

ORDER/NERC/201/2020

# BEFORE THE NIGERIAN ELECTRICITY REGULATORY COMMISSION IN THE MATTER OF THE EXTRAORDINARY REVIEW OF MULTI YEAR TARIFF ORDER 2015 FOR ENUGU ELECTRICITY DISTRIBUTION PLC

### TITLE

 This regulatory instrument may be cited as MULTI YEAR TARIFF ORDER (MYTO) 2020 for Enugu Electricity Distribution Plc.

### COMMENCEMENT

2. This Order shall take effect from 1<sup>st</sup> September 2020 and shall cease to have effect on the issuance of a new Minor Review Order or an Extraordinary Tariff Review Order by the Nigerian Electricity Regulatory Commission ("NERC" or the "Commission").

### CONTEXT

- 3. The Commission has reviewed an extra-ordinary tariff review application filed by Enugu Electricity Distribution Plc ("EEDC") seeking approval to review its end user tariffs taking into account the impact of inflation, foreign exchange and its investment plan towards improving service to customers.
- 4. The Commission, pursuant to sections 32 and 76 of the Electric Power Sector Reform Act ("EPSRA"), issued the MYTO 2015 Tariff Order in December 2015 to address, amongst other objectives, the provision of cost-reflective tariffs thus ensuring that prices charged by licensees are fair to consumers and are sufficient to allow licensees that operate efficiently to recover the full cost of their activities, including a reasonable return on the capital invested in the business.
- 5. Section 6 of the MYTO Methodology (Amended) provides for the biannual minor review of the tariffs taking into consideration changes in exogenous variables outside the control of operators in the Nigerian Electricity Supply Industry ("NESI"). These variables are the Nigerian and United States inflation rates, NGN/USD foreign exchange rates, gas prices and available generation capacity.
- 6. Section 9(c) of the "Regulations on Procedure for Electricity Tariff Reviews in the Nigerian Electricity Supply Industry" provides the basis upon which the Commission may accept applications for the conduct of extraordinary tariff reviews.
- 7. The Commission has reviewed the application filed by EEDC taking into consideration the outcome of public consultations held in February March 2020 and approved end-user tariffs for the period 1st September 2020 to 30th June 2025. This Order reflects the impact

of changes in macroeconomic parameters on EEDC's revenue requirement and a revised tariff design that aligns rates paid by customers with the quality of service as measured by average availability of power supply over a one-month period. This Order takes cognisance of the varying levels of infrastructural development of the utility's network that is directly attributable to the level of investment which results in customers enjoying different levels of supply in the same network and further seeks to incentivise utilities to invest across their entire networks thus ensuring that the rates paid by customers is aligned with service improvements.

- 8. EEDC is hereby directed to continue engagement with their customers through all mediums of public consultations on guaranteed levels of quality of electricity supply on the basis of monthly average hours of supply per day.
- 9. Pursuant to the objective of incentivising a continuous improvement of service for all customers, there shall be no tariff reviews for customers experiencing an average power supply availability of less than 12-hours per day over a period of one month.
- 10. Unmetered customers within service bands A, B and C thus benefitting from a supply availability in excess of an average of 12hrs per day over a period of one month as affected by this tariff Order shall be protected by the provisions of "Order on the Capping of Estimated Bills in the NESI" and the FGN intervention on accelerated metering of all customers.
- 11. The Commission hereby orders that EEDC shall continue to maintain the lifeline tariff of NGN4.00/kWhr for all customers consuming less than 50kWHrs of energy per month as a safeguard for the less privileged members of the society.

### **OBJECTIVES**

### 12. This Order seeks to:

- a. Ensure that prices charged by EEDC are fair to customers and are sufficient to allow EEDC to fully recover the efficient cost of operation, including a reasonable return on the capital invested in the business pursuant to the provisions of Sections 32(d) and 76(2)(a) of EPSRA.
- b. Provide a path to a transition to fully service-based cost-reflective tariffs by July 2021.
- c. Reclassify and disaggregate customers and customer clusters on the basis of EEDC's commitment on quality of service to customer clusters.
- d. Ensure that customer tariffs are commensurate and aligned with the quality and availability of power supply committed to customer clusters by EEDC.
- e. Ensure sustained improvement in reliability and quality of supply by incentivising EEDC to off-take energy in accordance with its Vesting Contract and MYTO load allocation.
- f. Provide a framework for settlement of imbalances between TCN and EEDC on delivery and off-take of available energy in accordance with the Market Rules, Vesting Contracts and other industry documents.



- Provide a framework that ensures customer tariffs are consistent with the services they
  receive from EEDC.
- h. Develop and implement a framework for enforcing market discipline in respect of market remittances and managing future revenue shortfalls in the industry including a minimum market remittance requirement to account for differences between costreflective tariffs and allowed tariffs in the settlement of invoices issued by the Nigerian Bulk Electricity Trading Plc ("NBET") and the Market Operator ("MO").
- Support the interim arrangements for payments to the electricity market and reaffirm the payment securitisation requirement and flow of funds from EEDC to NBET and MO.

### **BASIS FOR THE REVIEW**

### 13. Change in Rate Design

Pursuant to the outcome of the public hearings held in February/March 2020 on the extraordinary tariff application filed by EEDC, the Commission directed the utility to adopt a revised rate design that aligns tariffs with service level experience of customers in different clusters/locations. Upon evaluation of EEDC's application, the Commission considered and approved five (5) tariff 'Service Bands' representing relative quality of service experience as measured by the committed minimum average hours of supply per day over a period of one month, interruptions (frequency and duration), service voltage levels and a number of other service parameters. These service bands are further subdivided into tariff classes as follows:

- (i) Non-Maximum Demand (Non-MD).
- (ii) Low voltage Maximum Demand (MD 1).
- (iii) Medium/High voltage Maximum Demand (MD 2).
- (iv) Lifeline tariff class (R1) (for consumption of not more than 50kWh/month).

Table -1 below is a comparative analysis of the new and old tariff classes:

Table - 1: EEDC Tariff Classification

| Service Bands                          | New Tariff<br>Class | Old Tariff Class                        |
|--|---------------------|---|
| Lifeline                               | R1                  | R1                                      |
| A                                      | A - Non-MD          | R2, C1, D1, A1 (single and three phase) |
| (minimum of 20hrs/day)                 | A – MD 1            | R3, C2, D2, A2 Street Light             |
| (minimoni or zoms/udy)                 | A – MD 2            | R4, C3, D3, A3                          |
| B                                      | B - Non-MD          | R2, C1, D1, A1 (single and three phase) |
| (minimum of 16hrs/day)                 | B - MD 1            | R3, C2, D2, A2 Street Light             |
| (minimoni or roms/ddy)                 | B - MD 2            | R4, C3, D3, A3                          |
| _                                      | C - Non-MD          | R2, C1, D1, A1 (single and three phase) |
| (minimum of 12hrs/day)                 | C - MD 1            | R3, C2, D2, A2 Street Light             |
| (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | C - MD 2            | R4, C3, D3, A3                          |
| D                                      | D - Non-MD          | R2, C1, D1, A1 (single and three phase) |
| (minimum of 8hrs/day)                  | D - MD 1            | R3, C2, D2, A2 Street Light             |
| (····································· | D - MD 2            | R4, C3, D3, A3                          |
| E                                      | E - Non-MD          | R2, C1, D1, A1 (single and three phase) |
| (minimum of 4hrs/day)                  | E – MD 1            | R3, C2, D2, A2 Street Light             |
| · · · · · · · · · · · · · · · · · · ·  | E – MD 2            | R4, C3, D3, A3                          |



EEDC shall be liable for service improvements in accordance with commitments under its universal service obligations for providing electricity supply to customers. Attached herewith as Appendix 2 are details of the service improvement commitments made by EEDC to customers in various tariff bands for the period 1st September 2020 to 31st December 2021.

### 14. Capital Expenditure ("CAPEX") Plan

EEDC has applied to the Commission for an upward review of the CAPEX provisions in its tariffs to support the implementation of its Performance Improvement Plans ("PIP") over the next 5 years. Pursuant to the request, the Commission has shared a CAPEX Request Template with EEDC as a guide for a revised submission to qualify for consideration in the tariffs. Accordingly, the rates as contained in this Order and valid to December 31, 2020 are based on current CAPEX provision as contained in MYTO-2015 Order, with necessary adjustments for changes in relevant macroeconomic indices. Any verified and approved investments beyond the CAPEX allowances during this period shall be recognised and applied in the Tariff Order commencing on 1st January 2021. CAPEX review proposals for the period 2021 – 2025 shall be evaluated and upon approval applied in the Tariff Order commencing on 1st January 2021.

### 15. MYTO Load Allocation

The current MYTO load allocation to DisCos was presented as a subject matter for consultation during the public hearings in consideration of the applications for extraordinary tariff review. Several DisCos and the Transmission Company of Nigeria Plc ("TCN") consider the current MYTO Load Allocation as sub-optimal, given the changes that have occurred in load growth and capacities of the transmission and distribution networks. However, a full justification for a holistic review of the MYTO load allocation could not be established during this Extra-Ordinary Tariff Review process. Accordingly, the Commission orders that the current MYTO load allocation shall be maintained for the purpose of computing the relevant tariffs of all DisCos.

### 16. Tariff Assumptions

Pursuant to the provisions of the MYTO Methodology and the Regulation on Procedure for Electricity Tariff Review in NESI, Table 2 below provides the key indices considered in evaluating the tariff application by EEDC in this Extraordinary Tariff Review process. The projected parameters in this Order shall be reviewed and retrospectively adjusted during the December 2020 Minor Review of Tariffs to align the assumptions with actuals.

- a. Nigerian rate of inflation: The Nigerian rate of inflation for July 2020 as obtained from the National Bureau of Statistics (NBS) was 12.82%. This rate was adopted to project Nigerian inflation rates for year 2020 and beyond.
- b. Exchange Rate: In accordance with the provisions of the MYTO Methodology, CBN official exchange rates were used in this review. The MYTO Methodology provides for a premium of 1% above the CBN rate as transaction cost and this was applied in the current review. The applicable NGN/USD exchange rate for the period



September 01, 2020 and beyond is computed as NGN380  $\pm$ 1% premium = NGN383.80.

- c. US rate of inflation: Based on the data obtained from the website of the United States Bureau of Labor Statistics (http://www.bls.gov), the US inflation rate for the month of July 2020 was 1.0%. This rate was adopted for the purpose of this review to project US Inflation rates for year 2020 and beyond.
- d. Gas Price: The price of natural gas for the power sector has been regulated since the inception of MYTO in 2008. The Commission has maintained the gas price of US\$2.50/MMBTU and gas transportation cost of US\$0.80/MMBTU for this review. Other grid connected generation companies with contracted gas prices outside the regulated rates and as provided in their respective Gas Sale Agreements ("GSAs") are also provided for in the MYTO model as a pass-through cost.

Table – 2: Key Indices Considered in Evaluating EEDC Application

| Parameter                               | Sep - Dec<br>2020 | Jan — Jun<br>2021 | Jul – Dec<br>2021 | Jan - Dec<br>2022 |
|---|-------------------|-------------------|-------------------|-------------------|
| Nigerian Inflation                      | 12.82%            | 12.82%            | 12.82%            | 12.82%            |
| Exchange Rate (N/US\$)                  | 383.8             | 383.8             | 383.8             | 383.8             |
| US Inflation                            | 1.00%             | 1.00%             | 1.00%             | 1.00%             |
| Sent out Generation (MWh/h)             | 4,646             | 4,974             | 4,974             | 5,325             |
| Weighted Generation Price (₦/kWh)       | 25.6              | 25.6              | 25.6              | 25.6              |
| TCN and Admin Charge (₦/kWh)            | 7.8               | 8.3               | 8.3               | 8.2               |
| Delivered to EEDC (MWh/h)               | 360               | 387               | 387               | 416               |
| ATC&C Losses                            | 20.56%            | 13.06%            | 13.06%            | 13.06%            |
| End-use Cost-reflective Tariffs (₩/kWh) | 56.76             | 53.60             | 53.60             | 53.59             |
| End-use Allowed Tariffs (₦/kWh)         | 50.05             | 50.05             | 53.60             | 53.59             |
| Tariff Shortfall (₦/kWh)                | 6.71              | 3.55              | -                 | -                 |



# 17. Approved End-user Tariffs Effective from 1st September 2020

Pursuant to EEDC's application for extraordinary tariff review and consistent with paragraph 13 of this Order, the Commission considered and approved the tariffs in Table-3A below with effect from 1st September 2020 and shall remain in force until the issuance of a new Minor Review Order or an Extraordinary Tariff Review Order by the Commission.

Table – 3A: Approved End-user Tariffs (₩/kWh) for EEDC

|                |                   | Approved          | FIIG-03CI         | WIIII   (TT/)     | KWIN) FOR E       | EDC               |                   |
|----------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Tariff Class   | Sep - Dec<br>2020 | Jan — Jun<br>2021 | Jul – Dec<br>2021 | Jan — Dec<br>2022 | Jan – Dec<br>2023 | Jan – Dec<br>2024 | Jan — Dec<br>2025 |
| Life-line (R1) | 4.00              | 4.00              | 4.00              | 4.00              | 4.00              | 4.00              | 4.00              |
| A - Non MD     | 58.22             | 58.22             | 62.36             | 62.34             | 62.33             | 60.91             | 59.38             |
| A - MD1        | 54.50             | 54.50             | 58.37             | 58.35             | 58.34             | 57.02             | 55.58             |
| A - MD2        | 56.00             | 56.00             | 59.98             | 59.96             | 59.95             | 58.59             | 57.11             |
| B - Non MD     | 57.09             | 57.09             | 61.14             | 61.12             | 61.12             | 59.72             | 58.22             |
| B - MD1        | 53.00             | 53.00             | 56.76             | 56.75             | 56.74             | 55.45             | 54.05             |
| B - MD2        | 54.00             | 54.00             | 57.83             | 57.82             | 57.81             | 56.49             | 55.07             |
| C - Non MD     | 55.00             | 55.00             | 58.91             | 58.89             | 58.88             | 57.54             | 56.09             |
| C-MD1          | 50.00             | 50.00             | 53.55             | 53.53             | 53.53             | 52.31             | 50.99             |
| C - MD2        | 52.00             | 52.00             | 55.69             | 55.67             | 55.67             | 54.40             | 53.03             |
| D - Non MD     | 49.50             | 49.50             | 53.02             | 53.00             | 52.99             | 51.79             | 50.48             |
| D - MD1        | 47.00             | 47.00             | 50.34             | 50.32             | 50.32             | 49.17             | 47.93             |
| D - MD2        | 48.00             | 48.00             | 51.41             | 51.39             | 51.39             | 50.22             | 48.95             |
| E - Non MD     | 34.28             | 34.28             | 36.71             | 36.70             | 36.70             | 35.86             | 34.96             |
| E - MD1        | 45.67             | 45.67             | 48.91             | 48.90             | 48.89             | 47.78             | 46.57             |
| E - MD2        | 46.83             | 46.83             | 50.16             | 50.14             | 50.13             | 48.99             | 47.76             |



### 18. Tariff Freeze for Customers in Bands D and E

Following consultations and directions on tariff policy, the Commission hereby approves a deferment of the applicable tariffs for customers in service bands D and E (that is customers with a service commitment of less than an average of 12-hours supply per day over a period of one month for the period  $1^{\rm st}$  September 2020 to  $1^{\rm st}$  January 2021. Accordingly, EEDC shall continue to charge customers in Bands D & E the tariffs applied prior to this Order as provided in Table – 3B below and shall only be allowed to charge the approved tariffs in this Order upon investments that improve quality of service experience thus migrating customers to higher service bands or another Order of the Commission.

Table – 3B: Applicable Tariffs for Customers in Bands D and E

| Old Tariff<br>Class | R1           | R2S        | R2T        | R3    | R4    | C1S        | C1T        | C2    | C3    | D1S        | D1T        | D2    | D3    | A1S        | A1T        | A2    | A3    | L1    |
|---------------------|--------------|------------|------------|-------|-------|------------|------------|-------|-------|------------|------------|-------|-------|------------|------------|-------|-------|-------|
| Rate<br>(N/kWh)     | 4.00         | 30.93      | 34.28      | 48.12 | 46.08 | 34.28      | 39.25      | 45.24 | 45.85 | 40.37      | 42.56      | 45.67 | 46.83 | 34.16      | 39.25      | 45.26 | 45.06 | 32.86 |
| New<br>Category     | Life<br>Line | Non-<br>MD | Non-<br>MD | MD-1  | MD-2  | MD-1  |

### 19. Service Band Adjustment

Where there is a failure to deliver on committed service level by EEDC over as evaluated over a period of 60 days, rates payable by all customers in the affected load cluster shall be retroactively adjusted in line with the quality of service delivered over the same period, upon verification by the Commission.

## 20. Minimum Remittance Threshold for September – December 2020:

The Power Sector Recovery Plan ("PSRP") provides for a gradual transition to cost-reflective tariffs with safeguards for the less privileged in the society. The Federal Government, under the PSRP Financing Plan, has committed to fund the revenue gap arising from the difference between cost reflective tariffs determined by the Commission and the actual end-user tariffs during the transition to cost-reflective tariffs. The waterfall of market revenues during the transitional period shall be -

- a. All DisCos are obligated to settle their market invoices in full as adjusted and netted off by applicable tariff shortfall approved by the Commission.
- b. In the determination of compliance with the minimum remittance threshold in this Order, the Commission shall consider verified receivables from MDAs for the settlement period and DisCo's historical collection efficiency for MDAs.
- c. All FGN intervention from the financing plan of the PSRP for funding tariff shortfall shall be applied through NBET and MO to ensure 100% settlement of market invoices as issued by Market Participants.



- d. Under this framework, the minimum market remittance threshold for EEDC is determined after deducting the revenue deficit arising from tariff shortfall from the aggregate NBET and MO market invoices. EEDC shall be availed the opportunity to earn its revenue requirement only upon fully meeting the following payment obligations:
  - i. Repayment of CBN-NEMS facility.
  - ii. 100% settlement of MO's invoice.
  - iii. Full settlement of 68.1% of NBET's monthly invoices being the minimum remittance threshold prescribed in this Order.
- e. EEDC shall be liable to relevant penalties/sanctions for failure to meet the minimum remittance requirement in any payment cycle in accordance with the terms of its respective contracts with NBET, MO and the provisions of the Market Rules and Supplementary TEM Order.
- f. EEDC shall maintain an adequate and unencumbered letter of credit covering three (3) months of the minimum payment obligations to NBET and MO in accordance with the provisions of the Market Rules and Market Participation Agreement.
- g. Where EEDC is unable to comply with its minimum remittance threshold to the market prescribed in this Order from its operations as a utility, the company may seek external financing under the CBN intervention to cover the payment deficit but subject to the following conditions:
  - (i) A submission to the Commission providing details of the market remittance ramp up period, lenders term sheet, draw down period, moratorium (where applicable) and the repayment period of the loan.
  - (ii) The terms and conditions for the financing of the remittance shortfall shall be mutually agreed between EEDC and the lenders and filed with the Commission.
  - (iii) The submission to the Commission, no later than two (2) weeks from the effective date of this Order, of the utility's financial model covering the remittance ramp up period and projections for the repayment of the external financing.

### CAPACITY PAYMENT

- 21. The average tariff for EEDC was determined considering the projected energy offtake of the company based on its percentage load allocation in the Vesting Contract. NBET shall continue to invoice EEDC for capacity charge and energy based on its load allocation and metered energy respectively in accordance with the December 2019 Minor Review of MYTO-2015 and Minimum Remittance Order for Year-2020.
- 22. Where it is established that TCN is unable to deliver EEDC's load allocation, TCN shall be liable to pay for the associated capacity charge. Where EEDC fails to take its entire load allocation due to constraints in its own network, EEDC shall be liable to pay the capacity charge as allocated in its Vesting contract. Table 4 provides the minimum market remittance threshold for EEDC, with an effective date of 1st September 2020:



Table – 4: Minimum Remittance Threshold for September – December 2020

|                       | EEDC's Minim                  | um Remittance | Table - September 2020 - December 2020  |
|-----------------------|-------------------------------|---------------|---|
| Head                  | Subhead                       | ₩,000,000     | Remarks   |
|                       | NEMSF                         | 1,652         | CBN - Loan  |
|                       | NBET Invoice                  | 26,946        | Projected Generation cost   |
| Revenue<br>Required   | MO Invoice                    | 8,155         | Projected TCN and Admin Services cost   |
|                       | EEDC                          | 10,653        | Approved recovery of capital and operating expenses   |
|                       | Total                         | 47,406        | Total Revenue Required  |
| Allowed               | Recovery                      | 38,811        | 82% Being Amount recoverable through allowed end-user tariffs of EEDC in 2020   |
| Tariff                | Shortfall                     | 8,595         | 18% Being the difference between EEDC's revenue requirement and its allowed recovery  |
|                       | NEMSF                         | 1,652         | 1st - Line Charge on Collection as per loan Agreement   |
|                       | NBET<br>Minimum<br>Remittance | 18,351        | Being Minimum Remittance Obligation of 68.1% of NBET's Monthly Invoices for September to December 2020. Full settlement to be supplemented by the FGN intervention funds.       |
| Minimum<br>Remittance | MO Minimum<br>Remittance      | 8,155         | Being Minimum Remittance Obligation of 100% of MO's monthly Invoices of September to December 2020.   |
| Obligation            | EEDC                          | 10,653        | Being opportunity availed the DisCo to earn its revenue requirement based on its efficient operations and upon ful settlement of the minimum remittances to NEMSF, NBET and MO. |
|                       | Total<br>Distribution         | 38,811        |   |

### **EFFECTIVE DATE**

23. This Order shall be effective from 1st September 2020.

Dated this  $27^{\text{th}}$  day of August 2020

James A. Momoh

Chairman

Dafe C. Alepeneye
Commissioner



| Service Bands                      | New Tariff<br>Class | Description   |
|------------------------------------|---------------------|---|
| Lifeline                           | R1                  | Life-Line customers with energy consumption of not more than 50kWh/month                                      |
|                                    | A - Non-MD          | Customers with single or three phase connection located within <b>Band – A</b> Service Level Feeders          |
| <b>A</b><br>(minimum of 20hrs/day) | A - MD 1            | Customers with LV Maximum Demand connection located within <b>Band – A</b> Service Level Feeders              |
| · ·                                | A – MD 2            | Customers with MV/HV Maximum Demand (11/33kV) connection located within <b>Band – A</b> Service Level Feeders |
|                                    | B – Non-MD          | Customers with single or three phase connection located within <b>Band – B</b> Service Level Feeders          |
| <b>B</b><br>(minimum of 16hrs/day) | B – MD 1            | Customers with LV Maximum Demand connection located within <b>Band – B</b> Service Level Feeders              |
| (                                  | B – MD 2            | Customers with MV/HV Maximum Demand (11/33kV) connection located within Band – B Service Level Feeders        |
|                                    | C - Non-MD          | Customers with single or three phase connection located within <b>Band – C</b> Service Level Feeders          |
| C<br>(minimum of 12hrs/day)        | C-MD 1              | Customers with LV Maximum Demand connection located within <b>Band – C</b> Service Level Feeders              |
| (minimon of 12ms/day)              | C – MD 2            | Customers with MV/HV Maximum Demand (11/33kV) connection located within <b>Band – C</b> Service Level Feeders |
|                                    | D - Non-MD          | Customers with single or three phase connection located within <b>Band – D</b> Service Level Feeders          |
| <b>D</b><br>(minimum of 8hrs/day)  | D – MD 1            | Customers with LV Maximum Demand connection located within <b>Band – D</b> Service Level Feeders              |
| (minimum or onis/ day)             | D – MD 2            | Customers with MV/HV Maximum Demand (11/33kV) connection located within <b>Band – D</b> Service Level Feeders |
|                                    | E – Non-MD          | Customers with single or three phase connection located within <b>Band</b> – <b>E</b> Service Level Feeders   |
| <b>E</b> (minimum of 4hrs/day)     | E – MD 1            | Customers with LV Maximum Demand connection located within <b>Band</b> — <b>E</b> Service Level Feeders       |
| (                                  | E – MD 2            | Customers with MV/HV Maximum Demand (11/33kV) connection located within <b>Band – E</b> Service Level Feeders |



# Appendix - 2: EEDC's Service Level Commitments

|                  |                          | Service Lev                                | Service Level for Period-1: July - Dec<br>2020      | 1: July - Dec                     | Service Lev                                | e    | Service Level for Period-2: Jan - Jun<br>2021 |
|------------------|--------------------------|--|---|-----------------------------------|--|------|---|
| Service<br>Bands | Feeder Name              | Minimum<br>Duration of Supply<br>(Hrs/Day) | Average<br>Frequency of<br>Interruptions Per<br>Day | Average Duration of Interruptions | Minimum<br>Duration of Supply<br>(Hrs/Day) | pply | Average Frequency of Interruptions Per Day    |
| Band A           | COCA-COLA                | 22.00                                      | 0.03  | 12.44                             | 22.0                                       |      | 0.03  |
| Band A           | NEW NNPC 33KV            | 22.00                                      | 0.88  | ,                                 | 22.0                                       |      | 0.88  |
| Band A           | UGWOGO 33KV              | 22.00                                      | 0.37  | 2.01                              | 22.0                                       |      | 0.37  |
| Band A           | ABA-OWERRI 33KV          | 22.00                                      | 0.41  |                                   | 22.0                                       |      | 0.41  |
| Band A           | UKWA 33KV 05             | 22.00                                      | 0.39  | 4.88                              | 22.0                                       |      | 0.39  |
| Band A           | ITUKU OZALLA 33KV        | 20.00                                      | 0.30  | 3.07                              | 21.0                                       |      | 0.30  |
| Band A           | UNN 11KV                 | 21.00                                      | 0.12  | 6.26                              | 21.0                                       |      | 0.12  |
| Band A           | WILSON 11KV              | 21.00                                      | 0.12  | 3.20                              | 21.0                                       |      | 0.12  |
| Band A           | E AMOBI 33KV             | 23.00                                      | 0.07  | 5.79                              | 23.0                                       |      | 0.07  |
| Band A           | GCM 11KV                 | 23.00                                      |   |                                   | 23.0                                       |      | ,   |
| Band A           | GCM-UGA 33KV             | 23.00                                      | 0.01  | 2.00                              | 23.0                                       |      | 0.01  |
| Band A           | GOLDEN OIL 11KV          | 23.00                                      | 0.01  | 4.83                              | 23.0                                       |      | 0.01  |
| Band A           | INTERFACT 11KV           | 23.00                                      | 0.03  | 1.62                              | 23.0                                       | J    | 0.03  |
| Band A           | IUNT 11KV                | 23.00                                      | 0.04  | 6.16                              | 23.0                                       |      | 0.04  |
| Band A           | OSSOMALLA 33KV           | 20.00                                      | 0.43  | 5.30                              | 21.0                                       |      | 0.43  |
| Band A           | PPI 11KV                 | 23.00                                      | 0.01  | 13.86                             | 23.0                                       | _    | 0.01  |
| Band A           | ABAKALIKI ROAD 11KV      | 22.00                                      | 0.17  | 2.56                              | 22.0                                       |      | 0.17  |
| Band A           | GOVERNMENT HOUSE 11KV    | 23.00                                      | 0.26  | 3.68                              | 23.0                                       | )    | 0.26  |
| Band A           | GOVERNMENT HOUSE 33KV    | 23.00                                      | 0.26  | 3.68                              | 23.0                                       | 0    | 0 0.26  |
| Band A           | INDEPENDENCE LAYOUT 33KV | 23.00                                      | 0.30  | 1.92                              | 23.0                                       | 0    | 0 0.30  |
| Band A           | KINGSWAY LINE 1 33KV     | 23.00                                      | 0.14  | 1.50                              | 23.0                                       | 0    | .0 0.14                                       |
| Band A           | KINGSWAY LINE 2 33KV     | 23.00                                      | 0.41  | 2.41                              | 23.0                                       | 0    | 0 0.41  |
| Band A           | OJI WATERWORKS 33KV      | 23.00                                      | 0.27  | 5.35                              | 23.0                                       | 0    | 0 0.27  |
| Band A           | OWERRI 3 33KV            | 22.00                                      | 0.83  | 1.17                              | 22.0                                       | )    | 0.83  |
| Band A           | AFARA 33KV               | 22.00                                      | 0.82  | 2.47                              | 22.0                                       |      | 0.82  |
| Band A           | AFIKPO 33KV              | 21.00                                      | 0.28  | 6.08                              | 21.0                                       |      | 0.28  |



| Band B                                | Band B       | Band B             | Band B           | Band B    | Band B           | Band B            | Band B      | Band B      | Band B                    | Band B                | Band B      | Band B | Band B      | Band B         | Band B             | Band B            | Band B               | Band B                   | Band B               | Band B               | Band B          | Band B                | Band A          | Band A                     | Band A            | Band A                   | Band A                | Band A             | Band A     |
|---------------------------------------|--------------|--------------------|------------------|-----------|------------------|-------------------|-------------|-------------|---------------------------|-----------------------|-------------|--------|-------------|----------------|--------------------|-------------------|----------------------|--------------------------|----------------------|----------------------|-----------------|-----------------------|-----------------|----------------------------|-------------------|--------------------------|-----------------------|--------------------|------------|
| CBN TEE OFF ON OGUTA 33KV(NEW OWERRI) | UBAKALA 33KV | OGUTA 33KV(OWERRI) | OGUTA 33KV(ORLU) | 3-3, 33KV | POWER HOUSE 11KV | ONITSHA ROAD 11KV | UMUNYA 33KV | NICCUS 33KV | ARMY BARRACKS 11KV(OGIDI) | NNEWI INDUSTRIAL 33kV | MBAISE 33KV | UNIZIK | POLEMA 11KV | NIKE LAKE 11KV | GOLDEN GUINEA 11KV | CBN 33KV(UMUAHIA) | AIRPORT 33KV(OWERRI) | AIRPORT 33KV(NEW OWERRI) | AIRPORT 33KV(MBAISE) | UGWUAJI GARIKKI 33KV | ENUGU UKWU 33KV | OBOSI - ORAIFITE 33KV | GOLDEN OIL 33KV | NEW GOVERNMENT HOUSE, 11KV | ABA OVERHEAD 33KV | EMENE INDUSTRIAL 33KV -2 | EMENE INDUSTRIAL 33KV | ARMY BARRACKS 33KV | ALBEN 11KV |
| 21.00                                 | 19.00        | 15.00              | 15.00            | 18.00     | 20.00            | 18.00             | 18.00       | 12.00       | 18.00                     | 18.00                 | 19.84       | 20.00  | 19.00       | 20.00          | 20.00              | 21.00             | 19.38                | 19.38                    | 19.38                | 19.00                | 20.00           | 18.00                 | 23.00           | 20.00                      | 22.00             | 23.00                    | 22.00                 | 22.00              | 21.00      |
| 0.33                                  | 0.33         | 0.33               | 0.33             | 0.33      | 0.33             | 0.33              | 0.33        | 0.33        | 0.33                      | 0.33                  | 0.33        | 0.33   | 0.33        | 0.33           | 0.33               | 0.33              | 0.33                 | 0.33                     | 0.33                 | 0.33                 | 0.33            | 0.33                  | 0.06            | 0.06                       | 0.25              | 0.12                     | 0.36                  | 0.48               | 0.04       |
| 8.80                                  | 6.45         | 3.38               | 3.38             |           | 2.39             | 3.13              | 6.83        | 7.83        | •                         | 10.20                 | 2.74        | 6.16   | 3.42        | 4.07           | 2.74               | 3.19              | 1.26                 | 1.26                     | 1.26                 | 3.37                 | 4.07            | 11.87                 | - 1             | 9.73                       | 3.94              | 5.58                     | 3.85                  | 3.94               | 5.60       |
| 21.0                                  | 19.0         | 15.0               | 15.0             | 19.0      | 21.0             | 19.0              | 19.0        | 14.0        | 18.0                      | 19.0                  | 19.8        | 21.0   | 19.0        | 20.0           | 20.0               | 21.0              | 19.4                 | 19.4                     | 19.4                 | 19.0                 | 21.0            | 19.0                  | 23.0            | 20.0                       | 22.0              | 23.0                     | 22.0                  | 22.0               | 71.0       |
| 0 33                                  | 0.33         | 0.33               | 0.33             | 0.33      | 0.33             | 0.33              | 0.33        | 0.33        | 0.33                      | 0.33                  | 0.33        | 0.33   | 0.33        | 0.33           | 0.33               | 0.33              | 0.33                 | 0.33                     | 0.33                 | 0.33                 | 0.33            | 0.33                  | 0.06            | 0.06                       | 0.25              | 0.12                     | 0.36                  | 0.48               | 0.04       |
| 8.80                                  | 6.45         | 3.38               | 3.38             | 0.00      | 2.39             | 3.13              | 6.83        | 7.83        | 0.00                      | 10.20                 | 2.74        | 6.16   | 3,42        | 4.07           | 2.74               | 3.19              | 1.26                 | 1.26                     | 1.26                 | 3.37                 | 4.07            | 11.87                 | 0.00            | 8.76                       | 3.55              | 5.02                     | 3.47                  | 3.54               | 5.04       |



| Band C                         | Band C        | Band C    | Band C     | Band C    | Band C              | Band C      | Band C             | Band C        | Band C        | Band C   | Band C     | Band C             | Band C        | Band C         | Band C            | Band C       | Band C       | Band C     | Band C      | Band C            | Band C       | Band C               | Band C   | Band C           | Band C            | Band C    | Band C      | Band C           | Band C        | Band B            | Band B          |
|--------------------------------|---------------|-----------|------------|-----------|---------------------|-------------|--------------------|---------------|---------------|----------|------------|--------------------|---------------|----------------|-------------------|--------------|--------------|------------|-------------|-------------------|--------------|----------------------|----------|------------------|-------------------|-----------|-------------|------------------|---------------|-------------------|-----------------|
| TEACHING HOSPITAL PRIVATE 11KV | NNEWICHI 11KV | NENI 33KV | AGULU 33KV | UNEC 11KV | ARMY 11KV AWKUNANAW | AMECHI 33KV | ACHARA LAYOUT 11KV | PHASE 6, 11KV | EMENE 1, 11KV | UDEMEZUE | AZUIYIOKWU | ABAKALIKI TOWNSHIP | RESEARCH 11KV | NEW HAVEN 11KV | CHIME AVENUE 11KV | ARTISAN 11KV | AGULERI 33KV | DOZZY 11KV | IBAGWA 33KV | PORTHARCOURT 11KV | CONCORD 11KV | INDUSTRIAL ABAKALIKI | IGI 33KV | ABA UMUAHIA 33KV | PRESIDENTIAL 11KV | GOLF 11KV | SECRETARIAT | NNEWI - OBA 33KV | OCHUDO CITY 1 | ORLU 33KV(OWERRI) | ORLU 33KV(ORLU) |
| 18.00                          | 12.00         | 12.00     | 12.00      | 16.00     | 12.00               | 12.00       | 16.00              | 16.00         | 16.00         | 16.00    | 16.00      | 18.00              | 17.00         | 12.00          | 15.00             | 15.00        | 16.00        | 18.00      | 15.00       | 16.80             | 15.00        | 18.00                | 15.00    | 15.00            | 15.00             | 18.00     | 18.00       | 8.00             | 16.00         | 18.00             | 18.00           |
| 0.16                           | 0.16          | 1.34      | 2.16       | 0.20      | 0.06                | 1.65        | 0.10               | 0.14          | 0.36          | 0.16     | 0.26       | 0.21               | 0.11          | 0.11           | 0.20              | 0.12         | 0.50         | 0.14       | 0.75        | 0.32              | 0.20         | 0.21                 | 0.54     | 0.95             | 0.14              | 0.16      | 0.09        | 1.19             | 0.33          | 0.33              | 0.33            |
|                                | 5.07          | 5.37      | 5.07       | 3.23      | 3.44                | 2.14        | 4.53               | 3.00          | 2.83          | 4.25     | 4.23       | 4.18               | 5.28          | 2.90           | 3.43              | 3.59         | 8.71         | 6.06       | 5.04        | 1.50              | 2.32         | 3.90                 |          |                  | 2.43              | 2.69      | 4.72        | 10.83            | 6.30          | 5.39              | 5.39            |
| 18.0                           | 14.0          | 14.0      | 14.0       | 18.0      | 14.0                | 14.0        | 18.0               | 18.0          | 18.0          | 18.0     | 18.0       | 19.0               | 17.9          | 14.0           | 16.0              | 16.0         | 18.0         | 18.0       | 16.0        | 17.6              | 15.0         | 19.0                 | 15.0     | 15.0             | 16.0              | 19.0      | 18.0        | 10.0             | 16.0          | 18.9              | 18.9            |
| 0.16                           | 0.16          | 1.34      | 2.16       | 0.20      | 0.06                | 1.65        | 0.10               | 0.14          | 0.36          | 0.16     | 0.26       | 0.21               | 0.11          | 0.11           | 0.20              | 0.12         | 0.50         | 0.14       | 0.75        | 0.32              | 0.20         | 0.21                 | 0.54     | 0.95             | 0.14              | 0.16      | 0.09        | 1.19             | 0.33          | 0.33              | 0.33            |
| 0.00                           | 4.56          | 4.83      | 4.57       | 2.91      | 3.10                | 1.93        | 4.07               | 2.70          | 2.54          | 3.82     | 3.81       | 3.76               | 4.75          | 2.61           | 3.08              | 3.23         | 7.84         | 6.06       | 4.54        | 1.35              | 2.09         | 3.51                 | 0.00     | 0.00             | 2.19              | 2.42      | 4.72        | 9.74             | 6.30          | 5.39              | 5.39            |



| Band D         | Band D         | Band D      | Band D               | Band D      | Band D      | Band D       | Band D         | Band D   | Band D        | Band D                   | Band D        | Band D         | Band D           | Band D              | Band D             | Band C             | Band C    | Band C      | Band C      | Band C      | Band C          | Band C         | Band C        | Band C   | Band C       | Band C      | Band C        | Band C     | Band C       | Band C      | Band C           | Band C                        |
|----------------|----------------|-------------|----------------------|-------------|-------------|--------------|----------------|----------|---------------|--------------------------|---------------|----------------|------------------|---------------------|--------------------|--------------------|-----------|-------------|-------------|-------------|-----------------|----------------|---------------|----------|--------------|-------------|---------------|------------|--------------|-------------|------------------|-------------------------------|
| AROCHUKWU 33KV | ENUGU GRA 11KV | ONUIYI 11KV | NSUKKA TOWNSHIP 11KV | ORUMBA 33KV | UDOKA 11 KV | ENUGWU-AGIDI | AWKA MAIN 11KV | UDI 33KV | DHAMIJA, 11KV | 9TH MILE INDUSTRIAL 11KV | YAHE 33KV FDR | COAL CAMP 11KV | ORBA NSUKKA 33KV | ENUGU AGIDI VILLAGE | AMECHI-AGBANI 33KV | AKPAKUME NZE, 11KV | ACHI 33KV | ALEX MBAISE | NAFDAC 11KV | GARIKI 11KV | AWKA INDUSTRIAL | ABA-EAST 11 KV | IKENEGBU 11KV | GRA 11KV | HOUSING 11KV | ROMANS 11KV | CHIATULA 11KV | WHALF 11KV | PREMIER 11KV | HABOUR 11KV | EHA - AMUFU 33KV | TEACHING HOSPITAL PUBLIC 11KV |
| 12.60          | 12.00          | 12.00       | 12.00                | 10.00       | 10.00       | 11.00        | 12.00          | 12.00    | 12.00         | 12.00                    | 12.00         | 12.00          | 12.00            | 9.00                | 10.00              | 14.00              | 15.00     | 20.00       | 13.00       | 15.00       | 14.00           | 15.00          | 12.60         | 12.60    | 13.00        | 16.00       | 16.00         | 12.00      | 14.00        | 18.00       | 15.00            | 15.00                         |
| 0.33           | 0.33           | 0.33        | 0.33                 | 0.33        | 0.33        | 0.33         | 0.33           | 0.33     | 0.33          | 0.33                     | 0.33          | 0.33           | 0.33             | 0.33                |                    |                    | 0.56      | 0.47        | 2.16        | 0.13        | 0.34            | 0.09           | 0.45          | 0.73     | 0.15         | 0.50        | 0.50          | 0.06       | 0.04         | 0.19        | 0.54             | 0.16                          |
| 13.53          | 4.51           | 4.30        | 4.11                 |             | 5.79        |              | 5.36           | 10.86    | 3.73          | 4.22                     |               | 6.32           | 6.65             | 4.07                | 5.00               |                    | -         | -           | 6.34        | 3.06        | 6.61            |                | 2.84          | 2.67     | 4.68         | 10.89       | 10.89         | 8.27       | 4.89         | 9.51        | 18.80            |                               |
| 12.0           | 14.0           | 14.0        | 14.0                 | 11.0        | 11.0        | 12.0         | 14.0           | 14.0     | 14.0          | 14.0                     | 14.0          | 14.0           | 14.0             | 12.0                | 12.0               | 14.0               | 16.0      | 20.0        | 13.0        | 16.0        | 16.0            | 15.0           | 12.0          | 12.0     | 14.0         | 16.0        | 16.0          | 12.0       | 16.0         | 18.0        | 16.0             | 15.0                          |
| 0.33           | 0.33           | 0.33        | 0.33                 | 0.33        | 0.33        | 0.33         | 0.33           | 0.33     | 0.33          | 0.33                     | 0.33          | 0.33           | 0.33             | 0.33                |                    |                    | 0.56      | 0.47        | 2.16        | 0.13        | 0.34            | 0.09           | 0.45          | 0.73     | 0.15         | 0.50        | 0.50          | 0.06       | 0.04         | 0.19        | 0.54             | 0.16                          |
| 12 17          | 4.06           | 3.87        | 3.69                 | 0.00        | 5.22        | 0.00         | 4.82           | 9.78     | 3.36          | 3.80                     | 0.00          | 5.68           | 5.98             | 3.66                | 4.50               |                    | 0.00      | 0.00        | 6.34        | 2.75        | 5.95            | 0.00           | 2.55          | 2.40     | 4.21         | 10.89       | 10.89         | 8.27       | 4.40         | 9.51        | 16.92            | 0.00                          |



| Band D       | Band D         | Band D        | Band D   | Band D      | Band D      | Band D           | Band D      | Band D       | Band D      | Band D           | Band D     | Band D       | Band D       | Band D      | Band D              | Band D         | Band D      | Band D | Band D       | Band D         | Band D              | Band D      | Band D        | Band D       | Band D         | Band D         | Band D           | Band D           | Band D | Band D         | Band D            | Band D                | Band D        |
|--------------|----------------|---------------|----------|-------------|-------------|------------------|-------------|--------------|-------------|------------------|------------|--------------|--------------|-------------|---------------------|----------------|-------------|--------|--------------|----------------|---------------------|-------------|---------------|--------------|----------------|----------------|------------------|------------------|--------|----------------|-------------------|-----------------------|---------------|
| PRISONS 11KV | OJI URBAN 11KV | MARYLAND 11KV | UGA 11KV | OKPOKO 11KV | IYIOWA 11KV | HOUSING EBH 11KV | FEGGE 11 KV | UGWUOYE 11KV | CAMPUS 11KV | AKU (LEJJA) 11KA | OTOLO 11KV | NKWOEDO 11KV | URU NRI 11KV | NDIOWU 11KV | EKE MARKET NRI 11KV | SATELLITE 11KV | OKPUNO 11KV | IFITE  | AMANSEA 11KV | OWERRINTA 33KV | ABA INDUSTRIAL 11KV | NOWAS, 11KV | EMENE 3, 11KV | EMENE 2,11KV | ABAKPA 2, 11KV | ABAKPA 1, 11KV | ITIGIDI 33KV FDR | ISHIEKE 33KV FDR | EZILLO | EHI ROAD 6.6KV | ABA TOWNSHIP 11KV | TOWNSHIP 11KV UMUAHIA | NKWOEGWU 33KV |
| 9.00         | 10.00          | 10.00         | 9.00     | 9.00        | 9.00        | 10.00            | 9.00        | 10.00        | 10.00       | 10.00            | 10.00      | 10.00        | 9.00         | 10.00       | 10.00               | 12.00          | 8.00        | 10.00  | 10.00        | 10.75          | 10.75               | 12.00       | 10.00         | 10.00        | 10.00          | 10.00          | 10.00            | 12.00            | 10.00  | 15.00          | 11.55             | 12.60                 | 12.60         |
| 0.33         | 0.33           | 0.33          | 0.33     | 0.33        | 0.33        | 0.33             | 0.33        | 0.33         | 0.33        | 0.33             | 0.33       | 0.33         | 0.33         | 0.33        | 0.33                | 0.33           | 0.33        | 0.33   | 0.33         | 0.33           | 0.33                | 0.33        | 0.33          | 0.33         | 0.33           | 0.33           | 0.33             | 0.33             | 0.33   | 0.33           | 0.33              | 0.33                  | 0.33          |
| 5.98         | 6.85           | 5.71          | •        | 7.73        | 9.68        | 7.20             | 8.14        | 4.92         | 6.08        | 6.25             | 5.60       | 10.52        | 7.01         | 8.54        | 7.12                | 4.74           | 6.01        | 7.98   | 8.68         | 4.95           | 5.34                | 4.68        | 4.96          | 5.51         | 3.84           | 3.67           | 10.53            | •                | 16.46  | •              | 7.78              |                       | 8.05          |
| 11.0         | 12.0           | 11.0          | 12.0     | 10.0        | 12.0        | 11.0             | 11.0        | 12.0         | 11.0        | 12.0             | 11.0       | 10.0         | 11.0         | 10.0        | 11.0                | 14.0           | 10.0        | 11.0   | 12.0         | 11.6           | 11.6                | 14.0        | 11.0          | 11.0         | 11.0           | 11.0           | 12.0             | 14.0             | 12.0   | 15.0           | 12.0              | 12.0                  | 12.0          |
| 0.33         | 0.33           | 0.33          | 0.33     | 0.33        | 0.33        | 0.33             | 0.33        | 0.33         | 0.33        | 0.33             | 0.33       | 0.33         | 0.33         | 0.33        | 0.33                | 0.33           | 0.33        | 0.33   | 0.33         | 0.33           | 0.33                | 0.33        | 0.33          | 0.33         | 0.33           | 0.33           | 0.33             | 0.33             | 0.33   | 0.33           | 0.33              | 0.33                  | 0.33          |
| 5.38         | 6.17           | 5.14          | 0.00     | 6.95        | 8.71        | 6.48             | 7.33        | 4.43         | 5.48        | 5.62             | 5.04       | 9.47         | 6.31         | 7.68        | 6.41                | 4.27           | 5.41        | 7.18   | 7.81         | 4.45           | 4.80                | 4.22        | 4.46          | 4.96         | 3.45           | 3.30           | 9.48             | 0.00             | 14.81  | 0.00           | 7.00              | 0.00                  | 7.24          |



| Band E | Band E       | Band E      | Band E        | Band E                  | Band E          | Band E      | Band E         | Band E               | Band E                 | Band E    | Band E      | Band E                 | Band E    | Band E            | Band E     | Band E                   | Band E             | Band E             | Band E           | Band E               | Band E              | Band E              | Band E                  | Band E              | Band E           | Band D      | Band D        | Band D          | Band D               | Band D      | Band D      | Band D      |
|--------|--------------|-------------|---------------|-------------------------|-----------------|-------------|----------------|----------------------|------------------------|-----------|-------------|------------------------|-----------|-------------------|------------|--------------------------|--------------------|--------------------|------------------|----------------------|---------------------|---------------------|-------------------------|---------------------|------------------|-------------|---------------|-----------------|----------------------|-------------|-------------|-------------|
| EZEAGU | AMAORJI 11KV | AKPOGA 33KV | ABAKPA 3 11KV | PORT HARCOURT ROAD 11KV | OPOBO ROAD 11KV | OBOHIA 11KV | NGWA ROAD 11KV | ABA WATER SIDE 11 KV | ABA BARRACKS 11KV(ABA) | 7-UP 11KV | NTIGHA 33KV | ATANI WATER WORKS 11KV | NIMO 11KV | 3-3 - ABATA, 33KV | OBOWO 33KV | URUALLA CIVC CENTER 11KV | LIMCA, OKIGWE 11KV | UKPOR - NNEWI 33kV | OBOSI - ULI 33KV | OBOSI - OZUBULU 33KV | OBOSI - IHIALA 33KV | NNEWI - UMUDIM 33kV | NNEWI - AWKA ETITI 33kV | NNEWI - AMICHI 33kV | AMECHI-AWGU 33kV | UMUARO 11KV | GUINNESS 33KV | AZIKIWE RD 11KV | TOWNSHIP 11KV OWERRI | UMUAKA 11KV | OMAGBA 11KV | MGBUKA 11KV |
| 6.00   | 8.00         | 8.00        | 8.00          | 10.75                   | 6.60            | 6.60        | 10.75          | 8.80                 | 9.90                   | 8.80      | 10.75       | 8.00                   | 6.00      | 6.00              | 6.60       | 6.60                     | 6.60               | 4.00               | 4.00             | 4.00                 | 4.00                | 8.00                | 4.00                    | 4.00                | 8.00             | 10.75       | 10.75         | 10.75           | 10.75                | 10.75       | 8.00        | 8.00        |
| 0.33   | 0.33         | 0.33        | 0.33          | 0.33                    | 0.33            | 0.33        | 0.33           | 0.33                 | 0.33                   | 0.33      | 0.33        | 0.33                   | 0.33      | 0.33              | 0.33       | 0.33                     | 0.33               | 0.33               | 0.33             | 0.33                 | 0.33                |                     |                         |                     |                  | 0.33        | 0.33          | 0.33            | 0.33                 | 0.33        | 0.33        | 0.33        |
| 3.73   | 5.72         | 6.65        | 5.39          | 5.43                    | 7.26            | 5.38        | 6.30           | 6.91                 | 9.06                   | 6.73      | 11.00       | 7.68                   | 9.26      |                   |            |                          | 13.62              |                    | •                | •                    |                     |                     | 5.50                    | 6.20                | 7.30             |             |               |                 | 4.39                 | 5.39        | 11.88       | 10.70       |
| 8.0    | 10.0         | 10.0        | 8.0           | 11.6                    | 7.1             | 7.1         | 11.6           | 9.7                  | 10.9                   | 9.7       | 11.6        | 10.0                   | 7.0       | 6.0               | 7.1        | 7.1                      | 7.1                | 4.0                | 4.0              | 4.0                  | 4.0                 | 10.0                | 4.0                     | 5.0                 | 8.0              | 11.6        | 11.6          | 11.6            | 11.6                 | 11.6        | 10.0        | 10.0        |
| 0.33   | 0.33         | 0.33        | 0.33          | 0.33                    | 0.33            | 0.33        | 0.33           | 0.33                 | 0.33                   | 0.33      | 0.33        | 0.33                   | 0.33      | 0.33              | 0.33       | 0.33                     | 0.33               | 0.33               | 0.33             | 0.33                 | 0.33                |                     | ,                       | 1                   |                  | 0.33        | 0.33          | 0.33            | 0.33                 | 0.33        | 0.33        | 0.33        |
| 3.73   | 5.72         | 6.65        | 5.39          | 5.43                    | 7.26            | 5.38        | 6.30           | 6.91                 | 9.06                   | 6.73      | 11.00       | 7.68                   | 9.26      | 0.00              | 0.00       | 0.00                     | 13.62              | 0.00               | 0.00             | 0.00                 | 0.00                | 0.00                | 5.50                    | 6.20                | 7.30             | 0.00        | 0.00          | 0.00            | 3.96                 | 4.85        | 10.69       | 9.63        |



| Band E      | Band E       | Band E   | Band E    | Band E       | Band E             | Band E       | Band E             | Band E      | Band E       | Band E      | Band E     | Band E      | Band E        | Band E        | Band E        | Band E     | Band E               | Band E      | Band E        | Band E            | Band E                     | Band E     | Band E              | Band E        | Band E            | Band E    | Band E | Band E          | Band E                     | Band E    | Band E   |
|-------------|--------------|----------|-----------|--------------|--------------------|--------------|--------------------|-------------|--------------|-------------|------------|-------------|---------------|---------------|---------------|------------|----------------------|-------------|---------------|-------------------|----------------------------|------------|---------------------|---------------|-------------------|-----------|--------|-----------------|----------------------------|-----------|----------|
| MBIERI 11KV | IFAKALA 11KV | FUT 11KV | EGBU 11KV | EGBEADA 11KV | OKIGWE 33KV (ORLU) | WOLIWO 11 KV | ONITSHA G.R.A 11KV | NSUGBE 11KV | NKWELLE 11KV | MARKET 11KV | IWEKA 11KV | INLAND 11KV | HILL TOP 11KV | MINAJ 1, 11KV | MGBEMENA 11KV | IBOLO 11KV | OKIGWE 33KV (MBAISE) | UMUNZE 11KV | OKO POLY 11KV | OGBUNKA ROAD 11KV | EKWULOBIA MAIN OFFICE 11KV | AMUDA 11KV | AGULUEZECHUKWU 11KV | TOP LAND 11KV | AMECHI UWANI 11KV | UKPO 11KV | NIBO   | ENUGU UKWU 11KV | ABA BARRACKS 11KV(ARIARIA) | OKWE 11KV | NTA 11KV |
| 8.80        | 8.80         | 10.75    | 8.80      | 8.80         | 6.60               | 8.00         | 7.00               | 8.00        | 7.00         | 8.00        | 7.00       | 8.00        | 8.00          | 6.00          | 6.00          | 7.00       | 6.60                 | 4.00        | 6.00          | 4.00              | 8.00                       | 4.00       | 8.00                | 8.00          | 8.00              | 4.00      | 8.00   | 6.00            | 10.75                      | 6.00      | 6.00     |
| 0.33        | 0.33         | 0.33     | 0.33      | 0.33         | 0.33               | 0.33         | 0.33               | 0.33        | 0.33         | 0.33        | 0.33       | 0.33        | 0.33          | 0.33          | 0.33          | 0.33       | 0.33                 | 0.33        | 0.33          | 0.33              | 0.33                       | 0.33       | 0.33                | 0.33          | 0.33              | 0.33      | 0.33   | 0.33            | 0.33                       | 0.33      | 0.33     |
| 8.36        | 8.24         | 5.11     | 6.59      | 5.77         | 6.54               | 11.44        | 9.47               | 6.09        | 6.36         | 9.12        | 9.06       | 10.51       | 7.34          | 9.69          | 9.68          | 10.68      | 6.54                 | 11.80       |               | 12.25             | 6.99                       | 24.57      | 6.92                | 7.39          | 5.99              | 11.40     | 8.68   | 8.93            | 9.06                       |           |          |
| 9.7         | 9.7          | 11.6     | 9.7       | 9.7          | 7.1                | 10.0         | 10.0               | 10.0        | 10.0         | 10.0        | 10.0       | 10.0        | 10.0          | 7.0           | 7.0           | 8.0        | 7.1                  | 4.0         | 7.0           | 4.0               | 10.0                       | 4.0        | 10.0                | 8.0           | 8.0               | 5.0       | 10.0   | 8.0             | 11.6                       | 6.0       | 7.0      |
| 0.33        | 0.33         | 0.33     | 0.33      | 0.33         | 0.33               | 0.33         | 0.33               | 0.33        | 0.33         | 0.33        | 0.33       | 0.33        | 0.33          | 0.33          | 0.33          | 0.33       | 0.33                 | 0.33        | 0.33          | 0.33              | 0.33                       | 0.33       | 0.33                | 0.33          | 0.33              | 0.33      | 0.33   | 0.33            | 0.33                       | 0.33      | 0.33     |
| 8 36        | 8.24         | 5.11     | 6.59      | 5.77         | 6.54               | 11.44        | 9.47               | 6.09        | 6.36         | 9.12        | 9.06       | 10.51       | 7.34          | 9.69          | 9.68          | 10.68      | 6.54                 | 11.80       | 0.00          | 12.25             | 6.99                       | 24.57      | 6.92                | 7.39          | 5.99              | 11.40     | 8.68   | 8.93            | 9.06                       | 0.00      | 0.00     |



| Band E       | Band E         | Band E       | Band E     | Band E       | Band E                  | Band E      | Band E          | Band E                | Band E       | Band E     | Band E               | Band E     | Band E  | Band E                  | Band E      | Band E        | Band E     | Band E           | Band E       | Band E     | Band E       | Band E     | Band E | Band E     | Band E        | Band E   | Band E         | Band E        | Band E       | Band E        | Band E               | Band E    |
|--------------|----------------|--------------|------------|--------------|-------------------------|-------------|-----------------|-----------------------|--------------|------------|----------------------|------------|---------|-------------------------|-------------|---------------|------------|------------------|--------------|------------|--------------|------------|--------|------------|---------------|----------|----------------|---------------|--------------|---------------|----------------------|-----------|
| AVENCO 11 KV | URUAGU II,11KV | UMUOFOR 11KV | UBAHU 11KV | MBANAGU 11KV | WORLD BANK (NEW OWERRI) | OBINZE 11KV | NEW OWERRI 11KV | IRETE INDUSTRIAL 11KV | NKWOALA 11KV | MBUTU 11KV | EGBEREDE 11KV MBAISE | AVUVU 11KV | ABAGANA | WORLD BANK 11KV ARIARIA | URATTA 11KV | OSISIOMA 11KV | OMUMA 11KV | ASA OKPUAJA 11KV | ARIARIA 11KV | ABAYI 11KV | ABA GRA 11KV | AJALI 33KV | ABOR   | OMOBA 11KV | NKWOEGWU 11KV | GRA 11KV | EKENOBIZI 11KV | AMACHARA 11KV | ABIRIBA 11KV | ABA ROAD 11KV | OKIGWE 33KV (OWERRI) | NAZE 11KV |
| 6.00         | 7.00           | 4.00         | 4.00       | 7.00         | 6.60                    | 6.60        | 8.80            | 7.70                  | 6.60         | 6.60       | 6.60                 | 6.60       | 4.00    | 10.75                   | 5.25        | 5.25          | 8.80       | 5.25             | 5.25         | 5.25       | 10.75        | 7.00       | 6.00   | 6.60       | 8.80          | 10.75    | 6.60           | 6.60          | 6.60         | 8.80          | 6.60                 | 8.80      |
| 0.33         | 0.33           | 0.33         | 0.33       | 0.33         | 0.33                    | 0.33        | 0.33            | 0.33                  | 0.33         | 0.33       | 0.33                 | 0.33       | 0.33    | 0.33                    | 0.33        | 0.33          | 0.33       | 0.33             | 0.33         | 0.33       | 0.33         | 0.33       | 0.33   | 0.33       | 0.33          | 0.33     | 0.33           | 0.33          | 0.33         | 0.33          | 0.33                 | 0.33      |
| 10.56        | 10.13          | 10.03        | 10.13      | 7.24         | 8.09                    | 7.43        | 5.83            | 7.74                  | 9.36         | 15.44      | -                    | 8.70       | 13.42   | 6.53                    | 10.05       | 6.05          | 10.84      | 10.05            | 7.44         | 6.59       | 8.15         | 8.79       | 14.59  | 16.83      | 6.19          |          | 7.75           | 7.72          | 10.98        |               | 6.54                 | 5.96      |
| 6.0          | 10.0           | 6.0          | 6.0        | 10.0         | 7.1                     | 7.1         | 9.7             | 7.8                   | 7.1          | 7.1        | 7.1                  | 7.1        | 6.0     | 11.6                    | 5.5         | 5.5           | 9.7        | 5.5              | 5.5          | 5.5        | 11.6         | 10.0       | 7.0    | 7.1        | 9.7           | 11.6     | 7.1            | 7.1           | 7.1          | 9.7           | 7.1                  | 9.7       |
| 0.33         | 0.33           | 0.33         | 0.33       | 0.33         | 0.33                    | 0.33        | 0.33            | 0.33                  | 0.33         | 0.33       | 0.33                 | 0.33       | 0.33    | 0.33                    | 0.33        | 0.33          | 0.33       | 0.33             | 0.33         | 0.33       | 0.33         | 0.33       | 0.33   | 0.33       | 0.33          | 0.33     | 0.33           | 0.33          | 0.33         | 0.33          | 0.33                 | 0.33      |
| 10.56        | 10.13          | 10.03        | 10.13      | 7.24         | 8.09                    | 7.43        | 5.83            | 7.74                  | 9.36         | 15.44      | 0.00                 | 8.70       | 13.42   | 6.53                    | 10.05       | 6.05          | 10.84      | 10.05            | 7.44         | 6.59       | 8.15         | 8.79       | 14.59  | 16.83      | 6.19          | 0.00     | 7.75           | 7.72          | 10.98        | 0.00          | 6.54                 | 5.96      |



| Band E        | Band E      | Band E     | Band E     | Band E      | Band E        | Band E                  | Band E       | Band E       | Band E       | Band E           | Band E               | Band E     | Band E     | Band E          | Band E                   | Band E       | Band E                | Band E                 | Band E                 | Band E                  | Band E    | Band E        | Band E          | Band E     | Band E      | Band E       | Band E      | Band E        | Band E       | Band E        | band E     |
|---------------|-------------|------------|------------|-------------|---------------|-------------------------|--------------|--------------|--------------|------------------|----------------------|------------|------------|-----------------|--------------------------|--------------|-----------------------|------------------------|------------------------|-------------------------|-----------|---------------|-----------------|------------|-------------|--------------|-------------|---------------|--------------|---------------|------------|
| OBIANGWU 11KV | UMUIHI 11KV | LAGWA 11KV | NGODO 11KV | EZIOKO 11KV | TCN AUXILIARY | WORLD BANK 11KV UMUAHIA | UMUDIKE 11KV | UBAKALA 11KV | OLOKORO 11KV | OLD UMUAHIA 11KV | OHAFIA BARRACKS 11KV | NDUME 11KV | ASAGA 11KV | AMAOGWUGWU 11KV | NEW OWERRI 11KV (OWERRI) | EMEKUKU 11KV | TOWNSHIP, OKIGWE 11KV | OWERRI ROAD, ORLU 11KV | IHIOMA ROAD. ORLU 11KV | AMAIGBO ROAD. ORLU 11KV | BIDA 11KV | UGWUAGBA 11KV | TOLL-GATE 11 KV | OJOTO 11KV | OGIDI 11 KV | NWAZIKI 11KV | NKPOR 11 KV | MINAJ 2, 11KV | IDEMILI 33KV | EZEIWEKA 11KV | AWADA 11KV |
| 6.60          | 6.60        | 6.60       | 4.00       | 6.00        | 4.00          | 8.80                    | 6.60         | 6.60         | 6.60         | 6.60             | 6.60                 | 6.60       | 6.60       | 6.60            | 8.80                     | 6.60         | 6.60                  | 6.60                   | 6.60                   | 6.60                    | 7.00      | 6.00          | 6.00            | 5.00       | 6.00        | 5.00         | 5.00        | 5.00          | 4.00         | 5.00          | 5.00       |
| 0.33          | 0.33        | 0.33       | 0.33       | 0.33        | 0.33          | 0.33                    | 0.33         | 0.33         | 0.33         | 0.33             | 0.33                 | 0.33       | 0.33       | 0.33            | 0.33                     | 0.33         | 0.33                  | 0.33                   | 0.33                   | 0.33                    | 0.33      | 0.33          | 0.33            | 0.33       | 0.33        | 0.33         | 0.33        | 0.33          | 0.33         | 0.33          | 0.33       |
|               | 6.82        | -          | -          | -           | -             |                         | 5.87         | 6.10         | 6.13         | 5.91             | 9.06                 | 5.96       | 20.38      | 6.09            | 5.83                     | 4.66         | 13.62                 | 7.55                   | 9.04                   | 7.74                    | 11.62     | •             | 10.42           | 9.74       | 10.65       | 10.57        | 10.38       | 10.94         |              | 12.56         | 8.40       |
| 7.1           | 7.1         | 7.1        | 4.0        | 6.0         | 4.0           | 9.7                     | 7.1          | 7.1          | 7.1          | 7.1              | 7.1                  | 7.1        | 7.1        | 7.1             | 9.7                      | 7.1          | 7.1                   | 7.1                    | 7.1                    | 7.1                     | 10.0      | 7.0           | 8.0             | 7.0        | 8.0         | 6.0          | 6.0         | 6.0           | 4.0          | 6.0           | 6.0        |
| 0.33          | 0.33        | 0.33       | 0.33       | 0.33        | 0.33          | 0.33                    | 0.33         | 0.33         | 0.33         | 0.33             | 0.33                 | 0.33       | 0.33       | 0.33            | 0.33                     | 0.33         | 0.33                  | 0.33                   | 0.33                   | 0.33                    | 0.33      | 0.33          | 0.33            | 0.33       | 0.33        | 0.33         | 0.33        | 0.33          | 0.33         | 0.33          | 0.33       |
| 0.00          | 6.82        | 0.00       | 0.00       | 0.00        | 0.00          | 0.00                    | 5.87         | 6.10         | 6.13         | 5.91             | 9.06                 | 5.96       | 20.38      | 6.09            | 5.83                     | 4.66         | 13.62                 | 7.55                   | 9.04                   | 7.74                    | 11.62     | 0.00          | 10.42           | 9.74       | 10.65       | 10.57        | 10.38       | 10.94         | 0.00         | 12.56         | 8.40       |

