulfill its financial obligations towards the repayment of the cost of funds deployed for the peculiar operations and maintenance required thereto etc.
- 1.4.3 We have envisaged that this group of customers will enjoy premium services including:
  - a. Improved power and service delivery
  - b. Dedicated 24/7 rapid response team to address service-related issues
  - c. Multiple supply sources for power reliability enhancement including deployment of DERs, collaboration with IPPs for embedded generation, etc.
  - d. Excellent Customer experience

#### 2.0 **JUSTIFICATIONS**

- 2.1 This document outlines the significant modifications to the existing tariff assumptions, such as energy offtake, load allocation, tariff weightings, capex, and other macroeconomic indices. We made no direct modifications to the generating and transmission rates; rather, we assumed the generation and transmission costs as designed by the draft July 2023 MYTO.
- 2.2 The tables below give snapshots of amendments and parameters reflected in the reset while the Appendixes contain detailed justification for the amendments. Other assumptions in the draft July 2023 MYTO were held constant except as expressly stated herein.

# Macroeconomic and Investment Assumptions:

|                       | 2023   | 2024   | 2025   | 2026   | 2027   | 2028   |
|-----------------------|--------|--------|--------|--------|--------|--------|
| Inflation             | 22.4%  | 22.4%  | 22.4%  | 22.4%  | 22.4%  | 22.4%  |
| Forex (Naira<br>/ US) | 758.63 | 758.63 | 758.63 | 758.63 | 758.63 | 758.63 |
| Risk free rate        | 6.4    | 6.4    | 6.4    | 6.4    | 6.4    | 6.4    |
| Debt<br>Interest      | 23%    | 23%    | 23%    | 23%    | 23%    | 23%    |
| Market<br>premium     | 11.80% | 11.80% | 11.80% | 11.80% | 11.80% | 11.80% |
| US Inflation          | 5.13%  | 5.13%  | 5.13%  | 5.13%  | 5.13%  | 5.13%  |

# Energy Offtake and EKEDP Loss Performance

|                                | 2023   | 2024   | 2025   | 2026   | 2027   | 2028    |
|--------------------------------|--------|--------|--------|--------|--------|---------|
| Contracted<br>Capacity<br>(MW) | 513.35 | 602.24 | 705.00 | 823.53 | 959.41 | 1117.72 |
| Energy<br>Offtake<br>GwH       | 4,497  | 5,276  | 6176   | 7214   | 8404   | 9791    |
| ATC&C                          | 21%    | 18.5%  | 17%    | 16%    | 15%    | 15%     |

## **CAPEX and OPEX**

|                | 2023    | 2024  | 2025  | 2026  | 2027  | 2028  |
|----------------|---------|-------|-------|-------|-------|-------|
| CapEX<br>(NBn) | 28 .    | 28    | 28    | 28    | 28    | 28    |
| OpEx(NBn)      | . 39.08 | 46.90 | 56.29 | 67.55 | 81.06 | 97.27 |

# Tariff Weighting

| Weighting of<br>Allowable<br>Tariffs |      |      |      |      |      |      |
|--------------------------------------|------|------|------|------|------|------|
| Category                             | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 |
| Life-line                            |      |      |      |      |      |      |
|                                      |      |      |      |      |      |      |
| Special Band                         | 1.20 | 1.20 | 1.20 | 1.38 | 1.38 | 1.38 |
| A - Non MD                           | 1.05 | 1.05 | 1.05 | 1.22 | 1.22 | 1.22 |
| A - MD1                              | 1.11 | 1.11 | 1.11 | 1.27 | 1.27 | 1.27 |
| A - MD2                              | 1.11 | 1.11 | 1.11 | 1.27 | 1.27 | 1.27 |
|                                      |      |      |      |      |      |      |
| B - Non MD                           | 1.00 | 1.00 | 1.00 | 1.07 | 1.07 | 1.07 |
| B - MD1                              | 1.05 | 1.05 | 1.05 | 1.12 | 1.12 | 1.12 |
| B - MD2                              | 1.05 | 1.05 | 1.05 | 1.12 | 1.12 | 1.12 |
|                                      |      |      |      |      |      |      |
| C - Non MD                           | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 |
| C - MD1                              | 0.90 | 0.90 | 0.90 | 0.91 | 0.91 | 0.91 |
| C - MD2                              | 0.90 | 0.90 | 0.90 | 0.91 | 0.91 | 0.91 |
|                                      |      |      |      |      |      |      |
| D - Non MD                           | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| D-MD1                                | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| D - MD2                              | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| E - Non MD                           | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 |
| E-MD1                                | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| E - MD2                              | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |

- 2.3 With the recent global and economic downturn, especially in the face of new policy directions of the current administration, EKEDP has been grappling with increasing operational costs, including soaring customer demand for reliable and uninterrupted power. It is therefore important that we are able to compete in the ever-evolving electricity market.
- 2.4 The present tariff rate has become a significant burden, straining our financial resources, and hindering our ability to invest in critical areas such as innovation, infrastructure upgrades, technology, and talents.
- 2.5 Consequently, it is our humble plea that the Commission considers our proposed tariff rate as it would alleviate this financial strain and provide us with the necessary incentive to thrive as a customer centric utility company in the Nigerian Electricity Supply Industry.
- 2.6 We reiterate our appreciation to the Commission for this great opportunity as we look forward to the approval of the attached Rate reset.

# **APPENDIXES**

# <u>Appendix 1: Model Assumptions & Adjustments</u>

| Altered Sheet     | Amendment  | Justification                        |
|-------------------|--|--------------------------------------|
| Assumptions Sheet | All generation capacity and load                       | To reflect only EKEDP's expected     |
| ·                 | factors were altered                                   | Bilateral Contracts that are         |
|                   |  | applicable to it.                    |
|                   | Market Premium and Risk-free rates                     | To reflect the Economic reality      |
|                   | for Generation and transmission                        | Ref - Moody's                        |
|                   | were amended   |                                      |
|                   | Depreciation and inflation were                        | To reflect more realistic figures    |
|                   | adjusted on the "Existing Asset Life"                  |                                      |
|                   | and New Asset Life"                                    |                                      |
|                   | Exports was zeroized                                   | Assumed part of our Bilateral        |
|                   |  | capacity was not exported – To       |
|                   |  | reflect only exact 513MW.            |
|                   | Forex and Naira change was                             | To reflect real-time rates           |
|                   | adjusted to current figures                            | Ref- CBN I&E Window                  |
|                   | The auxiliary requirement was                          | To reflect the average delivered     |
|                   | adjusted in the overall capacity                       | powered as required capacity.        |
|                   | Transmission Capex (TSP) was                           | To reflect 12.44% of the             |
|                   | adjusted.  | Company's load, share rather         |
|                   | Transparaissia a Marialla C 2 A A a cal mara           | than the total Grid load.            |
|                   | Transmission Variable O&M cost was                     | To reflect the Company's load share. |
|                   | adjusted by 12.44% to reflect the                      | siture.                              |
|                   | Company's load share.  Transmission Fixed O&M cost was | To reflect the Company's load        |
|                   | adjusted to reflect 12.44%.                            | share.                               |
|                   | Transmission Fixed cost was adjusted                   | To reflect the Company's load        |
|                   | to reflect 12.44%.                                     | share.                               |
|                   | The breakdown of all ATC&C for Eko                     | To reflect even more optimistic      |
|                   | Disco was adjusted.                                    | view of current realities.           |
|                   | Distribution Loss Changed from 4.8%                    |                                      |
|                   | to 5.1% in 2023  |                                      |
|                   | Non-technical Losses changed from                      |                                      |
|                   | 9.7% to 11.9% in 2023                                  |                                      |
|                   | Non-collected billables changed                        |                                      |
|                   | from 0.1% to 4.0%in 2023                               |                                      |
|                   | And total ATC&C was adjusted to                        |                                      |
|                   | reflect an even optimistic view of                     |                                      |
|                   | current realities. 14.18% was                          |                                      |

|                                       | therefore adjusted to 21% for year 2023 while it reduces over the years.                                  |  |
|---------------------------------------|---|--|
|                                       | Semi-annual Forex 1st (Risk-free) half<br>was adjusted to 6.4%  | To portray current economic realities Ref- Debt Management Office Site   |
|                                       | Total Bulk Trader Charge was changed to zero  | To reflect the realities under the Bilateral Era the Industry is transitioning into, where EKEDP will not contract through NBET anymore. |
| Transmission<br>Depreciation<br>Sheet | Regulator DORC Depreciation was amended by 12.44%   | Amended to capture the portion of energy cost as it pertains to EKEDP  |
|                                       | DORC closing balance was discounted by 12.44%   | Amended to capture the portion of energy cost as it pertains to EKEDP  |
| Disco Tariff                          | On Disco Tariff sheet, number of Disco was changed from 12 to 8   | To align input and adjustment for Responsible Disco, i.e., EKEDP   |
| Assumptions                           | Transmission percent of DORC asset value at period-end for return on capital was changed from 100% to 12% | Amended to capture the portion of energy cost as it pertains to EKEDP  |
| CAPEX                                 | Adjusted capex from 7b to 28b   | To enable EKEDP undertake required projects to improve power supply and fulfill its obligations towards its customers.                   |
| OPEX                                  | Adjusted Opex to reflect current economic realities   | To reflect current realities   |
| Assumption                            | Naira Change adjusted based on change in forex  | To reflect present Economic<br>Reality   |
| EKO                                   | Created New Tariff band called<br>Special Band (From the existing<br>Band A & B)                          | To further house the EKEDP forecast of revenue generation.  Please see paragraph of this   |
|                                       |   | document for justification.  |

#### **Appendix 2: Technical Capex**

Presently, the average offtake of EKEDP is 450MW. This is due to aged and problematic network infrastructure completed with generation and Transmission constraints. Recently NERC has advised that the minimum average offtake should be at least 513MW. Therefore, some level of investment is required to ensure that the network can determine this power to our esteemed customer on a continuous basis.

In a bid to meet and surpass the set target, investment is required to upgrade the existing infrastructure, augment/ expand capacity and bring down losses. The required investment has been duly considered and prioritized for the next 5 years (2023 – 2027).

It is to be noted that deployment of these will only achieve the desired result if the TCN and Generation constraints are adequately addressed.

#### Methodology used to determine required investment.

The approach was to model existing EKEDP network on SINCAL and run power flow simulation for the following scenarios.

- 1. Base case (450MW) Normal operating condition.
- 2. Targeted Average Load Offtake Scenario (513MW).
- 3. Targeted Average Load Offtake Scenario + 80MW (592MW).
- 4. Targeted Average load offtake Scenario + 180MW (692MW).
- 5. Targeted Average load offtake Scenario + 280MW (792MW).
- 6. Targeted Average load offtake Scenario + 380MW (892MW).

#### Base Case Scenario (450MW)

This scenario was to establish the network status under normal operating conditions. Minor network constraints were identified which can easily be fixed by network maintenance.

#### Targeted Average Load Offtake Scenario (513MW).

This scenario assumes that Transmission and Generation constraints that hindered power evacuation in the base case have been removed. An additional 63MW was added to the base case network to attain a network that delivers 513MW on constant basis. Power flow simulation runs were carried out to establish the constraints in the network in this scenario. The investments required to clear out the identified constraints for this scenario are captured to be executed by the end of year 2023. (Year 1).

#### Targeted Average Load Offtake Scenario + 80MW.

For this scenario an additional 80 MW was added to the network to achieve an average offtake of 578MW by the end of year 2024.

The investments required to clear out the identified constraints for this scenario are captured to be executed by the end of year 2024. (Year 2).

#### Targeted Average Load Offtake Scenario +180MW.

For this scenario an additional 180 MW was added to the network to achieve no less than an average offtake of 669MW on a constant basis by the end of year 2025. The investments required to clear out the identified constraints for this scenario are captured to be executed by the end of year 2025. (Year 3). AT this stage, at least 100MW would be taken from Bilateral arrangements from Gencos which will be delivered to customers at premium cost.

#### Targeted Average Load Offtake Scenario +280MW.

For this scenario an additional 280 MW was added to the network to achieve an average offtake of no less than 763MW on a constant basis by the end of year 2026. (Year 4). At this time, power from Bilateral contracts with GenCos and IPPs should be at least 200MW which will be delivered to customers at premium cost. The investments required to clear out the identified constraints for this scenario are captured to be executed by the end of year 2026.

#### <u>Targeted Average Load Offtake Scenario +380MW.</u>

This scenario targets an average load very close to the non-coincidental peak load of approximately 1GW. At this stage the network will be able to accommodate all current suppressed loads. An additional 380 MW was added to the network to achieve an average offtake of 820MW on a constant basis by the end of year 2027. (Year 5). At this time, power from Bilateral contracts with GenCos and IPPs should be at least 300MW which will be delivered to customers at premium cost. The investments required to clear out the identified constraints for this scenario are captured to be executed by the end of year 2027.

#### **Summary Of Results:**

| SIMULATION RESULT FOR 5 YEARS EXPANSION PLAN |              |       |           |          |              |  |
|--|--------------|-------|-----------|----------|--------------|--|
| YEAR   | Voltage (kV) |       | P (MW)    | Q (MVAR) | Cumulative % |  |
| ILAK   | 33           | 11    | 1 (/4/44) | Q (MVAK) | losses       |  |
| BASE YEAR                                    | 31.87        | 10.59 | 437.69    | 303.69   | 1            |  |
| YEAR 1 (2023)                                | 31.85        | 10.61 | 513.45    | 370.61   | 0.2          |  |
| YEAR 2 (2024)                                | 31.81        | 10.62 | 577.75    | 432.69   | 0.2          |  |
| YEAR 3 (2025)                                | 31.58        | 10.45 | 669.1     | 501.57   | 0.02         |  |
| YEAR 4 (2026)                                | 31.52        | 10.42 | 763.14    | 577.21   | 0.08         |  |

| YEAR 5 (2027) | 32.45 | 10.86 | 820.69 | 604.2 | -0.34 |
|---------------|-------|-------|--------|-------|-------|
|---------------|-------|-------|--------|-------|-------|

From the table above, the voltage profile is good and is within acceptable limits for 33kV and 11kV and improves over the years. The power factor also improves over the years and the cumulative losses decreases from year 2023 to year 2027.

#### Investment Outlay

The investment outlay covers a period of 5 years and have been divided into 3 broad groups of Network Improvement, Network Augmentation / expansion, and Loss Reduction.

- 1. **Network Improvement:** This category covers investment required to rehabilitate existing network to bring it to a state where it can be optimized to for power evacuation. Most of the investment in this category are captured in year 2023.
- 2. **Network Expansion / Augmentation:** This focuses on new extensions and upgrade projects aimed at evacuating more power for the various \years under consideration.

# CATEGORY/SUBCATEGOR LOSS REDUCTION

LV REHABILITATION RELIEF DTS DT RFHAB

#### **NETWORK IMPROVEMENT**

11KV REHABILITATION 33KV REHABILITATION SWITCHGEARS

#### **NETWORK EXPANSION/AUGMENTATION**

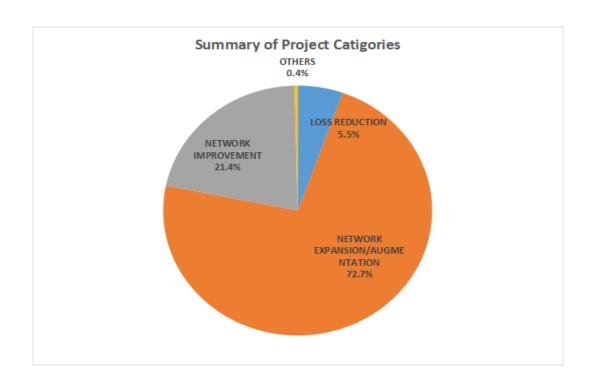
NEW 11KV LINE NEW 33KV LINE PT/ISS SWITCHGEARS

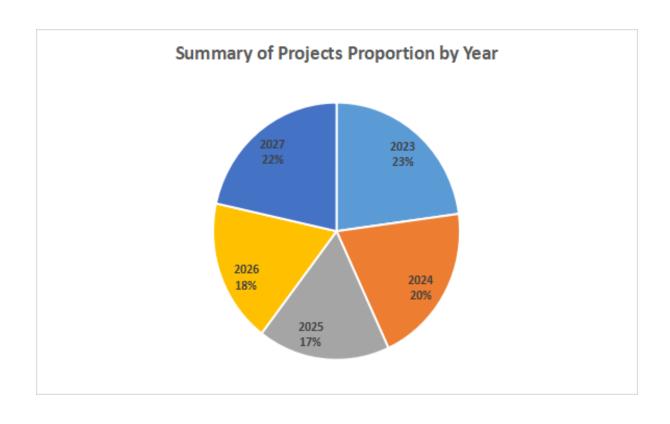
#### **OTHERS**

PT/ISS

**Loss Reduction:** This investment aims at reducing technical losses with the overall goal of driving down ATC&C losses to the set targets for the various years. Low voltage network rehabilitation and reticulation is the major consideration in this category.

The investment layout summary for the 5-Years period based on the categories is presented in the tables and charts below.





## Appendix 3 COMMERCIAL CAPEX

| Item Description                               | Business Justification  | Impact on Business   | %Impact On ATC&C<br>(Where Applicable) | Impact On Revenue               |
|--|---|--|--|---------------------------------|
| SIM  | It will allow for remote communication of all meters in order to pool different | It will facilitate energy audit for easy tracking of losses. |  |                                 |
| Modem NKCG                                     | parameter information.  | 2. It improves operational efficiency. Saves time.           |  |                                 |
| Modem KCG                                      |   |  |  |                                 |
| Accu Check Single Phase Accu Check Three Phase | To determine the integrity of meters in order to block losses.                  | ATC&C is being reduced and revenue increases.                | 0.10%                                  | 1%                              |
| Clamp on meters  Zera Machine                  | _   |  |  |                                 |
| LT Ladders                                     | To enforce payment of electricity bills from                                    | Commercial losses are being reduced and                      | 0.05%                                  | Increases revenue               |
| PPE's  | delinquent customers. 2. Safety purpose. 3. Smooth commercial                   | casualty in the course of operation is prevented.            |  |                                 |
| Other Tools                                    | operations.   | '  |  |                                 |
| Laptops<br>Desktop                             | Data input, analysis and report generation.                                     | Reports are generated for management decision and            |  |                                 |
| UPS<br>Tablet                                  |   | information are submitted to regulators                      |  |                                 |
| Printer  |   | within TAT.  |  |                                 |
|  |   |  | 0.000                                  |                                 |
| Single Phase Three Phase                       | To measure consumption for the purpose of accurate                              |  | 0.03%                                  | Revenue will improve<br>by 0.2% |

| KCG Meter                  | billing.                              |  |       |       |
|----------------------------|---------------------------------------|--|-------|-------|
| DT meter                   | 2. It enables remote                  |  |       |       |
| Single Phase               | monitoring and control.               | 5                                      |       |       |
| Three Phase                |                                       | Billing accuracy will                  |       |       |
| Whole Current KCG          |                                       | increase, and collection will improve. |       |       |
| CT/VT 11kv                 |                                       | will improve.                          |       |       |
| CT/VT 33kv                 |                                       |  |       |       |
| LT KCG Meter               |                                       |  |       |       |
| 2 core 16 Sq.Mm            | 1. To prevent metering                | Improved billing                       |       |       |
| 2 core 25 Sq.Mm            | technical losses resulting            | accuracy and revenue                   |       |       |
| Block CT                   | from bad cables.                      | collection.                            |       |       |
| Upgrading Billing Software | 2. It improves efficiency in billing. |  |       |       |
| Meter data Management      | 3. Smooth running of                  |  |       |       |
| software                   | metering maintenance,                 |  |       |       |
|                            | disconnection and                     |  |       |       |
|                            | reconnection, cash drive              |  |       |       |
| Truck/Vehicles             | activities etc.                       |  | 0.03% | 0.50% |
|                            |                                       |  |       |       |
|                            |                                       |  |       |       |

# Appendix 4: IT (Non Tangible) CapEx and OpEx

| CAPEX                   |                                       |                    |   |  |
|-------------------------|---------------------------------------|--------------------|---|--|
| Expenditure<br>Category | Business Justification                | Impact On Business | %Impact On<br>ATC&C (Where<br>Applicable) | Impact On Revenue                          |
|                         | Continuous IT                         |                    | , , ,                                     |  |
|                         | Infrastructure and                    |                    |   |  |
|                         | security routine                      |                    |   |  |
|                         | maintenance for                       |                    |   |  |
| EKEDP - NERVE           | business sustainability,              |                    |   |  |
|                         | availability, financial               |                    |   | Improve revenue generation through         |
|                         | -                                     | Sustainability and | NA  | consolidated and aided technology from the |
| MAINTENANCE             | continuity                            | continuity         | INA                                       | DC   |
|                         | The proposed contact center is bid to |                    |   |  |
|                         | provide a robust                      |                    |   |  |
|                         | operational framework                 |                    |   |  |
|                         | for customer                          |                    |   |  |
|                         | communication                         |                    |   |  |
|                         | management with a                     |                    |   |  |
|                         | quick TAT in the                      |                    |   |  |
|                         | resolution of customers               |                    |   |  |
|                         | complaints using a                    |                    |   |  |
|                         | state-of-the-art                      |                    |   |  |
| SOLUTION/MAINTEN        | technology thereby                    |                    |   |  |
|                         | reducing cost of                      |                    |   |  |
|                         | business while                        |                    | NA  |  |
| WITHIN EKEDP)           | providing endearing                   |                    | INA                                       | Increase revenue and reduce loss           |

|              | service to the        |                          |       |   |
|--------------|-----------------------|--------------------------|-------|---|
|              | customer.             |                          |       |   |
|              |                       |                          |       |   |
|              |                       |                          |       |   |
|              |                       |                          |       |   |
|              |                       |                          |       |   |
|              |                       |                          |       |   |
|              |                       |                          |       |   |
| IT EQUIPMENT |                       |                          |       |   |
| PROVISION/   |                       |                          |       |   |
|              | Improve quality of    |                          |       |   |
|              | interconnectivity of  |                          |       |   |
| • •          | •                     | Assures business         | N 1 A |   |
| POINT(FEB)   | '                     | improvement              | NA    | Reduce business TAT and loss of revenue |
|              | Print management      | ·                        |       |   |
|              | enables organizations |                          |       |   |
|              | to effectively manage |                          |       |   |
|              | print devices and     |                          |       |   |
|              | streamline workflows, |                          |       |   |
|              | which results in      |                          |       |   |
|              | decreased overhead,   |                          |       |   |
|              | diminished costs and  |                          |       |   |
|              | simplified processes  |                          |       |   |
|              | across the network.   |                          |       |   |
|              | With print            |                          |       |   |
|              | management            |                          |       |   |
|              | solutions, end users  |                          |       |   |
|              |                       | Improve business insight |       |   |
| PRINTING     | 1 0                   | and streamline workflows |       |   |
| MANAGEMENT   | any device or         | across the business      | NA    |   |
| SOLUTION     | location.             | network                  | 147.7 | Decreased overhead, diminished costs    |

|                   | To contain/host the     |                          |       |   |
|-------------------|-------------------------|--------------------------|-------|---|
|                   | astronautical growth in |                          |       |   |
|                   | the organization        |                          |       |   |
|                   | business such as the    |                          |       |   |
|                   | HES systems, Security   |                          |       | Improve revenue generation through              |
|                   | , ,                     | Guarantees business      |       | consolidated and aided technology from the      |
| SERVER PURCHASE   | ·                       | stability                |       | DC 0,   |
| SYSTEMS / DEVICES | ,                       | ,                        |       |   |
| (WORK TOOL FOR    |                         | Assures business         | N.1.A |   |
| EMPLOYEES)        | Employee work tool      | improvement              | NA    | Reduce business TAT and loss of revenue         |
|                   | Centralized             | DAM helps you identify   |       |   |
|                   | management of           | performance issues       |       |   |
| DATABASE ACCESS   | access and              | proactively and find     |       |   |
| MANAGER (DAM)     | permissions to          | optimization             | NA    |   |
| TRUSTWAVE         | company's database      | opportunities.           | INA   | Reduce business TAT and loss of revenue         |
| REMOTE DESKTOP    | This tool will help to  | Aid smart remote and     |       |   |
| SOLUTION (ADMIN   | provide remote          | hybrid assistance on     | NA    | Save cost, reduce TAT, and reduce loss of       |
| TOOL)             | supports                | business applications    | INA   | revenue   |
|                   | Hyperconverged          |                          |       |   |
|                   | infrastructure provides |                          |       |   |
|                   | a unified environment   |                          |       |   |
|                   | that makes upgrading    |                          |       |   |
|                   | hardware and            |                          |       |   |
|                   | software much faster    |                          |       |   |
|                   | and easier. It can      |                          |       |   |
|                   | streamline and simplify |                          |       |   |
|                   | upgrades, eliminating   |                          |       |   |
|                   | the need to balance     |                          |       |   |
|                   | independent systems.    |                          |       |   |
|                   | It provides a flexible  |                          |       |   |
| INFRASTRUCTURE    | and adaptable           | Aid advanced and smart   | NA    | Save cost, reduce business TAT, and reduce loss |
| SOLUTIONS         | environment for         | method in doing business |       | of revenue                                      |

|                  | restructuring systems or |                          |       |   |
|------------------|--------------------------|--------------------------|-------|---|
|                  | hardware.                |                          |       |   |
|                  |                          |                          |       |   |
|                  |                          |                          |       |   |
|                  |                          |                          |       |   |
|                  |                          |                          |       |   |
|                  |                          |                          |       |   |
|                  |                          |                          |       |   |
| HARDWARE         | This will assist to      |                          |       |   |
| DIAGNOSTIC       | diagnose systems for     | Aid advanced and smart   |       | Save cost, reduce business TAT, and reduce loss |
| SOLUTIONS        | ,                        | method in doing business | NA NA | of revenue                                      |
|                  | HIPS detects external    |                          |       |   |
|                  | hackers and network-     |                          |       |   |
|                  | based attacks. Offers    |                          |       |   |
|                  | centralized              |                          |       |   |
|                  | management for           |                          |       |   |
|                  | correlation of           |                          |       |   |
|                  | distributed attacks      |                          |       |   |
|                  | against the              |                          |       |   |
| HOST IPS         | organization highly      | Guarantees systems and   |       |   |
| (INTRUSION       | vested business and      | business protection and  |       |   |
| PREVENTION       | technology               | ensures continuity in    | NA    | Helps to aid security on business system and    |
| SYSTEM)          | infrastructure           | business                 | INA   | absorb the company from financial ransom        |
|                  | Manage access            |                          |       |   |
|                  | control to applications  |                          |       |   |
|                  | such as Billing          |                          |       |   |
| PRIVILEGE ACCESS | applications and DC      | Guarantees business      | NA    | Helps to aid security on business system and    |
| MANAGER (PAM)    | infrastructures          | stability                | 11/7  | absorb the company from financial ransom        |
|                  |                          | Ensure security of and   |       |   |
| SERVER           | This tool will help to   | control of unauthorized  |       |   |
| MONITORING       | monitor the data         | access to business       | NA    |   |
| SOLUTION (SMS)   | center infrastructure    | applications and suites  | INA   | High ROI  |

|                    |                       | 1  |        |   |
|--------------------|-----------------------|--|--------|---|
|                    | An enterprise end-to- | Reduce TAT on billing cycle and guarantees |        |   |
|                    | end billing solution  | zero tolerance on error                    | NA     | Significantly reduces ATC&C losses and          |
| ALL IN ONE CMS     | (company-wide)        | (end-to-end)                               | INA    | promises huge ROI                               |
| OPEX PROJECTS (NO  | N RECURRING)          |  |        |   |
| ANNUAL             |                       | This system is planned to                  |        |   |
| MAINTENANCE FEES   | Annual maintenance    | manage the entire billing                  |        |   |
| FOR ALL IN ONE     | with extended         | life cycle in the company                  | NA     | Save cost, reduce business TAT, and reduce loss |
| SYSTEM             | warranty              | and assures continuity                     | 1 17 1 | of revenue                                      |
| VERITAS NET        |                       |  |        |   |
| APPLIANCE          |                       |  |        |   |
| =                  | NetBackup yearly      |  |        |   |
|                    | maintenance to        | Guarantees business                        |        |   |
|                    | sustain the back up   | assurance, reassurance                     |        |   |
|                    | ,                     | and continuity in the                      | NA     | Guarantees returns on investment in the event   |
| SOLUTION)          | solution              | event of disaster                          |        | of disaster                                     |
|                    |                       | Business reporting module                  |        |   |
| SAP CRYSTAL        | module                | for prepaid/postpaid                       | NA     |   |
| REPORT             | (Companywide)         | application                                |        | Reduce business TAT and loss of revenue         |
|                    | Staying relevance     |  |        |   |
|                    | through Professional  | Business thrives with the                  | NA     |   |
| FOR (IT EMPLOYEES) | Certification         | right skilled employee                     |        | Increase revenue and reduce loss                |
| AUTOCAD            |                       |  |        |   |
| SOFTWARE & ADOBE   | Organizational        |  |        |   |
| SUITE (LICENSE     | network architecture  | Growth and improvement                     | NA     | Save cost, reduce business TAT, and reduce loss |
| RENEWAL)           | and design            | assurance                                  |        | of revenue                                      |
|                    |                       | Ease of business                           |        |   |
|                    | Need to send bulk sms |  |        |   |
| BULK SMS AND BULK  |                       | sustainability of business                 | NA     | Save cost, reduce business TAT, and reduce loss |
| EMAIL BLAST        | customers             | relations                                  |        | of revenue                                      |

|                  | llee el few ev weelf  |                          |   |
|------------------|-----------------------|--------------------------|---|
|                  | Used for our self-    |                          |   |
|                  | service(Password      |                          |   |
|                  | Management),          |                          |   |
|                  | Service desk(IT       |                          |   |
|                  | Helpdesk), Active     |                          |   |
|                  | Directory (AD         |                          |   |
|                  | Management) and       |                          |   |
|                  | AD Audit , Patch      |                          |   |
| MANAGE ENGINE    | manger (For           |                          |   |
| MAINTENANCE      | managing windows      |                          |   |
| (YEARLY)         | update)               | Enterprise ITSM          | Reduce business TAT and loss of revenue         |
|                  | For network security  |                          |   |
|                  | and                   |                          |   |
|                  | monitoring/filtering  |                          |   |
|                  | incoming and          | Protection of company's  |   |
|                  | outgoing network      | business infrastructure  | Secures information and data leakage and        |
| SOPHOS FIREWALL  | traffic.              | from malicious character | guarantees revenue protection                   |
| PRTG (LICENSE    | Network monitoring    |                          |   |
| RENEWAL) AND     | tool and email        | Business data bandwidth  | Improve revenue generation through              |
| CODETWO          | signatures            | management               | consolidated and aided technology               |
|                  | Microsoft 365 for     |                          |   |
|                  | Enterprise (SUB),     |                          |   |
|                  | connect employees to  |                          |   |
|                  | the people,           |                          |   |
|                  | information, and      |                          |   |
|                  | content that are used |                          |   |
| OFFICE 365       | for daily work and    | Improve business insight |   |
| (INCLUDING POWER | building of custom    | and streamline workflows |   |
| PLATFORM         | business applications | across the business      | Save cost, reduce business TAT, and reduce loss |
| LICENSES)        | for the organization  | network                  | of revenue                                      |

|                         | Towers and mast allow                   |                              |  |
|-------------------------|---|------------------------------|--|
|                         | lus to send                             |                              |  |
|                         | communication                           |                              |  |
|                         | between the HQ,                         |                              |  |
|                         | •                                       |                              |  |
|                         | District offices,                       |                              |  |
| AAACT TOWER AND         | , | Use to aid internet          |  |
| MAST, TOWER AND         |   | services data traffic in the |  |
| RF NETWORK              | offices                                 | organization                 | Aid financial capacity                     |
| MICROSOFT AZURE         |   | Microsoft Cloud ASR          |  |
| CLOUD PLATFORM          | MS cloud hosting of                     | Business Operations          | Save cost, reduce business TAT and improve |
| (ASR)                   | business resources                      | Platform                     | financial safety                           |
|                         | Business application                    |                              |  |
| ZOHO CREATOR            | development and                         |                              |  |
| AND PORTAL              | external portal                         |                              |  |
| ADDON                   | development platform                    |                              | Save cost, reduce business TAT             |
|                         | Building Business Forms                 | Building Business Forms      |  |
| COGNITO FORM            | (External)                              | (External)                   | Save cost, reduce business TAT             |
| <b>NETWORK SWITCHES</b> |   | Maintenance of               |  |
| / ROUTERS (HQ /         | Repair and                              | company's network            |  |
| DISTRICT)               | Maintenance                             | switches, router e.t.c       | Reduce business TAT and loss of revenue    |
| MERAKI SWITCH           |   |                              |  |
| AND WIRELESS            | Provide wireless                        |                              |  |
| ACCESS POINT            | internet connectivity                   | Business and connectivity    |  |
| LICENSE                 | for business operations                 | sustainability               |  |
|                         | Hosting of company                      |                              |  |
|                         | website on dedicated                    |                              |  |
|                         | storage. This is essential              |                              |  |
|                         | to guarantee uptime                     | Support our business         |  |
|                         | and support a large                     | online operations and        |  |
| WEBSITE HOSTING         | customer base                           | services                     | Support our online business growth         |

| T                        |   | 1   |   |
|--------------------------|---|---|---|
| This allows us to see    |   |   |   |
| every device that        |   |   |   |
| connects to our          | Protection of company's   |   |   |
| network and stop         | business infrastructure   |   |   |
| hacking or illegal       | from malicious character  |   | Aid business financial protection against   |
| access to our network    | or unplanned attacks  |   | attacks   |
| Enterprise license for   | Used for enterprise billing   |   |   |
| billing and other        | and Scada databases   |   |   |
| resource databases       | such as ITRON e.t.c   |   | Aid financial capacity  |
| Intelligent data traffic |   |   |   |
| splitter for the         |   |   |   |
| organization metering    |   |   |   |
| solutions                |   |   |   |
|                          | Internet service provision  |   |   |
| Quarterly Broadband      | to aid the business of the  |   | Save cost, reduce business TAT and improve  |
| Internet Subscriptions   | company   |   | financial outcome   |
|                          |   |   |   |
|                          |   |   |   |
|                          | Internet service provision  |   |   |
| internet to the          | to aid the business of the  |   | Save cost, reduce business TAT and improve  |
| injection substations    | company   |   | financial outcome   |
| The solution             |   |   |   |
| continuously monitors    |   |   |   |
| end-user devices to      |   |   |   |
| detect and respond to    | Protection of company's   |   |   |
| cyber threats like       | business endpoint from  |   |   |
| ransomware and           | malicious character and   |   |   |
| malware.                 | attacks   |   |   |
| The testing procedure    |   |   |   |
| helps decide the         |   |   |   |
| proper functioning of    |   |   |   |
|                          | every device that connects to our network and stop hacking or illegal access to our network Enterprise license for billing and other resource databases Intelligent data traffic splitter for the organization metering solutions  Quarterly Broadband Internet Subscriptions  internet to the injection substations  The solution continuously monitors end-user devices to detect and respond to cyber threats like ransomware and malware.  The testing procedure helps decide the | every device that connects to our network and stop hacking or illegal access to our network Enterprise license for billing and other resource databases Intelligent data traffic splitter for the organization metering solutions  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Protection of company's business infrastructure from malicious character or unplanned attacks  Used for enterprise billing and Scada databases such as ITRON e.t.c  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Protection of company's business endpoint from malicious character and attacks  The testing procedure helps decide the | every device that connects to our network and stop hacking or illegal access to our network  Enterprise license for billing and other resource databases Intelligent data traffic splitter for the organization metering solutions  Internet Subscriptions  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Protection of company's business infrastructure from malicious character or unplanned attacks  Illing and Scada databases such as ITRON e.t.c  Internet service provision to aid the business of the company  Internet service provision to aid the business of the company  Protection of company's business endpoint from malicious character and attacks  The testing procedure helps decide the |

|                 | the IT systems and      |                            |  |
|-----------------|-------------------------|----------------------------|--|
|                 | · ·                     |                            |  |
|                 | ensures they are free   |                            |  |
|                 | from any errors         |                            |  |
|                 | BitLocker enables users |                            |  |
|                 | to encrypt everything   |                            |  |
|                 | on the drive Windows    |                            |  |
|                 | is installed on,        |                            |  |
|                 | protecting that data    |                            |  |
| BITLOCKER       | from theft or           |                            |  |
| IMPLEMENTATION  | unauthorized access.    |                            |  |
|                 | Bucket Data, Private    |                            |  |
|                 | APN, and Dongle sims    |                            |  |
|                 | used for Meters in the  | Internet service provision |  |
|                 | field for remote        | to aid the business of the | Save cost, reduce business TAT and improve |
| AIRTEL          | access.                 | company                    | financial outcome                          |
|                 | Bucket Data, Private    |                            |  |
|                 | APN, and Dongle sims    |                            |  |
|                 | _                       | Internet service provision |  |
|                 | field for remote        | to aid the business of the | Save cost, reduce business TAT and improve |
| 9MOBILE         | access.                 | company                    | financial outcome                          |
|                 |                         | Internet service provision |  |
|                 |                         | to aid the business of the | Save cost, reduce business TAT and improve |
| INQ             | Monthly Charges         | company                    | financial outcome                          |
|                 | used to archive all     |                            |  |
|                 | paper documents into    |                            |  |
| DATA ARCHIVAL   | digital documents       |                            |  |
| ASSET TAGGING   | Used for tagging of     | Company's Assets           |  |
| AND ENUMERATION |                         | Tagging                    |  |
| AND ENUMERATION |                         | 1499119                    |  |
| CECHDONIY       | Cybersecurity and       |                            |  |
| SECURONIX       | investigative software  |                            |  |

| NESSUS       | Used in Penetration |  |
|--------------|---------------------|--|
| PROFESSIONAL | Testing             |  |
|              | Used Passive        |  |
| SHODAN.IO    | reconnaissance      |  |

# Appendix 5: Technical OpEx

| Expenditure Category  | Business Justification | Impact On Business  | %Impact On<br>ATC&C<br>(Where<br>Applicable) | Impact On Revenue   |
|---|------------------------|---|--|---|
| Maintenance of<br>Distribution Substation<br>and LV network | • •                    | Improved power reliability, reduced downtime, and enhanced customer satisfaction through efficient maintenance of distribution substations and LV networks. |  | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |

| Maintenance of<br>33/11kV Injection<br>Substations and P&T<br>Equipment | switch buttons are loose.  | Improved reliability, reduced downtime, and efficient power distribution resulting in enhanced business operations and customer satisfaction.                                | 0.15% | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |
|---|--|--|-------|---|
| Maintenance of 11kV<br>Overhead line                                    | Overhead equipment is aged weak and substandard. It required urgent replacement  | Improved reliability, reduced downtime, and efficient power distribution resulting in enhanced business operations, customer satisfaction and safety of life and properties. | 0.05% | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |
| Maintenance of 33kV<br>Overhead lines                                   | Overhead equipment are aged weak and substandard. It required urgent replacement | Improved reliability, reduced downtime, and efficient power distribution resulting in enhanced business operations, customer satisfaction and safety of life and properties. | 0.05% | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |

| Maintenance of 11kV<br>Underground lines     | Aged, weak with several straight-Through joints terminating kits are weak & sub-station  | Improved reliability, reduced downtime, and enhanced safety, leading to uninterrupted operations and increased customer satisfaction for businesses. | 0.05% | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |
|--|--|--|-------|---|
| Maintenance of 33kV<br>Underground lines     | Aged weak with several straight-Through joints terminating kits are weak & sub-station   | Improved reliability, reduced downtime, and enhanced safety, leading to uninterrupted operations and increased customer satisfaction for businesses. | 0.1%  | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |
| Maintenance of 11kV and 33kV Line Tracing    | Most lines constructed in thick forest & busy highway roads are affected with thick vegetation and moving trucks. Constant maintenance is required | Improved reliability, reduced downtime and for safety of life and properties.  | 0.10% | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |
| Procurement of emergency materials/Equipment | Contingency fund for operational efficiency and stability  | Provide security unexpected events, manage emergencies, ensuring stability and minimizing disruptions to operations                                  |       | It will ensure reliable power availability, leading to increased revenue through uninterrupted service and customer satisfaction. |

## Appendix 6: Admin OpEx

| Expenditure<br>Category             | Business Justification  | Impact On Business   | Impact On Revenue  |
|-------------------------------------|---|--|--|
| Staff Salary                        | Due to steady increment in inflation rate, Salary increment proposed for the period of 5 years is approximately N37.5B to motivate and retain best talents (valuable expertise and knowledge) with a focus to achieve the business targets. | Improve employee efficiency and productivities. Also improves employee morale and satisfaction which will contribute to increased productivity and potentially enhance | Increases the cost of labor for the company which could directly impact the revenue as higher expenses may reduce profitability. |
| Other Staff Related Cost (Includes: | $\mathbf{c}$  | Same as stated above   | Same as stated above   |
| Outsourced Staff                    | required in line with the above   |  |  |
| Salary, NYSC, SIWESS                | ·   |  |  |
| and Productivity                    | -   |  |  |
| Bonus etc.)                         |   |  |  |
|                                     | Healthcare costs have been  | ,  | Employees' wellbeing and wellness drives   |
|                                     | steadily increasing over the  |  | improved productivities which impacts on business  |
|                                     | years due to medical  | their health benefits become less  | performance  |
|                                     | advancements, new   | ,  |  |
| Health Insurance                    | treatments, and the use of  |  |  |
| Expense (HMO)                       | innovative technologies   |  |  |
|                                     | deployed on board by  | out-of-pocket expenses for employees   |  |

| Training Cost (Local | increment will improve the HMO services to all employees which will enhance employees' wellness and wellbeing. Also, increase in workforce will impact on the HMO annual expense | retention.                              | Increased productivity and efficiency, effectively |
|----------------------|--|---|--|
| Management           |  | . , , – – –                             | perform tasks and meet timelines. Improve the      |
|                      | l — — — — — — — — — — — — — — — — — — —  | l                                       | quality of services offered. Higher quality can    |
| and Overseas         |  | 1 ' '                                   | improve customers' response rate, enhance          |
| Training & Attach    | the Company's employee   | competitive advantage and               | customer satisfaction, and potentially lead to     |
| Fees                 | engagement & retention   | necessary skills and knowledge          | increased revenue                                  |
|                      | , ,  | needed for innovation, adaptation in    |  |
|                      | development and exposure to  | l = = = = = = = = = = = = = = = = = = = |  |
|                      | international best practices for   |   |  |
|                      | our Top, Snr and Middle  |   |  |
|                      | Management Officers.   |   |  |