

### ORDER/NERC/2024/106

1

## BEFORE THE NIGERIAN ELECTRICITY REGULATORY COMMISSION IN THE MATTER OF AUGUST 2024 SUPPLEMENTARY ORDER TO THE MULTI-YEAR TARIFF ORDER 2024 FOR KANO ELECTRICITY DISTRIBUTION PLC

### TITLE

 This regulatory instrument shall be cited as August 2024 Supplementary Order to the Multi-Year Tariff Order - 2024 ("August 2024 Supplementary Order") for Kano Electricity Distribution Plc ("KEDCO").

### COMMENCEMENT AND TERMINATION

2. This Supplementary Order shall take effect from 1st August 2024 and it shall cease to be effective on the issuance of a new tariff review Order for KEDCO by the Nigerian Electricity Regulatory Commission ("NERC" or the "Commission").

### CONTEXT

- Pursuant to the Tariff Review Application by KEDCO, the Commission approved MYTO-2024 effective from 1<sup>st</sup> January 2024. The Order among others;
  - Restated KEDCO's Performance Improvement Plan ("PIP") and approved a revised 5-year CAPEX provision to finance planned CAPEX projects. The Order further applied regulatory adjustments to the verified historical investments of KEDCO;
  - Approved a reset of the baseline ATC&C loss level to a new target considered to be fair and reasonable given current operating conditions and comparable benchmarks within and outside the Nigerian Electricity Supply Industry ("NESI");
  - Revised relevant assumptions for the forecast of revenue requirements and applicable tariffs for the period 2024 – 2027;

### OBJECTIVE

4. Further to Section 23 of the MYTO-2024, this Supplementary Order seeks to reflect the changes in the pass-through indices outside the control of licensees including inflation rates, N/US\$ exchange rate, available generation capacity and gas price for the determination of Cost-Reflective Tariffs ("CRT").

### BASIS FOR THE REVIEW

### 5. Minor Review Indices

The underlisted indices with potential impact on electricity rates were considered to determine KEDCO's revised revenue requirements and associated tariffs:

- a. Exchange Rate: The Naira to the US Dollar exchange rate of #1,564.28/US\$1 has been adopted for August December 2024; this has been determined by adding a 1% transaction cost to the average foreign exchange rate of #1,548.80 during the period of 1<sup>st</sup> 26<sup>th</sup> July 2024 as obtained from the website of the Central Bank of Nigeria ("CBN") in line with the MYTO methodology.
- b. Nigerian Inflation Rate: The Nigerian inflation rate of **34.19%** for June 2024 as published by the National Bureau of Statistics ("NBS") is applied to revise the Nigerian inflation rate projection for 2024.
- c. US Inflation Rate: Based on the data published by the United States Bureau of Labor Statistics (<u>http://www.bls.gov</u>), the US inflation rate of 3.00% for June 2024 is applied to revise the US Inflation rate projection for 2024.
- d. Available Generation Capacity: Considering the periodic reports from the System Operator, the review maintains the January 2024 projection of an average offtake of 268MWh/h by KEDCO in 2024.
- e. Wholesale Gas to Power Prices:
  - i. The review maintains the benchmark gas-to-power price of US\$2.42/MMBTU based on the established benchmark price of gasto-power by the Nigerian Midstream and Downstream Petroleum Regulatory Authority ("NMDPRA") in line with Section 167 of the Petroleum Industry Act ("PIA") 2021
  - ii. Contracted gas supply and transportation prices outside Domestic Gas Delivery Obligation quantities and based on effective Gas Sale Agreements ("GSAs") approved by the Commission.
  - iii. Benchmark Gas Transportation tariff of US\$0.80/MMBTU.

### 6. Summary of Tariff Assumptions and Results

Table 1 below summarises the tariff review indices adopted in this Order.

Parameter	Unit	June 2024	July 2024	August 2024
Loss Target	%	25.00%	25.00%	25.00%
Nigerian Inflation	%	33.7%	34.0%	34.2%
US Inflation	%	3.4%	3.3%	3.0%
Exchange Rate	₩/\$	1469.1	1494.1	1564.3
Gas Supply and Transportation Cost	\$/MMBTU	3.22	3.22	3.22
Transmission Loss Factor	%	7.00%	7.00%	7.00%
Energy Delivered to DisCo	GWh	2,352	2,352	2,352
Energy Delivered to DisCo	MWh/h	268	268	268
Generation Cost	₩/kWh	104.4	106.2	111.1
Transmission & Admin Cost	₩/kWh	10.0	10.1	10.4
End-User Cost Reflective Tariffs	N/kWh	190.3	193.0	200.3
End-User Allowed Tariffs	N/kWh	114.8	115.9	115.9
Monthly Tariff Shortfall (Subsidy)	₩′Million	11,102	11,332	12,410

### Table - 1: Key Tariff Review Indices/Assumptions for KEDCO

# 7. Approved End-User Tariffs Effective from 1st August 2024

Pursuant to Section 116 of the EA and extant regulations, the Commission has considered and approved for KEDCO, the tariffs in Table 2 below effective 1st August 2024. The approved tariffs shall remain in force subject to monthly adjustments of pass-through indices including inflation rates, NGN/US\$ exchange rates and gas-to-power prices.

In line with the policy direction of the FGN on electricity subsidy, the allowed tariffs for Bands B – E customer categories shall remain frozen at the rates payable since December 2022 subject to further policy direction by the Government. With this policy, the estimated subsidy benefit for customers under the KEDCO franchise in 2024 is approximately #12.41bn monthly.

Table	2. reproved /		OI KEDCO
Tariff Class	April 2024	May – June 2024	July – August 2024
Life-line	4.00	4.00	4.00
A – Non-MD	225.00	206.80	209.50
A – MD1	225.00	206.80	209.50
A – MD2	225.00	206.80	209.50
B – Non-MD	65.29	65.29	65.29
B – MD1	68.13	68.13	68.13
B - MD2	71.11	71.11	71.11
C – Non-MD	47.57	47.57	47.57
C – MD1	49.51	49.51	49.51
C – MD2	54.01	54.01	54.01
D – Non-MD	32.02	32.02	32.02
D – MD1	47.58	47.58	47.58
D - MD2	47.58	47.58	47.58
E – Non-MD	31.88	31.88	31.88
E – MD1	47.58	47.58	47.58
E – MD2	47.58	47.58	47.58

Table – 2: Approved Allowed Tariffs (₩/kWh) for KEDCO

### 8. Service Delivery Commitments

KEDCO shall be held accountable for service deliveries per commitments under its Service Based Tariff proposals that seek to align end-user tariffs in proportion to the service level enjoyed by customer clusters as measured in average hours of supply per day over one month. Details of the service level commitments made by KEDCO to customers in various tariff Bands for **August 2024** are provided in the Appendixes.

### 9. Monitoring and Evaluation of Compliance to Service Commitment

- a. The Commission shall continue to leverage technology to directly obtain data on the hours of supply on each Band A feeder from the head-end system of KEDCO for near real-time monitoring of service.
- b. KEDCO shall maintain a rapid response team to ensure effective service delivery on the committed minimum hours of supply to each service Band commencing with Band A feeders. The team shall continue to ensure timely response to customers' complaints, fault clearing and alignment with TCN regional teams for effective load management and optimised dispatch to respective feeders. KEDCO shall maintain the dedicated email and contact numbers of the service rapid response team for each customer cluster/business unit on its website and continue to circulate the same to the customers via bulk SMS and social media handles.
- c. KEDCO is obligated to publish daily on its website a rolling 7-day average daily hours of supply on each Band A feeder <u>no later than 09:00 am of the next day.</u>

Page | 4

- d. Where KEDCO fails to deliver on the committed level of service on a Band A feeder for consecutive two days, KEDCO shall on the next day by 10.00 am publish on its website an explanation of the reasons for the failure and update the affected customers on the timeline for restoration of service to the committed service level.
- e. Where KEDCO fails to meet the committed service level to a Band A feeder for seven (7) consecutive days, the feeder shall be automatically downgraded to the recorded level of supply pursuant to provisions of Section 6 of Order No. NERC/334/2022 – "Order on Migration of Customers and Compensation for Service Failure under Service-Based Tariff Framework".
- f. KEDCO is mandated to continuously ensure upward migration of customers from the lower service Bands to Band A service level in line with the target on improvement in quality of service as provided in the Order on Key Performance Indicators for KEDCO issued from time to time by the Commission

### 10. Service Band Performance, Migration/Downgrade and Compensation

Pursuant to the provisions of the Order on Migration of Customers and Compensation for Service Failure under the Service-Based Tariff Framework ("Order on Migration") and the Directive to Electricity Distribution Companies on Band A Feeder Performance Monitoring, Upgrade and Downgrade ("Directive for Operationalization of Band A Feeders"), the Commission, based on the feeder performance report for the 1<sup>st</sup> – 25<sup>th</sup> of July 2024, hereby orders as follows:

- a. KEDCO shall make appropriate compensation to the affected customers in Band A feeders listed in Appendix 2 for failure to deliver up to 20 hours of average supply but more than 18 hours of average supply in line with the provisions of the Order on Migration while the feeders shall remain as Band A.
- b. KEDCO has delivered up to 20 hours of average supply from 8<sup>th</sup> -21<sup>st</sup> July 2024 on the feeders listed in Appendix 3. Thus, the KEDCO application to upgrade the feeders to Band A effective from the 1<sup>st</sup> of August 2024 is hereby approved.

### 11. Procurement of Embedded Generation

KEDCO is obligated by this Order to procure a minimum of 27MW capacity of embedded generation, being 10% of its 2024 load allocation, to improve the reliability of supply and sustain delivery of a minimum service level under the SBT. A minimum of 14MW (i.e., 50%) of the embedded generation capacity must be sourced from renewable energy sources. The required capacity may be procured in bulk or distributed capacities across KEDCO's Franchise area. The capacity to be procured should be ready for dispatch to the KEDCO's network by the 1st of April 2025.

Page | 5

### 12. KEDCO's Remittance Obligation

The FGN policy on subsidy and electricity tariffs provides for a gradual transition to cost-reflective end-user tariffs with safeguards for the less privileged electricity consumers. Accordingly, the Federal Government has committed to funding the revenue gap arising from the difference between cost-reflective tariffs approved by the Commission and the actual end-user tariffs during the transition to cost-reflective tariffs where applicable. KEDCO shall settle its market invoices under the DisCo Remittance Obligation thresholds as provided in Table 3. All settlements are subject to regulatory net-offs as may be issued from time to time by the Commission.

Head	Sub Head	June 2024 Revision ₩'Million	July 2024 Revision ₩'Million	August 2024 Revision Ħ'Million
	NEMSF	371	371	371
red	Meter Acquisition Fund	174	174	174
nbe	Unadjusted GenCo Invoice	19,205	19,483	20,413
e K	ZHEPP Invoice	1,265	1,329	1,358
enu	TCN & Admin Services	1,958	1,979	2,035
Revenue Required	DisCo	5,005	5,030	5,092
	Total	27,977	28,366	29,443
1.83	Allowed Recovery	16,875	17,034	17,034
	2023 Under Recovery B/F	327	327	-
a and	Tariff Shortfall (Subsidy)	11,429	11,659	12,410
NB	SET Adjusted Invoice to KEDCO	7,775	7,824	8,003
	NEMSF	371	371	371
JCe	Meter Acquisition Fund	174	174	174
DisCo Remittance Obligation	NBET Remittance Obligation	7,775	7,824	8,003
Co Remitta Obligation	ZHEPP Remittance Obligation	1,265	1,329	1,358
0pl Opl	MO Remittance Obligation	1,958	1,979	2,035
Dis	DisCo	5,332	5,358	5,092
	Total Distribution	16,875	17,034	17,034
	DisCo Remittance to NBET	100%	100%	100%
	DisCo Remittance to ZHEPP	100%	100%	100%
	DisCo Remittance to MO	100%	100%	100%

Table – 3: Monthly DisCo Remittance Obligation for KEDCO, 2024



- 13. The waterfall of market revenues during the transitional period shall be in line with the following:
  - a. NBET shall issue energy invoices to KEDCO net of the applicable tariff shortfall approved by the Commission monthly, while MO shall issue the full transmission and administrative services invoices to KEDCO at the applicable tariff.
  - b. KEDCO shall make full settlement (100%) of the market invoices issued by MO (including Zungeru Power Plant) and NBET as provided in Table 3 above.
  - c. FGN intervention from budgetary appropriation and other sources for funding tariff shortfall shall be applied by NBET to ensure 100% settlement of market invoices as issued by generating companies ("GenCos").
  - d. KEDCO shall be liable to relevant penalties/sanctions for failure to meet the payment obligation in any payment cycle under the terms of its respective contracts with bilateral counterparties including NBET and MO.
  - e. KEDCO shall maintain adequate payment securitisation for energy off-take in line with the earlier directive of the Commission and relevant bilateral contracts.
  - f. KEDCO shall settle its market invoices under the DisCo Remittance Obligation thresholds as provided in Table 3. All settlements are subject to regulatory netoffs as may be issued from time to time by the Commission.
- 14. Effective Date

This Supplementary Order shall be effective from 1st August 2024.

Dated this 31<sup>st</sup> day of July 2024

lla

Sanusi Garba Chairman

() 08 c 31/07/2026

Musiliu O. Oseni Vice-Chairman

Appendix -	1:	KEDCO's	<b>Customer Classifications</b>
------------	----	---------	---------------------------------

Service Bands	New Tariff 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 connections located within Band–A Service Level Feeders
A (Minimum of 20hrs/day)	A – MD 1	Customers with LV Maximum Demand connection located within Band–A Service Level Feeders
	A - MD 2	Customers with MV/HV Maximum Demand (11/33kV) connection located within Band – A Service Level Feeders
В	B – Non-MD	Customers with single or three-phase connections located within Band–B Service Level Feeders
р (Minimum of 16hrs/day)	B – MD 1	Customers with LV Maximum Demand connection located within Band–B Service Level Feeders
, , , ,	B – MD 2	Customers with MV/HV Maximum Demand (11/33kV) connection located within Band – B Service Level Feeders
6	C - Non-MD	Customers with single or three-phase connections located within Band–C Service Level Feeders
C (Minimum of 12hrs/day)	C – MD 1	Customers with LV Maximum Demand connection located within Band–C Service Level Feeders
121113/003/1	C – MD 2	Customers with MV/HV Maximum Demand (11/33kV) connection located within Band – C Service Level Feeders
5	D - Non-MD	Customers with single or three-phase connections located within Band–D Service Level Feeders
D (Minimum of 8hrs/day)	D – MD 1	Customers with LV Maximum Demand connection located within Band–D Service Level Feeders
	D – MD 2	Customers with MV/HV Maximum Demand (11/33kV) connection located within Band – D Service Level Feeders
5	E – Non-MD	Customers with single or three-phase connections located within Band–E Service Level Feeders
D (Minimum of 4hrs/day)	E – MD 1	Customers with LV Maximum Demand connection located within Band-E Service Level Feeders
- Ann Sy Gudy J	E – MD 2	Customers with MV/HV Maximum Demand (11/33kV) connection located within Band – E Service Level Feeders

# Appendix 2: Feeders for Compensation of Customers Only Due to Failure of Service

S/N	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	1ST - 25TH JULY AVE PERFORMANCE	CURRENT BAND	REMARK
1	11KV DALA FOODS	GONGONI INJECTION SUBSTATION	SHARADA INDUSTRIAL KANO	19.79	A	CUSTOMERS TO BE COMPENSATED
2	33KV GASKIYA	DAKATA TS	KAWAJI INDUSTRIAL AREA	19.50	А	CUSTOMERS TO BE COMPENSATED

# Appendix 3: Feeders for Upgrade based on Improved Service Level Performance

S/N	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	1 ST - 25TH JULY AVE PERFORMANCE	CURRENT BAND	REMARK
1	11KV AUDU BAKO	CLUB INJECTION SUBSTATION	AHMADU BELLO WAYAND MURTALA MUHD WAY KANO	21.95	В	APPROVED FOR BAND A
2	11KV DR BALA	FARM CENTRE INJECTION SUBSTATION	DR BALA ROAD, COMMISSIONER AND STATE ROADS.	21.00	В	APPROVED FOR BAND A
3	11KV TOKARAWA	DAKATA TS	FRANCE ROAD, KANO	20.27	В	APPROVED FOR BAND A
4	11KV GWARZO ROAD	BUK INJECTION SUBSTATION	R/ZAKI ALONG GWARZO ROAD, BARAKAT STORE, JAIZ BANK AND ZENITH BANK.	24.00	В	APPROVED FOR BAND A
5	33KV NNPC	DAKATA TS	HOTORO NNPC BYE BASS, TINSHAMA AND LADANAI AREA.	22.64	В	APPROVED FOR BAND A
6	33KV SHARABA- BATA	KUMBOTSO TS	SHARADA BATA INJECTION SUBSTATION	22.86	NEW FEEDER	APPROVED FOR BAND A

## Appendix - 4: KEDCO's Service Level Commitments for August 2024

S/N	BAND	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	MIN. SUPPLY DURATION (HRS)
1	A	11KV AHMADU BELLO	CLUB INJECTION SUBSTATION	AHMADU BELLO WAYAND MURTALA MUHD WAY KANO	20
2	A	11KV APEX	FADAMA INJECTION SUBSTATION	CBN, KATSINA	20
3	A	11KV BOMPAI	BRISCOE INJECTION SUSTATION	BOMPAI ROAD KANO	20
4	A	11KV CERAMIC	ABATTOIR INJECTION SUBSTATION	CHALLAWA INDUSTRIAL AREA	20

1

S/N	BAND	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	MIN. SUPPLY DURATION (HRS)
5	A	11KV CHALLAWA WATER PLANT	CHALLAWA INJECTION SUBSTATION	WATER PLANT CHALLAWA	20
6	A	11KV FANTAI	HADEJIA NIPP INJECTION SUB STATION	BANK ROAD, KANO ROAD HADEJIA JIGAWA STATE	20
7	A	11KV FUNTUA TEXTILE MILL	TEXTILE INJECTION SUBSTATION	FUNTUA TEXTILE MILL	20
8	A	11KV FUNTUA WATER WORKS	TEXTILE INJECTION SUBSTATION	FUNTUA WATER WORKS	20
9	А	11KV INDUSTRIAL	KATSINA ROAD INJECTION SUBSTATION	FUNTUA INDUSTRIAL	20
10	A	11KV MAIMALARI	BRISCOE INJECTION SUSTATION	MAIMALARI BOMPAI KANO	20
11	A	11KV NATSINTA	KOFAR GUGA INJECTION SUBSTATION	NATSINTA BARRACK, KATSINA	20
12	A	11KV NBC	ABATTOIR INJECTION SUBSTATION	CHALLAWA INDUSTRIAL AREA	20
13	A	11KV RIJIMA RICE	DAURA INJECTION SUBSTATION	RIJIMA BARRACK, KATSINA	20
14	А	11KV TAMBURAWA WATER PLANT	TAMBURAWA INJECTION SUBSTATION	WATER PLANT TAMBURAWA	20
15	А	11KV WUDIL COMMERCIAL	WUDIL INJECTION SUBSTATION	GAYA ROAD WUDIL COMMERCIAL AREA	20
16	A	11KV YUSUF ROAD	BRISCOE INJECTION SUSTATION	YUSUF ROAD KANO	20
17	А	33KV AJIWA WATER WORKS	KATSINA TS	NEW GOVT HOUSE, SSS OFFICE, INEC TOURIST LODGE, AJIWA WATER TREATMENT	20
18	A	33KV ANGELS	KUMBOTSO TS	SHARADA INDUSTRIAL AREA	20
19	A	33KV ATM	KUMBOTSO TS	CHALLAWA INDUSTRIAL AREA	20
20	А	33KV CBN	DAN AGUNDI TS	ADO BAYERO MALL, BRISTOL HOTEL, STATE ROAD, AUDU BAKO WAY AND POST OFFICE ROAD KANO	20
21	А	33KV CHALLAWA WATER WORKS	TAMBURAWA TS	WATER PLANT CHALLAWA	20
22	A	33KV CLUB	DAN AGUNDI TS	KANO CLUB INJECTION SUBSTATION	20
23	A	33KV COCA COLA	TAMBURAWA TS	CHALLAWA INDUSTRIAL AREA	20
24	A	33KV DAN AGUNDI 1	DAN AGUNDI TS	DANAGUNDI INJECTION SUB STATION KANO CITY	20
25	A	33KV DANGOTE	KUMBOTSO TS	SHARADA INDUSTRIAL AREA	20
26	A	33KV DAURA	DAURA TS	DAURA INJECTION SUBSTATION DAURA	20
27	A	33KV DUTSE	DUTSE TS	FUD, DUTSE.	20
28	A	33KV HADEJIA	HADEJIA TS	HADEJIA, BIRNIWA, UNIVERSITY, GUMEL, KAFIN HAUSA	20
29	A	33KV IDH	DAKATA TS	FRANCE ROAD, KANO	20
30	A	33KV KAFIN HAUSA	HADEJIA TS	HADEJIA, K/HAUSA AND KANO ROAD JIGAWA STATE	20
31	А	33KV KATSINA ROAD	FUNTUA TS	KATSINA ROAD INJECTION SUBSTATION, FUNTUA	20
32	A	33KV KOFAR GUGA	KATSINA TS	FEDERAL TEACHING HOSPITAL KATSINA	20

÷

÷

T	91	INDEFENDENCE ROAD, GAWAUNA AND KINGS GARDEN AREA.	BRISCOE INJECTION SUBSTATION			
-	91		BRISCOF INTECTION SUBSTATION	<b>11KA INDEFENDENCE</b>	В	79
	91	IBRAHIM TOIWO ROAD, KOFAR DAN AGUNDI AND KWARI Market	DAN AGUNDI INJECTION SUBSTATION	OWIAT MIHAAAI VALI	В	89
	91	HOUSING ESTATE AREA.	SHARADA INJECTION SUBSTATION	<b>11KV HOUSING ESTATE</b>	В	79
	91	BAWO ROAD AND HAUSAWA MASALLACHIN MURTALA ROAD.	<b>NOITAT28U2 NOITOJUN GAOA AIAAZ</b>	11KV HAUSAWA	В	19
	91	HASSAN USMAN KATSINA ROAD AND GRA KATSINA.	FADAMA INJECTION SUBSTATION	NAM2U NAS2AH VYII ROAD	B	09
	91	GOVERNMENT HOUSE AND MINISTRY OF LAND DUTSE.	DUTSE INJECTION SUBSTATION	HONSE DATSE	B	69
	91	FAGOJI AND GARU EMIRS PALACE ROAD.	DUTSE INJECTION SUBSTATION	11KA GARU	В	85
	91	DATIJO9ORTAM ARUAD	DAURA INJECTION SUBSTATION	11KV DAURAMA	B	22
	91	DANLADI NASIDI HOUSING ESTATE.	MARIRI INJECTION SUBSTATION	11KV DANLADI NASIDI	B	99
	91	FEDERAL SECRETARIAT KATSINA AND DANDAGORO	IBB WAY INJECTION SUBSTATION	11ΚΛ ΔΑΝΔΑGORO	8	22
	91	DAKATA AND KAWAJI AREA.	KAWAJI INJECTION SUBSTATION	11KV DAKATA	8	24
	91	RADIO HOUSE.	RADIO HOUSE INJECTION SUBSTATION	ODADNAD DANDAGO	8	23
	91	DAURA METROPOLITAN	DAURA INJECTION SUBSTATION	11KV BAYAJIDDA	B	25
	91	LAGOS STREET, POST OFFICE ROAD AND BELLO ROAD.	CLUB INJECTION SUBSTATION	<b>11KV BANK ROAD</b>	B	19
	91	BADAWA LAYOUT, LAMIDO CRESCENT AND SARDAUNA CRESCENT.	CLUB INJECTION SUBSTATION	AWAQA8 VYII	8	09
	91	KANO TRADE FARE, ZOO ROAD AND AJASA	DAN AGUNDI INJECTION SUBSTATION	11KV AJASA	В	67
	91	.AAAA AAAL DNA ESTATE AND JABA AREA.	PRP INJECTION SUBSTATION	<b>ΠΙΚΥ ΑΙRPORT ROAD</b>	В	87
	91	FRANCE ROAD, COURT ROAD AND MIDDLE ROAD.	IDH INTECTION SUBSTATION	ΠΙΚΥ ΑΒUJA ROAD	В	L7
	50	onay qaor airax ,awari'an,htxa	DAN AGUNDI TS	33KV ZARIA ROAD	A	97
	50	KAST, WUDIL	MNDF 12	33KA MODIF	A	42
	50	ARDEJIA, BIRNIWA, UNIYERSITY, GUMEL, KAFIN HAUSA	ST AILEDAH	33ΚΛ ΠΛΙΛΕΚ2ΙΤΥ	A	77
	50	AUTNUA QAOA AWUAIAM, AJITXAT AUTNUA	ST AUTNU <del>1</del>	33KA LEXLIFE	A	43
	50	АМАЯU8МАТ ТИАЈ ТИЈМТАЈЯТ ЯЭТАМ	ZT AWAJUAMAT	33KV TAMBURAWA WATER WORKS	A	42
	50	AAAA JAIATRUDNI ADAAAHS	KNWBOLZO LZ	33KV SPANISH 2	A	17
	50	ABAA JAIATRUDNI ADAAAH2	KNWBOLZO LZ	33KV SPANISH 1	¥	07
	50	DAKATA SMALL SCALE	DAKATA TS	33KV SMALL SCALE	A	36
	50	GUIUNGU, JIGAWA RICE MILLS, GAGARAWA	CEGRRAWA TS	33KA BICE WILLS	A	38
	50	GWARZO ROAD, INDUSTRIAL AREA	ST AWA9U8MAT	33KA KICE LIELD	A	22
	50	IB WAY INJECTION SUB STATION KATSINA URBAN	KATSINA TS	33KA POWER HOUSE	A	98
( )	50	NB CERAMIC CO K/DANGORA, ZARIA ROAD KANO	DANGORA TS	33KA NB CEKAMIC	A	32
( )	50 (	AAAA JAIATZUDUNI IAAMOA	DAKATA TS	33KA WIN	¥	34
A	50	CHALLAWA INDUSTRIAL AREA	KNWBOTSO TS	33KV MAMUDA	¥	33
	MIN. SUPPLY DURATION (HRS)	NAME OF MAJOR STREETS SERVED BY THE FEEDER	DESCRIPTION OF FEEDER LOCATION	FEEDER NAME	<b>DNA</b> 8	N/S

.

	91	KAITA, DANKAMA, MAKURDA AND HIGH COURT, KATSINA.	ST ANISTAN	33KV KAITA	B	65
	91	GAGARAWA TOWN ALONG HADEILA ROAD.	CAGARAWA TS	33KV GAGARAWA	В	16
	91	DAKATA SMALL SCALE AND BOMPAI AREA.	DAKATA TS	33KA ELOUR MILLS	B	06
	91	DAN AGUNDI INJECTION SUBSTATION, BUK ROAD, KANO	DAN AGUNDI TS	33KA DAN AGUNDI 2	В	68
	91	BUK ROAD, TUDUN YOLA AND R/ZAKI AREA.	DAN AGUNDI TS	33KA BNK	B	88
	91	KWANAR HUGUMA, YALWAN DAMAI AND GWARAM TOWN.	DUTSE TS	33ΚΛ ΒΙΚΝΙΝ ΚΛDΛ	B	<b>Z</b> 8
	91	AMPRI GLOBAL KANKIA AND ZONE WATER TREATMENT PLANT, DUTSINMA	KANKIA TS	33KA AMPRI GLOBAL	В	98
	91	AWIAYIAM QUA AFRAKO AREA AND MAIKALWA Area.	NOITAT28U2 NOITJEUN AWA8IAN	Ι Ι ΚΛ ΧΡΛΓΕΨΟ	B	58
	91	KAWAJI, YANKABA HADEJIA ROAD.	KAWAJI INJECTION SUBSTATION	11ΚΛ ΥΑΝΚΑΒΑ	В	78
	91	TARAUNI AND DAURAWA QUARTERS.	FARM CENTER INJECTION SUBSTATION	Ι Ι ΚΛ ΤΑΚΑUNI	В	83
	91	TAKUR HOUSING ESTATE AND POLICE HEAD QUARTERS.	DUTSE NIPP INJECTION SUBSTATION	11KV TAKUR	В	82
	91	GIDAN MAZA, MEDILE AND SABUWAR GANDU AREA.	NOITAT28U2 NOITO3UNI AQA9AH2	11KV SHARADA INDUSTRIAL	В	18
	91	AILEAAH ARD GIVA SAFITAUQ IRADAHS	HADEJIA INJECTION SUBSTATION	11ΚΛ 2ΗΑGARI	В	08
	91	BANK ROAD DUTSE AND G9 QUARTERS AREA.	DUTSE NIPP INJECTION SUBSTATION	11KV SANI ABACHA YAW	В	62
	91	WEATHER HEAD, BAMA ROAD, GOLD COAST, IJEBU BALATUS AND ENUGU ROAD.	IDH INJECTION SUBSTATION	I I KA SABON GARI	В	82
	91	RACE COURSE ROAD, ALU AVENUE AND LAMIDO CRESCENT.	CLUB INJECTION SUBSTATION	<b>JIKA BACE COURSE</b>	B	LL
	91	NOMANSLAND AND KATSINA ROAD AREAS.	<b>Β</b> UKAVU ΙΝΙΕCTΙΟΝ SUBSTATION	<b>Ι Ι ΚΛ ΝΟΨΑΝΣΓΑΝD</b>	B	92
	91	NUDC AND SHARADA AREA.	SHARADA INJECTION SUBSTATION	11ΚΛ ΜΝDC	В	SZ
	91	BUK NEW CAMPUS.	BUK INJECTION SUBSTATION	<b>J J KA NEM SILE</b>	В	TA I
	91	MURTALA MOHD WAY, FRANCEROAD AND IGBO ROAD	CLUB INJECTION SUBSTATION	AIRY MURTALA MUHAMMED	8	٤Z
	91	NOIRAWA ZARIA ROAD AND SAADATU RIMI COLLEGE OF EDUCATION.	NOITAT28U2 NOITOLINI AWA8IAN	ATUAAASAM VAI I	В	72
	91	MAJESTIC RICE COMPANY.	BIRNIN KUDU INJECTION SUBSTATION	<b>JITXA MAJESTIC</b>	В	ιZ
	91	. MADARI ROAD.	HADEIIA INJECTION SUBSTATION	1 J KA WAJE	B	02
	91	LOW COST, KATSINA	IBB WAY NIPP INJECTION SUBSTATION	11KA FOM COST	B	69
	91	HOTORO GRA, MAIDUGURI ROAD, KANO	FARM CENTER INJECTION SUBSTATION	1 1 KV LAMBISA	B	89
	91	KARKASARA, HASSAN GWARZO SECONDARY AND ROYAL CITY ESTATE.	NOITAT28U2 NOITOTINI DAO9 AI9AZ	Ι Ι ΚΛ ΚΡΚΚΡ2ΡΚΡ	В	<i>2</i> 9
$\overline{(}$	91	KADARKO AREA, KATSINA	FADAMA INJECTION SUBSTATION	Ο Ι Ι ΚΛ ΚΑ Ο Α ΚΚΟ	B	99
Q	91	GADON KAYA, SALANTA AND KUNTAU AREA.	GORON DUTSE INJECTION SUBSTATION		8	59
	MIN. SUPPLY DURATION (HRS)	NAME OF MAJOR STREETS SERVED BY THE FEEDER	DESCRIPTION OF FEEDER LOCATION	FEEDER NAME	<b>DNA8</b>	N/S

 $\mathbf{z}$ 

S/N	BAND	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	MIN. SUPPLY DURATION (HRS)
93	В	33KV KURNA	DAN AGUNDI TS	NORTH WEST CITY CAMPUS, ABATTIOR AREA, HAJJI CAMP, AMINU KANO AIRPORT AND AIRFORCE BASE.	16
94	В	33KV MAMMAN NASIR	FUNTUA TS	FUNTUA ROAD, MALUMFASHI INJECTION SUBSTATION.	16
95	В	33KV MUSAWA	KANKIA TS	KUSADA, JIKAMSHI, TSANYAWA AND GHARI.	16
96	В	33KV RIJIYAR ZAKI	TAMBURAWA TS	KUYAN TA INNA MADOBI ROAD, DANBARE, BUK NEW SITE AND R/ZAKI AREA.	16
97	С	11KV AMINU KANO	GORON DUTSE INJECTION SUBSTATION	KOFAR KANKASALI ROAD, TUDUN YOLA, BAJALLABE AND RIMIN ZAKARA AREA.	12
98	С	11KV BACHIRAWA	BUKAVU INJECTION SUBSTATION	KURNA AND RIJIYAR LEMO AREAS	12
99	С	11KV BCGA	MALUMFASHI INJECTION SUBSTATION	BCGA, MALUMFASHI, KATSINA	12
100	С	11KV BICHI TOWN	<b>BICHI INJECTION SUBSTATION</b>	BICHI MINI STADIUM, HAGAGAWA, FCE BICHI ROAD AND BICHI GENERAL HOSPITALS.	12
101	С	11KV CAMPUS	LAW SCHOOL INJECTION SUBSTATION	LAW SCHOOL CAMPUS BAGAUDA.	12
102	С	11KV CITY	DAN AGUNDI INJECTION SUBSTATION	EMIRS' PALACE ROAD, DISO ROAD.	12
103	С	11KV DANTUNKU	KAZAURE INJECTION SUBSTATION	KAZAURE METROPOLITAN	12
104	с	11KV DUTSEN REME	KATSINA ROAD INJECTION SUBSTATION	DDUTIES REME, AREA,	12
105	С	11KV DUTSEN SAFE	KOFAR GUGA INJECTION SUBSTATION	DUTSEN SAFE LOW COST, SABON GIDA AND FILIN SUKUWA	12
106	С	11KV FAGGE	IDH INJECTION SUBSTATION	FAGGE AND KOFAR WAMBAI AND ZAGE AREA.	12
107	С	11KV FARAWA	MARIRI INJECTION SUBSTATION	MARIRI, FARAWA AND GERAWA AREA.	12
108	с	11KV FEDERAL SECRETARIAT	BUKAVU INJECTION SUBSTATION	GWAMMAJA HOUSING ESTATE, YAN RODI AND KWANAR TAYA AREA.	12
109	С	11KV FMC	KOFAR GUGA INJECTION SUBSTATION	KOFAR YANDAKA AND BEHIND FMC KATSINA.	12
110	C	11KV GALADIMA	MALUMFASHI INJECTION SUBSTATION	GALADIMA ROAD, MALUMFASHI, KATSINA.	12
111	С	11KV GRA	IBB WAY INJECTION SUBSTATION	GIDA DAWA, NYSC CAMP AND KWADO	12
112	С	11KV HOSPITAL ROAD	KOFAR GUGA INJECTION SUBSTATION	KOFAR GUGA, GAMBARAWA AND CPS KATSINA.	12
113	С	11KV HOTORO	ZARIA ROAD INJECTION SUBSTATION	HOTORO MAIDUGURI ROAD AND TINSHAMA AREA.	12
114	с	11KV JABIRI	KATSINA ROAD INJECTION SUBSTATION	JABIRI AREA, FUNTUA	12
115	С	11KV KANO ROAD	IBB WAY INJECTION SUBSTATION	IBB WAY, GORON GIDA AND RAFIN DADI	12
116	С	11KV KANTI	KAZAURE INJECTION SUBSTATION	KAZAURE METROPOLITAN	12
117	С	11KV KOFAR NAISA	DAN AGUNDI INJECTION SUBSTATION	KOFAR NAISA, GSS GWALE ROAD AND FILIN MUSHE.	12
118	с	11KV KOFAR NASSARAWA	DAN AGUNDI INJECTION SUBSTATION	KOFAR NASSARAWA AND YAKASAI AREAS	12
119	С	11KV KUNDILA	ZARIA ROAD INJECTION SUBSTATION	KUNDILA HOUSING ESTATE MAIDUGURI ROAD.	12
120	С	11KV LAMIDO	CLUB INJECTION SUBSTATION	LAMIDO ROAD, BADAWA AND KAWO AREA.	12
121	С	11KV LAUTAI	GUMEL INJECTION SUBSTATION	GUMEL EMIRS PALACE ROAD AND MAIGATARI AREA.	12
122	С	11KV LIMAWA	DUTSE INJECTION SUBSTATION	LIMAWA, GALMAWA AND GGC TILES.	12

.

\$

s/N	BAND	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	MIN. SUPPLY DURATION (HRS)
123	с	11KV MAIDUGURI ROAD	MARIRI INJECTION SUBSTATION	HOTORO MAIDUGURI ROAD AND TINSHAMA AREA.	12
124	С	11KV MAKAMA	WUDIL INJECTION SUBSTATION	WUDIL TOWN AREA.	12
125	C	11KV MARHABA	ZARIA ROAD INJECTION SUBSTATION	COURT ROAD GYADI GYADI AND ZOO ROAD HOUSING ESTATE.	12
126	c	11KV MUHAMMED DIKKO	KOFAR SAURI INJECTION SUBSTATION	MUHD DISCO ROAD, KATSINA EMIR'S PLACE AND TUDUN WADA, KATSINA	12
127	С	11KV MUNDADU	GONGONI INJECTION SUBSTATION	MUNDADU AND KWARIN BARKA AREA.	12
128	C	11KV NAGOGGO	FADAMA INJECTION SUBSTATION	NAGOGO ROAD AND SABUWAR UNGUWA, KATSINA	12
129	с	11KV NAKOWA	KATSINA ROAD INJECTION SUBSTATION	NOKOWA AREA, FUNTUA	12
130	С	11KV ORTHOPAEDIC	BUKAVU INJECTION SUBSTATION	KOFAR RUWA, AMINU KANO WAY AND GORON DUTSE AREAS.	12
131	C	11KV PANSHEKARA	CHALAWA INJECTION SUBSTATION	PANSHEKARA AND KUMBOTSO AREA.	12
132	C	11KV SALLARI	ZARIA ROAD INJECTION SUBSTATION	SALLARI, SHEKA YARKASUWA AND ACI LAFIYA AREA.	12
133	с	11KV SANI MAINAGGE	GORON DUTSE INJECTION SUBSTATION	SANI MAINAGGE AND MANDAWARI AREA.	12
134	с	11KV SCHOOL OF NURSING	BIRNIN KUDU INJECTION SUBSTATION	SCHOOL OF NURSING AND PRISON FARM HOUSE ALONG MAIDUGURI ROAD.	12
135	С	11KV TIGA	LAW SCHOOL INJECTION SUBSTATION	BEBEJI AND TIGA TOWN.	12
136	с	11KV TOWN	KATSINA ROAD INJECTION SUBSTATION	DUTSEN REME AREA, FUNTUA	12
137	С	11KV TUKUNTAWA	SHARADA INJECTION SUBSTATION	TUKUNTAWA AND SHAGARI QUARTERS.	12
138	C	11KV UNGUWA UKU	ZARIA ROAD INJECTION SUBSTATION	UNGUWA UKU, NAIBAWA DANHASSAN LINE.	12
139	C	11KV ZAWACIKI	ABATTOIR INJECTION SUBSTATION	ALMUKAB HOUSING ESTATE, ZAWACHIKI AND GAIDA AREA.	12
140	c	33KV DANBATTA	KANKIA TS	CHARANCHI, BINDAWA, INGAWA, RONI GWIWA AND DANBATTA	12
141	с	33KV DUTSENMA	KANKIA TS	KANKIA METROPOLITAN, RADDA, DUTSINMA, KURFI, SAFANA AND DANMUSA	12
142	С	33KV FALGORE	DANGORA TS	FALGORE, GIDAN KWANO AND YALWAN PAKI AREA.	12
143	C	33KV GAIDA	KUMBOTSO TS	GAIDA AND ZAWACHIKI HOUSING ESTATE.	12
144	C	33KV GANO	WUDIL TS	GANO MAIDUGURI ROAD, MAKOLE, MARIRI AREA.	12
145	C	33KV GUMEL	HADEJIA TS	MALAM MADORI AND DANTANOMA AND GUMEL PALACE	12
146	C	33KV HON. ABUBAKAR	BICHI TS	BICHI METROPOLITAN	12
147	C	33KV KARAYE	DANGORA TS	KWANAR DANGORA, KIRU AND KARAYE TOWN.	12
148	C	33KV KAZAURE	DAURA TS	DAURA ROAD, KAZAURE INJECTION SUBSTATION	12
149	C	33KV LAW SCHOOL	DANGORA TS	BAGAUDA, TARAU AND GARIN MALLAM AREA.	12
150	C	33KV MASHI	DAURA TS	KAGAWA, MASHI, DUTSI AND MANI	12
151	C	33KV WATARI	BICHI TS	WATARI WATER TREATMENT PLANT, BAGWAI AND SHANONO	12
152	D	11KV ARMY BARRACKS	IBB WAY NIPP INJECTION SUBSTATION	KOFAR KWAYA, YAHAYA MADAKI WAY AND RAHAMAWA.	8
153	D	11KV CHIRANCI	GONGONI INJECTION SUBSTATION	DORAYI SHIEK JAFAR MAHMUD ROAD AND CHIRANCHI AREA.	8

.

4

S/N	BAND	FEEDER NAME	DESCRIPTION OF FEEDER LOCATION	NAME OF MAJOR STREETS SERVED BY THE FEEDER	MIN. SUPPLY DURATION (HRS)
154	D	11KV FANISAU	BUKAVU INJECTION SUBSTATION	FANISAU ROAD, UNGOGO TOWN AND BACHIRAWA AREAS.	8
155	D	11KV GWAGWARWA	BRISCOE INJECTION SUBSTATION	GWAGWARWA, YANKAJI AND KWANAR JABA AREA.	8
156	D	11KV GWAMMAJA	IDH INJECTION SUBSTATION	GWAMMAJA AND ADAKAWA AREA.	8
157	D	11KV JAEN	GONGONI INJECTION SUBSTATION	JAEN AND SHAGO TARA AREAS.	8
158	D	11KV JAKARA	GORON DUTSE INJECTION SUBSTATION	GORON DUTSE PRISON ROAD AND JAKARA AREA.	8
159	D	11KV JAMAARE	HADEJIA NIPP INJECTION SUBSTATION	HADEJIA TOWN.	8
160	D	11KV KAURA GOJE	PRP INJECTION SUBSTATION	KAURA GOJE AND KWANA HUDU AREA.	8
161	D	11KV KOFAR FADA	MUSAWA INJECTION SUBSTATION	MUSAWA METROPOLITAN	8
162	D	11KV KOKI	IDH INJECTION SUBSTATION	KOKI AND BAKIN ZUWO AREAS.	8
163	D	11KV MAKWALLA	MALAN MADORI INJECTION SUBSTATION	MALAM MADORI TOWN.	8
164	D	11KV MATAZU	MUSAWA INJECTION SUBSTATION	MATAZU METROPOLITAN	8
165	D	11KV RIMIN KEBE	SMALL SCALE INJECTION SUBSTATION	RIMIN KEBE AND ZANGO DAKATA AREA.	8
166	D	11KV SAGAGI	ADO BAYERO INJECTION SUBSTATION	SAGAGI AND LOKON MAKERA AREA.	8
167	D	11KV TALAMIZ	JOGANA INJECTION SUBSTATION	GUNDUWAWA, KAKARA AND JOGANA AREA.	8
168	D	11KV TSAMIYA BABBA	JOGANA INJECTION SUBSTATION	TOKARAWA, GUNDUWAWA AND BABAWA AREA ALONG HADEJIA ROAD.	8
169	D	11KV TUDUN MURTALA	SMALL SCALE INJECTION SUBSTATION	TUDUN MURTALA AND TAGARJI AREAS.	8
170	D	11KV TUDUN WADA	BRISCOE INJECTION SUBSTATION	GAMA AND GAWAUNA AREA BRIGADE.	8
171	D	33KV BAGAUDA	KUMBOTSO TS	KUMBOTSO LGA, YANKUSA, DANGWAURO, KWANAR DAWAKI AND BUNKURE AREA.	8
172	D	33KV BIRNIWA	HADEJIA TS	BIRNIWA AND TARUBU AND GARIN MAGAJI AREA.	8
173	D	33KV GUJUNGU	TAMBURAWA TS	ENTIRE GUJUNJU TOWN	8
174	D	33KV JAHUN	DUTSE TS	KARNAYA, CHAI CHAI, RINGIM AND TAURA TOWN.	8
175	D	33KV MALUMFASHI	FUNTUA TS	BAKORI, KAFUR, DANA AND KANKARA	8
176	D	33KV POLYTECHNIC	KATSINA TS	RIMI AND BATAGARAWA	8
177	D	33KV SUMAILA	DUTSE TS	MOBILE BASE DANMASARA, KACHAKO AND PANDA ALONG MAIDUGURI ROAD.	8
178	E	11KV MAI RUWA	TEXTILE INJECTION SUBSTATION	ENTIRE MAIRUWA TOWN, KATSINA.	4
179	E	33KV DANDUME	FUNTUA TS	ENTIRE DANDUME TOWN AND SABUWA	4
180	E	33KV DAWANAU	BUKAVU INJECTION SUBSTATION	POLEWIRE LINE, JAJIRA, KATSINAWA AND DAWANAU AREAS.	4
181	E	33KV GARKO	WUDIL TS	INDABO, KWANAR SUMAILA, TAKAI AND GARKO TOWN.	4
182	E	33KV GAYA	WUDIL INJECTION SUBSTATION	GAYA, KADEMI AND AJINGI TOWN.	4
183	E	33KV GEZAWA	SMALL SCALE INJECTION SUBSTATION	ZAURAN DANBABA, ZANGON DAKATA, RANGAZA, GEZAWA AND KUNYA TOWN.	4
184	E	33KV KWANKWASO	TAMBURAWA TS	GARU, LAMBU, RIMIN GADO AND GWARZO TOWN.	4
185	E	33KV MAI ADUA	DAURA TS	MAI ADUA	4

2

\$

τ.

bage∣16

•

•

•