

DER OPPORTUNITIES

Kaduna Electricity Distribution Plc



About Kaduna Electric

- Kaduna Electricity Distribution Company (Kaduna Electric) is one of the 18 successor companies to the former National Electric Power Authority (NEPA) which was decentralised into the Power Holding Company of Nigeria (PHCN). It was privatised via sale of Core Interest to private investors on 4th December 2014.
- Kaduna Electric is a Licensee of the Nigerian Electricity Regulatory Commission (NERC).



- Franchise Area:
 - 4 States: Kaduna, Kebbi, Sokoto and Zamfara
 - 84 LGAs
 - Over 150,000 km²
- 800K+ customers from amongst estimated 1.5+ million households

About Kaduna Electric (cont'd)

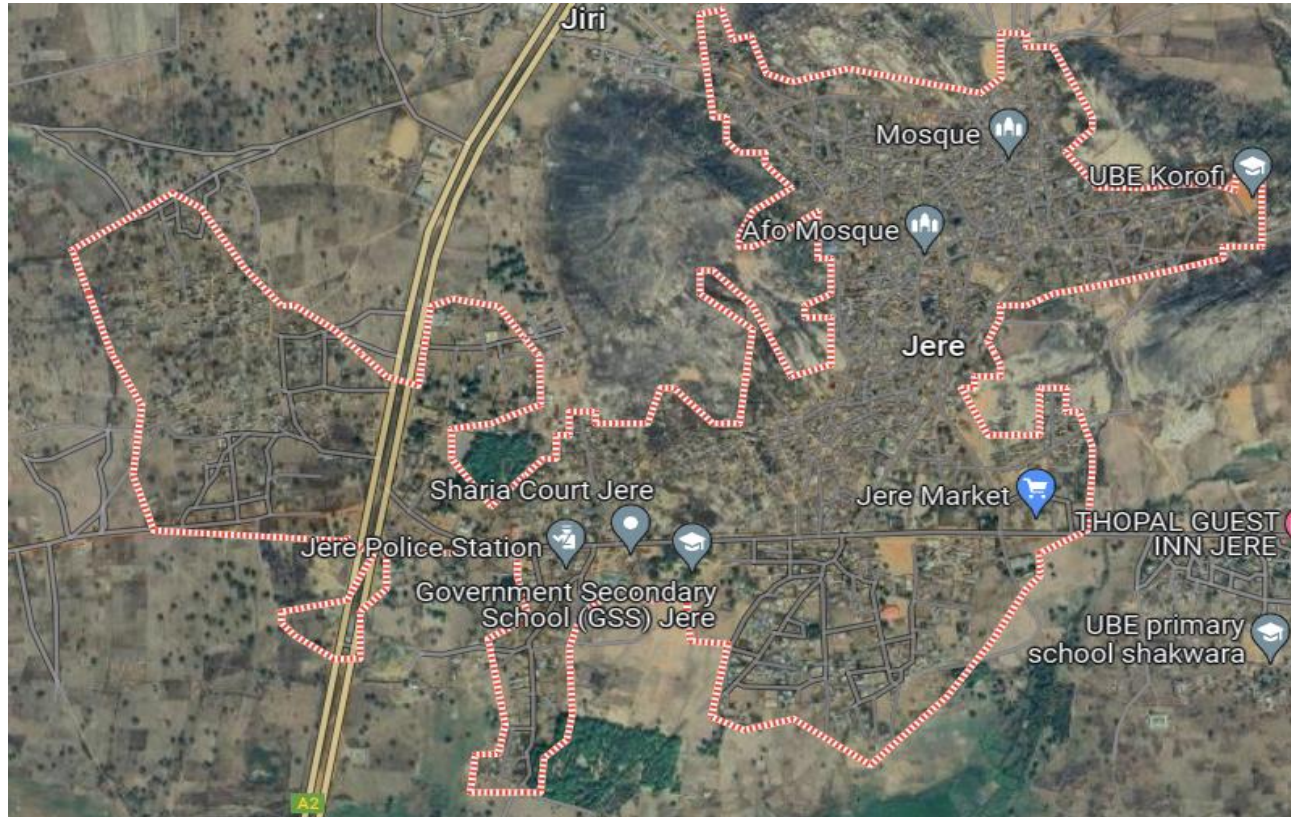
- Kaduna Electric consists of over 150 Service Centres covered under 7 Regional Offices and 25 Area Offices
- Supplied via Eleven (11) transmission in-feeds
- Injection Substations - 121 (33/11kV)
- 10,730 Distribution Transformers (2,309MVA)
- 33kV circuits: 10,000km (2020)
- 11kV circuits: 2,500km (2020)
- LV circuits: 49,000km



- Kaduna Electric's load allocation is about $\pm 8\%$ from Grid ($\pm 300\text{MW}$ Daily Average)
- Almost 95% Overhead Conductors
- Kaduna Electric has one of the longest and lengthiest network in Nigeria, necessitating higher O&M costs and higher energy losses
- Over 70% of customers located in rural areas, essentially a Rural Disco with high Operations and Maintenance costs

PROJECT A

OVERVIEW OF JERE



Location: 33KV Jere town

Estimated Load Demand: 2MW

Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	8 Hours
2.	Number of Connections	5844
4.	Estimated Customer Population	10,00
5.	ATC&C Loss	55%
6.	Metering Penetration	1%
7.	Average Monthly Collections	NGN 5 million



84%

RESIDENTIAL



16%

COMMERCIAL & INDUSTRIAL

Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Manufacturing
3. Food & Beverage Service

Feeder Route Length



239km

Voltage Level



33KV

Daily Load Profile



2MW

Installed Transformer Capacity



30,200KVA

Network Limitations

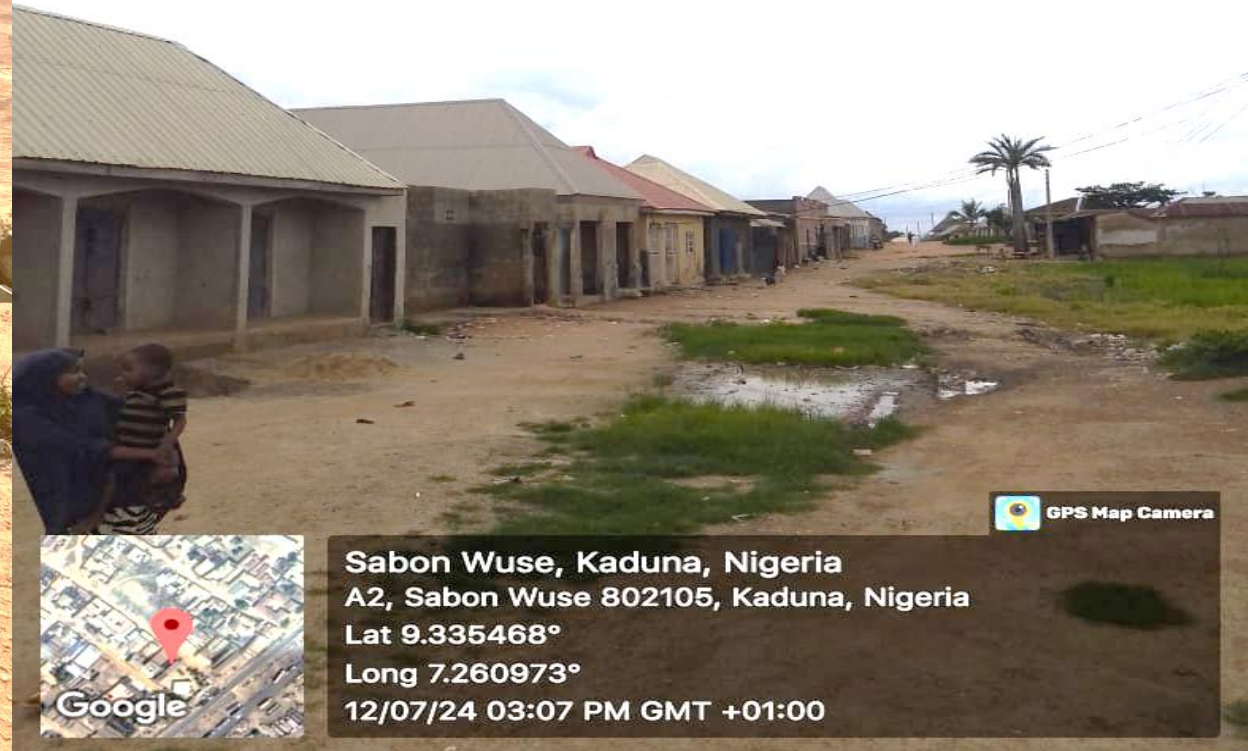
There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub Franchising



SITE IMAGES OF JERE



Google

Google

SITE IMAGES OF JERE



PROJECT B

OVERVIEW OF LERE/UNGWAN BAWA




Location: 33KV NNPC SAMINAKA

Estimated Load Demand: 0.6MW

Investment Require:




S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	8 Hours
2.	Number of Connections	2500
4.	Estimated Customer Population	6000
5.	ATC&C Loss	40%
6.	Metering Penetration	0%
7.	Average Monthly Collections	NGN2.5 million



80%

RESIDENTIAL



20%

COMMERCIAL & INDUSTRIAL

Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Hotels
3. Food & Beverage Service

Feeder Route Length



45km

Voltage Level



33KV

Daily Load Profile



4.8MW

Installed Transformer Capacity



19,400.00 KVA

Network Limitations

There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub Franchising



SITE IMAGES OF LERE/UNGWAN BAWA



PROJECT C

OVERVIEW OF SAMINAKA





Location: 11KV SAMINAKA

Estimated Load Demand: 1.2MW

Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	8 Hours
2.	Number of Connections	4200
4.	Estimated Customer Population	8700
5.	ATC&C Loss	49%
6.	Metering Penetration	0%
7.	Average Monthly Collections	NGN 7 million

 60% RESIDENTIAL	 40% COMMERCIAL & INDUSTRIAL
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Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Banks
3. Food & Beverage Service

Feeder Route Length



10.2km

Voltage Level



33KV

Daily Load Profile



9.6MW

Installed Transformer Capacity



5,965.00KVA

Network Limitations

There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub Franchising



SITE IMAGES OF SAMINAKA TOWN



Infinix NOTE 8



Infinix NOTE 8

PROJECT D

OVERVIEW OF ANCHAU ,GUBUCHI AND LIKORO




Location: 33KV MAKARFI

Estimated Load Demand: 1.37MW

Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	6 Hours
2.	Number of Connections	7,049
4.	Estimated Customer Population	15000
5.	ATC&C Loss	75%
6.	Metering Penetration	2%
7.	Average Monthly Collections	NGN10 million



90%

RESIDENTIAL



10%

COMMERCIAL & INDUSTRIAL

Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Banks
3. Manufacturing

Feeder Route
Length



380km

Voltage Level



33KV

Daily Load Profile



8.19MW

Installed
Transformer
Capacity



39,800KVA

Network Limitations

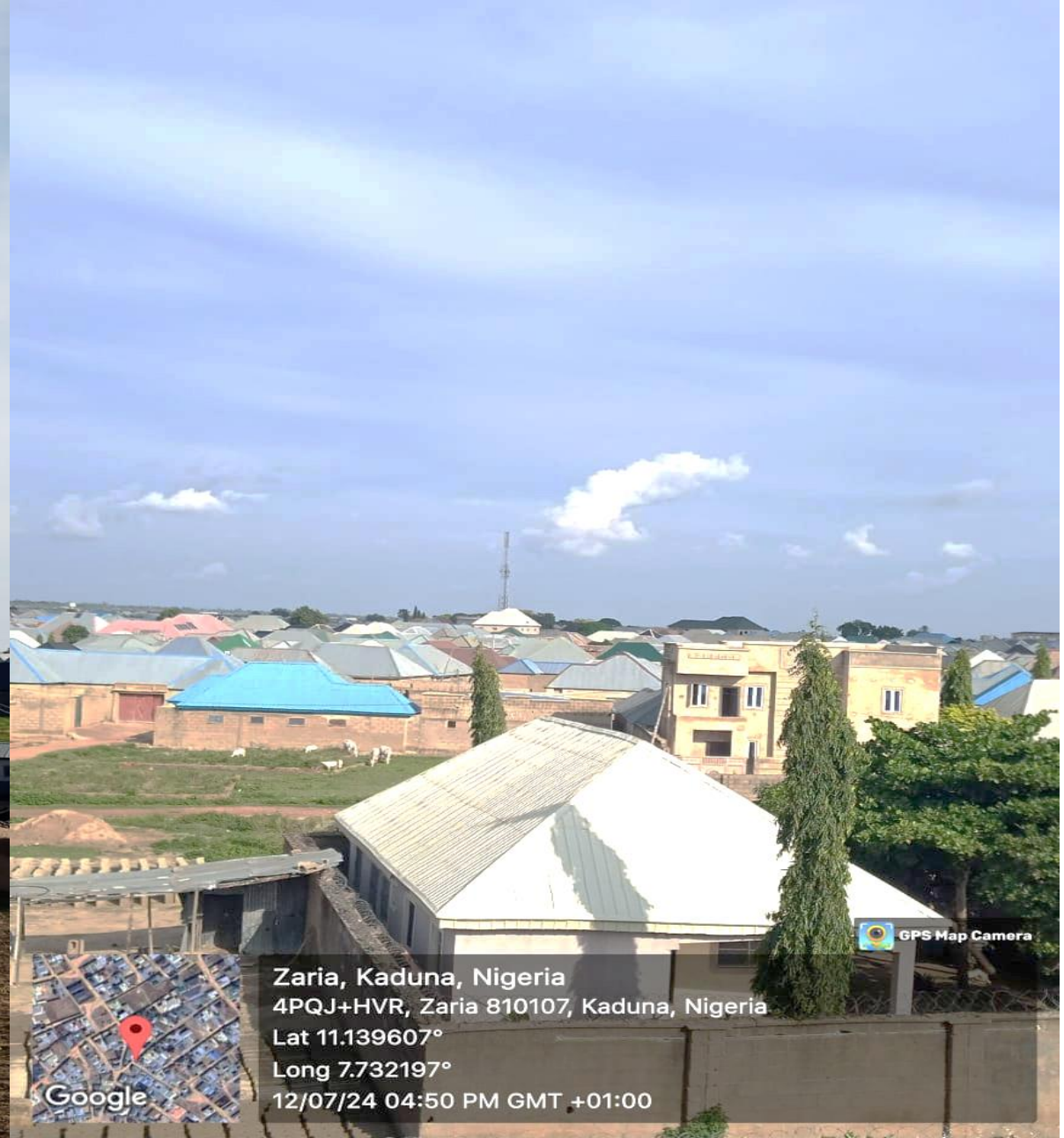
There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub-Franchising

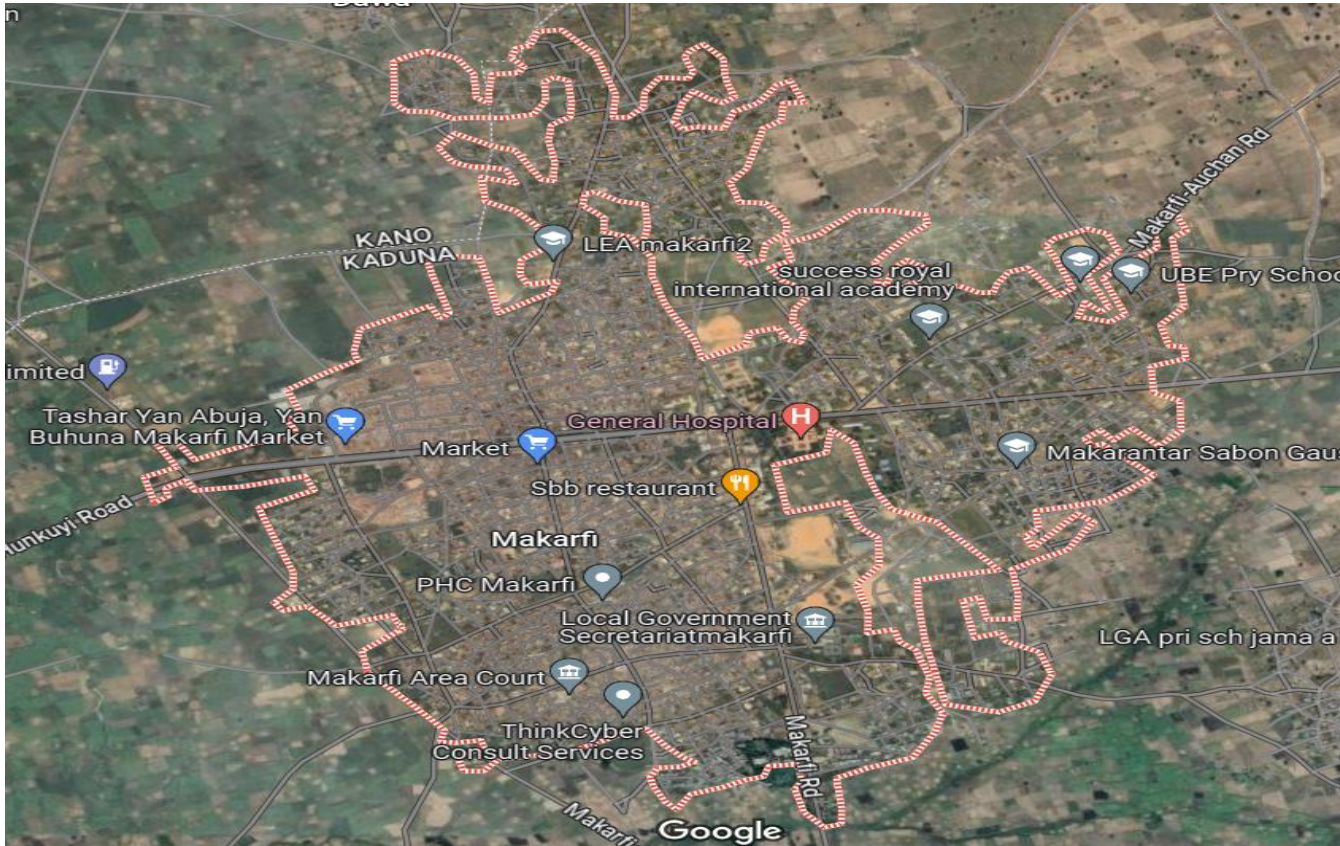


SITE IMAGES OF ANCHAU ,GUBUCHI AND LIKORO



PROJECT E

OVERVIEW OF MAKARFI



Location: 11KV MAKARFI

Estimated Load Demand: 0.34MW

Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	6 Hours
2.	Number of Connections	2145
4.	Estimated Customer Population	6000
5.	ATC&C Loss	82%
6.	Metering Penetration	1%
7.	Average Monthly Collections	NGN2 million



89%

RESIDENTIAL



11%

COMMERCIAL & INDUSTRIAL

Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Banks
3. Livestock Farming

Feeder Route Length



56km

Voltage Level



11KV

Daily Load Profile



2.05MW

Installed Transformer Capacity



4,050KVA

Network Limitations

There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub-Franchising



SITE IMAGES OF MAKARFI TOWN



SITE IMAGES OF MAKARFI TOWN



GPS Map Camera

Makarfi, Kaduna, Nigeria
Makarfi-Gubuchi Rd, Makarfi 812103, Kaduna, Nigeria
Lat 11.356616°
Long 7.892933°
12/07/24 05:20 PM GMT +01:00

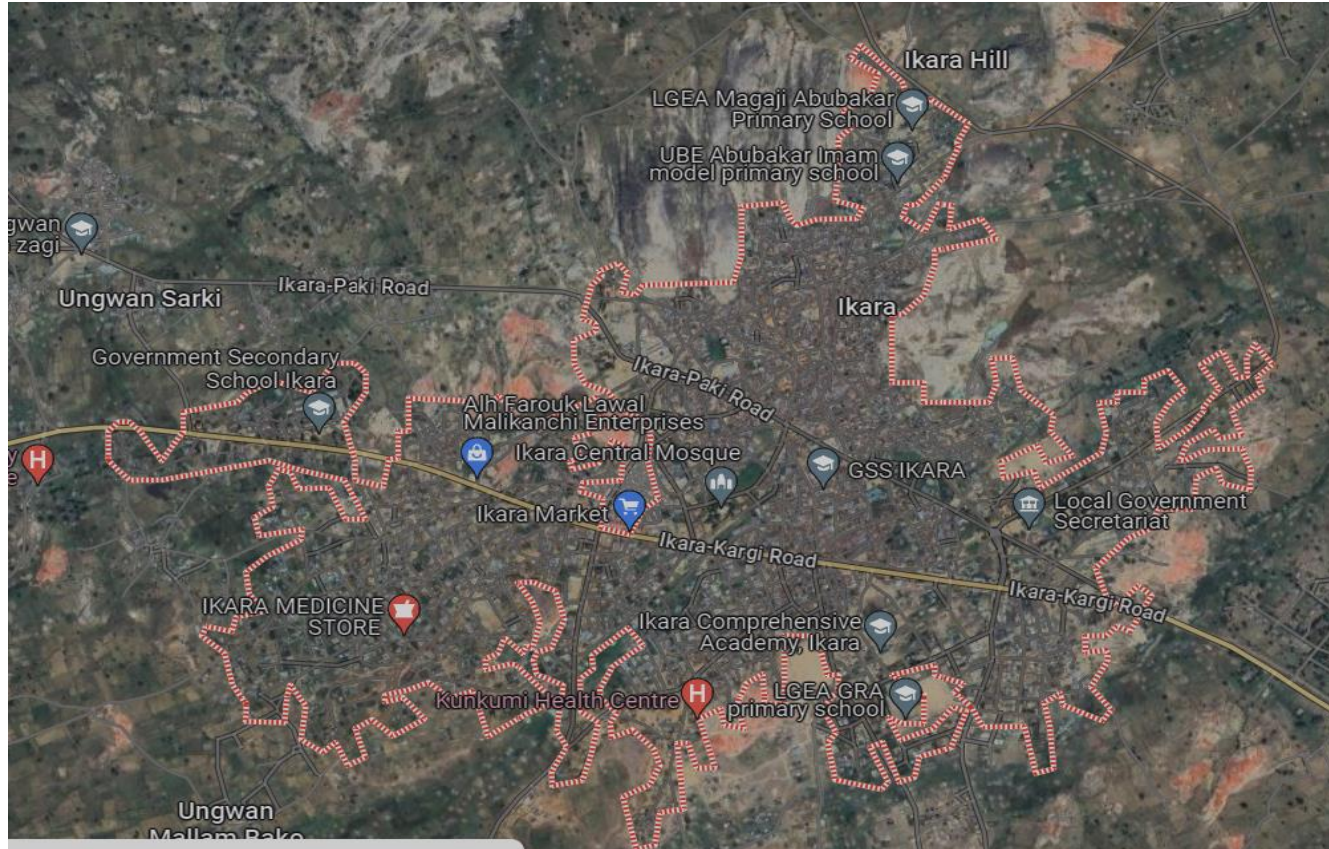


GPS Map Camera

Makarfi, Kaduna, Nigeria
Makarfi-Gubuchi Rd, Makarfi 812103, Kaduna, Nigeria
Lat 11.356616°
Long 7.892933°
12/07/24 05:20 PM GMT +01:00

PROJECT F

OVERVIEW OF IKARA



Location: 11KV IKARA

Estimated Load Demand: 0.29MW

Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	6 Hours
2.	Number of Connections	2015
4.	Estimated Customer Population	6000
5.	ATC&C Loss	85%
6.	Metering Penetration	1%
7.	Average Monthly Collections	NGN2 million

 **91%**
RESIDENTIAL

 **9%**
COMMERCIAL & INDUSTRIAL

Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Manufacturing
3. Livestock Farming

Feeder Route Length



60km

Voltage Level



11KV

Daily Load Profile



1.7MW

Installed Transformer Capacity



3,450KVA

Network Limitations

There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub-Franchising



SITE IMAGES OF IKARA TOWN

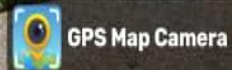


Ikara, Kaduna, Nigeria
56GC+QJ4, Ikara 801126, Kaduna, Nigeria
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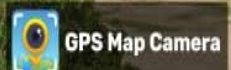


Ikara, Kaduna, Nigeria
56GC+QJ4, Ikara 801126, Kaduna, Nigeria
Lat 11.176915°
Long 8.219509°
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SITE IMAGES OF IKARA TOWN



Ikara, Kaduna, Nigeria
56CC+WR4, Ikara 801126, Kaduna, Nigeria
Lat 11.171823°
Long 8.222062°
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Ikara, Kaduna, Nigeria
56GC+QJ4, Ikara 801126, Kaduna, Nigeria
Lat 11.176935°
Long 8.219515°
12/07/24 04:16 PM GMT +01:00

PROJECT G

OVERVIEW OF KARAYE/PAKI TOWN




Location: 33KV KARAYE

Estimated Load Demand: 1.5MW


Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	10 Hours
2.	Number of Connections	1000
4.	Estimated Customer Population	6000
5.	ATC&C Loss	88%
6.	Metering Penetration	0%
7.	Average Monthly Collections	NGN5 million



90%
RESIDENTIAL



10%
COMMERCIAL & INDUSTRIAL

Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Livestock Farming
3. Manufacturing

Feeder Route Length



25+km

Voltage Level



33KV

Daily Load Profile



1.5MW

Installed Transformer Capacity



1,700KVA

Network Limitations

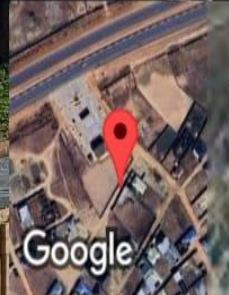
There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

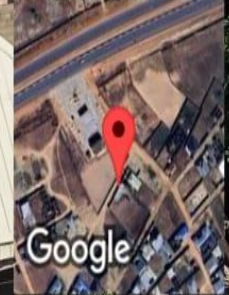
Sub Franchising



SITE IMAGES OF KARAYE/PAKI TOWN



Kano, Kaduna, Nigeria
4PVM+67R, Sabon Gari, Kano 810107, Kaduna, Nigeria
Lat 11.142867°
Long 7.733482°
12/07/24 04:51 PM GMT +01:00

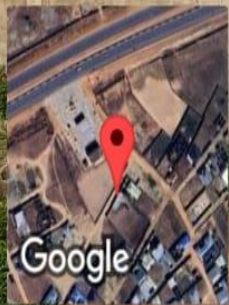


Kano, Kaduna, Nigeria
4PVM+67R, Sabon Gari, Kano 810107, Kaduna, Nigeria
Lat 11.142902°
Long 7.733482°
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SITE IMAGES OF KARAYE/PAKI TOWN



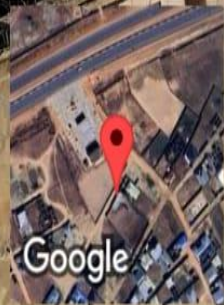
GPS Map Camera



Kano, Kaduna, Nigeria
4PVM+67R, Sabon Gari, Kano 810107, Kaduna, Nigeria
Lat 11.142902°
Long 7.733482°
12/07/24 04:51 PM GMT +01:00



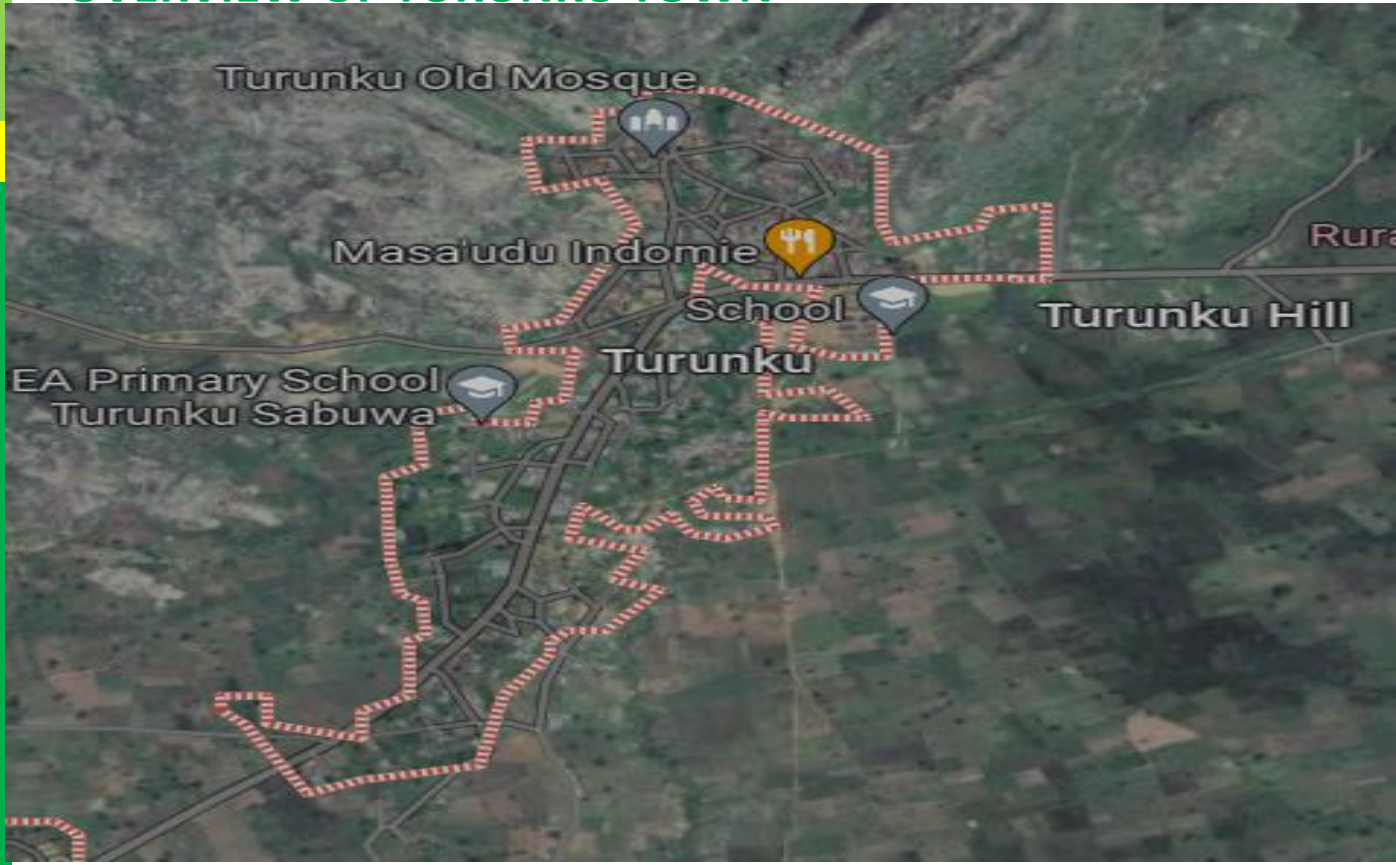
GPS Map Camera



Kano, Kaduna, Nigeria
4PVM+67R, Sabon Gari, Kano 810107, Kaduna, Nigeria
Lat 11.142902°
Long 7.733482°
12/07/24 04:51 PM GMT +01:00

PROJECT H

OVERVIEW OF TURUNKU TOWN



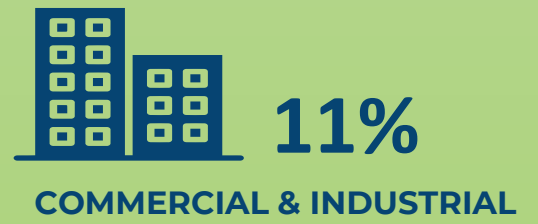
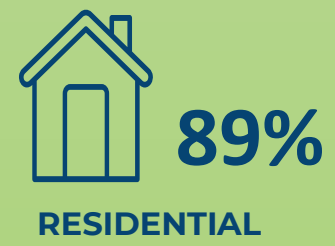
Location: 33KV TURUNKU(IGABI LEG)

Estimated Load Demand: 1.56MW

Investment Require:



S/N	DESCRIPTION	VALUE
1.	Average Hours of Supply	10 Hours
2.	Number of Connections	3,704.00
4.	Estimated Customer Population	8000
5.	ATC&C Loss	85%
6.	Metering Penetration	2%
7.	Average Monthly Collections	NGN5 million



Infrastructure



FAIR
STATE OF NETWORK



GOOD
ROAD ACCESSIBILITY



GOOD
SECURITY STATUS



NO
PIP FOCUSED AREA

Top 3 Economic Activities

1. Retail Services
2. Livestock Farming
3. Manufacturing

Feeder Route Length



135km

Voltage Level



33KV

Daily Load Profile



9.38MW

Installed Transformer Capacity



16,150KVA

Network Limitations

There are transmission bottlenecks on the feeder resulting in poor supply.

Business Model

Sub Franchising



SITE IMAGES OF TURUNKU TOWN



SITE IMAGES OF TURUNKU TOWN



GPS Map Camera

Turunku, Kaduna, Nigeria
RM3X+39C, Turunku 800101, Kaduna, Nigeria
Lat 10.800853°
Long 7.702129°
13/07/24 06:40 AM GMT +01:00

Google



GPS Map Camera

Turunku, Kaduna, Nigeria
RM3X+39C, Turunku 800101, Kaduna, Nigeria
Lat 10.800853°
Long 7.702129°
13/07/24 06:39 AM GMT +01:00

Google

Summary of Kaduna Electric DER Pipeline

S/N	Project	Estimated Load Demand (MW)	Number of Connections	Average Monthly Collections (NGN)	Distribution Investment Required (NGN)	Installed Distribution Transformer Capacity (kVA)	Proposed Business Model
1	33KV JERE	2.00	6021	5 million	\$ 404,000	30,200.00	Sub Franchising
2	33KV KARAYE(KWANAR DANGORA TX)	1.50	2600	5 million	\$ 302,000	1,700.00	Sub Franchising
3	33KV NNPC SAMINAKA	0.60	2500	2.5 million	\$ 120,000	19,400.00	Sub Franchising
4	11KV NNPC SAMINAKA	1.20	4200	7 million	\$ 242,000	5,965.00	Sub Franchising
5	33KV MAKARFI	1.37	7129	10 million	\$ 274,000	39,800.00	Sub Franchising
6	11KV IKARA	0.29	2015	2 million	\$ 58,000	3,450.00	Sub Franchising
7	11KV MAKARFI	0.34	2145	2 million	\$ 68,000	4,050.00	Sub Franchising
8	33KV TURUNKU (IGABI LEG)	1.56	3704	5 million	\$ 314,000	16,150.00	Sub Franchising

THANK
YOU