



NEDCo



Presentation on Tariff Proposal 2022-2027

10/05/2022

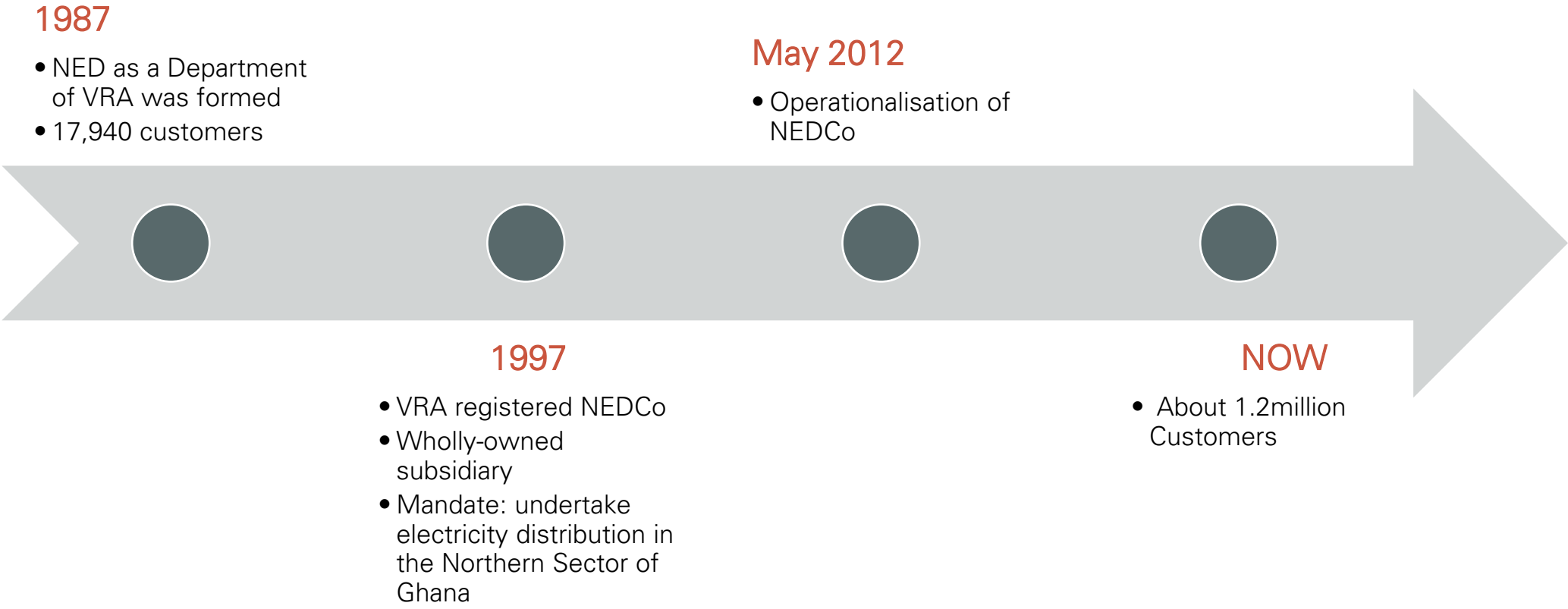
OUTLINE

1. Introduction
2. Rationale for the tariff submission
3. Initiatives undertaken and benefits since July 2019 tariff approval
4. Upcoming Projects
5. Highlights of Major issues which describe the structure of tariff submission
6. Financial performance of NEDCo 2017-2021
7. Challenges of NEDCo and Proposed Strategies
8. Proposed Tariff Rates
9. Conclusion



INTRODUCTION

Profile Of NEDCo



Profile Of NEDCo



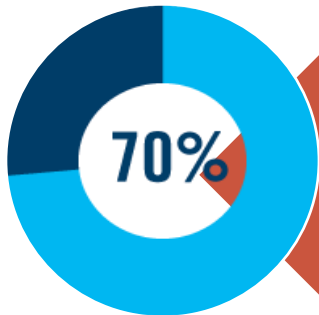
Electricity Supply

- 8(+3) out of 16 regions in Ghana
- Ivory Coast (Cache)
- Some border towns of Burkina Faso and Togo on behalf of VRA



Geographical Coverage

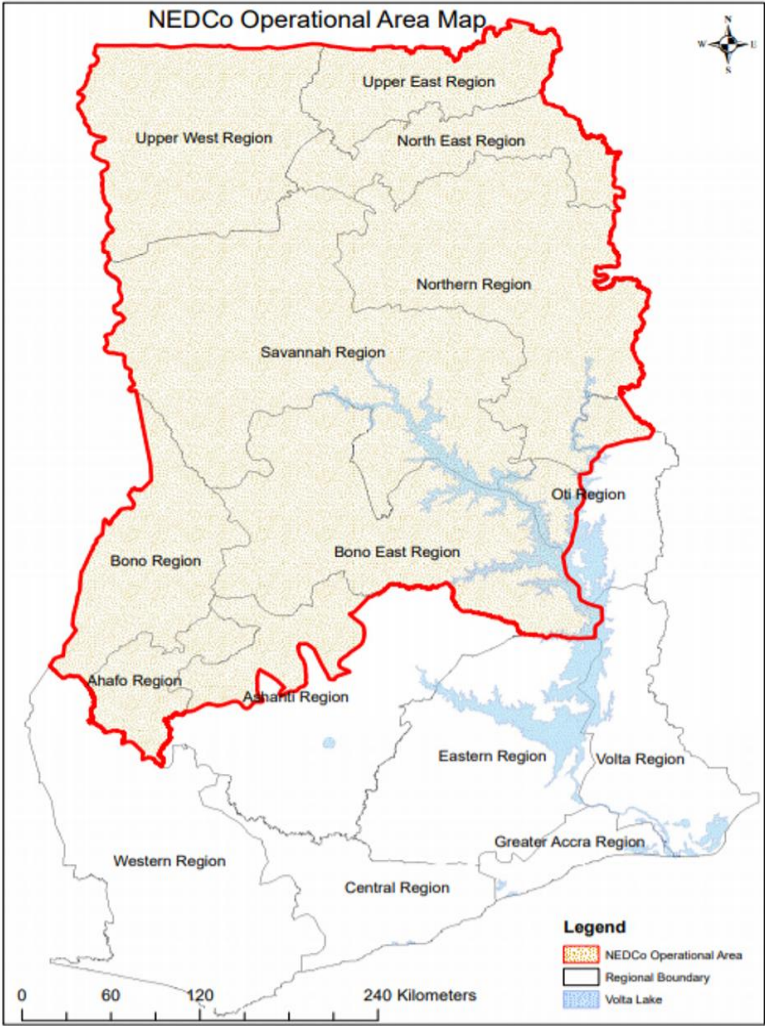
- 64% of land area of Ghana
- 7 customers per sq.km.



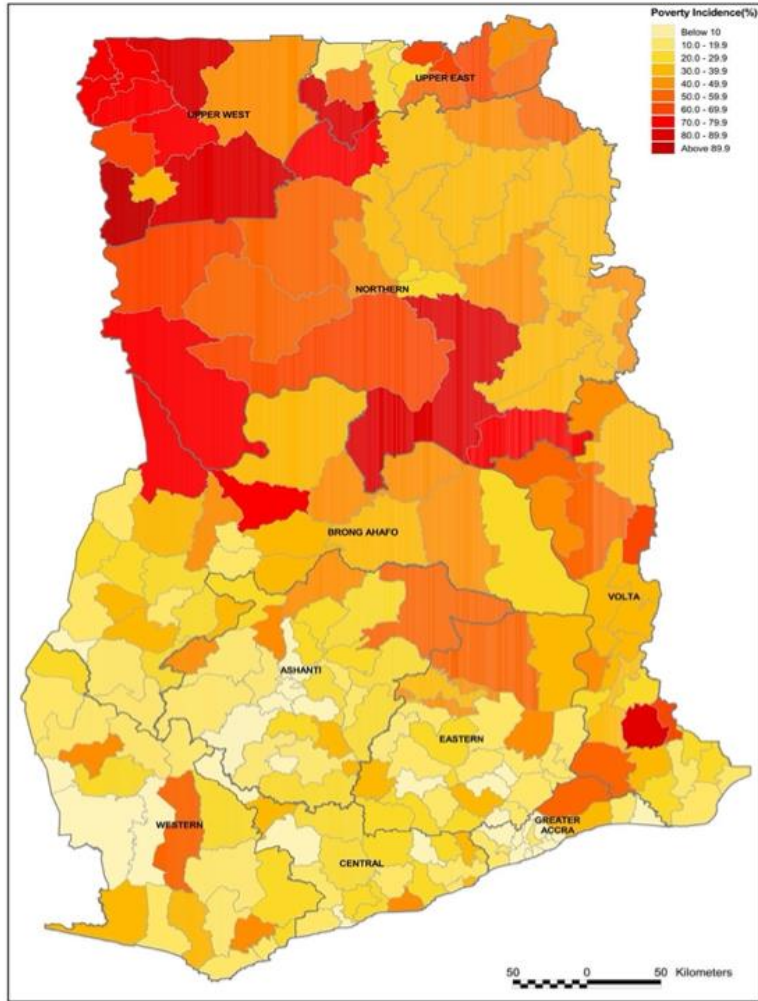
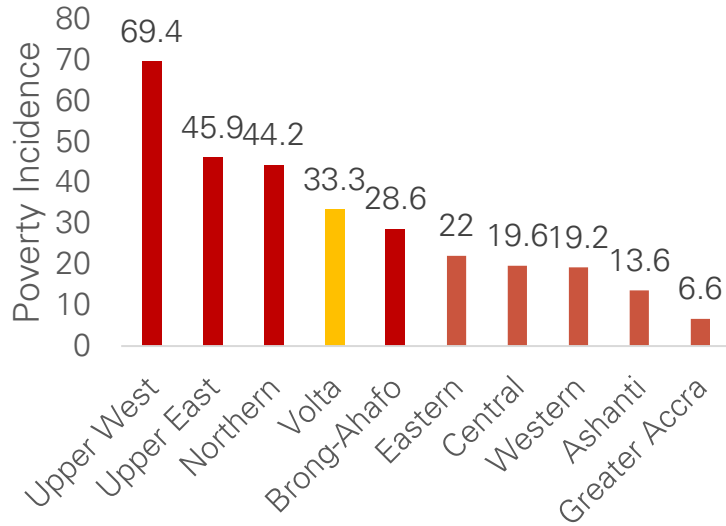
Electricity Access Rate

- About 71% as against a national average of 84.3%

Profile of NEDCo : Geographical Coverage of NEDCo

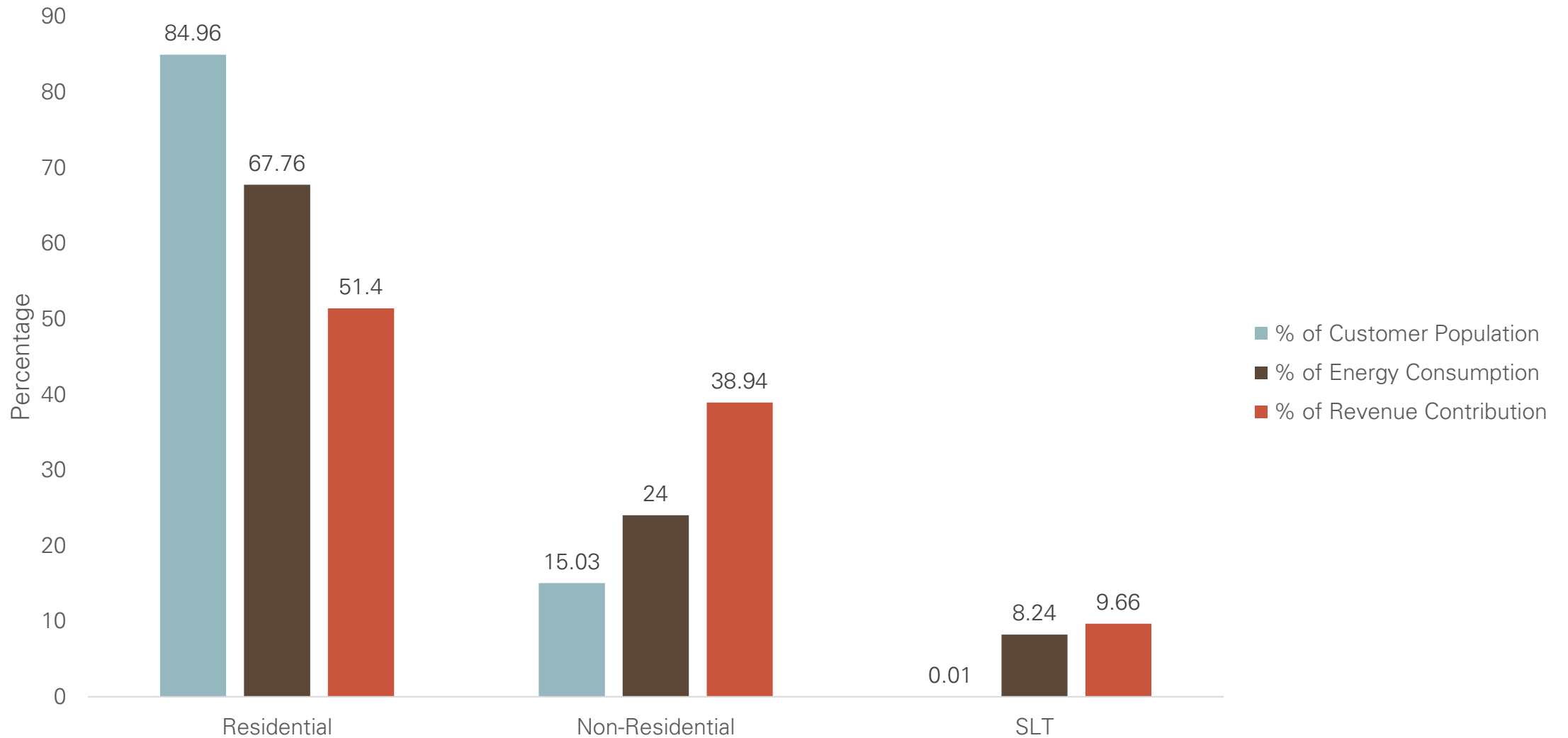


The Top 3 Poorest regions are within NEDCo Area



Poverty line: GHC 109.33/month

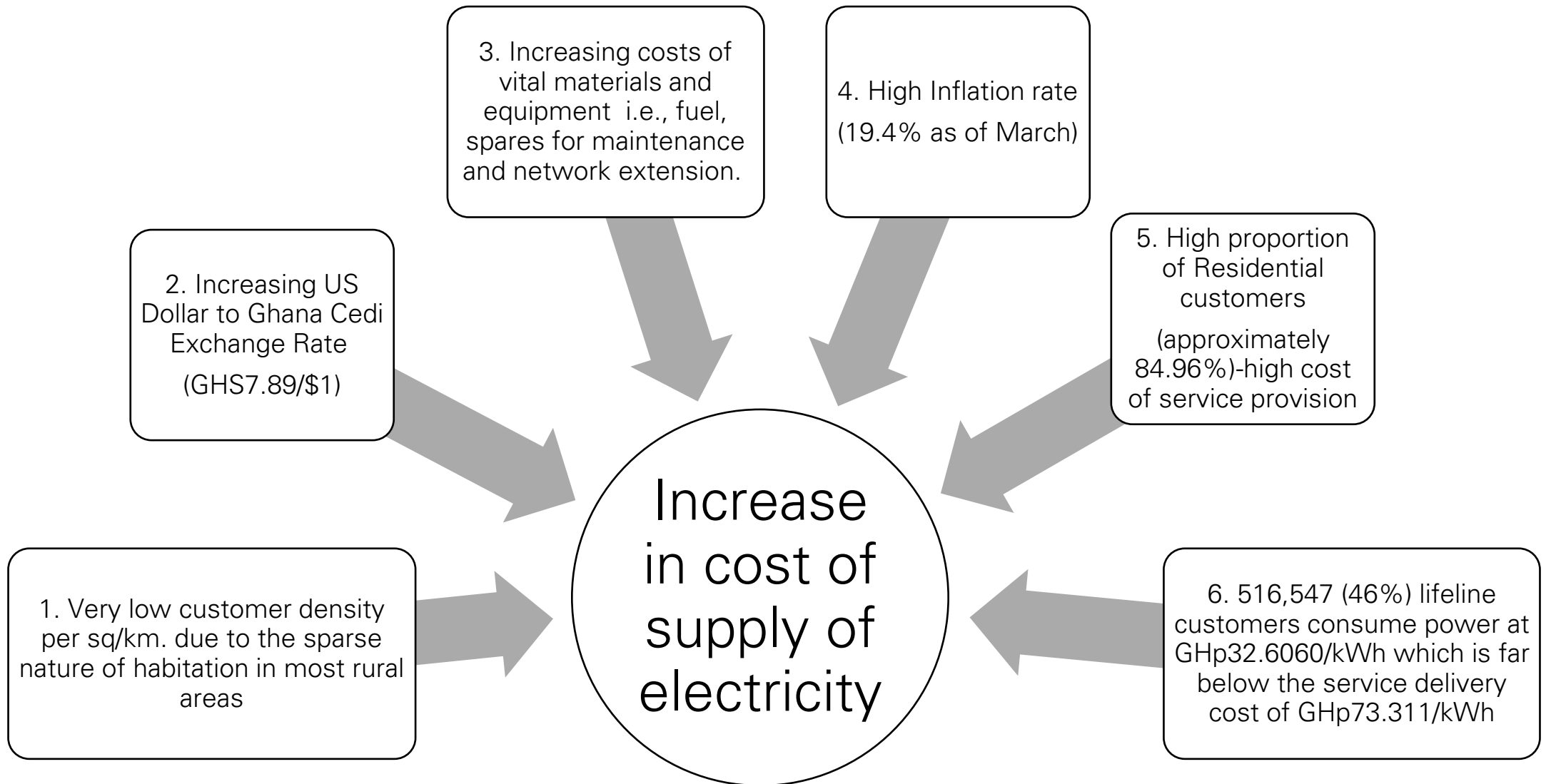
Customer Profile of NEDCo, Energy and Revenue Contribution as at 2021



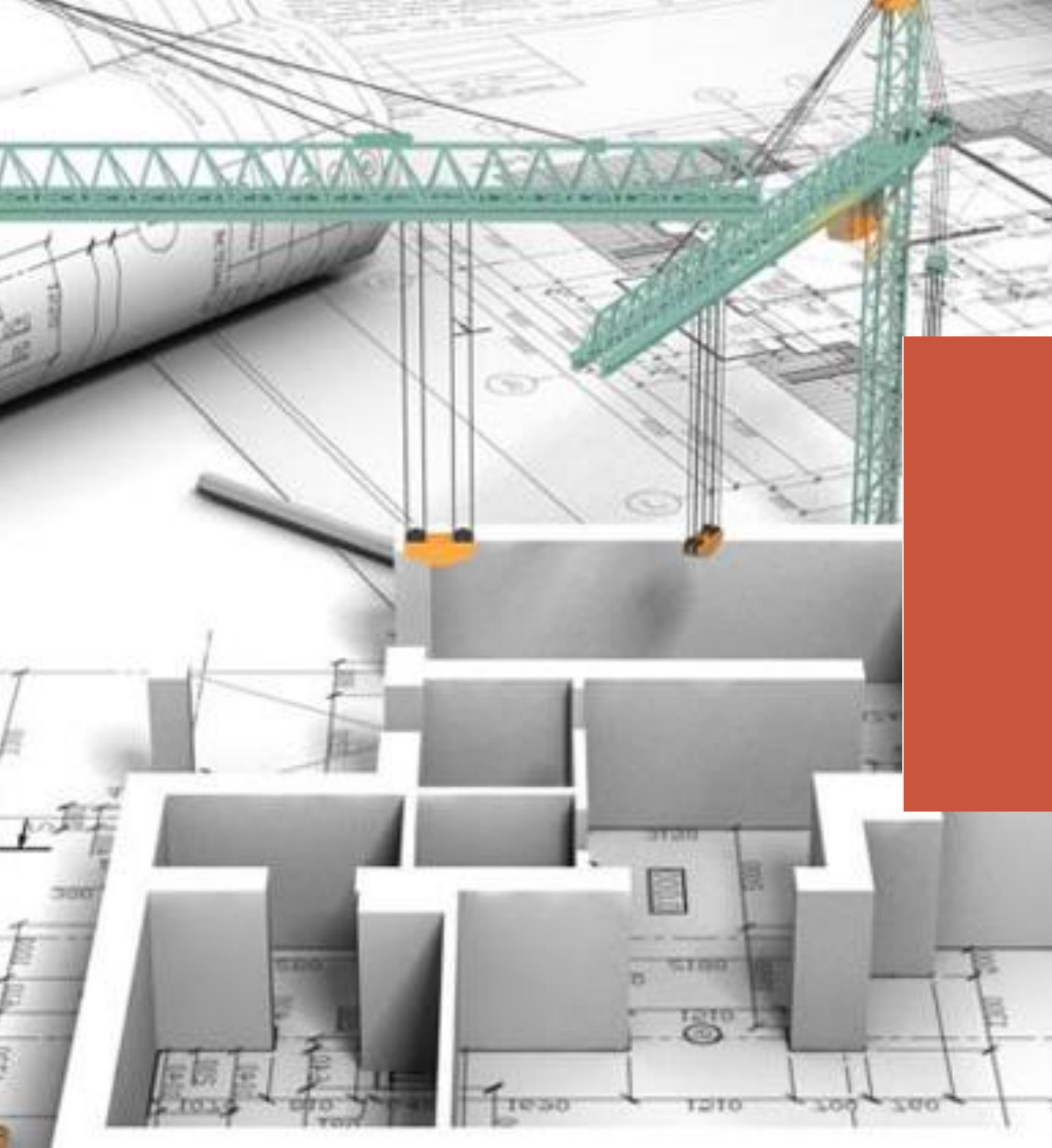


Rationale For The Tariff Submission

Reasons for the Significant Increase In Cost of Electricity Supply



NEDCo makes losses of GHp40.705 per lifeline customer



Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

Projects
undertaken since
July 2019

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories (Oct., 2020)

2. Automatic Meter Reading (AMR) and Boundary Metering

3. Techiman-Abofour Line Construction

4. Hexing System Upgrade

5. Supply and Installation of 100,000 Smart Prepaid Meters

6. Construction of 3 Service Centres (Kintampo, Duayaw Nkwanta, & Yendi)

7. Introduction of Electronic Payment Platform

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories
2. Automatic Meter Reading (AMR) and Boundary Metering
3. Techiman-Abofour Line Construction
4. Hexing System Upgrade (Roll Out)
5. Supply and Installation of 100,000 Smart Prepaid Meters
6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

Objective	To enhance revenue collection and commercial loss reduction.
Scope of Work	<ul style="list-style-type: none"> • Supply and installation of 25,000no. single phase and 150No. three (3) phase multi-part prepayment energy meters and associated materials • Supply and installation of vending system with its associated accessories • Testing and commissioning of the installed meters • Supply of tools • Training of NEDCo staff
Project Benefits	<ul style="list-style-type: none"> • Reduction in commercial losses by 0.3% • Contributed to increased collection rate from 73%(2018): 79% (2019) and 82% (2020) • Improve customer service
Project Cost	The total cost of the project is GHS41.6m
Completion Date	The completion date of the project was in October, 2020

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories
2. Automatic Meter Reading (AMR) and Boundary Metering
3. Techiman-Abofour Line Construction
4. Hexing System Upgrade (Roll Out)
5. Supply and Installation of 100,000 Smart Prepaid Meters
6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

Objective	To identify areas in the distribution system where commercial losses are high and to take the necessary steps to minimize them.
Scope of Work	<ul style="list-style-type: none"> • Supply and installation of 432no. smart energy meters • Supply and installation of 432no. communication modules • Supply and installation of 104 pieces of 34.5kV combined CTs/VTs, • Supply and installation of 55 pieces of 11.5 kV combined CTs/VTs • Testing and Commissioning of installed system • Training of NEDCo Staff
Project Benefits	<ul style="list-style-type: none"> • Energy Audit (NEDCo is able to identify areas with high losses) • Improve customer service
Project Cost	The total cost of the project is GHS13.97m
Completion Date	The completion date of the project was September, 2020.

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories
2. Automatic Meter Reading (AMR) and Boundary Metering
3. **Techiman-Abofour Line Construction**
4. Hexing System Upgrade (Roll Out)
5. Supply and Installation of 100,000 Smart Prepaid Meters
6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

Objective	The project objective was to convert the shield wire network to a conventional 34.5kV network in order increase installed Capacity to better serve the customers.
Scope of Work	<ul style="list-style-type: none"> • Construction of 70km of 34.5kV steel pole line from GRIDCo/NEDCo BSP at Techiman to Abofour • Upgrade 30kV Shield wire (SHW) network with 1No. Transformer to 34.5kV conventional network at Kuntunso Township • Upgrade 30kV SHW network with 12No. Transformer to 34.5kV conventional network at Afrancho/Akomadam township • Upgrade 11.5kV conventional network with 7No. Transformer to 34.5kV conventional network at various towns • Upgrade 5 km of 1-phase, 2 wire and 2-phase, 3 wire existing LV line to 3-phase, 4 wire
Project Benefits	<ul style="list-style-type: none"> • Reduce technical losses • Improve reliability (2022 SAIFI=35.86, • Increase installed capacity (over 300% increase in line capacity)
Project Cost	The total cost of the project is GHS12.35m
Completion Date	The project was completed in March 2021

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories
2. Automatic Meter Reading (AMR) and Boundary Metering
3. Techiman-Abofour Line Construction
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5. Supply and Installation of 100,000 Smart Prepaid Meters
6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)
7. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

Objective	To provide a common vending platform for the various types of prepayment and postpaid meters in NEDCo, and also to increase revenue mobilization and reduce losses.
Scope of Work	<ul style="list-style-type: none"> • Supply, installation, testing and commissioning of an Integrated Billing and Vending System • Supply, installation, testing and commissioning of a Head End System (HES) • Supply, installation, testing and commissioning of Third-Party quota system • Supply, installation, testing and commissioning of IT hardware and related software • Supply, installation, testing and commission of desktop & mobile POSs, GPRS modems, and Data concentrators. • Provision of On the Job Training and Remote Technical support and Maintenance Service for one year.
Project Benefits	<ul style="list-style-type: none"> • Improved receivables management • Improve revenue collection • Improve customer service
Project Cost	The total cost of the project is USD 5.7m
Completion Date	The project was completed in December 2020.

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories
2. Automatic Meter Reading (AMR) and Boundary Metering
3. Techiman-Abofour Line Construction
4. Hexing System Upgrade
5. Supply and Installation of 100,000 Smart Prepaid Meters
6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

Objective	To enhance revenue collection and reduce energy losses.
Scope of Work	<ul style="list-style-type: none"> • Supply and installation of 100,000no. single and three phase smart meters and associated materials • Supply and installation of vending system with its associated accessories • Testing and commissioning of the installed meters • Supply of tools • Training of NEDCo staff.
Project Benefits	<ul style="list-style-type: none"> • Reduce commercial losses (2018:30.1%, 2019:27.5%, 2020:27% and 2021: 27.29%) • Improve revenue collection from 2018:73%, 2019:79%, 2020: 82%. • Improved customer service
Project Cost	The total cost of the project is USD 16.02m
Completion Date	The project was completed on 30 th April 2021.

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

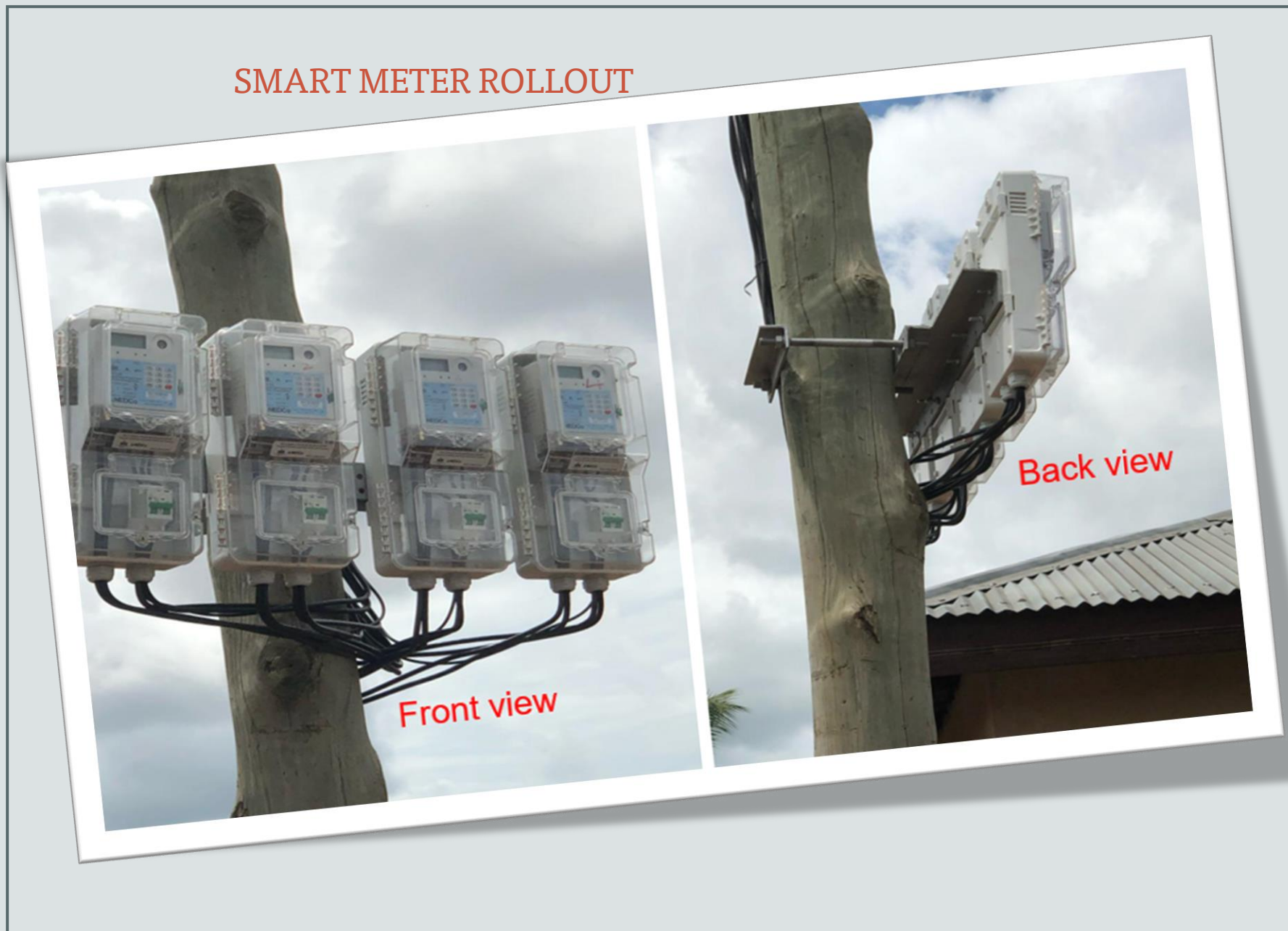
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5. Supply and Installation of 100,000 Smart Prepaid Meters
6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

Objective	To improve customer Service and enhance revenue collection.
Scope of Work	<ul style="list-style-type: none"> • Civil Works
Project Benefits	<ul style="list-style-type: none"> • Provide convenience to customers • Improve fault attendance time • Improve company image
Project Cost	The total cost of the project is GHS2.4m
Completion Date	The projects are expected to be completed by 30 th September 2022.

Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

1. Procurement and Installation of 25,000no. Smart Type PPMs and Accessories
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SMART METER ROLLOUT



Initiatives Undertaken and Benefits Since July 2019 Tariff Approval

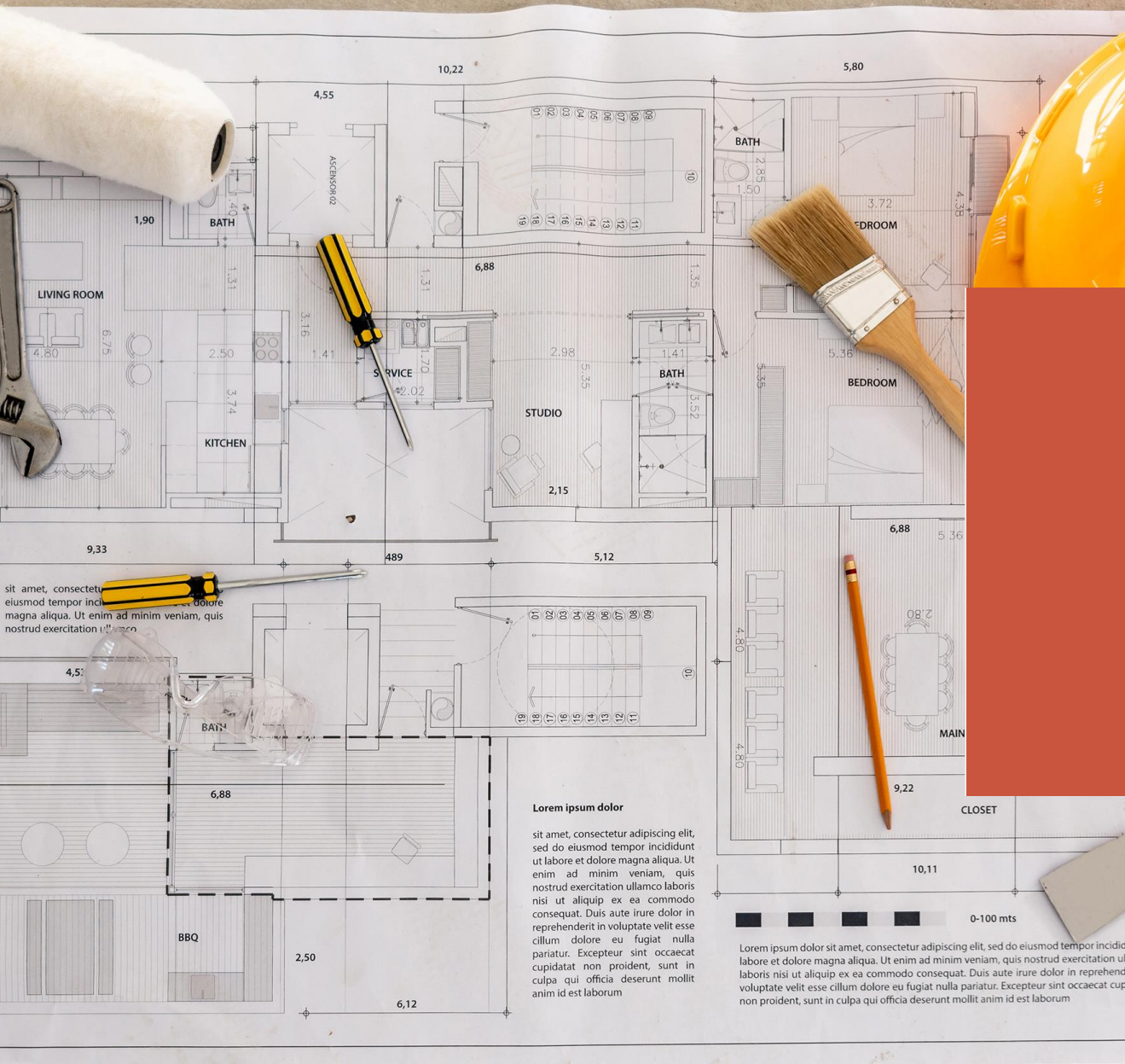
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6. Construction of 3 Service Centres (Duayaw Nkwanta, Kintampo & Yendi)

DUAYAW NKANTA CENTRE



YENDI SERVICE CENTRE





Upcoming Projects

UPCOMING PROJECTS

1. Construction of
Lamashegu
Primary Substation

2. 100km
Conductor Upgrade

3. KEXIM Project

4. Procurement of
Distribution
Materials

5. Construction of
NEDCo Head
Office Complex

6. Proposed
Tamale Metropolis
Split Smart PPM
Project

7. Disaster
Recovery Site

8. 5 Service
Centres per annum

9. NEDCo
streetlight
metering Project

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. KEXIM Project
4. Procurement of Distribution Materials
5. Construction of NEDCo Head Office Complex
6. Proposed Tamale Metropolis Split Smart PPM Project
7. Disaster Recovery Site
8. Construct 5 Service Centres
9. NEDCo streetlight metering Project

Objective	To reduce length and overloading of 11.5kV lines in Tamale Metropolis
Anticipated Impact of Project	<ul style="list-style-type: none">• Increased installed capacity (increase capacity by 40MVA)• Increased reliability (SAIFI:• Improved voltage quality (Feeder end voltage from 90% to > 95%)• Increased revenue• Reduce losses by (when the lines are shortened)
Project Cost	The total cost of the project is USD 9 million

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. **100km Conductor Upgrade**
3. KEXIM Project
4. Procurement of Distribution Materials
5. Construction of NEDCo Head Office Complex
6. Proposed Tamale Metropolis Split Smart PPM Project
7. Disaster Recovery Site
8. Construct 5 Service Centres
9. NEDCo streetlight metering Project

Objective	To increase line capacity and reduce technical losses on 11.5kV overhead lines
Anticipated Impact of Project	<ul style="list-style-type: none">• Increased installed capacity (increase installed capacity by 75%)• Loss reduction (1.5%)• Improved voltage quality (Improve feeder end voltage to >90%)• Increased revenue
Project Cost	The total cost of the project is USD 1.3m

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. **KEXIM Project**
4. Procurement of Distribution Materials
5. Construction of NEDCo Head Office Complex
6. Proposed Tamale Metropolis Split Smart PPM Project
7. Disaster Recovery Site
8. Construct 5 Service Centres
9. NEDCo streetlight metering Project

Objectives	Improve distribution network performance
Scope	Major project items include the construction of six distribution substations, two switching stations, one Distribution Network Management System (DNMS)
Anticipated Impact of Project	<ul style="list-style-type: none">• Reduction of power supply cost which may arise as a result of reduction of distribution power loss. (Reduction in technical losses by 1.05%)• Improve feeder voltage from 87.7% to 95%• increase power supply capacity• Reducing the emission of environmental substances• Reduction of unserved energy cost by reducing the power supply interruption
Project Cost	The total cost of the project is USD112.6 million.

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. KEXIM Project
4. **Procurement of Distribution Materials**
5. Construction of NEDCo Head Office Complex
6. Proposed Tamale Metropolis Split Smart PPM Project
7. Disaster Recovery Site
8. Construct 5 Service Centres
9. NEDCo streetlight metering Project

Objectives	The objective of the project is to procure materials required for the continuous operation of the distribution infrastructure.
Scope	Some of the distribution materials earmarked for purchased are transformers, wood and steel poles, fuses, energy meters, conductors, cables etc.
Anticipated Impact of Project	<ul style="list-style-type: none">• Increased service availability• Improved customer perceptions• Increased installed capacity• Increased energy sales/revenue
Project Cost	The total cost of the project is USD 1.44 million.

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. KEXIM Project
4. Procurement of Distribution Materials
5. **Construction of NEDCo Head Office Complex**
6. Proposed Tamale Metropolis Split Smart PPM Project
7. Disaster Recovery Site
8. Construct 5 Service Centres
9. NEDCo streetlight metering Project

<p>Objective</p>	<p>The construction of the building will bring together all departments of NEDCo in Tamale under one roof for easy workflow</p>
<p>Anticipated Impact of Project</p>	<ul style="list-style-type: none"> • Cost saving by avoiding expensive rentals of office space. • Increase productivity by having all NEDCo Staff in the same building • Reduction of operational cost by sharing resources like printers. • Improved VRA/ NEDCo image • Avoid threat of ejections by Landlords. • Improve Security to NEDCo's equipment and tool
<p>Project Cost</p>	<p>The total cost of the project is USD 12million.</p>

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. KEXIM Project
4. Procurement of Distribution Materials
5. Construction of NEDCo Head Office Complex
6. **Proposed Tamale Metropolis Split Smart PPM Project**
7. Disaster Recovery Site
8. Construct 5 Service Centres
9. NEDCo streetlight metering Project

<p>Objective</p>	<p>The project is to procure 87,000 split smart meters aimed at reducing commercial losses and improve collection rate</p>
<p>Scope</p>	<p>The project consists of the procurement and installation of pole-mounted smart & split prepaid meters for LV customers in the Tamale metropolis, where non-technical losses are predominant.</p>
<p>Anticipated Impact of Project</p>	<ul style="list-style-type: none"> • Reduction of non-technical losses (NT) (reduce Tamale commercial losses from 28% to 12% over a 3 year period) • Increased collection efficiency
<p>Project Cost</p>	<p>The total cost of the project is USD 26.13million.</p>

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. KEXIM Project
4. Procurement of Distribution Materials
5. Construction of NEDCo Head Office Complex
6. Proposed Tamale Metropolis Split Smart PPM Project
7. **NEDCo streetlight metering Project**
8. Disaster Recovery Site
9. Construct 5 Service Centres

Objective	The project aims to meter streetlights within NEDCo operational Area
Scope	The project consists of the procurement and installation of poles, transformers, installation of switch wires, LV switches, conductors and energy meters.
Anticipated Impact of Project	<ul style="list-style-type: none"> • Improve energy accounting • Contribute to 1.2 % non-technical loss reduction by 2023
Project Cost	The total cost of the project is USD 25million. (up to 2025) <i>source: NEDCO Distribution masterplan</i>

Projects To Be Undertaken

1. Construction of Lamashegu Primary Substation
2. 100km Conductor Upgrade
3. **KEXIM Project**
4. Procurement of Distribution Materials
5. Construction of NEDCo Head Office Complex
6. Proposed Tamale Metropolis Split Smart PPM Project
7. NEDCo streetlight metering Project
8. **Disaster Recovery Site**
9. Construct 5 Service Centres per annum

Objective	The project aims to ensure business continuity
Scope	<ul style="list-style-type: none">• Servers• Generator
Anticipated Impact of Project	<ul style="list-style-type: none">• Business continuity
Project Cost	The total cost of the project is USD2.5million.

Projects To Be Undertaken

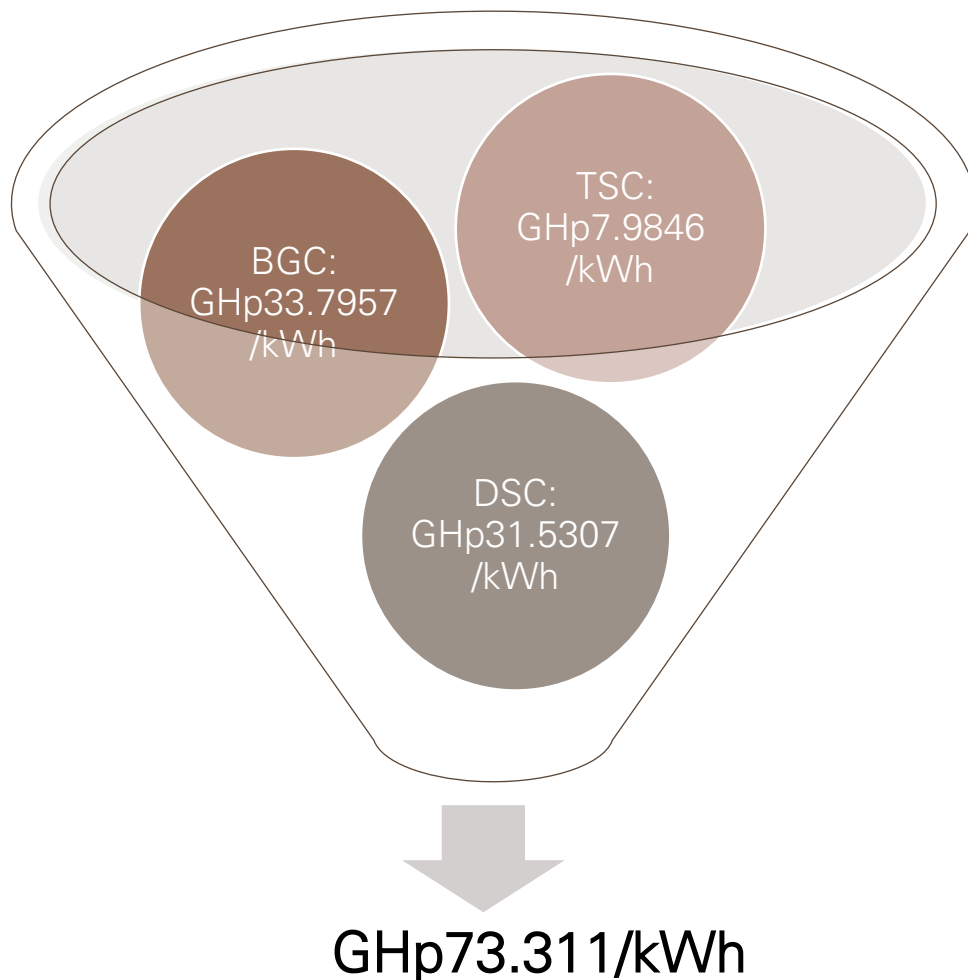
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8. Disaster Recovery Site
9. Construct 5 Service Centres per annum

Objective	To improve customer Service and enhance revenue collection.
Scope	<ul style="list-style-type: none">• Civil Works
Anticipated Impact of Project	<ul style="list-style-type: none">• Provide convenience to customers• Improve fault attendance time• Improve company image
Project Cost	The total cost of the project is GHS4.9m



Highlights of major issues which describe the structure of tariff submission

Current Tariff Structure



- Ghana Electricity End-User Tariff

- The last DSC tariff of **GH¢0.315307** approved by PURC was inadequate to meet the total cost of service delivery to customers.
- The BGC and TSC invoiced to NEDCo in the tariff build up are always high, about 70% thus increasing NEDCo's operational costs.
- As a result, NEDCo has been incurring financial losses as it is not able to recover cost of service delivery due to the high BGC and TSC.

Proposal

- NEDCo is therefore better off with a higher percentage of hydroelectricity in its energy mix.
- In the light of this, it is being proposed that PURC through EMOP (Electricity Market Oversight Panel) should allocate more hydropower to NEDCo in the energy mix during the tariff period.
- Though NEDCo had some hydro allocation in October 2020, the allocation is not significant to improve NEDCo's bottom line.
- **A hydro component of 626 GWh is being proposed to be considered for 2022 tariff approval.**

The background of the slide features a blurred image of a financial market data screen. It shows multiple overlapping line graphs in various colors (green, blue, red, orange) and a candlestick chart at the bottom. The data points are out of focus, creating a sense of depth and activity. A solid red rectangular box is overlaid on the right side of the image, containing the title text.

Financial Performance Of NEDCo

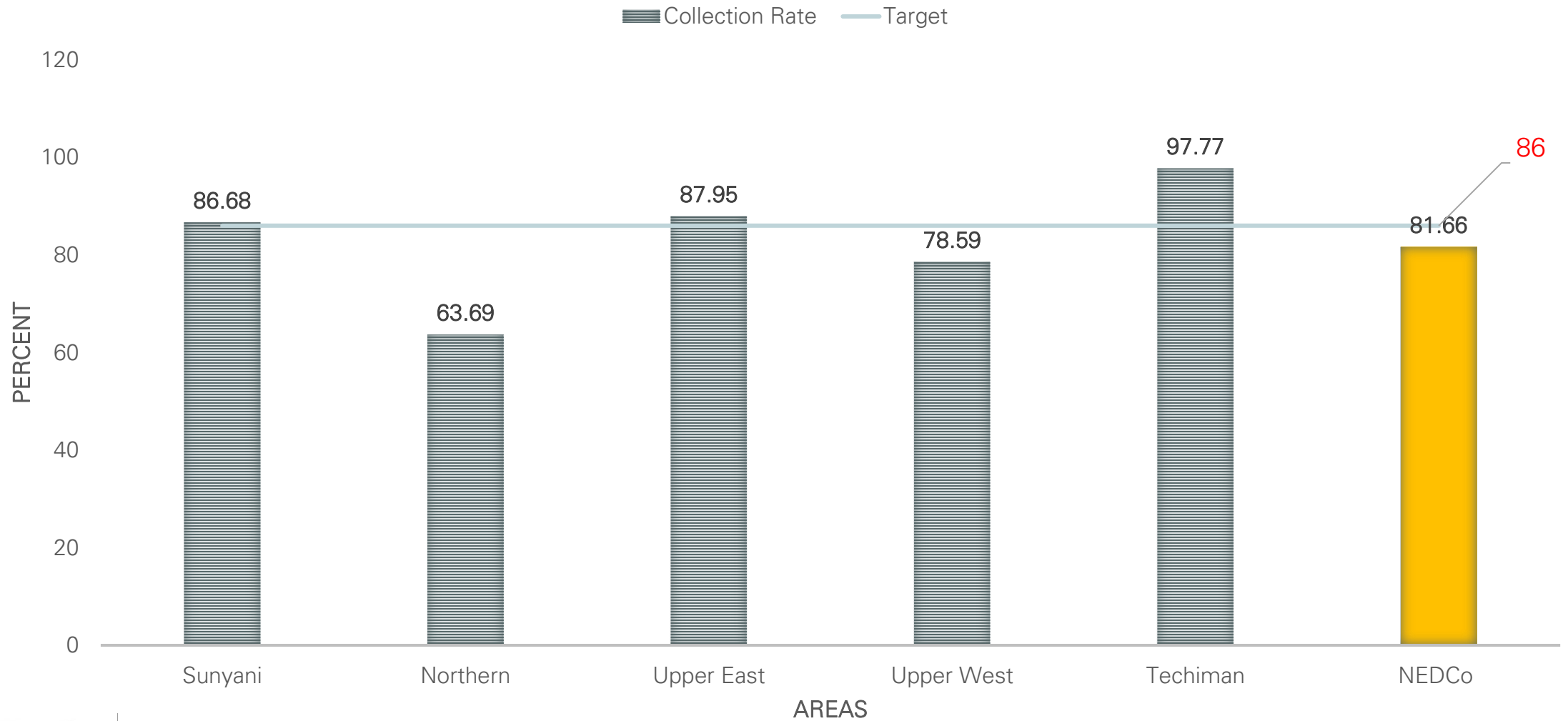
Table 1: Financial Performance of NEDCo from 2017 to 2021

Indicator	Unit	2017	2018	2019	2020	2021
Revenue (Sales)	GH¢m	598.98	529.25	574.66	688.98	883.49
Other Income	GH¢m	37.51	16.37	49.61	62.84	69..46
Net Profit	GH¢m	- 278.22	- 315.40	- 343.31	- 367.86	- 163.92
Total Assets	GH¢m	2,036.94	2,156.83	2,085.27	2,174.39	2,521.53
Current Assets	GH¢m	1,023.64	1,150.83	1,344.10	1,454.43	1,701.18
Current Liabilities	GH¢m	255.82	331.29	483.36	615.05	742.46
Total Liabilities	GH¢m	794.85	1,116.38	1,548.87	1,966.08	2,418.06
Equity	GH¢m	1,242.10	1,040.44	536.40	208.31	103.47

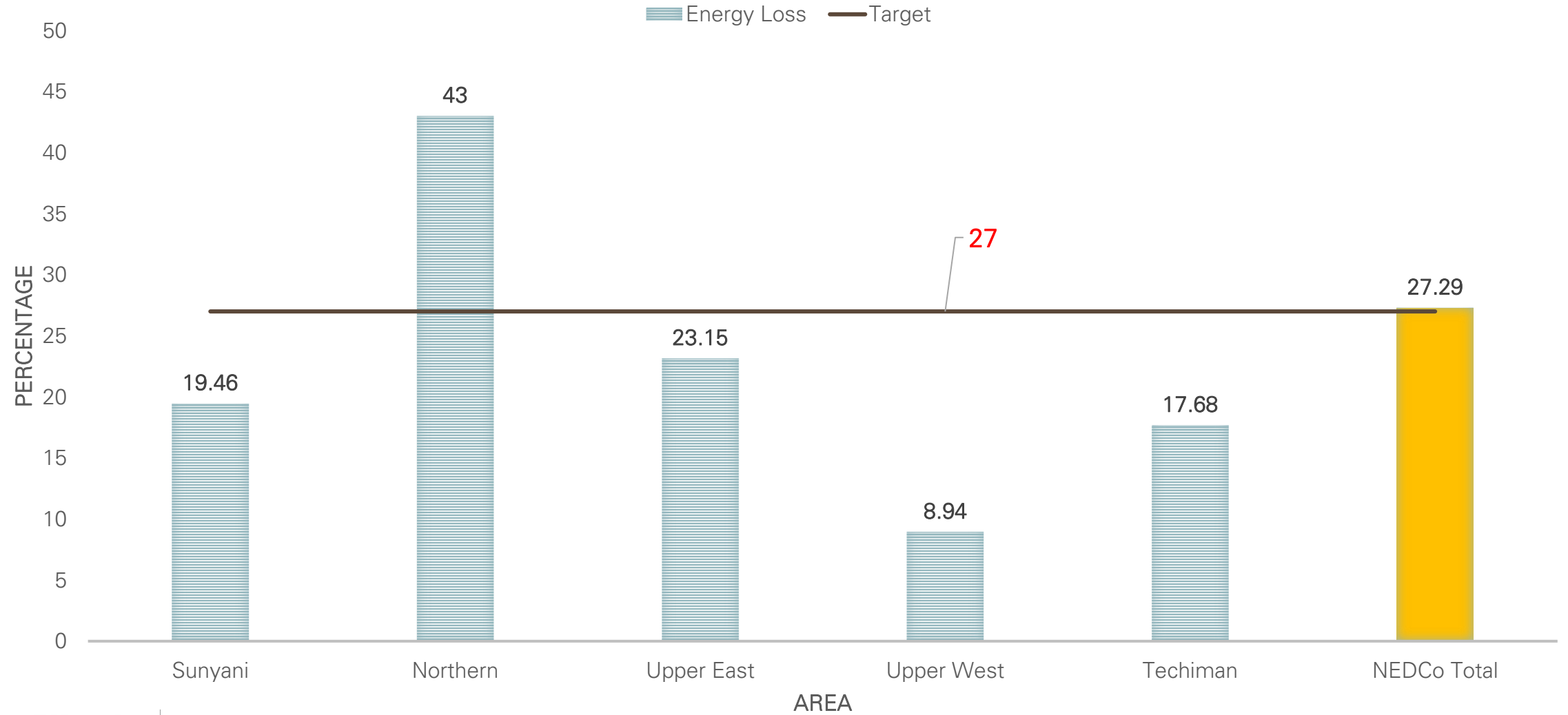
Table 1: Financial Performance of NEDCo from 2017 to 2021

Ratios:	Unit	2017	2018	2019	2020	2021
Net Profit Margin	%	-46.45	-59.59	-53	-46	-18
Return on Equity	%	-0.022	-0.0303	-0.064	-0.177	-0.158
Current Ratio	No.	1.29	1.03	0.87	0.74	0.70
Gearing	No.	-	-	-	-	-
Return on Capital Employed	%	-0.022	-0.03	-0.064	-0.177	-0.158

2021 REVENUE COLLECTION RATE BY AREAS (TARGET: 86%)



2021 ENERGY LOSSES BY AREAS (TARGET: 27%)





Challenges Of NEDCo and Proposed Strategies

Challenges of NEDCo

1. Inadequate revenue from tariffs

2. High losses due to power theft, faulty meters and unbilled customers (Very high in Northern Area)

3. Non-payment of MDAs currently standing @ GHS1,069,528,995.31

4. Suppressed Demand due to low voltage and overloaded distribution Infrastructure

5. Large Operational Area with 7 customers per square kilometre

6. Lack of metering for streetlighting – inadequate accounting for consumption

Challenges of NEDCo

7. Cash flow constraints inhibiting supply of meters

8. Low integration of automated processes due to cashflows constraints

9. Customer Complaints & Dispute Resolution – basically manual systems of handling complaints

10. Bad & Doubtful Debts-arrangements are far advanced to write off an amount of GHC4.14million for 6,226 accounts due to inability to trace the account owners

11. Low revenue due to low income levels of customers

Proposed Strategies

- 1 NEDCo is deploying Split smart prepaid meters – to help reduce losses and increase revenue
- 2 NEDCo is engaging GoG to pay its outstanding MDA's bills of about GHS1 billion as at December, 2021. GHS1.38m has been paid
- 3 NEDCo is improving its customer service to among other things, deliver new service connections on time to prevent/ reduce self connections
- 4 Prosecution of power thieves- to deter others
- 5 Intensifying monitoring of no/low purchase customers to identify energy theft

Proposed Strategies

- 6 Energy audit of all BSP's and major customers
- 7 Regular disconnection of defaulting customers
- 8 Identification and replacement of faulty meters
- 9 Customer audit as part of egis project in Northern and Upper west Areas for proper energy accounting
- 10 Interest payment on defaulted amounts- NEDCo needs the support of regulators to improve liquidity.

Proposed Strategies ctd

- 11 Tamale strategy which involves the procurement of 87,000 split prepaid meters and Lv network metering with 200 customers per transformer
- 12 E-Payment platforms which makes it easy for customers on post-paid meters to pay for their bills and those on smart prepaid meters to also buy power with their phones at their convenience.
- 13 Access Project in the Tamale market area. About 4,830 customers in the market and economic enclave areas in Tamale.
- 14 Regular rehabilitation of the distribution network, upgrading the distribution lines, and injecting transformers to improve quality of service to customers



Proposed Tariff Rate

Table 2: Details of NEDCo's Operating Costs

Proposed Tariff Rate

Description	Actual	Actual	Actual	Projection	Projection	Projection	Projection	Projection
	2019	2020	2021	2022	2023	2024	2025	2026
<u>Average exchange rate (cedis)</u>	5.15	5.78	6.03	7.89	8.39	8.91	9.37	9.88
Power Sales (GWh)	845.00	950.00	1,060.05	1,172.09	1,219.54	1,260.63	1,309.07	1,439.98
Salaries and related expenses	139,592	150,555	214,842	248,335	284,314	326,961	359,657	395,623
Material expenses	43,896	23,131	60,456	65,311	69,752	74,007	78,447	56,59986,292
Repairs and maintenance	4,344	13,189	40,304	43,540	47,011	50,254	53,395	
Transportation and Travelling	20,136	22,149	13,106	23,710	25,600	27,366	29,049	30,792
Other working costs	34,301	23,909	43,005	34,821	37,596	40,190	42,662	45,222
Regulatory Benchmark Value GH¢'000	46,170	150,957	168,713	160,238	172,211	172,499	179,127	197,040
Total Variable Cost	288,439	383,889	540,425	575,955	636,484	691,277	742,337	811,567

Table 2: Details of NEDCo's Operating Costs

Proposed Tariff Rate

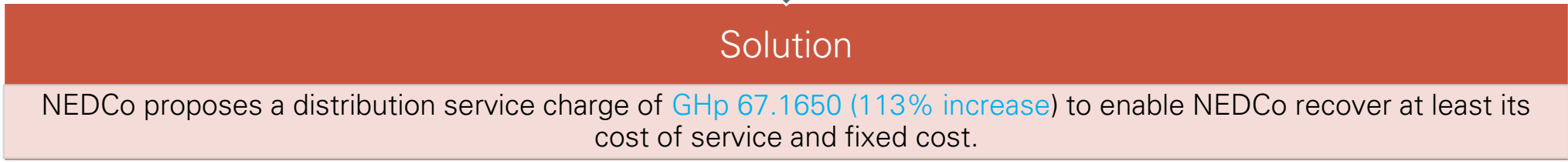
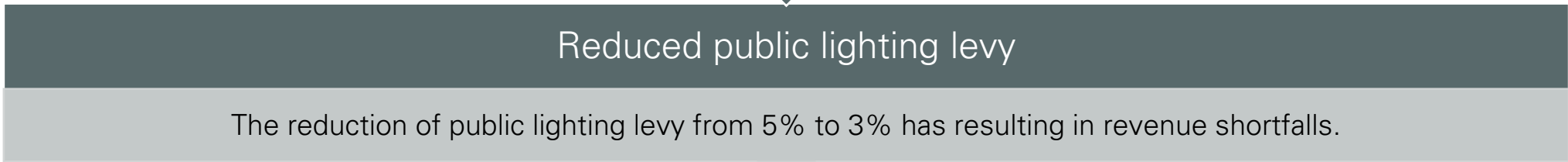
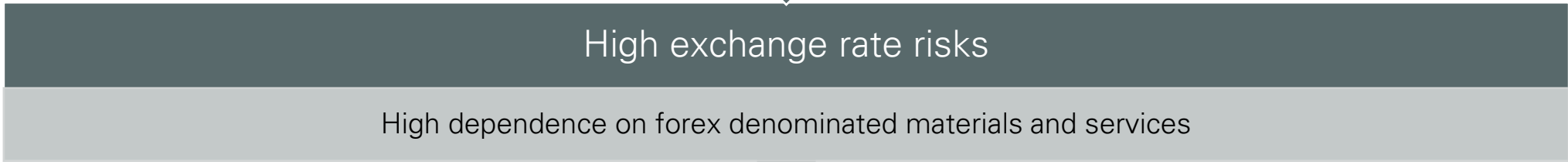
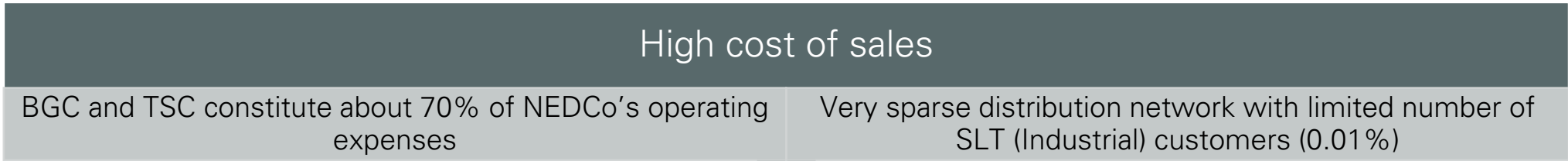
Description	Actual 2019	Actual2 2020	Actual3 2021	Projection 2 2022	Projection 3 2023	Projection 4 2024	Projection 5 2025	Projection 6 2026
CAPACITY COST (GH¢'000)								
Average Net Fixed Assets (ANFA)	1,119,514	964,324	797,103	820,800	945,917	1,040,485	979,572	918,667
Total Depreciation	173,219	166,559	64,021	145,613	275,609	133,504	127,914	127,241
Return on ANFA (8%)	89,561	77,146	63,768	65,664	75,673	83,239	78,366	73,493
Total Capacity Cost	262,780	243,705	127,790	211,277	351,282	216,743	206,280	200,734
Variable Unit Cost (¢/KWh)	0.3413	0.4041	0.5098	0.4914	0.5219	0.5484	0.5671	0.5636
Fixed Unit Cost (¢/KWh)	0.3110	0.2565	0.1206	0.1803	0.2880	0.1719	0.1576	0.1394
Variable Unit Cost (\$/KWh)	0.0663	0.0699	0.0845	0.0623	0.0622	0.0616	0.0605	0.0571
Fixed Unit Cost (\$/KWh)	0.0604	0.0444	0.0200	0.0228	0.0343	0.0193	0.0168	0.0141
Total Cost (¢/KWh)	0.6523	0.6606	0.6304	0.6717	0.8099	0.7203	0.7246	0.7030
Total Cost (\$/kWh)	0.1267	0.1143	0.1045	0.0851	0.0965	0.0809	0.0773	0.0712
Average Exchange Rates (¢/\$)	5.15	5.78	6.03	7.89	8.39	8.91	9.37	9.88
PROPOSED DSC (GHC)	0.652330	0.660625	0.630362	0.671650	0.809949	0.720290	0.724650	0.702998
PURC APPROVED/EXISTING DSC			0.315307	0.315307	0.315307	0.315307	0.315307	0.315307

Proposed Percentage

113.0%



Conclusion





Thank you