

Ministry of Energy

Final Report - NEDCo Energy Revenue Validation

Task 1: Validation of revenue for the period July to September 2023

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29 December 2023

Dear Sir,

Final Report - Consultancy Services for Validation of Northern Electricity Distribution Company (NEDCo) Revenue and Cash Collection

We enclose our Final Report (the "Final Report" or the "Report") on Task 1 as set out in the Contents on page 3. We draw your attention to the section Scope and Bases in which we refer to the scope of our work, sources of information, and the limitations of the work undertaken.

The Executive Summary Section is not intended to be exhaustive but highlights the most significant matters that have come to our attention concerning the NEDCo Revenue and Cash Collection validation engagement. It should, therefore, be read in conjunction with the whole Report and the appendices.

Our work does not constitute an audit and has therefore not been carried out per auditing or other standards and practices and accordingly should not be relied upon as if it has been carried out under those standards and practices.

It is important to note that, we have engaged management of NEDCo in obtaining the information used for our report and the necessary clarifications required to enhance our work. If you require further clarification, please contact Dennis Brown on +233 501 415 598 or dennbrown@deloitte.com.gh or Nii Asafoatse Abbey on +233 503 627 159 or nabbey@deloitte.com.gh or the undersigned on 233 244 158 377 or ylartey@deloitte.com.gh.

Yours faithfully



Yaw Appiah Lartey
Partner, Financial Advisory

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Important Notice

This Final Report (the “Final Report” or “Report”) is strictly private and confidential to the Recipient Parties (as defined in the contract dated 10 November 2023 (the “Contract”).

Same as expressly provided for in the Contract, the Report must not be recited or referred to in any document or copied or made available (in whole or in part) to any other party.

Aside the authorised recipient of the report, no other party is entitled to rely on the report for any purpose whatsoever and we accept no responsibility or liability for the contents of the report to any other party.

For your convenience, this report may have been made available to you in electronic and hard copy format. Multiple copies and versions of this report may, therefore, exist in different media. Only a final signed copy should be regarded as definitive.

Scope and Bases

We have carried out the Revenue Validation Exercise as instructed in our contract dated 10 November 2023

Scope	<ul style="list-style-type: none"> The scope of work is as detailed out in Appendix A1 of this report. Our deliverable is as follows: <ul style="list-style-type: none"> Revenue Validation Report (Task 1) 	Quality of information	<ul style="list-style-type: none"> Monthly records of power received from Volta River Authority (VRA) and transmitted by the Ghana Grid Company (GRIDCo) Power receipts schedule signed by both NEDCo and GRIDCo Monthly and quarterly breakdown of power distributed to customers across Service Areas and towns Monthly bank reconciliation statements Bank statements evidencing receipts and payments
Access	<ul style="list-style-type: none"> Access to information was provided via a combination of e-mail exchanges and an electronic shared folder, as well as through virtual and/or physical meetings with management of NEDCo. 		<ul style="list-style-type: none"> Overall, the quality of the information provided by management for purposes of our review is reasonable. Also, we have had good access to management for purposes of obtaining the information and clarification required for our work, which has further improved the quality of the information provided for our work.
Timetable	<ul style="list-style-type: none"> Our work towards this Final Report was executed over a four-week period. This is in line with the timeline indicated in the Contract for the assignment.. 		
Information sources and discussions	<ul style="list-style-type: none"> The data and information used for our work was provided by the management of NEDCo. To obtain further clarification and to confirm our understanding of the data and information received from management, where feasible, we held discussions- virtual and/or physical- with the management of NEDCo. We also relied on phone calls in some instances to follow up on our information requirements. We engaged the following officials of NEDCo in the course of our work: <ul style="list-style-type: none"> Emmanuel Lopko – Acting Director, Internal Audit Matinu Alhassan – Accounting Services Manager Hilda Jalia Alhassan – Billing and Revenue Protection Manager 	Outstanding information/matters	<ul style="list-style-type: none"> As at the time of this report, the following information was outstanding: <ul style="list-style-type: none"> Reconciliation of difference noted between the reported cash collections and the validated cash collections
Quality of information	<p>Our revenue validation exercise was mainly based on information provided by NEDCo covering the period July 2023 to September 2023. These include:</p>		



Executive Summary

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Executive Summary | Background and scope of work

The main objective of this assignment is to review and validate the revenue and cash collections of the Northern Electricity Distribution Company (NEDCo) over the period July 2022 to Sep 2023

Background information

The Government of the Republic of Ghana (“GoG” or the “Government”) has received funding from the World Bank towards the cost of the Ghana Energy Sector Transformation Initiative Project (“GESTIP”) and have applied part of the proceeds for consulting services.

The Government of Ghana (“GoG”) in the effort to achieve financial sustainability of the State-Owned Energy (“SoE”) utilities and facilitate an efficient and reliable energy sector, initiated the Energy Sector Recovery Program (ESRP) in May 2019. In line with this objective, the Ministry of Energy (“MoEN” or the “Ministry”) has commissioned Deloitte to validate the reported revenue and cash collections of NEDCo covering the period July to September 2023 (the “Assignment”). Refer to Appendix A1 for an overview of the organisational structure of the NEDCo. This version of the Report is focused on the 3 months covering July to September 2023.

Objectives of the Assignment

The objectives of the assignment are to:

- Assess and validate the accuracy and reliability of the tariff revenue recorded by NEDCo
- Evaluate the effectiveness of internal controls and processes in place to ensure proper collection of tariff revenue by NEDCo
- Assess the adequacy of systems and procedures for billing and revenue monitoring
- Additionally, validate the:
 - The electricity delivered by generators, and received by NEDCo
 - The electricity distributed by NEDCo
 - The corresponding billing by NEDCo
 - The monthly revenue collections of NEDCo
 - The corresponding transfer of collections into the Single Collections Account
 - The statutory deductions
 - Non-tariff revenue

Scope of Services and Tasks

As detailed out in the Contact, the scope of work covers the following tasks:

- Review and assess NEDCo’s billing and invoicing procedures, including the accuracy of metering, tariff application, and customer billing;
- Review and assess NEDCo’s revenue collection and accounts receivables management;
- Validate that all revenues received by NEDCo for the reporting period are in alignment with the electricity received and distributed by NEDCo along with corresponding billing and collections;
- Validate that NEDCo has made timely payments to their electricity suppliers;
- Identify all accounts into which customer cash collections are transferred;
- Check that all revenues received at each collection point were transferred in full to the relevant district collection/revenue accounts;
- Check that the daily banked receipts were swept in full into the Head Office Single collection/revenue account;
- Identify any revenue accounts utilised by NEDCo which are not swept into the district collection accounts and head office Single Collection account;
- Check the inflows into all the operational accounts to determine the sources of such revenue;
- Confirm the payment of statutory deductions to the relevant authorities;
- Check whether NEDCo is using a single collection account;
- High level commentary on the adequacy, transparency and effectiveness of accounting and overall internal control systems for the revenue collections, transfer, and disbursement mechanisms;
- Recommend and advise the GoG on how to strengthen internal controls and GoG oversight over NEDCo’s revenue and disbursement.

Executive Summary | Snapshots of NEDCo's energy statistics

NEDCo reported total billed energy of 267.9 million kWh, which represents 59% of the total Grid power purchased from VRA. This translated into revenue of GHS476.3 million with reported cash collections amounting to GHS367.8 million (c.77.2% of revenue) over the period Jul to Sep 2023

Figure 1A: Analysis of power purchased and distributed -Jul to Sep 2023 (millions of kWh)

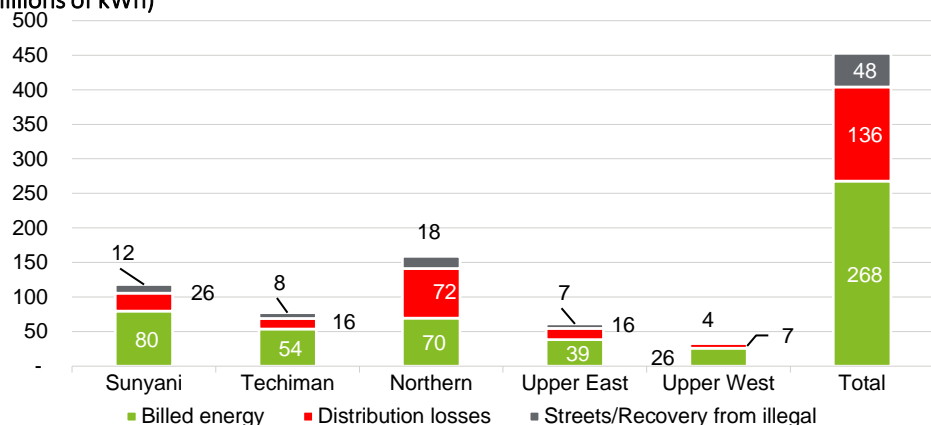


Figure 1C: Reported vs validated cash collections for power sales- Jul 2022 to Jun 2023 (GHS' millions)

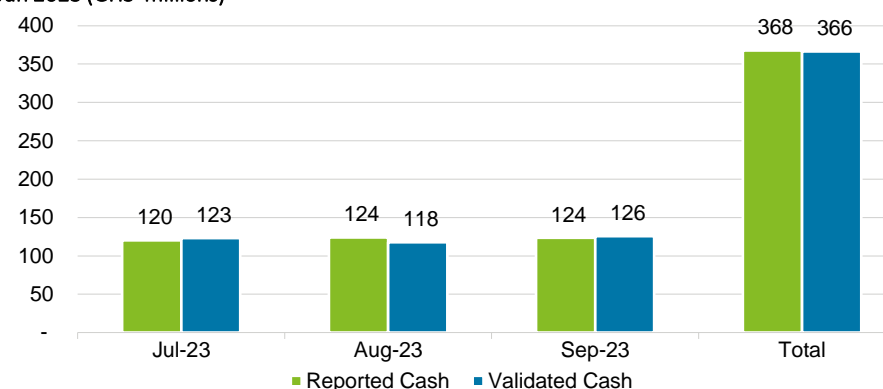


Figure 1B: Reported revenue vs reported cash collections- Jul to Sep 2023 (GHS' millions)

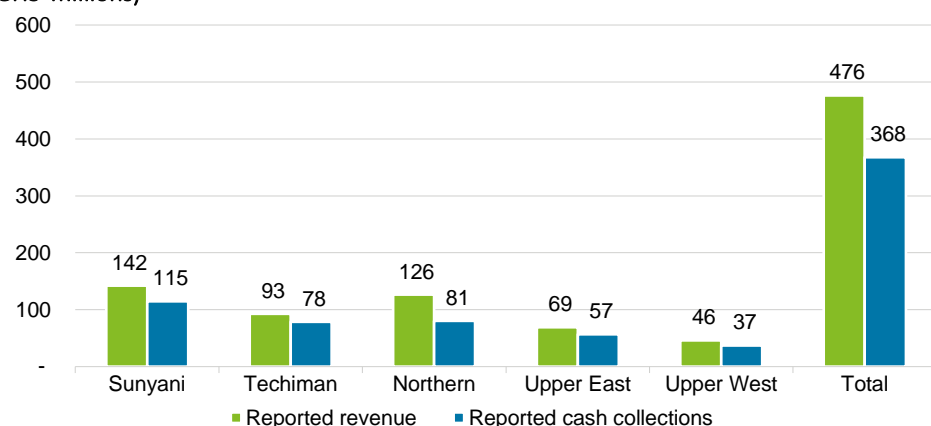
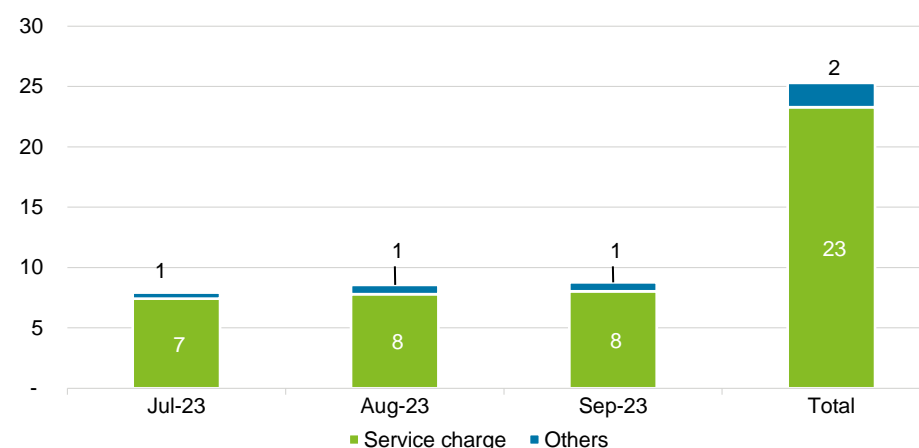


Figure 1D: Non-tariff revenue- Jul 2022 to Jun 2023 (GHS' millions)



Source: Management Information & Deloitte Analysis



Executive Summary | Summary of power purchases & distribution

NEDCo reported total power purchases of 452.5 million kWh over the period July to September 2023, out of which 30% was lost in the process of distribution

Table 1 : Summary of power purchases and distribution for the period Jul 2023 to Sep 2023 (kWh)

Summary of power purchases and distribution for the period Jul 2023 to Sep 2023 (kWh)							
Service Area	GRID Power Purchased (A)	Billed Energy (B)	Streetlights (C)	Energy Recovery/Illegal (D)	Accountable Power (E=B+C+D)	Distribution Losses (F=A-E)	Dist'n Loss %
Sunyani	118,215,252	79,688,699	11,821,525	675,209	92,185,433	26,029,819	22%
Techiman	77,242,761	53,709,255	7,724,276	177,140	61,610,672	15,632,089	20%
Northern	158,928,331	69,757,363	15,892,833	1,689,038	87,339,234	71,589,097	45%
Upper East	61,366,473	38,774,927	6,136,647	431,011	45,342,585	16,023,888	26%
Upper West	36,786,519	25,973,408	3,678,652	230,525	29,882,585	6,903,934	19%
Grand total	452,539,335	267,903,652	45,253,933	3,202,924	316,360,509	136,178,826	30%

Source: Management Information & Deloitte Analysis

NEDCo's power purchases and distribution

As presented in table 1 above, NEDCo's commercial statistic report for the period July to September 2023 indicates total power purchased and transmitted to NEDCo of 452.5 million kWh, out of which 267.9 million kWh was billed to customers as revenue. In addition to the billed energy, 45.3 million kWh of the power purchased was assessed as consumption for street lighting, and 3.2 million kWh was estimated as recoveries from illegal consumption.

The sum of energy billed, power for street lighting, and the recoveries from illegal consumption is what management refers to as Accountable Power. The difference between the Accountable Power and the Total Power Purchased represents Total Distribution Losses.

Based on management's report, we noted Total Distribution Losses of 136.2 million kWh, which represents 30% of the Total Power Purchased. When analysed based on the revenue run rate for the period July to September 2023, the Total Distribution Losses translates to GHS233.0 million. NB: *The revenue run rate is calculated by dividing the billed energy in GHS by the billed energy in kWh to arrive at the billed energy per kWh, the result of which is multiplied by the total distribution loss.*

NEDCo's power purchases and distribution (cont'd)

When analysed by Service Areas, Sunyani and Northern, together, received about 61.2% of the grid power supplied to NEDCo by VRA. These two, together, also accounted for 55.8% of the total billed energy, and 56.7% of the total accountable energy over the period July to September 2023. In terms of losses, Northern and Sunyani, together, accounted for 71.7% of the total distribution losses reported by NEDCo.

To validate NEDCo's power purchases and distribution for the period July to September 2023, we reviewed the monthly power bills/invoices submitted to NEDCo by VRA and GRIDCo. Included in the signed monthly invoices are schedules that track power receipts at various Bulk Supply Points (BSPs) (refer to Appendix A2) across the five Service Areas. We were able to fully reconcile the detailed schedules noted in the signed power bills/invoices covering the period July to September 2023 without exceptions. Please refer to the *Power Purchases and Distribution* section in the main report, slide 14, for a more detailed breakdown of the Power Purchases and Distribution.



Executive Summary | Summary of power purchases & distribution

When compared to the average cost per kWh of GHS0.78, the average price per kWh of GHS1.78 indicates a mark-up of about GHS1.0 (c.130%) on each kWh of power sold by NEDCo over the period July to September 2023

Table 2 : Analysis of cost and sales per kWh of power sold by NEDCo

Analysis of cost and sales per kWh of power sold by NEDCo (July to September 2023)										
Period	Power Supplied (kWh) (A)	Amount Billed (GHS) (B)	Cost per kWh (GHS) (C=B/A)	TSC* (GHS) (D)	TSC per kWh (GHS) (E=D/A)	Total cost per kWh (GHS) (F=C+E)	Total sales (kWh) (G)	Total sales (GHS) (H)	Average Price per kWh (GHS) (I=H/G)	Mark-up on Cost (%)
Jul-23	155,236,313	99,939,292	0.64	20,256,209	0.13	0.77	92,404,403	164,916,359	1.78	131%
Aug-23	148,124,284	95,377,333	0.64	19,331,567	0.13	0.77	86,846,359	151,626,434	1.75	125%
Sep-23	149,178,737	96,001,464	0.64	19,237,944	0.13	0.77	88,652,889	159,794,446	1.80	133%
Total	452,539,335	291,318,089	0.64	58,825,720	0.13	0.77	267,903,652	476,337,239	1.78	130%

*TSC- Transmission Service Charge

Refer to Appendix A5 for breakdown of the TSC into its various component

Source: Management Information & Deloitte Analysis

Cost per kWh of power purchased

As shown in Table 2 above, the total cost of power to NEDCo is composed of the amounts billed to NEDCo by VRA for power supplied to the various bulk supply points and the amounts billed to NEDCo by GRIDCo for transmission of same power to the bulk supply points across the 5 Service Areas under NEDCo.

For the 3-month period covering July to September 2023, NEDCo received 452.5 million kWh of power from VRA for which it was billed a total of GHS291.3 million by VRA, translating into an average cost of GHS0.64 per kWh of power supplied by VRA. Similarly, NEDCo received total bill of GHS58.8 million as transmission charges from GRIDCo, which translates into an average transmission cost of GHS0.13 per kWh of power transmitted. Together, these amounts to an average cost of GHS0.77 per kWh of power purchased and transmitted to NEDCo over the period July to September 2023.

Price per kWh of power sold

As presented in the table above, over the period July to September 2023, NEDCo recorded total power sales of 267.9 million kWh at GHS476.3 million, which translates into an average price of GHS1.78 per kWh of power sold over the period.

Mark-up on cost

When compared to the average cost per kWh of GHS0.77, the average price per kWh of GHS1.78 indicates a mark-up of about GHS1.0 on each kWh of power sold by NEDCo over the period July to September 2023. This reflects a margin of about 130% on the cost per unit of power purchased and transmitted to NEDCo over the period.

The mark-up analysed on cost suggests that NEDCo typically recovered more than twice the per unit cost it incurs to procure and transmit power from VRA to its bulk supply points. This indicates that, all other things being equal, NEDCo is commercially positioned to more than adequately recover costs incurred in purchasing power and to fully settle obligations to its suppliers. This therefore suggests that NEDCo's inability to settle liabilities owed to its suppliers is largely due to a combination of its distribution losses and cash flow challenges rather than its commercial arrangements with suppliers and customers.

Executive Summary | Summary of revenue & collection

NEDCo's total billed energy for the period July to September 2023 amounted to about 267.9 million kWh, with Sunyani and Northern areas together accounting for 55.7% of the total billed energy over the period

Table 3: Summary of revenue and collection - NEDCo

Summary of revenue and collection – NEDCo (GHS)											
Service Area	Billed to Prepaid Customers (kWh)	Billed to Post-paid Customers (kWh)	Total Billed Energy (kWh)	Billed to Pre-paid Customers (GHS)	Billed to Post-paid Customers (GHS)	Total Billed Energy (GHS)	Collection from Pre-paid Customers (GHS)	Collection from Post-paid Customers (GHS)	Total Collections (GHS)	Collection % of billings	Consumption %
	(A)	(B)	(C=A+B)	(D)	(E)	(F=D+E)	(G)	(H)	(I=G+H)	(I/F)	(I/F)
Sunyani	38,631,266	41,057,433	79,688,699	69,520,758	72,507,961	142,028,719	72,095,270	42,822,261	114,917,531	81%	30%
Techiman	32,269,912	21,439,343	53,709,255	56,667,433	36,276,267	92,943,700	58,807,801	19,647,856	78,455,657	84%	20%
Northern	28,343,784	41,413,579	69,757,363	52,579,825	73,698,067	126,277,892	58,960,443	21,618,160	80,578,602	64%	26%
Upper East	21,026,270	17,748,657	38,774,927	37,543,947	31,319,610	68,863,557	42,813,447	14,036,296	56,849,743	83%	14%
Upper West	16,745,398	9,228,010	25,973,408	28,714,797	17,508,574	46,223,371	30,526,173	6,468,791	36,994,964	80%	10%
Grand total	137,016,630	130,887,022	267,903,652	245,026,760	231,310,480	476,337,239	263,203,134	104,593,363	367,796,497	77%	100%

Source: Management Information & Deloitte Analysis

NEDCo's billed energy, revenue and cash collection

As presented in table 3 above, total billed energy by NEDCo for the period July to September 2023 amounted to about 267.9 million kWh. The Sunyani and Northern area, together, accounted for 55.7% of the total billed energy over the period.

The total kWh of billed energy over the period July to September 2023 translated into total revenue of GHS476.3 million with Northern and Sunyani areas accounting for 56.3% of the total revenue billed.

When analysed by customer type, prepaid customers accounted for 51.1% of power consumed and 51.4% of revenue generated, while post-paid customers accounted for 48.9% of power consumed, translating into 48.6% of the total revenue billed over the period July to September 2023. A more detailed breakdown of power consumption and billings per Service Area has been presented in *Appendix A3* of this report.

In terms of cash collection, NEDCo reported total cash collection of GHS367.8 million over the period July to September 2023, with cash collected from prepaid customers accounting for 71.6% of the total.

NEDCo's billed energy, revenue and cash collection (cont'd)

When analysed by Service Areas, Techiman accounted for the highest cash collection ratio at 84.4% of the billed revenue, whilst Upper East, Sunyani and Upper West recorded cash collection to billings ratios of 82.6%, 80.9% and 80.0% respectively. The lowest ratio was recorded in Northern at 63.8%. For Techiman and Upper East, which represent the top two areas when ranked by collection to billings ratio, we note that power billed to prepaid customers in these areas accounted for 61.0% and 54.5% respectively of total billed to these areas. This partly accounts for the relatively higher collection ratios recorded in these areas.

To validate the billed energy and revenue reported by NEDCo, we performed a walk-through test of the power billing and revenue accounting software in use at NEDCo to ascertain the accuracy of management's assertions about how the system has been configured to account for revenue. In performing the systems testing procedures, we used sample transactions to recalculate revenue data generated from the system and noted no exceptions.



Executive Summary | Summary of revenue & collection

Based on our review of bank statements for collection accounts provided by management of NEDCo, we noted total cash collection of GHS366.5 million, which is about 0.35% lower than the total cash collections reported by NEDCo for the period spanning Jul - Sep 2023

Table 4: Summary of revenue and collection - NEDCo

Cash validated from bank statements (GHS)			
Service Area	Source	Total	Variance
Sunyani	Cash from bank statements (A)	116,834,368	
	Cash per management report (B)	114,917,531	
	<i>Difference noted (A-B)</i>	<i>1,916,837</i>	<i>1.67%</i>
Techiman	Cash from bank statements (A)	73,829,134	
	Cash per management report (B)	78,455,657	
	<i>Difference noted (A-B)</i>	<i>(4,626,523)</i>	<i>(5.90%)</i>
Northern	Cash from bank statements (A)	72,270,086	
	Cash per management report (B)	80,578,602	
	<i>Difference noted (A-B)</i>	<i>6,731,484</i>	<i>8.35%</i>
Upper East	Cash from bank statements (A)	54,109,512	
	Cash per management report (B)	56,849,743	
	<i>Difference noted (A-B)</i>	<i>(2,740,231)</i>	<i>(4.82%)</i>
Upper West	Cash from bank statements (A)	36,146,776	
	Cash per management report (B)	36,994,964	
	<i>Difference noted (A-B)</i>	<i>(848,189)</i>	<i>(2.29%)</i>
Mobile Money	Validated Momo (A)	6,801,191	n/a
Cheque Deposits	Validated Cheque Deposits (A)	6,500,000	n/a
Consolidated	Cash from bank statements (A)	366,491,065	
	Cash per management report (B)	367,796,497	
	<i>Difference noted (A-B)</i>	<i>(1,305,432)</i>	<i>(0.35%)</i>

Refer to Appendix A5 for details of validated cash collection for each area

Refer to Appendix A4 for breakdown of cheque deposits

Source: Management Information & Deloitte Analysis

NEDCo's billed energy, revenue and cash collection (cont'd)

Table 4 summarizes the results of our cash validation work covering the period July 2023 to Sep 2023. Based on information provided by management and our review of same, we noted total cash collections of c.GHS366.5 million over the period July 2023 to Sep 2023. This compared higher to the total reported cash collections of c.GHS367.8 million for the same period, indicating an unreconciled difference of GHS 1.31 million. Whilst this indicates potential understatement of the reported cash collections over the period July to September 2023, management indicated that the difference is likely to have resulted from timing differences between date on which the billing system records cash receipts from customers and when these cash receipts are banked. Aside the high-level explanation provided by management, management has been unable assist in reconciling the difference noted.

During our validation process, we noted from discussions with management that NEDCo has an arrangement with Broad Spectrum Limited, an electronic payments service provider, for the aggregation of all mobile money payments, which are then transferred in bulk to the Company's current account at GCB Bank. These were included in our validated cash collections.

Additionally, management indicated that organisations such as the Ghana Water Company Limited (GWCL), K-NET Ghana and Free SHS Secretariat issue cheque payments for power consumption which are directly deposited into NEDCo's Head Office SG and Ecobank accounts. We have included these in the validated cash collections.

We noted that NEDCo does not operate a Single Collection Account where all cash collection from power sales across the five Service Areas under NEDCo are transferred. We however noted instances of bulk transfers into the Northern Area power sales account from other accounts mapped to the other Service Areas, although management confirmed that this account is not operated as a Single Collection Account.



Executive Summary | Summary of revenue & collection

Management's schedules for non-tariff revenue indicate total non-tariff revenue of GHS25.3 million generated over the period July-September 2023. About 92% of this relate to service charges included in all customer bills

Table 5: Summary of non-tariff revenue - NEDCo

Schedule of non-tariff revenue: July 2022- June 2023 (GHS'000)					
Item	Jul-23	Aug-23	Sep-23	Total	% of total
Service Charge (Distribution)	7,437.01	7,801.21	8,039.96	23,278.18	92.0%
Interest-Bank Deposits (Local)	20.63	189.08	499.86	709.57	2.8%
Income from Unestimated Work	279.46	43.93	28.55	351.94	1.4%
Revenue Netting Account	-	271.58	-	271.58	1.1%
General Miscellaneous Income	50.68	123.10	84.41	258.18	1.0%
Reconnection Fees	51.79	48.36	40.00	140.14	0.6%
Meter Maintenance Fees	38.09	45.51	27.63	111.23	0.4%
Sale of IC Cards	33.51	22.23	33.82	89.56	0.4%
Misc Interest Income (Local)	10.10	18.79	20.75	49.63	0.2%
Sale of Service Application For	2.97	3.41	2.55	8.94	0.0%
Swimming & Fitness Services I	1.78	1.04	4.83	7.65	0.0%
Equipment Rental Income	6.40	-	-	6.40	0.0%
Hire of Space, Halls, Clubhouse	3.00	1.00	1.00	5.00	0.0%
Sale Of Bid Forms ETC	3.30	-	-	3.30	0.0%
Club/Bar Sales Income	1.10	0.63	1.35	3.08	0.0%
Others Services Income	0.48	-	-	0.48	0.0%
Sale of Appliances			0.10	0.10	0.0%
Total	7,940.29	8,569.86	8,784.80	25,294.95	100%

Source: Management Information & Deloitte Analysis

NEDCo's non-tariff revenue for the period July to September 2023

As summarized in the table 5 above, management reported total non-tariff revenue of GHS25.3 million for the period July- September 2023. The key components of NEDCo's non-tariff revenue are summarily explained as follows:

Service charge- This is a fee charged to all customers to cover the cost of NEDCo's services, and it is included in all customers' bills but separated from power sales and reported as a component of non-tariff revenue. This amounted to a total of GHS23.3 million over the period July- September 2023 and constituted c.92.0% of the total non-tariff revenue reported for the quarter.

NEDCo's non-tariff revenue for the period July to September 2023 (cont'd)

- Interest on local bank deposits-** This relates to interest earnings on cash deposited in NEDCo's local bank accounts. This amounted to GHS709.6 thousand over the period July-September 2023 and constituted c.2.8% of the total non-tariff revenue reported for the quarter.
- Income from 'unestimated work'-** Reported in management schedules as "income from unestimated" work, this relates to payment made by customers found to have performed illegal connection on their meters. Customers who have performed illegal connection are required to make payment for the power they consumed. This amounted to a total of GHS351.9 thousand over the period July- September 2023 and constituted c.1.4% of the total non-tariff revenue reported for the quarter.
- Revenue netting account-** This relates to revenue that has not been posted to any particular account. Ideally, the finance team investigates this and later posts it to the right account. This amounted to a total of GHS271.6 thousand over the period July- September 2023 and constituted c.1.1% of the total non-tariff revenue reported for the quarter.
- General miscellaneous income-** This, according to management, mainly include income that can not be classified or charged to a specific ledger account. An example of such is penalty for illegal connection and others. This amounted to a total of GHS258.2 thousand over the period reviewed and constituted c.1.0% of the total non-tariff revenue.
- Reconnection fees-** This relate to fees charged to customers for reconnection after being disconnected for various reasons, including illegal connection and non-payment of bills. These amounted to a total of GHS140.1 thousand over the period reviewed and constituted c.0.6% of the total non-tariff revenue.
- Meter maintenance fees-** This is also charged to customers as a flat fee and included in all customer power bills for purposes of covering the cost of maintenance works done periodically on the meters. These amounted to a total of GHS111.2 thousand over the period reviewed and constituted c.0.4% of the total non-tariff revenue



Executive Summary | Summary of payments to suppliers and regulators

NEDCo's payables due to its suppliers (VRA and GRIDCo) stood at GHS2.6 billion as of 30 September 2023, representing about 22 months' worth of power supply bills

Table 6 : Summary of validated supplier and regulatory payments – Jul to Sep 2023

Summary of validated supplier and regulatory payments - Jul to Sep 2023								
Entities	Bills (GHS'm)	Payments (GHS'm)	Pmt. % of Bills	Outstanding debts (GHS'm)			Months Outstanding (GHS'm)	Indicative Months
	Total	Total		Bal b/f	Change	Bal c/f	AMB* (GHS'm)	
<i>Power suppliers:</i>								
VRA	293.08	135.00	46%	1,867.62	158.08	2,025.70	97.69	20.74
GRIDCO	58.83	21.00	36%	534.21	37.83	572.04	19.61	29.17
Subtotal-power suppliers	351.91	156.00	44%	2,401.83	195.91	2,597.73	117.30	22.15
<i>Regulatory entities:</i>								
MOE	14.29	9.28	65%	-	5.01	5.01	4.76	1.05
NEF	9.53	12.37	130%	-	(2.84)	(2.84)	3.18	(0.90)
PURC	-	0.05	n/a	-	(0.05)	(0.05)	-	n/a
Energy Commission	-	-	n/a	-	-	-	-	n/a
Subtotal- Regulatory	23.82	21.70	91%	-	2.12	2.12	7.94	0.27
Grand total	375.73	177.70	47%	2,401.83	198.03	2,599.85	125.24	20.76

*Average Monthly Bill

Source: Management Information & Deloitte Analysis

Supplier and statutory bills and payments

Table 6 above is a summary of supplier and statutory bills for NEDCo, and payments made towards reducing these liabilities. These have been validated using copies of bills and payment receipts provided by NEDCo for our review.

Supplier bills and payments: As shown in the Table 6 above, NEDCo's suppliers include VRA and GRIDCo for the supply and transmission of power, respectively. In total, NEDCo received power bills amounting to GHS351.9 million over the period July to September 2023 and made payments amounting to GHS156.0 million over the same period. The payments made represent only about 44% of the total power bills received from VRA and GRIDCo. The shortfall recorded for the period (c.GHS195.9 million) adds up to the opening balance of outstanding bills amounting to GHS2.4 billion to leave a closing balance of GHS2.6 billion as of 30 Sep 2023. Comparing this balance to the average monthly bill of GHS117.3 million recorded over the period July to September 2023 indicates that supplier payments, as of 30 Sep 2023, reflects a payable period of 22 months and suggests poor timeliness of settling supplier bills.

Supplier and regulatory bills and payments

Regulatory bills and payments: Table 6 also presents a summary of amounts required to be paid to some statutory bodies, including the Ministry of Energy (MOE), National Electricity Fund (NEF), Public Utilities Regulatory Commission (PURC), and Energy Commission (EC).

In total, we estimated statutory bills amounting to GHS23.8 million over the period July to September 2023 and validated payments made by NEDCo amounting to GHS21.7 million over the same period. The payments made represent about 91% of the total bills assessed on NEDCo over the period July to September 2023.

As of the date of finalising our report, we had not received information on the outstanding balance of statutory payments as of 30 June 2023. We were, thus, unable to assess the total balance of outstanding payments as of 30 September 2023 and the indicative number of months of payments this translates into.

For MOE and NEF, the regulatory payments required of NEDCo have been specified in the Energy Sector Levies (Amendment) Act (Act 946). The Act directs that NEDCo should pay MOE and NEF 3% and 2%, respectively, of the price per kWh of electricity charged to customers. Although management asserts that the payments are done on cash collected basis, we have reflected the actual bills as prescribed by the Act for purposes of our validation exercise.

For PURC and Energy Commission, there were no specific requirements in the Act that obligates NEDCo to make any statutory payments. We also did not sight any invoices for statutory payments from PURC and/or EC to NEDCo for the period July to September 2023.



Power purchases and distribution

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Power purchases and distribution

Based on our review of power supply bills from VRA and the schedule of power supplied to various Bulk Supply Points, we were able to reconcile NEDCo's reported power purchases of 452.54 million kWh over the period July to September 2023

Table 7 : Summary of power purchases and distribution for the period Jul 2023 to Sep 2023 (kWh)

Summary of power purchases and distribution for the period Jul 2023 to Sep 2023 (kWh)								
Service Area	Bulk Supply Point	GRID Power		Streetlights (C)	Energy Recovery/ Illegal (D)	Accountable Power (E=B+C+D)	Distribution Losses (F=A-E)	Dist'n Loss %
		Purchased (A)	Billed Energy (B)					
Sunyani	Sunyani	38,626,036	29,464,800	3,862,604	675,209	34,002,613	4,623,423	12%
	Berekum	28,861,700	22,620,345	2,886,170	-	25,506,515	3,355,185	12%
	Mim	37,863,900	22,690,829	3,786,390	-	26,477,219	11,386,681	30%
	Bechem	12,863,616	4,912,724	1,286,362	-	6,199,086	6,664,530	52%
Subtotal- Sunyani		118,215,252	79,688,699	11,821,525	675,209	92,185,433	26,029,819	22%
Techiman	Techiman	55,741,231	38,493,014	5,574,123	177,140	44,244,277	11,496,954	21%
	Kintampo	21,501,530	15,216,242	2,150,153	-	17,366,395	4,135,135	19%
Subtotal- Techiman		77,242,761	53,709,255	7,724,276	177,140	61,610,672	15,632,089	20%
Northern	Tamale	111,886,421	46,650,759	11,188,642	1,689,038	59,528,439	52,357,982	47%
	Yendi	41,222,860	19,035,813	4,122,286	-	23,158,099	18,064,761	44%
	Buipe/Yapei	3,176,550	2,005,179	317,655	-	2,322,834	853,716	27%
	Damango	2,642,500	2,065,612	264,250	-	2,329,862	312,638	12%
Subtotal- Northern		158,928,331	69,757,363	15,892,833	1,689,038	87,339,234	71,589,097	45%
Upper East	Bolga	27,697,050	18,615,378	2,769,705	431,011	21,816,094	5,880,956	21%
	Bawku	18,686,798	10,312,251	1,868,680	-	12,180,930	6,505,868	35%
	Navrongo	11,790,525	7,574,768	1,179,052	-	8,753,821	3,036,704	26%
	Zebilla	3,192,100	2,272,530	319,210	-	2,591,740	600,360	19%
Subtotal- Upper East		61,366,473	38,774,927	6,136,647	431,011	45,342,585	16,023,888	26%
Upper West	Wa	26,371,501	19,554,630	2,637,150	230,525	22,422,306	3,949,195	15%
	Tumu	4,128,670	2,368,823	412,867	-	2,781,690	1,346,980	33%
	Sawla	6,286,348	4,049,954	628,635	-	4,678,589	1,607,759	26%
Subtotal- Upper West		36,786,519	25,973,408	3,678,652	230,525	29,882,585	6,903,934	19%
Grand total		452,539,335	267,903,652	45,253,933	3,202,924	316,360,509	136,178,826	30%



Power purchases and distribution

Out of the total power purchased over the period reviewed, NEDCo reported billed energy of 267.9 million kWh, which represents 59.2% of the total power purchased from VRA

Overview

NEDCo currently purchases power solely from VRA. At the end of each month, VRA issues a power supply bill to NEDCo indicating the total cost and volume of power supplied to NEDCo. Also attached to the power supply bills are schedules that track power supplied to various Bulk Supply Points (BSPs) across each Service Area (see table 7 in the previous slide).

To validate the reported power purchased over the period reviewed, we obtained and reviewed signed original copies of the monthly VRA power bills to verify the volume of power purchased by NEDCo for every month covered within our review period. As indicated above, each power bill or invoice contains a schedule that provides a breakdown of the power supplied into the bulk amounts received at the various designated BSPs across each Service Area. Overall, we were able to reconcile the power supplied to the various BSPs across the five Service Areas to the total power purchases of 452.5 million kWh reported by NEDCo for the period July to September 2023. Please refer to *Appendix A2* for a detailed schedule of power supplied to each of the BSPs across the Service Areas for every month covered in our review period.

Accountable energy and distribution losses

Out of the total power purchased of 452.5 million kWh, management reports indicate that NEDCo was able to account for only 316.4 million kWh as either billed energy, power consumption for street/public lighting or recoveries from illegal consumption, which together, represents what management refers to as Accountable Power. The Accountable Power represents 70% of the total power purchased, with distribution losses accounting for the remaining 30%. Our analysis indicates that the Northern Service Area, which accounted for the highest proportion of the bulk power receipts from VRA at 35.1%, also recorded the highest distribution loss ratio at 45%.

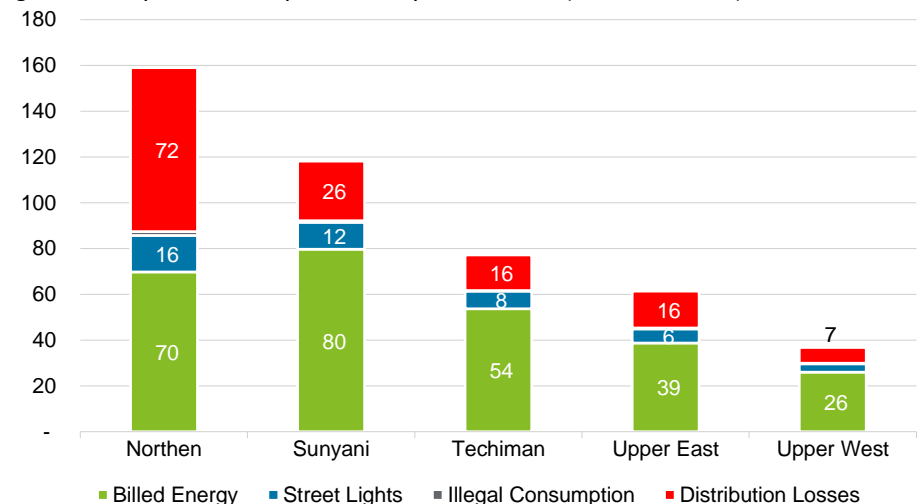
Figure 2 depicts the total power supplied to each Service Area and analysis of same into various components (billed energy, streetlights, illegal consumption and distribution losses)

Accountable energy and distribution losses (cont'd)

According to management, the distribution losses are made up of technical and commercial losses, although management was unable to split the distribution losses reported into the technical and commercial components. Technical losses occur during the distribution of power from NEDCo to customers, while commercial losses relate to power distributed to customers that is not recovered. Commercial losses may be occasioned by several factors, including illegal connections, faulty meters, customers' inability or unwillingness to pay for power consumed etc.

Out of the total power purchased over the period reviewed, NEDCo reported billed energy of 267.9 million kWh, which represents 59.2% of the total power purchased from VRA. Power consumption due to public/street lighting and recoveries from illegal consumption accounted for 10.0% and 0.7% of the total power purchased, respectively.

Figure 2: Analysis of Power purchases by Service Area (millions of kWh)



Source: Management Information & Deloitte Analysis



Revenue and cash collection

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Revenue and cash collection | Overview

For the period Jul-Sep 2023, NEDCo reported total revenue of GHS476.3 million as against cash collections of GHS367.8 million, representing 77.2% of the total revenue

Table 8: Summary of revenue and collection - NEDCo

Summary of revenue and collection – NEDCo (GHS)												
Service Area	Billed to Prepaid Customers (kWh) (A)	Billed to Post-paid Customers (kWh) (B)	Total Billed Energy (kWh) (C=A+B)	Billed to Pre-paid Customers (GHS) (D)	Billed to Post-paid Customers (GHS) (E)	Total Billed Energy (GHS) (F=D+E)	Collection from Pre-paid Customers (GHS) (G)	Collection from Post-paid Customers (GHS) (H)	Total Collections (GHS) (I=G+H)	Collection % of billings	Consumption %	
Sunyani	38,631,266	41,057,433	79,688,699	69,520,758	72,507,961	142,028,719	72,095,270	42,822,261	114,917,531	81%	30%	
Techiman	32,269,912	21,439,343	53,709,255	56,667,433	36,276,267	92,943,700	58,807,801	19,647,856	78,455,657	84%	20%	
Northern	28,343,784	41,413,579	69,757,363	52,579,825	73,698,067	126,277,892	58,960,443	21,618,160	80,578,602	64%	26%	
Upper East	21,026,270	17,748,657	38,774,927	37,543,947	31,319,610	68,863,557	42,813,447	14,036,296	56,849,743	83%	14%	
Upper West	16,745,398	9,228,010	25,973,408	28,714,797	17,508,574	46,223,371	30,526,173	6,468,791	36,994,964	80%	10%	
Grand total	137,016,630	130,887,022	267,903,652	245,026,760	231,310,480	476,337,239	263,203,134	104,593,363	367,796,497	77%	100%	

Source: Management Information & Deloitte Analysis

NEDCo's billed energy, revenue and cash collection

As presented in table 8 above, NEDCo total billed energy for the period July to September 2023 amounted to about 267.9 million kWh, with Sunyani and Northern areas, together, accounting for 55.7% of the total billed energy over the period.

The total kWh of billed energy over the period July to September 2023 translated into total revenue of GHS476.3 million with Northern and Sunyani areas accounting for 56.3% of the total revenue billed.

When analysed by customer type, prepaid customers accounted for 51.1% of power consumed and 51.4% of revenue generated, while post-paid customers accounted for 48.9% of power consumed, translating into 48.6% of the total revenue billed over the period July to September 2023. A more detailed breakdown of power consumption and billings per Service Area has been presented in Appendix A3 of this report.

In terms of cash collection, NEDCo reported total cash collection of GHS367.8 million over the period July to September 2023, with cash collected from prepaid customers accounting for 71.6% of the total.

NEDCo's billed energy, revenue and cash collection (cont'd)

When analysed by Service Areas, Techiman accounted for the highest cash collection ratio at 84.4% of the billed revenue, whilst Upper East, Sunyani, and Upper West recorded cash collection to billings ratios of 82.6%, 80.9%, and 80.0% respectively. The lowest ratio was recorded in Northern at 63.8%. For Techiman and Upper East, which represent the top two areas when ranked by collection to billings ratio, we note that power billed to prepaid customers in these areas accounted for 61.0% and 54.5% respectively of total billed to these areas. This partly accounts for the relatively higher collection ratios recorded in these areas.

To validate the billed energy and revenue reported by NEDCo, we performed a walk-through test of the power billing and revenue accounting software in use at NEDCo to ascertain the accuracy of management's assertions about how the system has been configured to account for revenue. In performing the systems testing procedures, we used sample transactions to recalculate revenue data generated from the system and have so far noted no exceptions. Refer to the tables in *Appendix A3* for detailed breakdown of the billed power (in both kWh and GHS) and cash collections for each of the five Service Areas noted in Table 8 above



Revenue and cash collection | Overview

Based on our review of bank statements for collection accounts provided by management of NEDCo, we noted total cash collection of GHS366.5 million, which is about 0.35% lower than the total cash collections reported by NEDCo for the period spanning Jul - Sep 2023

Table 9: Summary of validated cash collection - NEDCo

Cash validated from bank statements (GHS'000)						
Service Area	Source	Jul 2023	Aug 2023	Sep 2023	Total	Variance
Sunyani	Cash from bank statements (A)	39,115,203	36,866,212	40,852,952	116,834,368	
	Cash per management report (B)	36,824,914	39,108,578	38,984,039	114,917,531	
	<i>Difference noted (A-B)</i>	<i>2,290,289</i>	<i>(2,242,365)</i>	<i>1,868,913</i>	<i>1,916,837</i>	<i>1.67%</i>
Techiman	Cash from bank statements (A)	21,335,711	25,767,535	26,725,887	73,829,134	
	Cash per management report (B)	24,481,326	27,171,498	26,802,833	78,455,657	
	<i>Difference noted (A-B)</i>	<i>(3,145,615)</i>	<i>(1,403,963)</i>	<i>(76,945)</i>	<i>(4,626,523)</i>	<i>(5.90%)</i>
Northern	Cash from bank statements (A)	24,116,396	24,918,598	23,235,092	72,270,086	
	Cash per management report (B)	26,500,424	28,419,625	25,658,553	80,578,602	
	<i>Difference noted (A-B)</i>	<i>(2,384,028)</i>	<i>(3,501,027)</i>	<i>(2,423,461)</i>	<i>(8,308,516)</i>	<i>(10.31%)</i>
Upper East	Cash from bank statements (A)	21,195,404	13,445,191	19,468,916	54,109,512	
	Cash per management report (B)	19,789,362	17,413,720	19,646,661	56,849,743	
	<i>Difference noted (A-B)</i>	<i>1,406,043</i>	<i>(3,968,529)</i>	<i>(177,745)</i>	<i>(2,740,231)</i>	<i>(4.82%)</i>
Upper West	Cash from bank statements (A)	11,620,858	10,522,019	14,003,899	36,146,776	
	Cash per management report (B)	12,514,687	11,913,466	12,566,812	36,994,964	
	<i>Difference noted (A-B)</i>	<i>(893,830)</i>	<i>(1,391,447)</i>	<i>1,437,087</i>	<i>(848,189)</i>	<i>(2.29%)</i>
Mobile Money	Validated Momo (A)	1,980,084	3,589,987	1,231,121	6,801,191	n/a
Cheque Deposits	Validated Cheque Deposits (A)	4,000,000	2,500,000	-	6,500,000	n/a
Consolidated	Cash from bank statements (A)	123,363,656	117,609,543	125,517,867	366,491,065	
	Cash per management report (B)	120,110,713	124,026,887	123,658,898	367,796,497	
	<i>Difference noted (A-B)</i>	<i>3,252,943</i>	<i>(6,417,344)</i>	<i>1,858,969</i>	<i>(1,305,432)</i>	<i>(0.35%)</i>

Refer to Appendix A5 for details of validated cash collection for each area

Refer to Appendix A4 for breakdown of cheque deposits

Source: Management Information & Deloitte Analysis

Validation of NEDCo's cash collections

- Table 9 summarizes the results of our cash validation work covering the period July to September 2023. Based on the information provided by management and our review of same, we noted total cash collections of c.GHS366.5 million over the period July to September 2023. This compared higher to the total reported cash collections of c.GHS367.8 million reported for the same period, indicating an unreconciled difference of c.GHS1.31 million. Whilst this indicates potential understatement of the reported cash collections over the period July to September 2023, management indicated that the difference is likely to have resulted from timing differences between date on which the billing system records cash receipts from customers and when these cash receipts are banked. Aside the high-level explanation provided by management, management has been unable assist in reconciling the difference noted.
- When analyzed by Service Areas, the Northern Area recorded the highest variance of 10.31%, whilst Upper East and Techiman Areas recorded variances of 4.8% and 5.9% respectively.
- During our validation process, we noted from discussions with management that NEDCo has an arrangement with Broad Spectrum Limited, an electronic payments service provider, for the aggregation of all mobile money payments, which are then transferred in bulk to the Company's current account at GCB Bank. These were included in our validated cash collections.
- Additionally, management indicated that organisations such as the Ghana Water Company Limited (GWCL), K-NET Ghana and Free SHS Secretariat issue cheque payments for power consumption which are directly deposited into NEDCo's Head Office SG and Ecobank accounts. We have included these in the validated cash collections.
- We noted that NEDCo does not operate a Single Collection Account where all cash collection from power sales across the five Service Areas under NEDCo are transferred. We however noted instances of bulk transfers into the Northern Area power sales account from other accounts mapped to the other Service Areas, although management confirmed that this account is not operated as a Single Collection Account.



Revenue and cash collection | Sunyani

For the period Jul-Sep 2023, NEDCo reported revenue of GHS142.0 million for the Sunyani Area, which represents 29.8% of its total revenue. The corresponding cash collection amounted to GHS114.9 million (c.81% of revenue)

Table 10: Summary of revenue and collection – Sunyani Service Area

Summary of revenue and collection - Sunyani Service Area											
Sunyani	Billed to			Collection from			Collection from		Total Collections (GHS) (I=G+H)	Collection % of billings	Consumption %
	Prepaid Customers (kWh) (A)	Post-paid Customers (kWh) (B)	Total Billed Energy (kWh) (C=A+B)	Pre-paid Customers (GHS) (D)	Post-paid Customers (GHS) (E)	Total Billed Energy (GHS) (F=D+E)	Pre-paid Customers (GHS) (G)	Post-paid Customers (GHS) (H)			
Sunyani	21,498,526	7,966,274	29,464,800	37,045,783	15,125,694	52,171,477	37,857,704	6,782,592	44,640,295	86%	37%
Berekum	5,543,630	3,248,966	8,792,596	10,081,393	5,500,168	15,581,561	10,412,497	2,993,400	13,405,897	86%	11%
Dormaa	1,287,131	3,026,615	4,313,746	2,506,265	5,020,147	7,526,412	2,770,052	3,472,264	6,242,316	83%	5%
Tepa	867,340	3,062,498	3,929,838	1,594,577	5,418,518	7,013,095	1,695,566	2,404,144	4,099,710	58%	5%
Hwidiem	1,575,836	3,824,052	5,399,888	3,106,538	7,441,846	10,548,384	3,169,300	5,371,927	8,541,227	81%	7%
Mim	670,515	3,904,627	4,575,142	1,298,041	6,718,431	8,016,473	1,393,492	4,679,188	6,072,680	76%	6%
Goaso	2,381,867	1,749,569	4,131,436	4,405,495	3,213,060	7,618,555	4,638,049	2,433,347	7,071,396	93%	5%
Duayaw Nkwanta	853,023	2,005,095	2,858,118	1,653,122	3,311,510	4,964,632	1,716,675	2,398,724	4,115,400	83%	4%
Bechem	550,890	1,503,717	2,054,607	1,052,330	2,508,088	3,560,418	1,059,858	1,887,900	2,947,757	83%	3%
Drobo	458,035	2,392,010	2,850,045	951,754	4,013,249	4,965,003	973,106	2,035,761	3,008,868	61%	4%
Sampa	483,903	2,349,927	2,833,830	1,022,923	3,871,272	4,894,195	1,179,308	1,952,437	3,131,745	64%	4%
Wamfie	337,765	2,028,813	2,366,577	649,725	3,342,943	3,992,668	711,000	3,159,922	3,870,921	97%	3%
Kukuom	360,613	1,514,490	1,875,103	881,630	2,693,461	3,575,091	1,107,262	826,018	1,933,280	54%	2%
Nkrankwanta	363,645	1,099,905	1,463,550	753,035	1,889,039	2,642,074	806,935	903,397	1,710,331	65%	2%
Kenyasi	1,398,547	1,380,875	2,779,422	2,518,146	2,440,535	4,958,681	2,604,466	1,521,241	4,125,707	83%	3%
Grand total	38,631,266	41,057,433	79,688,699	69,520,758	72,507,961	142,028,719	72,095,270	42,822,261	114,917,531	81%	100%

Source: Management Information & Deloitte Analysis

Sunyani Area revenue and cash collection

In total, the Sunyani Service Area accounted for 79.7 million kWh of power consumed by NEDCo's customers. This represents 29.7% of the total energy billed by NEDCo over the period July to September 2023. Out of a total of 15 service stations in the Sunyani catchment area, two towns – Sunyani and Berekum – together, accounted for 48% of the total power consumed within the Sunyani Service Area. This suggests that power consumption within the Sunyani Service Area is significantly concentrated in these two towns.

For the Sunyani Service Area, total power billed to post-paid customers amounted to 41.1 million kWh over the period July to September 2023. This represents 51.5% of the total billed energy for the Sunyani Service Area. In terms of revenue, the post-paid customers accounted for GHS72.5 million over the same period, which represents 51.1% of the total revenue.

Sunyani Area revenue and cash collection (cont'd)

In terms of cash collections, the Sunyani Service Area accounted for a total of GHS114.9 million, which represents 31.2% of the total cash collections over the period July to September 2023. Although pre-paid customers accounted for only 48.5% of the total billed energy in kWh, cash collected from pre-paid customers amounted to GHS72.1 million and constituted 62.7% of the total cash collections within the Sunyani Service Area.

Overall, total cash collections as a % of billed revenue for the Sunyani Service Area was 80.9% over the period July to September 2023. When ranked based on the ratio of cash collection to billed revenue, Wamfie and Goaso towns recorded the two highest ratios at 97.0% and 92.8% respectively. At the bottom of the rank are Kukuom and Tepa towns with 54.1% and 58.5% respectively.



Revenue and cash collection | Techiman

For the period Jul-Sep 2023, NEDCo reported revenue of GHS92.9 million for the Techiman Area, which represents 16.6% of its total revenue. The corresponding cash collection amounted to GHS78.5 million (c.84% of revenue)

Table 11: Summary of revenue and collection – Techiman Service Area

Summary of revenue and collection - Tehchiman Service Area											
	Billed to Prepaid Customers (kWh)	Billed to Post-paid Customers (kWh)	Total Billed Energy (kWh) (C=A+B)	Billed to Pre-paid Customers (GHS) (D)	Billed to Post-paid Customers (GHS) (E)	Total Billed Energy (GHS) (F=D+E)	Collection from Pre-paid Customers (GHS) (G)	Collection from Post-paid Customers (GHS) (H)	Total Collections (GHS) (I=G+H)	Collection % of billings	Consumption %
Techiman	12,894,575	4,505,127	17,399,702	22,119,803	7,763,805	29,883,608	23,082,269	3,091,089	26,173,358	88%	32%
Wenchi	3,276,472	1,829,355	5,105,827	5,744,367	3,271,430	9,015,797	5,804,747	1,198,281	7,003,028	78%	10%
Kintampo	2,849,253	1,655,272	4,504,525	4,867,320	2,919,816	7,787,137	5,151,137	1,695,335	6,846,473	88%	8%
Akumadan	1,176,347	929,735	2,106,082	2,063,249	1,584,938	3,648,188	2,133,493	1,149,049	3,282,543	90%	4%
Nkoranza	2,551,068	2,049,903	4,600,971	5,041,456	3,278,884	8,320,340	5,410,645	2,204,533	7,615,178	92%	9%
Ejura	3,055,675	1,297,866	4,353,541	5,183,452	2,165,809	7,349,261	5,311,310	1,527,783	6,839,093	93%	8%
Atebubu	1,378,800	2,151,394	3,530,194	2,418,920	3,540,642	5,959,562	2,491,676	2,089,865	4,581,541	77%	7%
Kwame Danso	450,273	1,239,024	1,689,297	828,271	2,055,719	2,883,990	851,019	946,862	1,797,881	62%	3%
Yeji	960,614	1,428,217	2,388,831	1,662,802	2,310,605	3,973,407	1,690,173	1,511,406	3,201,579	81%	4%
Nsawkaw	583,519	1,790,978	2,374,497	1,143,441	3,296,003	4,439,444	1,144,732	1,028,236	2,172,968	49%	4%
Bamboi	1,058,541	306,323	1,364,864	2,007,399	523,671	2,531,070	2,075,871	275,573	2,351,444	93%	3%
Jema	662,504	715,754	1,378,258	1,179,387	1,094,041	2,273,428	1,200,276	933,746	2,134,021	94%	3%
Busunya	172,404	481,956	654,360	296,606	768,835	1,065,441	315,816	550,046	865,862	81%	1%
Sekyre-Dumase	333,604	775,953	1,109,557	617,832	1,229,763	1,847,595	622,567	1,040,456	1,663,023	90%	2%
Abofour	866,264	282,486	1,148,750	1,493,127	472,305	1,965,432	1,522,070	405,596	1,927,666	98%	2%
Grand total	32,269,912	21,439,343	53,709,255	56,667,433	36,276,267	92,943,700	58,807,801	19,647,856	78,455,657	84%	100%

Source: Management Information & Deloitte Analysis

Techiman Area revenue and cash collection

In total, the Techiman Service Area accounted for 53.7 million kWh of power consumed by NEDCo's customers. This represents 20.0% of the total energy billed by NEDCo over the period July to September 2023. Out of a total of 15 service stations in the Techiman catchment area, the Techiman township accounted for 32% of the total power consumed within the Techiman Service Area. This suggests that power consumption within the Techiman Service Area is significantly concentrated in Techiman.

For the Techiman Service Area, total power billed to post-paid customers amounted to 21.4 million kWh over the period July to September 2023. This represents 39.9% of the total billed energy for the Techiman Service Area. In terms of revenue, the post-paid customers accounted for GHS36.3 million over the same period, which represents 39% of the total revenue.

Techiman Area revenue and cash collection (cont'd)

In terms of cash collections, the Techiman Service Area accounted for a total of GHS78.5 million, which represents 21.3% of the total cash collections over the period July to September 2023. Pre-paid customers accounted for 60.1% of the total billed energy in kWh and cash collected from pre-paid customers constituted 75% of the total cash collections within the Techiman Service Area.

Overall, total cash collections as a % of billed revenue for the Techiman Service Area was 84.4% over the period July to September 2023. When ranked based on the ratio of cash collection to billed revenue, Abofour and Jema towns recorded the two highest ratios at 98.1% and 93.9% respectively. At the bottom of the rank are Nsawkaw and Kwame Danso towns with 48.9% and 62.3% respectively.



Revenue and cash collection | Northern

For the period Jul-Sep 2023, NEDCo reported revenue of GHS126.3 million for the Northern Area, which represents 26.5% of its total revenue. The corresponding cash collection amounted to GHS80.6 million (c.63.8% of revenue).

Table 12: Summary of revenue and collection – Northern Service Area

Summary of revenue and collection - Northern Service Area												
Northern	Billed to Prepaid Customers (kWh)	Billed to Post-paid Customers (kWh)	Total Billed Energy (kWh)	Billed to Pre-paid Customers (GHS) (D)	Billed to Post-paid Customers (GHS) (E)	Total Billed Energy (GHS) (F=D+E)	Collection from Pre-paid Customers (GHS) (G)	Collection from Post-paid Customers (GHS) (H)	Total Collections (GHS) (I=G+H)	Collection % of billings	Consumption %	
	(A)	(B)	(C=A+B)	(GHS) (D)	(GHS) (E)	(F=D+E)	(G)	(H)	(GHS) (I=G+H)		%	
Tamale	20,803,925	20,247,077	41,051,002	38,413,220	38,780,729	77,193,949	41,953,923	11,778,736	53,732,660	70%	59%	
Yendi	1,460,010	2,085,981	3,545,991	2,707,762	3,483,102	6,190,864	3,034,313	542,827	3,577,140	58%	5%	
Pong-Tamale/Savelugu	658,249	2,193,006	2,851,255	1,302,740	3,554,263	4,857,003	1,673,862	786,649	2,460,511	51%	4%	
Buipe/Yapei	1,073,074	932,105	2,005,179	1,923,045	1,557,796	3,480,842	2,171,110	719,537	2,890,647	83%	3%	
Salaga	352,679	1,417,928	1,770,607	638,969	2,421,376	3,060,345	699,817	672,499	1,372,316	45%	3%	
Damango	1,144,430	921,182	2,065,612	1,951,570	1,738,597	3,690,167	2,165,155	725,050	2,890,205	78%	3%	
Gusheigu/Karaga	602,631	1,441,891	2,044,522	1,139,544	2,341,437	3,480,981	1,671,891	120,780	1,792,671	51%	3%	
Zabzugu/Tatale	562,677	1,767,247	2,329,924	1,052,912	2,835,347	3,888,259	1,200,610	526,130	1,726,740	44%	3%	
Saboba	249,546	423,227	672,773	490,386	723,636	1,214,022	624,928	364,698	989,627	82%	1%	
Bimbilla	273,298	2,411,499	2,684,797	612,537	3,926,047	4,538,584	712,840	1,040,356	1,753,196	39%	4%	
Kete-Krachi	100,617	1,139,421	1,240,038	213,244	1,941,638	2,154,883	259,648	1,000,799	1,260,447	58%	2%	
Tolon/Nyankpala/Kumbungu	386,934	2,361,568	2,748,502	776,361	3,949,116	4,725,477	1,076,582	928,396	2,004,978	42%	4%	
Kpassa	245,924	1,328,541	1,574,465	505,214	2,083,290	2,588,504	603,239	768,056	1,371,295	53%	2%	
Kpandai	143,172	1,131,142	1,274,314	267,377	1,785,355	2,052,732	374,275	923,687	1,297,962	63%	2%	
Chereponi	173,200	736,412	909,612	350,926	1,225,599	1,576,525	455,620	261,082	716,701	45%	1%	
Chinderi	113,419	875,352	988,771	234,018	1,350,737	1,584,755	282,629	458,877	741,506	47%	1%	
Grand total	28,343,784	41,413,579	69,757,363	52,579,825	73,698,067	126,277,892	58,960,443	21,618,160	80,578,602	64%	100%	

Source: Management Information & Deloitte Analysis

Northern Area revenue and cash collection

In total, the Northern Service Area accounted for about 69.8 million kWh of power consumed by NEDCo's customers. This represents 26.1% of the total energy billed by NEDCo over the period July to September 2023. Out of a total of 16 service stations in the Northern area, Tamale service station accounted for 58.9% of the total power consumed within the Northern Service Area. This suggests that power consumption within the Northern Service Area is significantly concentrated in Tamale.

For the Northern Service Area, total power billed to post-paid customers amounted to 41.4 million kWh over the period July to September 2023. This represents 59.4% of the total billed energy for the Northern Service Area. In terms of revenue, the post-paid customers accounted for GHS73.7 million over the same period, which represents 58.4% of the total revenue.

Northern Area revenue and cash collection (cont'd)

For cash collections, the Northern Service Area accounted for a total of GHS 80.6 million, which represents 21.9% of the total cash collections over the period July to September 2023. Although pre-paid customers accounted for only 40.6% of the total billed energy in kWh, cash collected from pre-paid customers amounted to GHS59.0 million and constituted 73.2% of the total cash collections within the Northern Service Area.

Overall, total cash collections as a % of billed revenue for the Northern Service Area was 63.8% over the period July to September 2023. When ranked based on the ratio of cash collection to billed revenue, Bupei/Yapei and Saboba towns recorded the two highest ratios at 83.0% and 81.5% respectively. At the bottom of the rank are Bimbilla and Tolon/Nyankpala/Kumbungu towns with 38.6% and 42.4% respectively.



Revenue and cash collection | Upper East

For the period Jul-Sep 2023, NEDCo reported revenue of GHS68.9 million for the Upper East Area, which represents 14.5% of its total revenue. The corresponding cash collection amounted to GHS56.8 million (c.83% of revenue)

Table 13: Summary of revenue and collection – Upper East Service Area

Summary of revenue and collection - Upper East Service Area											
Upper East	Billed to Prepaid Customers (kWh) (A)	Billed to Post-paid Customers (kWh) (B)	Total Billed Energy (kWh) (C=A+B)	Billed to Pre-paid Customers (GHS) (D)	Billed to Post-paid Customers (GHS) (E)	Total Billed Energy (GHS) (F=D+E)	Collection from Pre-paid Customers (GHS) (G)	Collection from Post-paid Customers (GHS) (H)	Total Collections (GHS) (I=G+H)	Collection % of billings	Consumption %
Bolga	9,535,240	4,321,415	13,856,655	16,892,415	8,029,502	24,921,917	17,902,759	3,199,058	21,101,817	85%	36%
Bawku	1,856,679	2,422,296	4,278,975	3,274,485	4,582,338	7,856,823	3,349,714	585,910	3,935,624	50%	11%
Navrongo	2,756,295	2,332,264	5,088,559	4,803,928	4,404,319	9,208,248	5,559,189	2,243,913	7,803,102	85%	13%
Zebilla	1,125,662	1,146,868	2,272,530	2,065,117	1,937,014	4,002,130	2,321,763	1,362,340	3,684,104	92%	6%
Garu	711,811	569,834	1,281,645	1,301,447	927,574	2,229,021	1,331,390	400,437	1,731,827	78%	3%
Walewale	1,333,282	1,795,664	3,128,946	2,410,792	2,916,771	5,327,563	2,717,556	1,430,837	4,148,393	78%	8%
Sandema	872,927	699,755	1,572,682	1,592,247	1,217,557	2,809,804	1,754,836	577,855	2,332,690	83%	4%
Chiana	7,597	122,893	130,490	14,284	209,542	223,825	42,181	98,835	141,017	63%	0%
Gambaga	1,083,108	1,704,889	2,787,997	1,987,682	2,890,779	4,878,461	2,119,947	1,309,839	3,429,786	70%	7%
Bunkprugu	523,539	396,364	919,903	918,205	592,338	1,510,543	982,015	472,589	1,454,604	96%	2%
Yagaba	207,870	575,167	783,037	403,795	900,897	1,304,692	2,650,312	428,450	3,078,763	236%	2%
Bongo	688,314	941,462	1,629,776	1,263,901	1,474,900	2,738,801	1,420,727	1,160,365	2,581,092	94%	4%
Pusiga	323,945	719,786	1,043,731	615,648	1,236,080	1,851,728	661,056	765,868	1,426,924	77%	3%
Grand total	21,026,270	17,748,657	38,774,927	37,543,947	31,319,610	68,863,557	42,813,447	14,036,296	56,849,743	83%	100%

Source: Management Information & Deloitte Analysis

Upper East Area revenue and cash collection

In total, the Upper East Service Area accounted for 38.8 million kWh of power consumed by NEDCo's customers. This represents 14.5% of the total energy billed by NEDCo over the period July to September 2023. Out of a total of 13 service stations in the Upper East catchment area, three towns – Bolgatanga, Bawku and Navrongo – together, accounted for 59.8% of the total power consumed within the Upper East Service Area. This suggests that power consumption within the Upper East area is significantly concentrated in these three towns.

For the Upper East Service Area, total power billed to post-paid customers amounted to 17.7 million kWh over the period July to September 2023. This represents 45.8% of the total billed energy for the Area. In terms of revenue, the post-paid customers accounted for GHS31.3 million over the same period, which represents 45.5% of the total revenue.

Upper East Area revenue and cash collection (cont'd)

In terms of cash collections, the Upper East Service Area accounted for a total of GHS56.8 million, which represents 15.5% of NEDCo's total cash collections over the period July to September 2023. Although pre-paid customers accounted for only 54.2% of the total billed energy in kWh, cash collected from pre-paid customers amounted to GHS42.8 million and constituted 75.3% of the total cash collections within the Upper East area.

Overall, total cash collections as a percentage of billed revenue for the Upper East Service Area was 82.6% over the period July to September 2023. When ranked based on the ratio of cash collection to billed revenue, Yagaba, Bunkprugu, Bongo and Zebilla towns recorded the four highest ratios at 236.0%, 96.3%, 94.2% and 92.1% respectively. At the bottom of the rank are Bawku and Chiana towns with 50.1% and 63.0% respectively.



Revenue and cash collection | Upper West

For the period Jul-Sep 2023, NEDCo reported revenue of GHS46.0 million for the Upper West Area, which represents 10.1% of its total revenue. The corresponding cash collection amounted to GHS36.9 million (c.80% of revenue)

Table 14: Summary of revenue and collection – Upper West Service Area

Summary of revenue and collection - Upper West Service Area											
Upper West	Billed to Prepaid Customers (kWh) (A)	Billed to Post-paid Customers (kWh) (B)	Total Billed Energy (kWh) (C=A+B)	Billed to Pre-paid Customers (GHS) (D)	Billed to Post-paid Customers (GHS) (E)	Total Billed Energy (GHS) (F=D+E)	Collection from Pre-paid Customers (GHS) (G)	Collection from Post-paid Customers (GHS) (H)	Total Collections (GHS) (I=G+H)	Collection % of billings	Consumption %
Wa	9,581,334	3,821,336	13,402,670	16,407,741	9,001,665	25,409,406	17,240,058	2,930,087	20,170,144	79%	52%
Lawra	681,889	911,990	1,593,879	1,131,767	474,188	1,605,955	1,181,888	88,082	1,269,970	79%	6%
Tumu	1,416,270	952,553	2,368,823	2,432,709	1,514,102	3,946,811	2,628,935	557,054	3,185,989	81%	9%
Jirapa	704,003	369,923	1,073,926	1,170,726	879,911	2,050,637	1,290,937	472,148	1,763,085	86%	4%
Nadowli	540,190	563,927	1,104,117	938,996	843,186	1,782,182	1,007,796	309,912	1,317,708	74%	4%
Bole	2,309,163	1,022,525	3,331,688	4,007,191	2,130,795	6,137,986	4,388,581	653,116	5,041,696	82%	13%
Nandom	1,043,376	547,089	1,590,465	1,841,981	928,813	2,770,794	1,908,893	381,379	2,290,272	83%	6%
Han	205,016	234,287	439,303	353,786	394,495	748,281	383,335	462,678	846,012	113%	2%
Issa	130,830	219,441	350,271	199,273	324,859	524,132	231,997	285,596	517,592	99%	1%
Sawla	133,326	584,940	718,266	230,627	1,016,560	1,247,187	263,754	328,741	592,496	48%	3%
Chache	-	-	-	-	-	-	-	-	-	0%	0%
Grand total	16,745,398	9,228,010	25,973,408	28,714,797	17,508,574	46,223,371	30,526,173	6,468,791	36,994,964	80%	100%

Source: Management Information & Deloitte Analysis

Upper West Area revenue and cash collection

The Upper West Service Area accounted for about 26.0 million kWh of power consumed by NEDCo's customers. This represents 9.7% of the total energy billed by NEDCo over the period July to September 2023. The Upper West area has 11 total service stations, with the Wa town accounting for 51% of the total power consumed within the Upper West Service Area. Bole and Tumu are the next closest towns, accounting for 13% and 9% of the total power consumed, respectively.

For the Upper West Service Area, total power billed to post-paid customers amounted to 9.2 million kWh over the period July to September 2023. This represents 35.5% of the total billed energy for the Upper West Service Area. Similarly, the post-paid customers accounted for GHS17.5 million over the same period, which represents 37.9% of the total revenue.

Upper West Area revenue and cash collection (cont'd)

For cash collections, the Upper West Service Area accounted for a total of about GHS37.0 million, which represents 10.1% of the total cash collections over the period July to September 2023. Pre-paid customers accounted for 82.5% of the total cash collected, amounting to GHS30.5 million. Wa town constituted 56.5% of the total cash collections within the Upper West Service Area.

Overall, total cash collections as a % of billed revenue for the Upper West Service Area was 80.0% over the period July to September 2023. When ranked based on the ratio of cash collection to billed revenue, Han and Issa towns recorded the two highest ratios at 113.1.0% and 98.8% respectively. At the bottom of the rank is Sawla town with 47.5%.



Statutory and supplier payments

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Statutory and supplier payments

Over the period July to September 2023, NEDCo made payments to VRA and GRIDCo totaling GHS156.0 million, which represents 44% of the total bills received from the two suppliers over the same period

Table 15: Supplier and regulatory payments – Jul to Sep 2023

Supplier and regulatory payments- Jul 2023 to Sep 2023														
Entities	Power Purchases/Regulatory Bills (GHS'm)				Payments (GHS'm)				Pmt. % of Bills	Outstanding debts (GHS'm)			Months Outstanding	
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total		Bal b/f	Change	Bal c/f	AMB* (GHS'm)	Indicative Months
<i>Power suppliers:</i>														
VRA	100.54	95.93	96.61	293.08	40.00	45.00	50.00	135.00	46%	1,867.62	158.08	2,025.70	97.69	20.74
GRIDCO	20.26	19.33	19.24	58.83	6.00	7.00	8.00	21.00	36%	534.21	37.83	572.04	19.61	29.17
Subtotal-power suppliers	120.79	115.26	115.85	351.91	46.00	52.00	58.00	156.00	44%	2,401.83	195.91	2,597.73	117.30	22.15
<i>Regulatory entities:</i>														
MOE	4.95	4.55	4.79	14.29	3.19	-	6.08	9.28	65%	-	5.01	5.01	4.76	1.05
NEF	3.30	3.03	3.20	9.53	4.26	-	8.11	12.37	130%	-	(2.84)	(2.84)	3.18	(0.90)
PURC	-	-	-	-	-	0.05	-	0.05	n/a	-	(0.05)	(0.05)	-	n/a
Energy Commission	-	-	-	-	-	-	-	-	n/a	-	-	-	-	n/a
Subtotal- Regulatory	8.25	7.58	7.99	23.82	7.45	0.05	14.19	21.70	91%	-	2.12	2.12	7.94	0.27
Grand total	129.04	122.84	123.84	375.73	53.45	52.05	72.19	177.70	47%	2,401.83	198.03	2,599.85	125.24	20.76
<i>Billed revenue</i>	<i>164.92</i>	<i>151.63</i>	<i>159.79</i>	<i>476.34</i>	<i>*Average Monthly Bill</i>									

Source: Management Information & Deloitte Analysis

Supplier bills and payments

Table 15 above shows the bills received from NEDCo's power suppliers, which include VRA for bulk supply of power and GRIDCo for transmission of the power supplied by VRA to designated BSPs across NEDCo's operational catchment areas. For the 3 months covering July to September 2023, bills received by NEDCo for power supply amounted to a total of GHS351.9 million, with VRA's bills accounting for 83.3% of the total, whilst bills received from GRIDCo accounted for 16.7%.

Over the same period, NEDCo made payments to VRA and GRIDCo totaling GHS156.0 million, representing 44.3% of the total bills received from the suppliers. This resulted in a shortfall of GHS195.9 million when matched against the total bills received over the period Jul- Sep 2023. The shortfall noted adds up to an opening balance of payables due to the suppliers of GHS2.4 billion on 30 June 2023 to leave a closing balance of GHS2.6 billion due to suppliers as of 30 September 2023.

Supplier bills and payments (cont'd)

To assess the timeliness and sufficiency of payments made to suppliers over the period reviewed, we calculated the indicative payable period (in months) based on the 3-month run rate. In this regard, we computed an Average Monthly Bill (AMB) received from suppliers over the 3-month period, which is GHS117.3 million. The ratio of outstanding payables due to suppliers as of 30 September 2023 and the AMB provides an indication of the number of months of outstanding payments due to suppliers. As shown in table 15, our analysis indicates that NEDCo, as of 30 September 2023, owed about 22 months' worth of bills payable to its suppliers, with 78.0% due to VRA and 22.0% due to GRIDCo.

The fee component for GRIDCo are made up of the Transmission Service Charges (TSC1), TSC 2 and Regulatory Levy. According to management, the Regulatory Levy component of the fee is supposed to be paid to PURC by GRIDCo. The Regulatory Levy component of the GRIDCo fees for the period July to September 2023 amounted to GHS3.88m. See *Appendix A4* for a breakdown of the monthly GRIDCo fees.

This written communication is solely for Ministry of Energy's benefit, and is not intended to be relied upon by any other person or entity.



Statutory and supplier payments

For the 3-month period covering July to September 2023, the regulatory bills assessed on NEDCo amounted to a total of GHS23.8 million, with amounts payable to MOE accounting for 60% of the total

Table 15: Supplier and regulatory payments – Jul to Sep 2023 (cont'd)

Supplier and regulatory payments- Jul 2023 to Sep 2023														
Entities	Power Purchases/Regulatory Bills (GHS'm)				Payments (GHS'm)				Pmt. % of Bills	Outstanding debts (GHS'm)			Months Outstanding	
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total		Bal b/f	Change	Bal c/f	AMB* (GHS'm)	Indicative Months
<i>Power suppliers:</i>														
VRA	100.54	95.93	96.61	293.08	40.00	45.00	50.00	135.00	46%	1,867.62	158.08	2,025.70	97.69	20.74
GRIDCO	20.26	19.33	19.24	58.83	6.00	7.00	8.00	21.00	36%	534.21	37.83	572.04	19.61	29.17
Subtotal-power suppliers	120.79	115.26	115.85	351.91	46.00	52.00	58.00	156.00	44%	2,401.83	195.91	2,597.73	117.30	22.15
<i>Regulatory entities:</i>														
MOE	4.95	4.55	4.79	14.29	3.19	-	6.08	9.28	65%	-	5.01	5.01	4.76	1.05
NEF	3.30	3.03	3.20	9.53	4.26	-	8.11	12.37	130%	-	(2.84)	(2.84)	3.18	(0.90)
PURC	-	-	-	-	-	0.05	-	0.05	n/a	-	(0.05)	(0.05)	-	n/a
Energy Commission	-	-	-	-	-	-	-	-	n/a	-	-	-	-	n/a
Subtotal- Regulatory	8.25	7.58	7.99	23.82	7.45	0.05	14.19	21.70	91%	-	2.12	2.12	7.94	0.27
Grand total	129.04	122.84	123.84	375.73	53.45	52.05	72.19	177.70	47%	2,401.83	198.03	2,599.85	125.24	20.76
<i>Billed revenue</i>	<i>164.92</i>	<i>151.63</i>	<i>159.79</i>	<i>476.34</i>	<i>*Average Monthly Bill</i>									

Source: Management Information & Deloitte Analysis

Statutory bills and payments

The table 15 above shows the statutory bills assessed on NEDCo over the period July to September 2023. These include bills payable to the Ministry of Energy (MOE), National Electricity Fund (NEF), Public Utilities Regulatory Commission (PURC), and Energy Commission (EC).

For the payables due to MOE and the NEF, these are prescribed in the Energy Sector Levies (Amendment) Act (Act 946). Per the Act, NEDCo is required to pay 3% and 2% of its power sales to customers to MOE and NEF, respectively.

For PURC and Energy Commission, there were no specific requirements in the Act that obligate NEDCo to make any statutory payments. We also did not sight any invoices for statutory payments from PURC and/or EC to NEDCo for the period July to September 2023.

Statutory bills and payments (cont'd)

For the three months covering July to September 2023, the statutory bills assessed on NEDCo amounted to a total of GHS23.8 million, with amounts payable to MOE accounting for 60% of the total. Over the same period, NEDCo made regulatory payments totaling GHS21.7 million representing 91% of the total regulatory bills. This resulted in a shortfall of GHS2.1 million when matched against the total bills received over the period Jul- Sep 2023.

As of the date of finalising our report, we had not received information on the outstanding balance of regulatory payments as of 30 September 2023. We were, thus, unable to assess the total balance of outstanding statutory payments as of 30 September 2023 and the indicative number of months of payments this translates into.



Appendices

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Appendices | A1: NEDCo overview and structure

Northern Electricity Distribution Company (NEDCo) is a wholly owned subsidiary of Volta River Authority (VRA)

Company background

Northern Electricity Distribution Company (NEDCo), formerly known as Northern Electricity Department (NED) of the Volta River Authority (VRA), was established in 1987 to supply safe and reliable electricity to homes and businesses in northern Ghana and neighboring countries. In 1997, it was registered as NEDCo, a wholly owned subsidiary of VRA.

NEDCo's operations cover about 64% of the geographical area of Ghana and had about 1.2 million customers across Ghana as of September 2023.

Customer Segmentation class

NEDCo's customers are segmented into the following segments:

- Residential customers:** This customer group uses power for household purposes and are billed under a residential rate which is relatively lower. NEDCo's customers are predominantly residential (c. 83.75%) and these attracts subsidised tariffs for power consumed. According to management, the tariffs charged to residential customers are below NEDCo's average operating cost per unit.
- Non-Residential customers:** This category consist of commercial consumers and small businesses.
- Special Load Tariff (SLT):** This Group is made up of industrial consumers, categorised into the following power voltage based on their consumption: Low-Voltage; Medium Voltage and High Voltage.

Table 16 : Customer Segregation Class

Customer type	Percentage	YTD Sep Revenue Contribution (%)
Residential customers	83.75%	57.3%
Non-Residential customers	16.25%	33.6%
Special Load Tariff (SLT)	0.01%	9.0%

Source: Management Information & Deloitte Analysis

Customer Segmentation by meter type

NEDCo's customers are also categorised depending on the type of meter assigned to each customer. Currently, NEDCo deploys the following three (3) types of customer meters:

- Postpaid meters:** Customers on this meter are allowed to consume power on credit and pay later. Meter readers, also known as field agents, are deployed to go and record power consumed by these customers at the end of every month for purposes of billing the customers. NEDCo therefore records receivables in respect of these customers.
- Smart prepaid meters:** Customers on this meter prepay for power consumed. Payments options include electronic platforms and use of certified vendors. The meters are configured to compute and recognise in revenue the exact power consumed by customers for the month regardless of how much was prepaid for, and this is consistent with the standard accounting principles of revenue recognition.
- Non-smart prepaid meters:** Like the smart prepaid meters, customers on this meter are allowed to prepay for power consumed, except that the system is currently configured to recognise, immediately and fully, customer prepayments for power as revenue regardless of actual consumption over the period. This is inconsistent with standard accounting principles and leads to overstatement of revenue.

Power supply, transmission and distribution

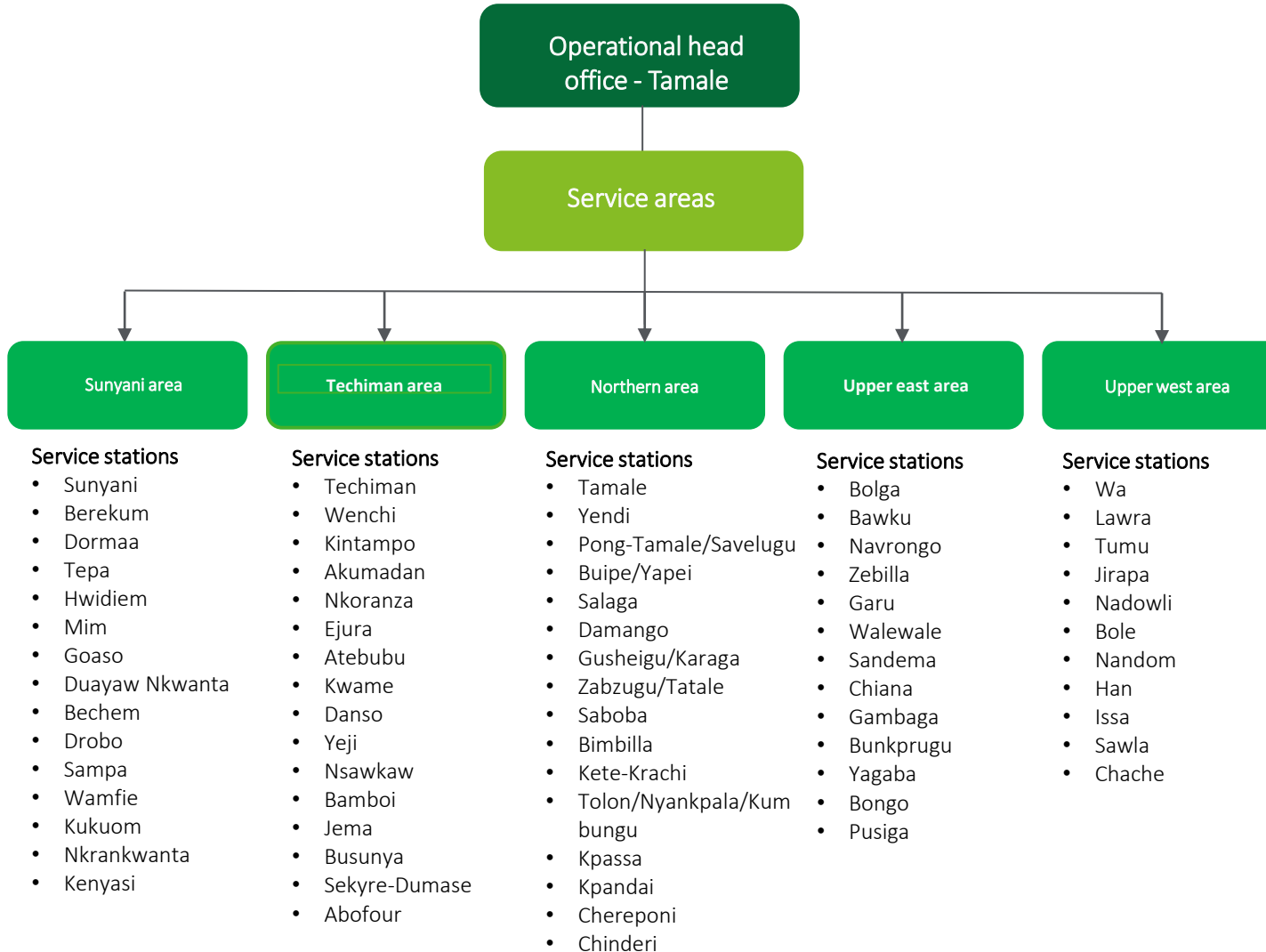
NEDCo currently buys power in bulk solely from VRA, its parent company. The power supplied by VRA is transmitted by the Ghana Grid Company (GRIDCo) to designated Bulk Supply Points (BSPs) across five (5) Service Areas, which makes up the operational area for NEDCo. The 5 Service Areas include: Northern, Techiman, Sunyani, Upper East and Upper West. Each of these areas encompasses a cluster of service stations installed to serve designated towns within a Service Area.

Figure 3 on the next slide shows the operational structure of NEDCo.

Appendices | A1: NEDCo overview and structure

NEDCo distributes power to five operational areas across the northern part of the country

Figure 3: Operational areas across the northern part of the country



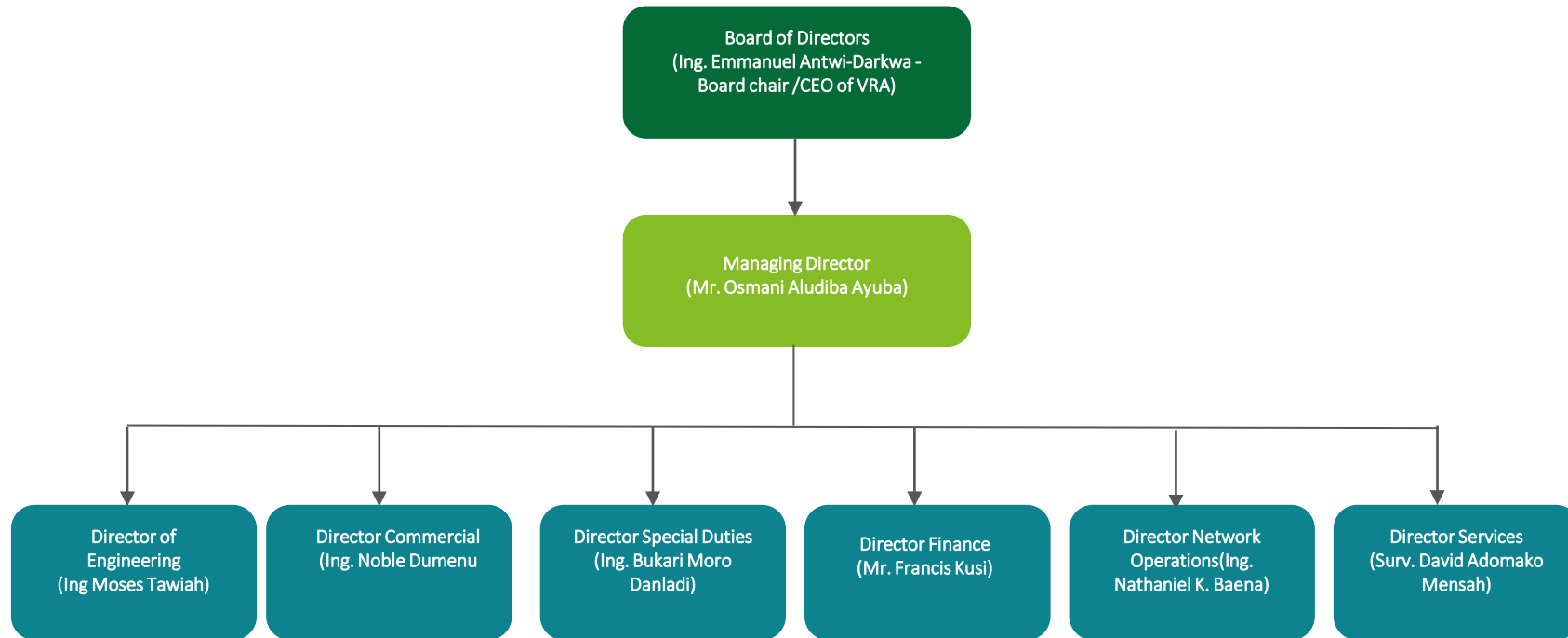
- NEDCo's operations in the regions are managed through five Regional Offices designated as Service Areas in the following cities:
 - Sunyani
 - Techiman
 - Tamale
 - Wa
 - Bolgatanga
- The head office of NEDCo is strategically located in Tamale, the Capital of the Northern Region.
- Each Area is headed by a Manager supported by an Engineer, Finance Officer, Commercial Officer, IT Officer, and a Human Resource Officer.
- NEDCo has service stations under each area that directly serve customers in designated towns.

Source: Management Information

Appendices | A1: NEDCo overview and structure

NEDCo operates a vertical organisational structure whereby the Board of Directors, chaired by the Chief Executive Officer (CEO) of VRA, provides supervision and strategic direction to the Executive Management Team

Figure 4: Management structure



Source: Management Information



Appendices | A2: Power purchases & distribution tables

Power receipts (as noted from schedules attached to signed official invoices) at designated BSPs across the 5 Service Areas

Table 17: Review of VRA invoices for volumes of power purchased

Review of VRA invoices for volumes of power purchased				
Area/Feeder	Jul-23	Aug-23	Sep-23	Total
TECHIMAN				
Techiman	18,879,857	18,605,858	18,255,516	55,741,231
Kintampo	7,272,080	7,140,490	7,088,960	21,501,530
SUNYANI				
Sunyani	17,588,284	16,783,286	17,118,082	51,489,652
Berekum	9,711,200	9,605,300	9,545,200	28,861,700
Mim	13,044,100	12,275,900	12,543,900	37,863,900
Bechem	-	-	-	-
NORTHERN				
Tamale	31,978,772	30,068,005	29,465,173	91,511,950
Yendi	14,222,180	13,526,360	13,474,320	41,222,860
Buipe/Yapei	1,042,510	1,069,560	1,064,480	3,176,550
Damango	-	-	-	-
UPPER EAST				
Bolga	9,388,000	8,958,160	9,350,890	27,697,050
Bawku	6,435,608	6,023,621	6,227,569	18,686,798
Navrongo	3,974,269	3,823,380	3,992,876	11,790,525
Zebilla	1,111,160	1,023,910	1,057,030	3,192,100
UPPER WEST				
Wa	8,284,520	7,763,750	8,029,910	24,078,180
Tumu	1,454,060	1,315,870	1,358,740	4,128,670
Sawla	2,866,521	2,821,728	3,240,600	8,928,848
Adubliyili	7,207,120	6,604,870	6,562,480	20,374,470
Lawra Solar	776,073	714,236	803,012	2,293,321
Grand total	155,236,313	148,124,284	149,178,737	452,539,335

Source: Management Information & Deloitte Analysis



Appendices | A3: Revenue & cash collection tables

Table18: Sunyani & Upper West Service Areas

Total billed energy and collections for Sunyani Area - Jul to Sep 2023												
Service stations	Total billed energy (kWh)				Total billed energy (GHS)				Total Collections (GHS)			
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total
Sunyani	10,180,435.00	9,695,078.80	9,589,285.90	29,464,799.70	17,962,187.04	16,912,955.16	17,296,334.44	52,171,476.64	15,293,670.27	14,057,480.84	15,289,144.36	44,640,295.47
Berekum	3,073,821.60	2,681,112.80	3,037,662.00	8,792,596.40	5,523,059.89	4,566,590.40	5,491,910.54	15,581,560.83	4,767,796.12	3,921,476.10	4,716,624.85	13,405,897.08
Dormaa	1,464,754.20	1,390,239.30	1,458,752.80	4,313,746.30	2,617,115.70	2,347,724.94	2,561,571.85	7,526,412.49	1,893,855.19	2,274,912.68	2,073,548.02	6,242,315.89
Tepa	1,331,841.40	1,307,552.70	1,290,443.90	3,929,838.00	2,320,789.45	2,337,956.70	2,354,348.55	7,013,094.70	1,134,708.97	1,608,736.57	1,356,264.79	4,099,710.34
Hwidiem	1,875,721.80	1,767,648.00	1,756,518.00	5,399,887.80	3,718,925.58	3,401,935.84	3,427,522.27	10,548,383.69	2,885,944.30	2,751,526.42	2,903,756.50	8,541,227.22
Mim	1,549,983.10	1,523,545.90	1,501,612.90	4,575,141.90	2,751,867.72	2,662,272.96	2,602,332.00	8,016,472.67	1,512,389.76	2,361,993.14	2,198,297.08	6,072,679.98
Goaso	1,395,388.20	1,325,002.90	1,411,045.30	4,131,436.40	2,527,282.49	2,398,860.40	2,692,412.32	7,618,555.21	2,205,243.30	2,223,688.32	2,642,464.50	7,071,396.12
Duayaw Nkwanta	967,722.30	923,995.90	966,399.40	2,858,117.60	1,676,320.01	1,567,593.20	1,720,719.19	4,964,632.39	1,151,895.76	1,624,023.34	1,339,480.51	4,115,399.61
Bechem	696,331.00	669,148.10	689,127.50	2,054,606.60	1,273,193.60	1,119,501.10	1,167,723.58	3,560,418.28	849,548.30	1,097,521.67	1,000,687.42	2,947,757.39
Drobo	956,617.80	904,240.00	989,187.40	2,850,045.20	1,754,261.09	1,519,567.59	1,691,174.02	4,965,002.69	827,046.96	1,130,759.97	1,051,060.84	3,008,867.77
Sampa	983,638.60	948,739.40	901,452.10	2,833,830.10	1,787,475.38	1,573,346.76	1,533,372.72	4,894,194.85	894,654.86	1,164,099.88	1,072,990.44	3,131,745.18
Wamfie	844,878.00	832,286.10	689,413.20	2,366,577.30	1,432,996.79	1,403,117.41	1,156,553.96	3,992,668.16	878,253.00	2,249,943.59	742,724.66	3,870,921.25
Kukuom	625,002.70	638,805.30	611,295.20	1,875,103.20	1,300,322.24	1,150,548.23	1,124,220.89	3,575,091.37	530,266.90	785,522.37	617,490.41	1,933,279.68
Nkrankwanta	483,480.50	459,639.00	520,430.50	1,463,550.00	942,816.46	784,290.75	914,966.84	2,642,074.05	559,023.41	515,166.77	636,141.21	1,710,331.39
Kenyasi	992,276.10	951,067.10	836,078.90	2,779,422.10	1,886,984.70	1,618,185.74	1,453,510.42	4,958,680.87	1,440,616.94	1,341,725.89	1,343,363.79	4,125,706.62
Grand total	27,421,892.30	26,018,101.30	26,248,705.00	79,688,698.60	49,475,598.13	45,364,447.18	47,188,673.59	142,028,718.91	36,824,914.05	39,108,577.54	38,984,039.40	114,917,530.99

Total billed energy and collections for Upper West area - Jul to Sep 2023												
Service stations	Total billed energy (kWh)				Total billed energy (GHS)				Total Collections (GHS)			
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total
Wa	5,011,977.95	4,343,589.80	4,047,101.82	13,402,669.57	9,008,467.70	7,609,443.07	8,791,495.11	25,409,405.88	6,659,605.41	6,732,909.47	6,777,629.43	20,170,144.30
Lawra	309,893.00	304,716.70	979,269.00	1,593,878.70	528,248.96	523,473.16	554,233.06	1,605,955.19	444,029.19	414,025.53	411,914.79	1,269,969.51
Tumu	820,091.30	762,908.50	785,823.60	2,368,823.40	1,377,528.55	1,242,188.88	1,327,093.26	3,946,810.69	1,079,403.37	993,035.97	1,113,549.57	3,185,988.92
Jirapa	406,203.10	364,814.60	302,908.30	1,073,926.00	735,791.72	646,907.34	667,938.07	2,050,637.13	530,894.75	668,339.44	563,850.33	1,763,084.52
Nadowli	363,994.90	348,244.40	391,877.60	1,104,116.90	625,230.76	583,350.05	573,601.18	1,782,181.99	473,065.45	388,353.29	456,289.24	1,317,707.99
Bole	1,172,962.40	1,076,800.80	1,081,925.20	3,331,688.40	2,122,514.12	1,984,144.75	2,031,327.58	6,137,986.46	1,811,902.44	1,470,632.43	1,759,161.48	5,041,696.36
Nandom	575,747.10	500,635.20	514,082.40	1,590,464.70	1,008,114.29	868,910.72	893,768.94	2,770,793.95	802,645.93	761,437.96	726,188.11	2,290,271.99
Han	158,759.10	136,682.80	143,861.10	439,303.00	273,606.67	228,999.05	245,675.48	748,281.20	277,232.32	142,743.69	426,036.39	846,012.39
Issa	118,159.50	121,191.50	110,920.40	350,271.40	177,246.40	181,752.51	165,133.02	524,131.93	208,661.38	134,289.67	174,641.40	517,592.44
Sawla	262,463.70	242,666.90	213,135.40	718,266.00	456,398.12	422,027.38	368,761.17	1,247,186.67	227,246.91	207,698.07	157,550.80	592,495.78
Chache	-	-	-	-	-	-	-	-	-	-	-	-
Grand total	9,200,252.05	8,202,251.20	8,570,904.82	25,973,408.07	16,313,147.29	14,291,196.91	15,619,026.89	46,223,371.09	12,514,687.15	11,913,465.51	12,566,811.54	36,994,964.20

Source: Management Information & Deloitte Analysis



Appendices | A3: Revenue & cash collection tables

Table 19: Upper East & Techiman Service Areas

Total billed energy and collections for Upper East area - Jul to Sep 2023												
Service stations	Total billed energy (kWh)				Total billed energy (GHS)				Total Collections (GHS)			
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total
Bolga	4,657,507.70	4,467,197.00	4,731,950.30	13,856,655.00	8,312,917.51	7,889,293.88	8,719,705.68	24,921,917.08	7,027,659.98	6,796,808.79	7,277,348.30	21,101,817.08
Bawku	1,625,775.80	1,128,444.90	1,524,754.00	4,278,974.70	3,084,707.58	1,930,118.40	2,841,997.46	7,856,823.44	1,235,712.19	1,244,987.69	1,454,924.02	3,935,623.90
Navrongo	1,770,209.10	1,725,427.30	1,592,922.70	5,088,559.10	3,194,308.24	3,089,287.73	2,924,651.64	9,208,247.61	2,364,915.87	2,695,199.41	2,742,986.48	7,803,101.76
Zebilla	802,133.20	663,766.60	806,630.50	2,272,530.30	1,396,059.55	1,151,225.39	1,454,845.52	4,002,130.46	1,381,185.33	1,110,628.82	1,192,289.40	3,684,103.55
Garu	425,585.40	401,989.50	454,070.40	1,281,645.30	728,643.93	684,915.16	815,462.36	2,229,021.44	539,852.21	533,906.61	658,067.99	1,731,826.82
Walewale	1,073,194.20	959,207.80	1,096,544.30	3,128,946.30	1,818,544.63	1,605,413.10	1,903,604.99	5,327,562.73	1,215,696.33	1,416,157.03	1,516,540.03	4,148,393.38
Sandema	532,579.20	481,322.70	558,780.40	1,572,682.30	924,425.65	846,748.60	1,038,630.23	2,809,804.48	773,194.89	744,519.32	814,976.21	2,332,690.41
Chiana	44,585.20	39,928.90	45,975.50	130,489.60	75,081.10	69,729.03	79,015.33	223,825.46	33,884.12	55,437.69	51,694.89	141,016.69
Gambaga	1,029,765.40	841,868.30	916,362.80	2,787,996.50	1,796,903.93	1,432,876.13	1,648,680.97	4,878,461.04	1,033,614.39	822,113.99	1,574,057.49	3,429,785.87
Bunkprugu	314,503.80	302,530.20	302,868.80	919,902.80	513,221.47	489,591.80	507,729.41	1,510,542.68	516,144.51	436,863.97	501,596.01	1,454,604.50
Yagaba	277,455.70	232,195.50	273,386.10	783,037.30	457,832.76	386,838.41	460,020.50	1,304,691.67	2,469,547.37	293,954.88	315,260.33	3,078,762.58
Bongo	556,859.90	529,767.70	543,148.80	1,629,776.40	924,471.99	873,067.41	941,261.77	2,738,801.17	773,018.17	839,330.78	968,743.42	2,581,092.38
Pusiga	332,277.90	368,360.30	343,093.00	1,043,731.20	582,290.05	658,214.82	611,223.17	1,851,728.04	424,936.27	423,811.24	578,176.18	1,426,923.69
Grand total	13,442,432.50	12,142,006.70	13,190,487.60	38,774,926.80	23,809,408.41	21,107,319.85	23,946,829.03	68,863,557.29	19,789,361.65	17,413,720.22	19,646,660.74	56,849,742.61

Total billed energy and collections for Techiman area - Jul to Sep 2023												
Service stations	Total billed energy (kWh)				Total billed energy (GHS)				Total Collections (GHS)			
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total
Techiman	5,877,833.50	6,064,011.10	5,457,857.88	17,399,702.48	9,871,397.83	10,514,455.16	9,497,755.13	29,883,608.12	8,220,934.16	9,780,770.28	8,171,653.81	26,173,358.24
Wenchi	1,801,789.10	1,751,605.10	1,552,432.30	5,105,826.50	3,213,812.36	3,057,138.47	2,744,846.44	9,015,797.28	2,556,213.68	2,271,231.71	2,175,582.66	7,003,028.05
Kintampo	1,512,564.60	1,501,212.40	1,490,748.30	4,504,525.30	2,576,978.05	2,597,382.86	2,612,775.75	7,787,136.66	2,326,480.26	2,332,613.89	2,187,378.50	6,846,472.65
Akumadan	661,723.20	732,803.30	711,555.90	2,106,082.40	1,132,303.24	1,268,051.77	1,247,832.66	3,648,187.68	1,101,918.93	1,150,718.40	1,029,905.21	3,282,542.54
Nkoranza	1,151,584.90	1,193,230.70	2,256,155.20	4,600,970.80	1,938,696.15	2,026,008.96	4,355,634.72	8,320,339.83	1,661,574.72	1,773,661.87	4,179,941.39	7,615,177.98
Ejura	1,429,303.20	1,470,041.20	1,454,196.80	4,353,541.20	2,378,030.78	2,478,648.04	2,492,582.06	7,349,260.88	2,189,121.97	2,423,367.78	2,226,602.93	6,839,092.69
Atebubu	1,113,038.10	1,233,610.90	1,183,544.90	3,530,193.90	1,845,711.94	2,108,810.64	2,005,039.54	5,959,562.12	1,338,493.62	1,623,047.09	1,620,000.29	4,581,541.00
Kwame Danso	535,715.34	612,789.59	540,791.96	1,689,296.89	899,146.08	1,065,721.31	919,122.49	2,883,989.87	524,897.95	690,815.35	582,167.63	1,797,880.93
Yeji	795,231.50	818,410.80	775,188.20	2,388,830.50	1,310,668.75	1,374,045.05	1,288,692.55	3,973,406.34	997,344.75	1,210,273.76	993,959.99	3,201,578.51
Nsawkaw	770,761.20	765,015.10	838,720.40	2,374,496.70	1,444,370.27	1,386,756.46	1,608,317.56	4,439,444.30	786,601.41	646,442.98	739,923.90	2,172,968.29
Bamboi	426,505.00	462,932.20	475,426.50	1,364,863.70	773,734.84	854,204.55	903,130.90	2,531,070.28	746,759.31	755,281.00	849,403.72	2,351,444.03
Jema	459,213.50	463,627.30	455,417.50	1,378,258.30	751,424.76	772,595.16	749,408.40	2,273,428.32	619,923.90	870,295.52	643,801.84	2,134,021.26
Busunya	213,824.50	236,979.20	203,556.20	654,359.90	343,260.62	394,188.96	327,991.35	1,065,440.93	283,489.90	312,477.09	269,894.88	865,861.87
Sekyre-Dumase	342,896.50	377,701.60	388,959.10	1,109,557.20	559,920.43	625,979.17	661,695.40	1,847,595.00	502,059.19	639,496.15	521,468.07	1,663,023.41
Abofour	370,018.50	393,766.70	384,964.40	1,148,749.60	612,216.69	673,811.78	679,403.93	1,965,432.40	625,512.16	691,005.60	611,148.05	1,927,665.80
Grand total	17,462,002.64	18,077,737.19	18,169,515.54	53,709,255.37	29,651,672.79	31,197,798.33	32,094,228.88	92,943,700.00	24,481,325.91	27,171,498.48	26,802,832.86	78,455,657.25

Source: Management Information & Deloitte Analysis



Appendices | A3: Revenue & cash collection tables

Table 20: Northern Service Area

Total billed energy and collections for Northern area - Jul to Sep 2023												
Service stations	Total billed energy (kWh)				Total billed energy (GHS)				Total Collections (GHS)			
	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total	Jul-23	Aug-23	Sep-23	Total
Tamale	15,258,996.07	12,890,455.61	12,901,550.33	41,051,002.01	29,361,668.08	23,639,548.83	24,192,732.13	77,193,949.04	18,115,419.29	19,896,911.64	15,720,328.67	53,732,659.60
Yendi	1,281,120.51	1,177,261.00	1,087,609.80	3,545,991.31	2,194,007.14	2,010,032.32	1,986,824.94	6,190,864.41	1,153,491.08	1,114,260.79	1,309,388.25	3,577,140.12
Pong-Tamale/Savelugu	1,015,761.20	892,782.20	942,711.20	2,851,254.60	1,700,337.35	1,486,789.27	1,669,876.17	4,857,002.78	857,260.45	701,465.51	901,785.14	2,460,511.10
Buipe/Yapei	669,871.75	676,074.35	659,232.90	2,005,179.00	1,137,587.34	1,155,394.73	1,187,859.53	3,480,841.61	875,835.52	928,038.38	1,086,773.28	2,890,647.18
Salaga	576,758.10	642,511.50	551,337.30	1,770,606.90	993,458.68	1,104,228.90	962,657.28	3,060,344.86	344,972.58	407,712.47	619,630.63	1,372,315.68
Damango	741,962.00	644,270.90	679,379.00	2,065,611.90	1,335,273.92	1,113,071.36	1,241,821.98	3,690,167.26	980,877.67	931,530.16	977,797.51	2,890,205.34
Gusheigu/Karaga	626,600.70	679,845.70	738,075.60	2,044,522.00	1,052,636.63	1,152,154.28	1,276,189.77	3,480,980.69	590,149.80	562,439.65	640,081.86	1,792,671.30
Zabzugu/Tatale	607,211.80	778,816.80	943,895.40	2,329,924.00	991,943.63	1,262,899.54	1,633,415.78	3,888,258.96	568,924.81	495,956.74	661,858.22	1,726,739.77
Saboba	258,198.40	213,897.30	200,677.10	672,772.80	466,548.81	385,451.25	362,021.95	1,214,022.01	324,042.25	365,043.51	300,540.88	989,626.64
Bimbilla	867,070.30	1,006,821.20	810,905.60	2,684,797.10	1,445,427.52	1,690,220.50	1,402,936.09	4,538,584.11	533,539.52	539,986.01	679,670.08	1,753,195.61
Kete-Krachi	421,430.30	384,240.80	434,366.70	1,240,037.80	735,361.47	661,058.26	758,462.81	2,154,882.54	316,064.81	412,692.23	531,690.07	1,260,447.11
Tolon/Nyankpala/Kumbungu	861,997.80	819,319.30	1,067,185.00	2,748,502.10	1,448,921.08	1,389,768.68	1,886,787.04	4,725,476.80	609,826.62	641,865.55	753,286.13	2,004,978.30
Kpassa	593,472.00	548,240.00	432,753.00	1,574,465.00	976,492.49	899,553.96	712,457.91	2,588,504.36	484,886.42	478,394.32	408,014.05	1,371,294.79
Kpandai	427,072.60	419,256.40	427,984.50	1,274,313.50	691,609.12	671,357.58	689,765.73	2,052,732.43	287,672.98	470,298.81	539,990.38	1,297,962.16
Chereponi	338,796.00	292,842.00	277,974.00	909,612.00	603,841.38	499,940.98	472,742.64	1,576,525.00	243,783.79	235,111.67	237,805.81	716,701.27
Chinderi	331504	339628	317639	988,771.00	531417.937	544201.3192	509135.6177	1,584,754.87	213676.2356	237917.7272	289912.2497	741,506.21
Grand total	24,877,823.54	22,406,263.06	22,473,276.43	69,757,363.03	45,666,532.58	39,665,671.77	40,945,687.37	126,277,891.73	26,500,423.82	28,419,625.18	25,658,553.18	80,578,602.19

Source: Management Information & Deloitte Analysis



Appendices | A4: GRIDCo fees & Cheque payment

Table 21: Breakdown of GRIDCo fees

Breakdown of GRIDCo fees				
Month	Transmission service	Regulatory levy	Total TSC Amount	
	charge (TSC1) GHS	GHS	TSC2 GHS	GHS
Jul-23	12,028,855	1,342,060	6,885,293	20,256,209
Aug-23	11,479,770	1,280,799	6,570,998	19,331,567
Sep-23	11,324,538	1,261,757	6,651,649	19,237,944
Total	34,833,164	3,884,617	20,107,940	58,825,720

Table 22: Cheque payments

Summary of Cheque payments for power consumption				
Date of receipt	Cheque No.	Company	Validated Amount	Bank Account No.
			(GHS)	cheque was validated from
19-Jul-23	015219	FREE SHS	4,000,000	SG -37201002678-7
11-Aug-23	515492	GWCL	1,000,000	SG -37201002678-7
11-Aug-23	515493	GWCL	1,500,000	SG -37201002678-7
Total			6,500,000	

Appendices | A5: Cash collection tables

Table 23: Sunyani area cash collection

Review of Bank Statements Covering Customer Collections- Jul 2023 to Sep 2023 (GHS)							
No.	Bank name	Account no.	Branch	Cash Deposited			Total
				Jul 2023	Aug 2023	Sep 2023	
1	GCB	7011130001678	Sunyani main	30272599.38	31419826.69	31143743.18	92836169.25
2	SG remittance	36201000477-1	Sunyani main	8842603.81	5446385.72	9709209.00	23998198.53
Total (A)				39115203.19	36866212.41	40852952.18	116834367.78

Table 24: Techiman area cash collection

Review of Bank Statements Covering Customer Collections- Jul 2023 to Sep 2023 (GHS)							
No.	Bank name	Account no.	Branch	Cash Deposited			Total
				Jul 2023	Aug 2023	Sep 2023	
1	TECHIMAN GCB POWER SALES ACCOUNT	7151130003864		21,335,710.97	25,767,535.38	26,725,887.42	73,829,133.77
Total (A)				21,335,710.97	25,767,535.38	26,725,887.42	73,829,133.77

Table 25: Northern area cash collection

Review of Bank Statements Covering Customer Collections- Jul 2022 to Jun 2023 (GHS)							
No.	Bank name	Account no.	Branch	Cash Deposited			TOTAL
				Jul 2023	Aug 2023	Sep 2023	
1	GCB Power Sales	8011010005518	Tamale	3,046,886.93	3,038,528.63	3,236,323.04	9,321,738.60
2	ADB Remittance	811101024132001	Tamale	6,134,758.99	5,513,337.62	5,401,348.29	17,049,444.90
3	SG Power Sales	37201002677	Tamale	3,129,203.11	3,230,022.87	3,529,726.09	9,888,952.07
4	SG Security Deposit	37201000109	Tamale	65,599.00	13,805.00	9,740.00	89,144.00
5	Absa Bank Remittance	1122912	Tamale	6,816,496.54	8,229,170.31	6,391,631.32	21,437,298.17
6	Zenith Bank Remittance	6071100259	Tamale	3,475,392.40	3,155,894.62	2,880,318.00	9,511,605.02
7	NIB Remittance	1142061442401	Tamale	1,448,059.00	1,737,839.00	1,786,005.00	4,971,903.00
Total (A)				24,116,396	24,918,598	23,235,092	72,270,086

Source: Management Information & Deloitte Analysis

Appendices | A5: Cash collection tables

Table 26: Upper East area cash collection

Review of Bank Statements Covering Customer Collections- Jul 2023 to Sep 2023 (GHS)							
No.	Bank name	Account no.	Branch	Cash Deposited			Total
				Jul 2023	Aug 2023	Sep 2023	
1	SG GH Power Sales Bolga	0382010018711		16,478,415.87	8,603,562.72	14,792,031.22	39,874,009.81
2	GCB Power Sales	9011130000681		4,716,988.43	4,841,628.74	4,676,884.73	14,235,501.90
Total (A)				21,195,404.30	13,445,191.46	19,468,915.95	54,109,511.71

Table 27: Upper West area cash collection

Review of Bank Statements Covering Customer Collections- Jul 2023 to Sep 2023 (GHS)							
No.	Bank name	Account no.	Branch	Cash Deposited			Total
				Jul 2023	Aug 2023	Sep 2023	
1	GCB Power Sales	0011130004885	Wa	9,677,819.63	8,697,486.93	11,950,598.00	30,325,904.56
2	Societe Generale	39201001538-9	Wa	1,943,038.00	1,824,532.00	2,053,301.00	5,820,871.00
Total (A)				1,943,038.00	1,824,532.00	2,053,301.00	36,146,775.56

Source: Management Information & Deloitte Analysis



Appendices | A6: Glossary

Glossary of terms

AMB	Average Monthly Bill	PURC	Public Utilities Regulatory Commission
BSPs	Bulk Supply Points	SLT	Special Load Tariff
EC	Energy Commission	SMS	Short Message Service
ESRP	Energy Sector Recovery Program	SoE	State-Owned Energy
GHS	Ghana Cedis	TSC	Transmission Service Charge
GESTIP	Ghana Energy Sector Transformation Initiative Project	MOE	the Ministry of Energy
GRIDCo	Ghana Grid Company	Q1/Q2/Q3/Q4 20XX	First/Second /Third/Fourth Quarter of the Year 20XX
GOG	Government of the Republic of Ghana	VRA	Volta River Authority
H1/H2 20XX	First Half/Second Half of the Year 202X		
kWh	Kilowatt hours		
NEDCo	Northern Electricity Distribution Company		
NEF	National Electrification Fund		

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