

IN THE THIRD SESSION OF THE SEVENTH PARLIAMENT OF THE
FOURTH REPUBLIC OF GHANA



**REPORT OF THE FINANCE COMMITTEE ON THE
REQUEST FOR WAIVER OF IMPORT DUTIES, IMPORT
VAT, IMPORT NHIL/GETFUND LEVY, EXIM LEVY, AND
SPECIAL IMPORT LEVY (INCLUDING DOMESTIC TAXES)
AMOUNTING TO THE GHANA CEDI EQUIVALENT OF
FIFTY-THREE MILLION, FIVE HUNDRED AND SIX
THOUSAND, EIGHT HUNDRED AND THIRTY UNITED
STATES DOLLARS AND SEVENTY-FOUR CENTS
(US\$53,506,830.74) MADE UP OF US\$2,657,206.74 ON
LOCAL PURCHASES AND US\$50,849,624 ON EQUIPMENT,
MATERIALS AND VEHICLES TO BE IMPORTED UNDER THE
DESIGN, CONSTRUCTION AND COMMISSIONING OF A
POTABLE WATER INFRASTRUCTURE PROJECT IN
TAMALE, NORTHERN REGION, GHANA**

1.0 INTRODUCTION

The request for waiver of Import Duties, Import VAT, Import NHIL/GETFund Levy, EXIM Levy, and Special Import Levy (including domestic taxes) amounting to the Ghana Cedi equivalent of **Fifty-Three Million, Five Hundred and Six Thousand, Eight Hundred and Thirty United States Dollars and Seventy-Four Cents (US\$53,506,830.74)** made up of US\$2,657,206.74 on local purchases and US\$50,849,624 on equipment, materials and vehicles to be imported under the **Design, Construction and Commissioning of a Potable Water Infrastructure Project in Tamale, Northern Region, Ghana** was *presented to the*

House on Wednesday the 13th day of November, 2019 by the Hon. Minister responsible for Finance, Mr. Ken Ofori-Atta.

Pursuant to Order 169 of the Standing Orders of the House, the request was *referred* to the Finance Committee for consideration and report.

The Committee subsequently met and considered the request with the Deputy Ministers for Sanitation and Water Resources, Hon. Patrick Yaw Boamah and Hon. Michael Yaw Gyato, Deputy Minister for Finance, Hon. Kwaku Agyeman Kwarteng and a team of officials from the Ghana Water Company Limited (GWCL), Ghana Revenue Authority (GRA) and the Ministries of Finance and Sanitation and Water Resources.

The Committee hereby presents this report to the House pursuant to order 161(1) of the Standing Orders of the House.

2.0 BACKGROUND

Tamale and its environs contribute significantly to the Agricultural fortunes of the country by producing a large number of arable crops like maize, yam, cassava, beans and rice. Together with the newly created Savannah Region, the Northern Region boasts of a significant part of the population of Ghana, thus having a significant and increasing demand for water. The Area also hosts several tourist sites including the Mole National Park as well as the Magic Stone and the Historical Mosque, both located at Larabanga.

The existing water supply system for Tamale and its environs was constructed in 1972. The Treatment Plant is located at Nawuni on the White Volta River, 37km North-West of Tamale.

In the year 2008, expansion works were carried out on the system at Dalun which included the construction of a 20,000m³ storage reservoir at Kukuo Yepalsi. This increased the production capacity of the water treatment plant from 25,000m³/day to 44,000m³/day.

As a result of rapid population growth in Tamale and its environs, the demand for water has once again outstripped supply. There are increasing numbers of residents in Tamale that do not have reliable access to potable water. In order to mitigate the situation, Ghana water Company Limited (GWCL) has had to implement a water rationing programme in the Metropolis and its environs.

To meet the water demand for Tamale and its environs up to the year 2040 planning horizon, the present project is to construct a new water supply system for the city and its environs.

3.0 PROJECT OBJECTIVE

The object of the project is to undertake the design, construction and commissioning of a new Potable Water Infrastructure for Tamale, Northern Region of Ghana.

4.0 TOTAL WAIVER REQUESTED

The total amount of taxes and duties for which waiver is being sought is the Ghana Cedi equivalent of **Fifty-Three Million, Five Hundred and Six Thousand, Eight Hundred and Thirty**

United States Dollars and Seventy-Four Cents (US\$53,506,830.74).

This is made up of US\$2,657,206.74 on local purchases and US\$50,849,624 on equipment, materials and vehicles to be imported under the Project.

Attachment: Please find attached as APPENDIX, the detailed assessment of the relevant taxes and duties.

5.0 OBSERVATIONS

5.1 Parliamentary Approval for Funding Agreements and Contract Agreement

The Committee noted that Parliament at its Twenty-Ninth Sitting of the Second Meeting held on Tuesday 16th July 2019 approved by resolution

- i. The **Facility Agreement** between the **Government of the Republic of Ghana** (represented by the Ministry of Finance) and **Deutsche Bank AG, London Branch** (As Agent, Arranger, Structuring Bank and Original Covered Lenders) as well as the UK export Finance (as Original Direct Lenders) for an amount of *Two Hundred and Thirty-Three Million, Nine Hundred and Sixty-Three Thousand, Nine Hundred and Eighty-Two Euros and Eight Cents (€233,963,982.08)* including the UKEF support fee relating to financing the **Design, Construction and Commissioning of a Potable Water Infrastructure Project in Tamale, Northern Region, Ghana.**

- ii. **The Commercial Facility Agreement** between the **Government of the Republic of Ghana** (represented by the Ministry of Finance) and **Deutsche Bank AG, London Branch** (as Agent, Arranger, Structuring Bank and Original Phase I and Phase II Lenders), for an amount of *Forty-Three Million, Seven Thousand, Eight Hundred and Eighty-Five Euros and Ninety-Seven Cents (€43,007,885.97)* relating to financing the **Design, Construction and Commissioning of a Potable Water Infrastructure Project in Tamale, Northern Region, Ghana**

The House subsequently at its Thirty-Second Sitting of the Second Meeting held on Friday 19th July, 2019 approved the **Contract Agreement** between **Ghana Water Company Limited** (acting on behalf of the Ministry of Sanitation and Water Resources for the Government of the Republic of Ghana) and **Biwater International Limited of England** for the implementation of the Project.

5.2 Expected Benefits from the Project

The new water supply system would improve potable water supply to areas that were not originally served. In total, thirty million gallons of potable water would be added to the existing system. This would lead to a reduction in the prevalence of common water-borne diseases, enhance opportunities for agro processing businesses and generally improve the social well-

being of the people of Tamale and its environs. It would also aid and improve on the services of health facilities.

In addition to the provision of reliable water supply, the project will further help to improve economic activities within the project catchment area as direct and indirect jobs would be created during the construction period.

5.3 Beneficiary Communities

Towns and communities that would benefit from this project include *but not limited to* the following:

- Cheshegu, Nanton, Yapei/Yipala, Chirifoyili, Nyankpala, Yepeligu, Dalun, Pong Tamale, Yoggo, Gbullung, Sanerigu, Zagayull, Gurugu, Sankpala, Zangbulung, Jisonayili, Savelugu, Kusawgu, Kakpagayili, Tibung, Bagabaga, Kanvili, Tolon, Tamale Township, Kumbungu, Vitin.
- Damongo township and communities enroute: Yipala, Yapei, Banyasi, Ntereso, Fufulso, Sumpini, Busunu, Kebiesu, Tailorpe, Alhassan Kura, Jonopkonto, Achubunyo, Soalepe, Frafra Settlement No. 3, Boroto and Nabori.

5.4 Implementation Period

As to how long the project would take to be completed, the Committee was informed that other things being equal, the project is scheduled to be completed within fifty-four (54)

months, comprising six (6) months Development Phase and forty-eight (48) months Works Implementation Phase.

It was explained to the Committee that the Project has not yet commenced because the Contractor is waiting for the Tax Waiver approval to commence the necessary procurements.

5.5 Need for Waiver

The Committee noted that under sub-clause 2.6 (Local Taxes/Charges) of the Particular Conditions of the Contract Agreement, Government of Ghana (through the Ghana Water Company Limited) commits to exempt the contractor from the payment of taxes, duties and levies and other compulsory charges due in Ghana.

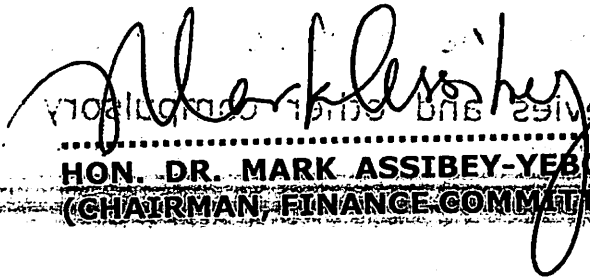
6.0 CONCLUSION

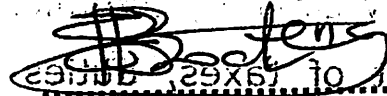
The Committee finds that the request is in accordance with the Contract Agreement between Ghana Water Company Limited (GWCL) acting on behalf of the Ministry of Sanitation and Water Resources (MSWR) for the Government of the Republic of Ghana and Biwater International Limited of England for the implementation of the Project.

The Committee therefore recommends to the House to adopt this report and *approve by resolution*, the **request for waiver of Import Duties, Import VAT, Import NHIL/GETFund Levy, EXIM Levy, and Special Import Levy** (including domestic taxes) amounting to the Ghana Cedi equivalent of **Fifty-Three**

Million, Five Hundred and Six Thousand, Eight Hundred and Thirty United States Dollars and Seventy-Four Cents (US\$53,506,830.74) made up of US\$2,657,206.74 on local purchases and US\$50,849,624 on equipment, materials and vehicles to be imported under the **Design, Construction and Commissioning of a Potable Water Infrastructure Project in Tamale, Northern Region, Ghana** in accordance with Article 174(2) of the 1992 Constitution of the Republic of Ghana.

Respectfully submitted.


HON. DR. MARK ASSIBEY-YEBOAH
(CHAIRMAN, FINANCE COMMITTEE)


MS. EVELYN BREFO-BOATENG
(CLERK, FINANCE COMMITTEE)

21ST NOVEMBER, 2019

APPENDIX
GHANA REVENUE AUTHORITY

Our Ref. No. **CDTRD-EXM-190909**

Your Ref. No.



GRA

September 9, 2019

The Hon. Minister
Ministry of Finance
Accra

Attention: Daniel Nuer
Head, Tax Policy Unit

Dear Sir,

RE: REQUEST FOR TAX ASSESSMENT IN RESPECT OF THE TAMALE WATER PROJECT

We refer to your letter dated July 30, 2019 and referenced RMERD/TPU/TA/YWP/GRA/019 (and the Master List which accompanied it) on the above subject in which you requested Ghana Revenue Authority (GRA) to do an assessment of taxes on the above mentioned project to be considered by Parliament for purposes of exempting the project from the applicable domestic taxes and levies.

Our analysis of the Master List furnished us resulted in the following assessment:

Table 1: TAX ASSESSMENT IN RESPECT OF THE TAMALE WATER PROJECT

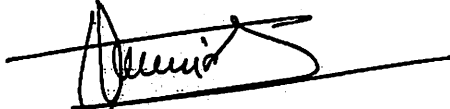
	Tax Type	Assessed Tax in (USDS)	Exchange Rate	Assessed Tax in (GH¢)
1	Domestic VAT	2,657,206.74	5.3030	14,091,167.32
2	Domestic NHIL	506,134.62	5.3030	2,684,031.87
3	Domestic GETFUND	506,134.62	5.3030	2,684,031.87
	TOTAL	3,669,475.98	5.3030	19,459,231.06

Account for handls f 26/9/19

Attached herewith as appendix 1 are detailed computations resulting in the above assessment.

NOTE: The prevailing Bank of Ghana published daily interbank mid-rate of GH 5.3030 to IUSD as at Friday, September 06, 2019, was used in the assessment above.

Yours faithfully,



Ammishaddai Owusu-Amoah

Commissioner (DTRD)

For: Commissioner-General

cc: **The Hon. Minister of Finance**

The Hon. Minister of Health

The Hon. Deputy Minister of Finance

The Chief Director, Ministry of Finance

The Director, RMFRD, Ministry of Finance

The Commissioner-General, GRA

TAX ASSESSMENT ON LOCAL MATERIAL PURCHASES FOR THE TAMALE WATER PROJECT

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	GETFUND LEVY @ 2.5%	NHIL @ 2.5%	VAT BASE	VAT @ 12.5%	TOTAL DOMESTIC TAXES
				US\$	US\$	US\$	US\$	US\$	US\$	US\$
										270,694.45
1.0	Cement	Tonne	13,570.00	110.06	1,493,514.20	37,337.86	37,337.86	1,568,189.91	196,023.74	83,224.49
2.0	Coarse aggregate	m3	39,893.10	11.51	459,169.58	11,479.24	11,479.24	482,128.06	60,266.01	259,328.83
3.0	Fine aggregate	m3	70,445.70	20.31	1,430,752.17	35,768.80	35,768.80	1,502,289.78	187,786.22	26,820.00
4.0	Precast concrete items	LS	1.00	148,000.00	148,000.00	3,700.00	3,700.00	155,400.00	19,425.00	86,260.30
5.0	Masonry and masonry finishing	LS	1.00	475,952.00	475,952.00	11,898.80	11,898.80	499,749.60	62,468.70	72,780.10
6.0	Painting and building internal finishes	LS	1.00	401,584.00	401,584.00	10,039.60	10,039.60	421,663.20	52,707.90	103,400.24
7.0	Timber and plywood for concrete formwork	LS	1.00	570,666.17	570,666.17	14,266.65	14,266.65	599,199.48	74,899.93	241,500.14
8.0	Steel roof structures	LS	1.00	1,332,707.00	1,332,707.00	33,317.68	33,317.68	1,399,342.35	174,917.79	65,500.39
9.0	Roof sheeting	LS	1.00	361,756.64	361,756.64	9,043.92	9,043.92	379,844.47	47,480.56	59,400.00
10.0	Doors and frames, window and louvered windows	LS	1.00	328,182.06	328,182.06	8,204.55	8,204.55	344,591.16	43,073.90	4,700.18
11.0	Rainwater pipes and gutters	LS	1.00	26,241.00	26,241.00	656.03	656.03	27,553.05	3,444.13	1,424,500.90
12.0	HDPE pipe	LS	1.00	7,859,364.96	7,859,364.96	196,484.12	196,484.12	8,252,333.21	1,031,541.65	7,500.05
13.0	Air conditioning units	LS	1.00	44,072.00	44,072.00	1,101.80	1,101.80	46,275.60	5,784.45	36,700.13
14.0	Road material	lm	1,350.00	150.00	202,500.00	5,062.50	5,062.50	212,625.00	26,578.13	
15.0	Power Supply Local costs:									
15.1	34.5kV overhead power line from the 34.5kV main power line to Intake Sub Station. Cable mounted on steel poles.	Item	1.00	7,810.98	7,810.98	195.27	195.27	8,201.53	1,025.19	1,000.00
15.2	34.5kV dedicated overhead power line for Bagabaga reservoir. Cable mounted on steel poles.	Item	1.00	58,582.36	58,582.36	1,464.56	1,464.56	61,511.48	7,688.93	10,000.00
15.3	11.5kV dedicated overhead power line for Kaladan reservoir. Cable mounted on steel poles.	Item	1.00	42,972.81	42,972.81	1,074.32	1,074.32	45,121.45	5,640.18	7,000.00
15.4	34.5kV overhead power line from Buipe to water treatment plant. Cable mounted on steel poles.	Item	1.00	1,373,638.59	1,373,638.59	34,340.96	34,340.96	1,442,320.52	180,290.06	248,000.00
15.5	Dedicated 34.5kV overhead power line from Tamale to Dalun. Cable mounted on steel poles.	Item	1.00	1,185,471.42	1,185,471.42	29,636.79	29,636.79	1,244,744.99	155,593.12	214,000.00
16.0	Small tools and equipment	LS	1.00	100,000.00	100,000.00	2,500.00	2,500.00	105,000.00	13,125.00	18,000.00
17.0	Plant Spares	LS	1.00	500,275.00	500,275.00	12,506.88	12,506.88	525,288.75	65,661.09	90,000.00
18.0	Ground engaging wear parts for equipment and machinery	LS	1.00	225,150.00	225,150.00	5,628.75	5,628.75	236,407.50	29,550.94	40,000.00
19.0	Lubricants	LS	1.00	491,271.72	491,271.72	12,281.79	12,281.79	515,835.31	64,479.41	80,000.00
20.0	Prefabricated site office units at Yapel, Bagabaga, Kaladan and Revenue Office including air conditioning.	LS	1.00	550,000.00	550,000.00	13,750.00	13,750.00	577,500.00	72,187.50	90,000.00
21.0	Plant repair workshop unit including steel frame building	LS	1.00	350,750.00	350,750.00	8,768.75	8,768.75	368,287.50	46,035.94	60,000.00
22.0	Office materials, stationary, office equipment and furniture etc	LS	1.00	225,000.00	225,000.00	5,625.00	5,625.00	236,250.00	29,531.25	40,000.00
	TOTAL LOCAL MATERIALS (US\$)				20,245,384.66	506,134.62	506,134.62	21,257,653.89	2,657,206.74	3,660,000.00
	EXCHANGE RATE				5.3030	5.3030	5.3030	5.3030	5.3030	5.3030
	TOTAL LOCAL MATERIALS (GHC)				107,361,274.84	2,684,031.87	2,684,031.87	112,729,338.58	14,091,167.32	19,459,000.00

In case of reply the number and date of this letter should be quoted

THE COMMISSIONER
CUSTOMS DIVISION OF
GHANA REVENUE AUTHORITY
P. O. BOX 68
ACCRA



H/DUTY/6
OUR REF NO.....
YOUR REF:.....

TEL: 233-302-666841-4
FAX: 233-302-660019

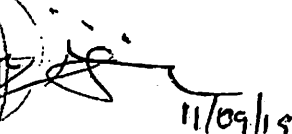
29TH AUGUST, 2019

THE MINISTER,
MINISTRY OF FINANCE,
ACCRA.

RE: REQUEST FOR TAX ASSESSMENT IN RESPECT OF THE TAMALE WATER PROJECT

Reference is made to your letter no. RMERD/TPU/TA/YWP/GRA/019 dated 30th July, 2019 on the above subject.

I forward herewith the schedule of Assessment-of Tax Liabilities totaling the Cedi equivalent of Fifty Million, Eight Hundred and Forty Nine Thousand, Six Hundred and Twenty Four U.S. Dollars(\$50,849,624.00) being Project Equipment and Materials for the above Project to enable you request for Tax Exemption.


11/09/19
for COMMISSIONER
(Y. BOAKYE AGYEMANG)
AG DEP. COMMISSIONER/OPS

TAX ASSESSMENT
MINISTRY OF SANITATION & WATER RESOURCES/TAMALE WATER PROJECT

Description of Goods	unit	Qty	CIF (USD)	I/D Rate	Imp. Duty	Nhil/ Gfund 5%	Imp. VAT 12.5%	EXIM Levy 0.75%	SIL 0%/2%	TOTAL (USD)
CIVIL										
Sheet piling										
Sheet pile sheets for intake structure	m2	1800	325,116	20%	65023	19507	51206	2438	6502	144,677
Steelwork										
Galvanised steel intake building	Item	1	29,198	20%	5840	1752	4599	219	584	12,993
Supply and erection of steel support structures:										
Finishing's to galvanised structural steel bridge / walkway	m	30	139,079	20%	27816	8345	21905	1043	2782	61,890
MECHANICAL										
Intake Screens										
Intake structure screens	Set	1	321,753	20%	64351	19305	50676	2413	6435	143,180
Intake Pumps										
Intake pump and 5 years manufacturers recommended spares	no	6	1,296,179	5%	64809	68049	178630	9721	0	321,209
Intake Pipework										
Intake pump pipework and valves	Set	1	596,464	20%	119293	35788	93943	4473	11929	265,426
Intake pump sump flushing pipework and valves	Set	1	63,383	20%	12677	3803	9983	475	1268	28,205
Lifting Equipment										
Intake structure electric overhead gantry crane (5 tonne), intake to embankment building trolley rail unit and river embankment overhead crane (5 tonne). 5 years manufacturers recommended spares.	Set	1	104,371	5%	5219	5479	14384	783	0	25,864
Intake pump surge protection system										

Intake pump surge protection system including vessels, air compressors (hot/standby) pipework and valves. Surge analysis etc.	Set	1	403,637	10%	40364	22200	58275	3027	0	123,866
Accessories										
Intake flooring, covers and ladders	Set	1	104,376	20%	20875	6263	16439	783	2088	46,447
Intake roller shutter doors	no	1	5,367	20%	1073	322	845	40	107	2,388
Intake handrailing	Set	1	43,891	20%	8778	2633	6913	329	878	19,532
Intake fencing and gates	Set	1	16,182	20%	3236	971	2549	121	324	7,201
ELECTRICAL AND INSTRUMENTATION										
5kV overhead power line from the 5kV main power line to Intake Sub station. Cable mounted on steel poles.	Item	1	16,124	10%	1612	887	2328	121	0	4,948
5kV pole mounted switch fuse, cable and cable terminations	Set	1	48,074	10%	4807	2644	6941	361	0	14,753
10kVA, 34.5kV/0.4V transformer	no	1	47,374	5%	2369	2487	6529	355	0	11,740
Poles and accessories from Sub Station Intake structure MCC	Set	1	2,580	10%	258	142	372	19	0	792
Intake High Voltage switchboard	no	1	264,261	10%	26426	14534	38153	1982	0	81,095
Intake High Voltage switchboard cables including accessories	Set	1	57,342	10%	5734	3154	8279	430	0	17,597
Intake Low voltage Distribution Boards	Set	1	82,149	20%	16430	4929	12939	616	0	34,913
Intake Low Voltage switchboard cables to pumps etc. including accessories and emergency stop	Set	1	51,816	20%	10363	3109	8161	389	0	22,022
Lighting and lightning protection	Set	1	17,885	20%	3577	1073	2817	134	0	7,601
Distribution board, feeder to services and accessories	Set	1	7,815	20%	1563	469	1231	59	0	3,321
Lighting and small power	Set	1	39,520	20%	7904	2371	6224	296	0	16,796
Alarm system	Set	1	4,772	5%	239	251	658	36	0	1,183
General lighting	Set	1	13,777	20%	2755	827	2170	103	0	5,855

Instrumentation	Set	1	24,122	20%	4824	1447	3799	181	0	10,252
MECHANICAL										
Raw water pipeline										
200mm diameter Ductile Iron pipe pigot / socket - internally epoxy coated and externally zinc / bitumen coated	Set	1	1,159,301	20%	231860	69558	182590	8695	23186	515,889
200mm diameter Ductile iron pipe pipeline fittings	Set	1	40,110	20%	8022	2407	6317	301	802	17,849
Valve chambers (Valve and pipeline fittings)										
Raw water main air release assembly	Set	2	32,861	20%	6572	1972	5176	246	657	14,623
Raw water main washout assembly	Set	1	13,602	20%	2720	816	2142	102	272	6,053
Isolation assembly	Set	1	29,797	20%	5959	1788	4693	223	596	13,260
Main Overflow pipeline and around water treatment plant										
100 mm and 1,200mm diameter ductile iron overflow pipework and fittings - internally epoxy coated and externally zinc bitumen coated	Set	1	2,004,277	20%	400855	120257	315674	15032	40086	891,903
MECHANICAL										
Inlet valve and flowmeter assembly										
200 mm diameter inlet butterfly valve actuated	no	1	18,303	5%	915	961	2522	137	366	4,902
Flowmeter	no	1	17,435	5%	872	915	2403	131	349	4,669
Inlet valve and flowmeter pipework and fittings assembly	no	1	28,548	5%	1427	1499	3934	214	571	7,646
Generator Inlet and outlet pipework										
Generator Inlet and outlet pipework and fitting assembly	Set	1	33,316	20%	6663	1999	5247	250	666	14,826
Generator inlet baffle, weir plates and reflector plates										

erator inlet baffle, weir plates and flector plates	Set	1	56,463	20%	11293	3388	8893	423	1129	25,126
hemical injection										
um injection assembly at aerator	Set	1	1,139	20%	228	68	179	9	23	507
ELECTRICAL AND STRUMENTATION										
strumentation	no	1	12,081	20%	2416	725	1903	91	242	5,376
VIL										
ilding structure:										
pply 2 no. 1200mm dia puddle flanged es	no	2	3,096	20%	619	186	488	23	62	1,378
pply 6 no. 600mm dia puddle flanged es	no	6	6,193	20%	1239	372	975	46	124	2,756
MECHANICAL										
tribution chamber inlet pipework										
tribution chamber inlet pipework and ng assembly	Set	1	33,956	20%	6791	2037	5348	255	679	15,111
let penstocks										
mm square outlet penstocks complete n extension spindle, headstock , ually operated	no	6	31,835	20%	6367	1910	5014	239	637	14,166
et and outlet weir plates										
et wall stainless steel weir plate, gasket fixings	no	1	1,082	20%	216	65	170	8	22	481
let chamber stainless steel weir plates, knet and fixings	Set	6	10,014	20%	2003	601	1577	75	200	4,456
tribution drain										
mm diameter distribution chamber n valve, extension spindle and work fittings	Set	1	1,667	20%	333	100	262	12	33	742
hemical injection										

calcium hypochlorite injection assembly distribution chamber	Set	1	2,931	20%	586	176	462	22	59	1,304
chemical injection lance support	Set	1	1,477	20%	295	89	233	11	30	657
outlet pipeline from distribution chamber to clariflocculators										
100mm diameter Ductile iron outlet pipeline assembly from distribution chamber outlet to clariflocculator inlets	Set	1	143,434	20%	28687	8606	22591	1076	2869	63,828
Handrailing, Flooring and Ladders										
handrailing	Set	1	6,359	20%	1272	382	1001	48	127	2,830
flooring and Ladders	Set	1	14,377	20%	2875	863	2264	108	288	6,398
MECHANICAL										
Clariflocculators										
6 metre half bridge clariflocculator complete with floor scraper, 4 No. paddle type flocculator mixers, stainless steel outlet V notch weir and fixings. 5 years manufacturers recommended spares	no	6	2,400,039	20%	480008	144002	378006	18000	48001	1,068,017
clariflocculator inlet pipework and supports	no	6	169,560	20%	33912	10174	26706	1272	3391	75,454
Clarifier sludge pipework										
100mm diameter clarifier sludge outlet actuator	no	6	32,669	20%	6534	1960	5145	245	653	14,538
100 mm diameter clariflocculator drain network and fittings to sludge lagoons including sludge lagoon manual gate valves	Set	1	43,549	20%	8710	2613	6859	327	871	19,379
Clarifier Algae removal drain pipework										
100 mm diameter clarifier algae drain network into clarifier sludge pipework	Set	6	5,780	20%	1156	347	910	43	116	2,572
clariflocculator to rapid gravity filter pipeline										

500 mm diameter clariflocculator outlet to side gravity filter inlet pipeline, including 500 mm diameter isolation valve for algae removal	Set	6	289,977	20%	57995	17399	45671	2175	5800	129,040
Handrailing										
Handrailing around clariflocculator	Set	6	74,637	20%	14927	4478	11755	560	1493	33,214
ELECTRICAL AND INSTRUMENTATION										
Clariflocculator Low Voltage switchboard	no	1	234,413	20%	46883	14065	36920	1758	4688	104,314
Clariflocculator Low Voltage switchboard panels including accessories	Set	1	44,120	20%	8824	2647	6949	331	882	19,634
Lighting and lightning protection	Set	2	3,855	20%	771	231	607	29	77	1,715
Lighting and small power	Set	1	2,140	20%	428	128	337	16	43	952
External Lighting	Set	1	28,392	20%	5678	1704	4472	213	568	12,634
Alarm system	Set	1	2,458	20%	492	147	387	18	49	1,094
MECHANICAL										
Underdrain system										
800 mm monolithic underdrain system complete with gravel and sand media	no	8	435,845	5%	21792	22882	60065	3269	0	108,008
800 mm gravel and sand media	no	8	428,010	5%	21400	22471	58985	3210	0	106,066
800 mm inlet deflector and weir plate assembly										
800 mm inlet stainless steel deflector and weir plate assembly	no	8	25,853	5%	1293	1357	3563	194	0	6,407
Penstocks										
150 mm square inlet penstock complete with extension spindle headstock actuator	no	8	60,255	20%	12051	3615	9490	452	1205	26,814
150 mm square backwash outlet penstock complete with extension spindle headstock actuator	no	8	74,077	20%	14815	4445	11667	556	1482	32,964
Valves										

100 mm diameter air scour valves c/w adstock, extension spindle and actuator	no	8	49,202	20%	9840	2952	7749	369	984	21,895
100 mm diameter filter outlet valves c/w adstock, extension spindle and actuator	no	8	65,909	20%	13182	3955	10381	494	1318	29,330
100 mm diameter backwash valves c/w adstock, extension spindle and actuator	no	8	65,909	20%	13182	3955	10381	494	1318	29,330
100 mm diameter gate valve	no	8	2,360	20%	472	142	372	18	47	1,050
100 mm diameter backwash control valves c/w	no	1	8,239	20%	1648	494	1298	62	165	3,666
100 mm diameter backwash control valves handwheel manually operated	no	1	6,587	20%	1317	395	1037	49	132	2,931
100 mm diameter backwash control valves c/w	no	1	6,150	20%	1230	369	969	46	123	2,737
100 mm diameter air blower valves butterfly manually operated	no	2	1,885	20%	377	113	297	14	38	839
100 mm diameter air blower valves check	no	2	4,501	20%	900	270	709	34	90	2,003
100 mm diameter sample valve	no	8	222	20%	44	13	35	2	4	99
100 mm diameter outlet isolation valve manually operated	no	1	13,029	20%	2606	782	2052	98	261	5,798
Pipework										
100 mm diameter filter outlet pipework assembly complete with flange adaptors couplings and fixings	Set	1	258,596	20%	51719	15516	40729	1939	5172	115,075
100 mm diameter air scour pipework assembly complete with flange adaptors couplings and fixings	Set	1	72,535	20%	14507	4352	11424	544	1451	32,278
100 mm diameter overflow pipework from filter to main overflow pipework	Set	1	31,344	20%	6269	1881	4937	235	627	13,948
100 mm diameter outlet pipework to drain contact tank	Set	1	94,283	20%	18857	5657	14850	707	1886	41,956
Steel supports	Set	1	47,379	20%	9476	2843	7462	355	948	21,084
Blower										

blower complete with enclosure, loading valve and 5 years manufacturers recommended spares	no	2	121,149	10%	12115	6663	17491	909	2423	39,601
Wastewater System										
Wastewater pumps complete with 5 ye	no	3	17,080	20%	3416	1025	2690	128	342	7,601
Wastewater tank mixers complete with	no	2	26,446	20%	5289	1587	4165	198	529	11,768
lifting davit										
lifting davit for pump and mixer removal	no	1	4,235	20%	847	254	667	32	85	1,884
Wastewater pump valves and electrical work										
100 mm diameter dirty washwater pump va	Set	1	28,212	20%	5642	1693	4443	212	564	12,555
100 mm diameter dirty washwater pump pi	Set	1	9,657	20%	1931	579	1521	72	193	4,297
Accessories										
Access platforms within RGF pipe gallery	Set	1	22,623	20%	4525	1357	3563	170	452	10,067
Handrailing	Set	1	34,648	20%	6930	2079	5457	260	693	15,418
ELECTRICAL AND INSTRUMENTATION										
100 mm Gravity Filter Low Voltage Control Console	no	1	117,781	20%	23556	7067	18551	883	2356	52,413
100 mm Gravity Filter Control Consoles	no	8	43,176	20%	8635	2591	6800	324	864	19,213
100 mm Gravity Filter Low Voltage Control Console cables including accessories	Set	1	40,358	20%	8072	2421	6356	303	807	17,959
Lightning and lightning protection	Set	1	15,420	20%	3084	925	2429	116	308	6,862
Power distribution board and accessories	Set	1	9,331	20%	1866	560	1470	70	187	4,152
Lighting and small power	Set	1	82,769	20%	16554	4966	13036	621	1655	36,832
Emergency lighting	Set	1	19,773	20%	3955	1186	3114	148	395	8,799
Alarm system	Set	1	1,973	5%	99	104	272	15	39	528
Instrumentation	Set	1	156,155	20%	31231	9369	24594	1171	3123	69,489
WELDER										
Welding structure:										
Miscellaneous metalwork	Set	1	14,786	20%	2957	887	2329	111	296	6,580

MECHANICAL										
Pipework and fittings										
Elevated storage tank pipework and fittings	Set	1	55,125	20%	11,025	3307	8682	413	1102	24,530
Pipework and fittings from elevated storage tank to rapid gravity filters	Set	1	11,960	20%	2392	718	1884	90	239	5,322
Pipework and fittings from elevated storage tank to chemical building	Set	1	20,271	20%	4054	1216	3193	152	405	9,021
Pipework and fittings from elevated storage tank to staff quarters and administration building	Set	1	37,148	20%	7430	2229	5851	279	743	16,531
Pipework, fittings etc. to Yapei and Yala										
Valves										
Drain valve manually operated	no	1	295	20%	59	18	46	2	6	131
Service water valve manually operated	no	1	295	20%	59	18	46	2	6	131
Outlet to Yapei manually operated	no	1	201	20%	40	12	32	2	4	89
Outlet valve manually operated	no	1	9,662	20%	1932	580	1522	72	193	4,300
ELECTRICAL AND INSTRUMENTATION										
Instrumentation	Set	1	13,839	20%	2768	830	2180	104	277	6,158
MECHANICAL										
Chlorine motive water pumps										
Chlorine motive water pumps and 5 years manufacturers recommended spares, pipework, valves and fittings	Set	1	24,397	5%	1220	1281	3362	183	0	6,046
HP Cleaning Pumps										
HP Cleaning pumps and 5 years manufacturers recommended spares, pipework, valves and fittings	Set	1	55,098	5%	2755	2893	7593	413	0	13,654

VIL											
ndries:											
ller Shutter door	Item	1	4,397	20%	879	264	693	33	88	1,957	
MECHANICAL											
ccess ladders, roof covers and weir ates											
ccess ladders	no	4	8,172	20%	1634	490	1287	61	163	3,636	
of covers	no	10	9,644	20%	1929	579	1519	72	193	4,292	
air plates	Set	1	4,241	20%	848	254	668	32	85	1,887	
ework											
00mm diameter inlet and outlet puddle e	Set	1	5,188	20%	1038	311	817	39	104	2,309	
0 mm diameter drain pipework and ves	Set	1	7,923	20%	1585	475	1248	59	158	3,526	
MECHANICAL											
mps											
ated Water Pump (3.3kV motors) and 5 rs manufacturers recommended spares	no	5	1,616,370	5%	80819	84859	222756	12123	0	400,557	
kwash / service water pumps and 5 rs manufacturers recommended spares	no	2	123,814	5%	6191	6500	17063	929	0	30,683	
ework and fittings within Treated ter Pumping Station											
ated water pump house suction and very pipework and fittings	Set	1	485,518	5%	24276	25490	66911	3641	0	120,318	
kwash / service water pump house ion and delivery pipework and fittings	Set	1	23,574	5%	1179	1238	3249	177	0	5,842	
ework and fittings external											
kwash / service water pipework to ated storage tank	Set	1	39,530	20%	7906	2372	6226	296	0	16,800	
ves											

Coated water pumps										
100 mm butterfly valve manually operated	no	4	26,055	10%	2605	1433	3762	195	0	7,996
100 mm check valves	no	4	56,028	10%	5603	3082	8089	420	0	17,194
100 mm butterfly valve actuated	no	4	39,469	10%	3947	2171	5698	296	0	12,112
100 mm pump delivery air release valve	no	1	635	10%	64	35	92	5	0	195
Backwash / service water pumps										
100 mm butterfly valve manually operated	no	2	13,597	10%	1360	748	1963	102	0	4,173
100 mm check valve	no	2	6,953	10%	695	382	1004	52	0	2,134
100 mm butterfly valve actuated	no	2	10,222	10%	1022	562	1476	77	0	3,137
100 mm pump delivery air release valve	no	1	635	10%	64	35	92	5	0	195
Surge Protection System										
Coated water pump surge protection system including vessels, air compressors (dry/standby) pipework and valves. Surge analysis etc.	Set	1	1,360,124	10%	136012	74807	196368	10201	0	417,388
Lifting Equipment										
Coated water pumping station electric overhead gantry crane including runway beams etc. (5 Tonne) and 5 years manufacturers recommended spares	no	1	136,920	5%	6846	0	0	1027	0	7,873
ELECTRICAL AND INSTRUMENTATION										
Coated Water Pump Station MCC 3.3kV with soft starters (3 Duty Pumps + 2 Standby Pumps)	no	1	685,245	5%	34262	35975	94435	5139	0	169,812
1000V Voltage Switchboard	no	1	119,420	20%	23884	7165	18809	896	0	50,753

high voltage and low voltage cables, emergency stops and accessories etc. to treated water pumping station equipment feeder cables etc. to rapid gravity filters, clariflocculators and chemical dosing	Set	1	428,634	20%	85727	25718	67510	3215	0	182,170
Earthing system	Set	1	7,710	20%	1542	463	1214	58	0	3,277
Lightning and lightning protection	Set	1	12,078	20%	2416	725	1902	91	0	5,133
Distribution boards	Set	1	25,304	20%	5061	1518	3985	190	0	10,754
Lighting and small power treated water pumping station	no	1	24,286	20%	4857	1457	3825	182	0	10,322
Lighting and small power administration building	no	1	24,576	20%	4915	1475	3871	184	0	10,445
Lighting and small power 2 storey 3 room accommodation	no	1	116,492	20%	23298	6990	18347	874	0	49,509
Lighting and small power 4 storey 2 room accommodation	no	1	134,678	20%	26936	8081	21212	1010	0	57,238
Alarm system	Set	1	4,058	20%	812	243	639	30	0	1,725
External lighting	Set	1	14,919	20%	2984	895	2350	112	0	6,341
Furniture	Set	1	85,999	20%	17200	5160	13545	645	0	36,549
MECHANICAL										
Treated water pipeline from treated water pumping station to Tamale Tee off point to Bagabaga and Kaladan										
100mm diameter Ductile Iron pipe spigot / socket - internally epoxy coated and externally zinc / bitumen coated and fittings	Set	1	28,882,415	20%	5776483	1732945	4548980	216618	577648	12,852,674
Tamale Tee off point to Bagabaga and Kaladan reservoirs										
100mm diameter Ductile Iron pipe spigot / socket - internally epoxy coated and externally zinc / bitumen coated and fittings	Set	1	1,644,978	20%	328996	98699	259084	12337	32900	732,015

valve chambers (Valve and pipeline fittings)											
Sealed water air release assembly	Set	10	263,261	20%	52652	15796	41464	1974	5265	117,151	
Sealed water main washout assembly	Set	8	149,596	20%	29919	8976	23561	1122	2992	66,570	
Valve assembly	Set	34	2,027,053	20%	405411	121623	319261	15203	40541	902,039	
Flowmeter assembly	Set	1	16,798	20%	3360	1008	2646	126	336	7,475	
Water supply to Yapei and Kusawgu											
Yapei and Yipala											
100 NB and 110 NB HDPE pipe from treatment plant to Yapei / Yipala	Set	1	359,640	20%	71928	21578	56643	2697	7193	160,040	
100 NB HDPE fittings	Set	1	174,835	20%	34967	10490	27537	1311	3497	77,802	
Water dispensing kiosk set of pipework, valves, inline flowmeters and fittings to provide water to consumers on take and pay basis. (3 kiosks for Yapei and 2 kiosks for Yipala)	Set	5	201,115	20%	40223	12067	31676	1508	4022	89,496	
Kusawgu											
100 mm diameter x 80 mm diameter branch tee	no	1	2,956	20%	591	177	466	22	59	1,316	
100 NB HDPE pipe from treatment plant to Kusawgu / Yipala	Set	1	87,515	20%	17503	5251	13784	656	1750	38,944	
100 NB HDPE fittings	Set	1	1,725	20%	345	103	272	13	34	767	
10 m ³ elevated storage tank complete with inlet, outlet and overflow pipework.	no	1	65,688	20%	13138	3941	10346	493	1314	29,231	
Water dispensing kiosk set of pipework, valves, inline flowmeters and fittings to provide water to consumers on take and pay basis. (2 kiosks for Kusawgu)	Set	2	80,446	20%	16089	4827	12670	603	1609	35,799	
ELECTRICAL AND INSTRUMENTATION											

sawgu											
ar panel & battery system	Set	1	11,756	5%	588	617	1620	88	0	2,913	
RS telemetry system	Set	1	6,595	5%	330	346	909	49	0	1,634	
DC / 12 V DC instrumentation	Set	1	9,196	5%	460	483	1267	69	0	2,279	
ervoir level instrument	Set	1	11,042	5%	552	580	1522	83	0	2,736	
MECHANICAL											
gabaga Reservoir											
t, outlet and drain pipework and ings	Set	1	453,563	20%	90713	27214	71436	3402	9071	201,836	
ves											
dia gate inlet valves manually rated	no	4	33,402	20%	6680	2004	5261	251	668	14,864	
dia float operated valve	no	4	17,126	20%	3425	1028	2697	128	343	7,621	
butterfly valve manually operated	no	2	7,962	20%	1592	478	1254	60	159	3,543	
gate valve manually operated	no	2	1,971	20%	394	118	310	15	39	877	
pillaries											
ports	Set	1	14,666	20%	2933	880	2310	110	293	6,526	
ess ladders, roof covers and vents	Set	1	49,024	20%	9805	2941	7721	368	980	21,816	
et level indicator (Cat and mouse)	Set	1	2,403	20%	481	144	379	18	48	1,070	
gabaga Booster Pumping Station											
oster pumps and 5 year manufacturers ommended spares	no	2	44,534	20%	8907	2672	7014	334	891	19,818	
ework											
tion and deliver pump pipework and ngs to elevated storage tank	Set	1	122,734	20%	24547	7364	19331	921	2455	54,617	
ves											
gate valve actuated	no	2	2,729	20%	546	164	430	20	55	1,214	
check valve	no	2	6,713	20%	1343	403	1057	50	134	2,987	
dia gate valve manually operated	no	2	16,701	20%	3340	1002	2630	125	334	7,432	
float operated valve	no	1	4,099	20%	820	246	646	31	82	1,824	
ymeter chamber											

flowmeter chamber pipework and fittings	Set	1	10,138	20%	2028	608	1597	76	203	4,512
Calcium Hypochlorite re-chlorination equipment										
Calcium Hypochlorite tank, mixer and dosing pump, valves and pipework unit	Set	1	86,483	10%	8648	4757	12486	649	1730	28,269
Calcium hypochlorite delivery pipework and fittings	Set	1	8,595	10%	859	473	1241	64	172	2,809
Chemical tank internal protection system	Set	1	12,190	10%	1219	670	1760	91	244	3,985
Safety shower and pipework system	Set	1	4,823	20%	965	289	760	36	96	2,146
Madan Reservoir										
Inlet, outlet and drain pipework and fittings	Set	1	453,563	20%	90713	27214	71436	3402	9071	201,836
Valves										
100 dia gate inlet valves manually operated	no	4	33,402	10%	3340	1837	4822	251	668	10,918
100 dia float operated valve	no	4	17,126	10%	1713	942	2473	128	343	5,598
100 butterfly valve manually operated	no	2	7,962	10%	796	438	1150	60	159	2,603
100 gate valve manually operated	no	2	1,971	10%	197	108	284	15	39	644
Manholes										
Manholes	Set	1	14,666	20%	2933	880	2310	110	293	6,526
Access ladders, roof covers and vents	Set	1	49,024	20%	9805	2941	7721	368	980	21,816
Water level indicator (Cat and mouse)	Set	1	2,403	20%	481	144	379	18	48	1,070
Madan Booster Pumping Station										
Booster pumps and 5 year manufacturers recommended spares	no	2	44,534	5%	2227	2338	6137	334	891	11,927
Pipework										
Station and deliver pump pipework and fittings to elevated storage tank	Set	1	122,734	20%	24547	7364	19331	921	2455	54,617
Valves										
100 gate valve actuated	no	2	2,729	10%	273	150	394	20	55	892
100 check valve	no	2	6,713	10%	671	369	969	50	134	2,194
100 gate valve manually operated	no	2	16,701	10%	1670	919	2411	125	334	5,459

10 float operated valve	no	1	4,099	10%	410	225	592	31	82	1,340
flowmeter chamber										
flowmeter chamber pipework and fittings	Set	1	10,138	20%	2028	608	1597	76	203	4,512
Calcium Hypochlorite re-chlorination equipment										
Calcium Hypochlorite tank, mixer and dosing pump, valves and pipework unit	Set	1	86,483	20%	17297	5189	13621	649	1730	38,485
Calcium hypochlorite delivery pipework and fittings	Set	1	8,595	20%	1719	516	1354	64	172	3,825
Chemical tank internal protection system	Set	1	12,190	20%	2438	731	1920	91	244	5,424
Safety shower and pipework system	Set	1	4,823	20%	965	289	760	36	96	2,146
ELECTRICAL AND INSTRUMENTATION										
gabaga booster station										
5kV pole mounted fuse switch, cables and accessories	Set	1	49,463	10%	4946	2720	7141	371	0	15,179
100 kVA 34.5/0.4 kV Transformer	no	1	36,161	5%	1808	0	0	271	0	2,079
5kV dedicated overhead power line for gabaga reservoir. Cable mounted on steel poles.	Item	1	120,929	10%	12093	6651	17459	907	0	37,110
gabaga Booster Station Low Voltage switchboard	no	1	92,945	10%	9294	5112	13419	697	0	28,522
gabaga Booster Station Low Voltage switchboard cables including accessories	Set	1	8,875	20%	1775	532	1398	67	0	3,772
Distribution board and accessories	Set	1	31,735	20%	6347	1904	4998	238	0	13,488
Feeding and small power to Booster Pump	Set	1	122,614	20%	24523	7357	19312	920	0	52,111
Fire alarm system	Set	1	4,238	5%	212	222	584	32	0	1,050
External lighting	Set	1	18,521	20%	3704	1111	2917	139	0	7,871
Lighting and lightning protection	Set	1	19,473	20%	3895	1168	3067	146	0	8,276
Instrumentation	Set	1	99,643	20%	19929	5979	15694	747	0	42,348
Madan Booster Pumping Station										

5kV pole mounted fuse switch, cables and accessories	Set	1	49,100	10%	49,100	2701	7089	368	0	15,068
10 kVA 11.5kV/0.4 kV Transformer	no	1	34,966	5%	1748	0	0	262	0	2,011
5kV dedicated overhead power line for lagoon reservoir. Cable mounted on steel poles.	Item	1	88,707	10%	8871	4879	12807	665	0	27,222
Lagoon Booster Station Low Voltage Switchboard	no	1	82,347	20%	16469	4941	12970	618	0	34,998
Lagoon Booster Station Low Voltage Switchboard cables including accessories	Set	1	6,502	20%	1300	390	1024	49	0	2,763
Distribution board and accessories	Set	1	25,359	20%	5072	1522	3994	190	0	10,778
Lighting and small power to Booster Pumping Station	Set	1	6,122	20%	1224	367	964	46	0	2,602
Fire alarm system	Set	1	3,386	5%	169	178	467	25	0	839
Internal lighting	Set	1	18,521	20%	3704	1111	2917	139	0	7,871
Lighting and lightning protection	Set	1	3,809	20%	762	229	600	29	0	1,619
Instrumentation	Set	1	76,697	20%	15339	4602	12080	575	0	32,596
VII										
Accessing supply:										
Accessing	m	2300	295,343	20%	59069	17721	46517	2215	5907	131,428
Accessories	no	4	13,218	20%	2644	793	2082	99	264	5,882
MECHANICAL										
Lagoon Lagoons										
Sluices and stop logs										
1000mm diameter gate valves manual operation	no	10	3,188	10%	319	175	460	24	64	1,042
Outlet stop logs manually operated	no	6	17,384	10%	1738	956	2510	130	348	5,682
Pipework (For main inlet pipework see riser flocculators section (2E.2.) and for outlet pipework see overflow section (2E.2.))										
Spools of inlet and outlet pipework spools for lagoon inlet / outlets	Set	1	12,719	20%	2544	763	2003	95	254	5,660

VIL										
Doors and windows:										
Roller Shutter door	Set	1	49,442	20%	9888	2967	7787	371	989	22,002
MECHANICAL										
Ammonium Sulphate										
Chemical make up tanks, mixers	Set	1	18,630	20%	3726	1118	2934	140	373	8,290
Chemical dosing pumps and 5 years manufacturers spares and dosing pipework (DPE) and valves to point of dosing	Set	1	82,640	10%	8264	4545	11931	620	1653	27,013
Chemical tank internal protection system	Set	1	12,190	20%	2438	731	1920	91	244	5,424
Chemical make up tanks, mixers	Set	1	19,934	20%	3987	1196	3140	150	399	8,871
Chemical dosing pumps and 5 years manufacturers spares and dosing pipework (DPE) and valves to point of dosing	Set	1	143,367	20%	28673	8602	22580	1075	2867	63,798
Chemical bag splitter	Set	1	18,531	20%	3706	1112	2919	139	371	8,246
Chemical dust unit and pipework	Set	1	25,785	20%	5157	1547	4061	193	516	11,474
Chemical tank internal protection system	Set	1	12,190	20%	2438	731	1920	91	244	5,424
Sodium Hypochlorite										
Chemical make up tanks, mixers	Set	1	23,079	20%	4616	1385	3635	173	462	10,270
Chemical dosing pumps and 5 years manufacturers spares and dosing pipework (DPE) and valves to point of dosing	Set	1	154,049	20%	30810	9243	24263	1155	3081	68,552
Chemical tank internal protection system	Set	1	24,380	20%	4876	1463	3840	183	488	10,849
Accessory equipment										
Chemical line injection fittings	no	1	5,490	20%	1098	329	865	41	110	2,443
Chemical ports	Set	1	4,506	20%	901	270	710	34	90	2,005

safety shower	no	2	9,646	20%	1929	579	1519	72	193	4,293
forklift truck for chemical handling	no	1	46,798	5%	2340	2457	6449	351	936	12,533
chlorine										
chlorine dosing plant	Set	1	247,224	5%	12361	12979	34071	1854	0	61,265
chlorine safety equipment	Set	1	9,729	5%	486	511	1341	73	195	2,606
chlorine dosing pipework, valves to points dosing	Set	1	32,006	20%	6401	1920	5041	240	640	14,243
chlorine gas scrubber system complete with pipework etc.	no	1	139,493	20%	27899	8370	21970	1046	2790	62,074
lifting equipment										
3 tonne electric overhead gantry crane for chlorine drum use. Including runway beams and 5 years manufacturers recommended spares	no	1	90,326	5%	4516	0	0	677	0	5,194
ELECTRICAL AND INSTRUMENTATION										
Low Voltage Switchboard	no	1	117,162	20%	23432	7030	18453	879	0	49,794
Low voltage cables, emergency stops and accessories etc. to chemical dosing equipment	Set	1	12,959	20%	2592	778	2041	97	0	5,508
Earthing and lightning protection	Set	1	19,275	20%	3855	1156	3036	145	0	8,192
Distribution boards	Set	1	1,829	20%	366	110	288	14	0	778
Lighting and small power	no	1	80,955	20%	16191	4857	12750	607	0	34,406
Fire alarm system	Set	1	3,499	5%	175	184	482	26	0	867
External lighting	Set	1	15,282	20%	3056	917	2407	115	0	6,495
Instrumentation	Set	1	67,361	20%	13472	4042	10609	505	0	28,629
MECHANICAL										
Low water sampling										
Network of pipework and valves from aerator set to laboratory tap	Set	1	10,098	20%	2020	606	1590	76	202	4,494
Purified water sampling										

of pipework and valves from filter et channel to laboratory tap including npling pumps	Set	1	17,150	20%	3430	1029	2701	129	343	7,632
eated water sampling										
of pipework and valves from treated ter pump outlet to laboratory tap	Set	1	5,524	20%	1105	331	870	41	110	2,458
VIL										
ors and windows:										
ller Shutter door	Item	1	12,361	20%	2472	742	1947	93	247	5,500
ndries:										
ircase and handrailing	Set	1	310	20%	62	19	49	2	6	138
chen equipment and tiles etc.	Set	1	2,064	20%	413	124	325	15	41	919
or tiles	Set	1	14,450	20%	2890	867	2276	108	289	6,430
lets and bathroom equipment	Set	1	2,064	20%	413	124	325	15	41	919
MECHANICAL										
Laboratory equipment										
of laboratory equipment as detailed in water Proposal	Set	1	422,163	5%	21108	0	0	3166	8443	32,718
of Laboratory furniture	Set	1	25,045	20%	5009	1503	3945	188	501	11,145
ADA Control Room										
ADA Control Room furniture	Set	1	2,510	20%	502	151	395	19	50	1,117
Workshop										
ective clothing as detailed in Biwater posal	Set	1	4,371	20%	874	262	688	33	87	1,945
orkshop tools as detailed in Biwater posal	Set	1	27,894	20%	5579	1674	4393	209	558	12,413
ELECTRICAL AND STRUMENTATION										
metry Equipment	Set	1	61,225	10%	6122	3367	8839	459	0	18,788
e optic network cabling	Set	1	141,319	10%	14132	7173	20403	1060	0	43,367
C / HMI / Display	Set	1	301,564	10%	30156	16586	43538	2262	0	92,542

Power monitoring & Control system for in electrical switchgear	Set	1	40,726	20%	8145	2444	6414	305	0	17,309
Electrical test equipment	no	1	30,840	20%	6168	1850	4857	231	0	13,107
Lighting and small power	Set	1	80,377	20%	16075	4823	12659	603	0	34,160
Earthing and lightning protection	Set	1	10,926	20%	2185	656	1721	82	0	4,643
Fire alarm system	Set	1	3,819	5%	764	201	526	29	0	947
ELECTRICAL AND INSTRUMENTATION										
Distribution board, cabling etc.	Set	1	55,439	20%	11088	3326	8732	416	0	23,561
Small power and lighting including work & communication cabling (only equipment within walls)	Set	1	75,460	20%	15092	4528	11885	566	0	32,071
Fire alarm system	Set	1	8,304	5%	1661	436	1144	62	0	2,058
ELECTRICAL AND INSTRUMENTATION										
Power Supply from Buipe Sub-station to Water Treatment Plant										
Connection to GRIDCO Sub Station including circuit breaker	no	1	188,554	10%	18855	10370	27222	1414	0	57,862
5kV overhead power line from Buipe to water treatment plant. Cable mounted on steel poles.	Item	1	2,835,547	10%	283555	155955	409382	21267	0	870,159
5kV Sub Station at water treatment plant										
5kV incoming circuit breaker and voltage regulator	no	1	54,774	10%	5477	3013	7908	411	0	16,809
10MVA, 34.5kV/3.3kV transformer	no	1	204,436	5%	10222	0	0	1533	0	11,755
100kVA, 3.3kV/0.4kV transformer	no	1	56,059	5%	2803	0	0	420	0	3,223
5kV switchgear, cables and accessories	Set	1	109,906	10%	10991	6045	15868	824	0	33,727
Earthing system	Set	1	23,851	20%	4770	1431	3756	179	0	10,137
MALE TO DALUN POWER SUPPLY										

er supply from Tamale Sub Station										
alun Water Treatment Plant										
icated 34.5kV overhead power line n Tamale to Dalun. Cable mounted on l poles.	Item	1	2,447,121	10%	244712	134592	353303	18353	0	750,960
SECTION IT : WATER TREATMENT ANT CIVIL MATERIALS										
IL										
enforcement bars	Tonne	4118	4,143,202	20%	828640	248592	652554	31074	82864	1,843,725
l Mesh	m2	5801	14,386	20%	2877	863	2266	108	288	6,402
sealant and waterbar	LS	1	41,390	20%	8278	2483	6519	310	828	18,419
crete additives	LS	1	180,623	20%	36125	10837	28448	1355	3612	80,377
folding formwork for elevated crete water tank materials and laries	LS	1	309,639	20%	61928	18578	48768	2322	6193	137,789
EQUIPMENT										
ed truck with HIAB type folding crane	no	2	515,753	5%	25788	27077	71077	3868	0	127,810
VEHICLE / Maintenance vehicles: -										
ota NG Prado KD AT Leather	no	2	102,594	20%	20519	6156	16159	769	2052	45,654
ota IMV Hilux 4WD DLX	no	5	175,875	5%	8794	9233	24238	1319	3517	47,102
3CX units with backhoe	no	2	171,183	5%	8559	0	0	1284	0	9,843
ressor and jack hammer	no	1	17,299	5%	865	0	0	130	0	995
st boring machine	no	1	364,071	5%	18204	0	0	2731	0	20,934
strial floor mounted pillar drill	no	1	11,031	5%	552	0	0	83	0	634
PE welding machine suitable for pipes 315 mm diameter complete with rator	no	1	38,170	5%	1908	0	0	286	0	2,195
cutting machine for HDPE pipes	no	1	7,056	5%	353	0	0	53	0	406
VA standby generators incorporating l fuel tank for Dalun, Yapei and onal office	no	3	45,837	5%	2292	2406	6317	344	0	11,359
ing machine and accessories	no	1	31,015	5%	1551	0	0	233	0	1,783

per trucks – three axles	no	2	362,596	5%	18130	19036	49970	2719	7252	97,108
AM Specialist Equipment										
LL Computer - 10 OPT 3010 SFF i3 GHZ 4GB 250 GB DVDRW W7P plus LL 4GB DDR3 PC3 12800U-11 2 RX8 k top memory plus 1- DELL 22" fessional widescreen or equivalent	no	2	3,383	5%	169	178	466	25	0	838
LL Laptop Computer 10 E5530 i5 GHZ 4GB 320GB DVDRW 15.6" W7P s DELL 4GB DDR3 1PC3 12800S 8 laptop memory, Targus carry case. 10 LL 22" professional widescreen TFT een or equivalent	no	2	3,170	5%	159	166	437	24	0	786
icrosoft Office Home & Business 2016 BIT software	no	4	1,230	20%	246	74	194	9	0	523
Free AVD SAAB Edition 5 User or ivalent	no	1	346	20%	69	21	54	3	0	147
work Storage/Storecentre or equivalent	no	1	461	20%	92	28	73	3	0	196
nage 500GB Home Media Drive or ivalent	no	1	231	20%	46	14	36	2	0	98
ignjet 510 PS printer or equivalent	no	1	1,922	20%	384	115	303	14	0	817
Direct 620N printer or equivalent	no	1	724	20%	145	43	114	5	0	308
ox Colourcube 8570DN printer or ivalent	no	1	921	20%	184	55	145	7	0	391
ocad LT2018 commercial software	no	1	1,767	20%	353	106	278	13	0	751
erGEE (4.6) or equivalent single nce, annual 12 month licence for 5,000 s. Licence will be covered for 4 years then will be transferred to GWCL for ard annual licence renewal	no	2	109,445	20%	21889	6567	17238	821	0	46,514

G-404/10 Primelog 2i Dual Flow and Pressure 10bar 0.1%	no	70	29,597	20%	5919	1776	4661	222	0	12,579
G-402/10 Primelog + 1P Single Channel 10 bar 0.1%	no	15	4,843	20%	969	291	763	36	0	2,058
G-403 Primelog +2 flow and analogue channel	no	3	1,208	20%	242	73	190	9	0	514
G336 pressure transducer 20 bar 0.15% Transducer	no	3	1,006	20%	201	60	158	8	0	427
G 334 Depth Transducer	no	3	2,924	20%	585	175	461	22	0	1,243
X 061 Flexible Connection Hose	no	90	2,214	20%	443	133	349	17	0	941
G 735 Primeprobe 3+ 1000 mm	no	2	5,704	20%	1141	342	898	43	0	2,424
50-039 PP3 Probe + Programming cable	no	2	209	20%	42	13	33	2	0	89
G 921 PP3 cable to Primelog/Xilog	no	2	243	20%	49	15	38	2	0	103
G 121 Kent helix 4000 Reed Switch	no	40	10,332	20%	2066	620	1627	77	0	4,391
G 161 V100 Reed Switch	no	50	5,175	20%	1035	311	815	39	0	2,199
ic windows 8 Tablet with networks/XAP set up and download ware	no	2	2,153	20%	431	129	339	16	0	915
G 111 Gauging Rod. Replaced with G101/3 500 mm or TXG101/6 1000	no	1	361	20%	72	22	57	3	0	154
G881 Logger to PC/USB Download cable	no	3	258	20%	52	15	41	2	0	110
al Listening Stick	no	2	185	20%	37	11	29	1	0	78
relux C3 Leak Noise Correlator	no	3	20,756	20%	4151	1245	3269	156	0	8,821
alogN logger kit with transit case and 5 single adaptors (15 logger plus Sebalog commander LOGSET-CDR-2 commander)	no	1	11,674	20%	2335	700	1839	88	0	4,962
T HL500-S-PRO Ground Microphone (with Spec Windproof)	no	1	3,990	20%	798	239	628	30	0	1,696
SP Box Locator	no	1	126	20%	25	8	20	1	0	54
Folding Measuring Wheel	no	1	108	20%	22	6	17	1	0	46

Max VLOCM Kit, 8 kHz and 33 kHz ultra frequency precision locator, peak mode, depth readout or equivalent	no	1	3,613	20%	723	217	569	27	0	1,536
Mer MAST Step Test Kit and cables or equivalent	no	1	13,400	20%	2680	804	2111	101	0	5,695
Hand held GPS (Trimble R9s, Model 60 S receiver kit and charger	no	1	36,703	20%	7341	2202	5781	275	0	15,599
Quickfit couplers and adaptors	no	80	2,287	20%	457	137	360	17	0	972
Tools	set	1	41,624	20%	8325	2497	6556	312	0	17,690
Safety Equipment	set	1	3,158	20%	632	189	497	24	0	1,342
PROVISIONAL SUM - Total and unit price fixed, quantity variable)										
Concrete chambers cement, reinforcement for installation, Air Release, Washout and flowmeters	no	555	1,376,261	20%	275252	82576	216761	10322	0	584,911
PROVISIONAL SUM - Total and unit price fixed, quantity variable)										
Concrete Distribution Pipes 10 to 400 HDPE Pipes 90 degree Bends	LS	1	15,199,426	20%	3039885	911966	2393910	113996	0	6,459,756
10 to 400 HDPE Pipes 90 degree Bends	LS	1	50,199	20%	10040	3012	7906	376	1004	22,338
10 to 400 HDPE Pipes tees	LS	1	43,415	20%	8683	2605	6838	326	868	19,320
10 to 400 HDPE Pipes 90 Degree Reducing	LS	1	19,421	20%	3884	1165	3059	146	388	8,642
Various sizes	LS	1	2,502	20%	500	150	394	19	50	1,114

reducers											
25 - 110 mm	LS	1	959	20%	192	58	151	7	19	427	
couplings (socket type)											
10 to 400 HDPE Pipes	LS	1	144,396	20%	28879	8664	22742	1083	2888	64,256	
flange and backing ring											
10 to 400 HDPE Pipes	LS	1	9,015	20%	1803	541	1420	68	180	4,012	
Mechanical Primary Distribution Main Pipe and Accessories Water DI pipe and fittings PROVISIONAL SUM - Total and unit (rate fixed, quantity variable)											
Main Distribution Pipes											
100 mm DI Pipes	m	31061	6,523,431	20%	1304686	391406	1027440	48926	130469	2,902,927	
100 mm DI Pipes	m	10492	5,017,065	20%	1003413	301024	790188	37628	100341	2,232,594	
90 degree Bends											
100 mm DI Pipes	no	3	4,660	20%	932	280	734	35	93	2,074	
100 mm DI Pipes	no	6	30,289	20%	6058	1817	4771	227	606	13,479	
90 degree Bends											
100 mm DI Pipes	no	12	11,132	20%	2226	668	1753	83	223	4,954	
100 mm DI Pipes	no	6	18,510	20%	3702	1111	2915	139	370	8,237	
tees											
100 mm DI Pipes	no	1	1,334	20%	267	80	210	10	27	594	
100 mm DI Pipes	no	3	16,180	20%	3236	971	2548	121	324	7,200	
reducers											
100 - 600 mm socket	no	6	22,652	20%	4530	1359	3568	170	453	10,080	
chamber comprises of valve or flowmeter, necessary chamber pipe spools, flange adaptor, fixings, manhole cover and any necessary drain pipe.											
isolation valve											
DN110	no	16	34,137	10%	3414	1878	4929	256	683	11,159	

N160	no	11	25,441	10%	2544	1399	3673	191	509	8,316
N200	no	6	15,662	10%	1566	861	2261	117	313	5,120
N250	no	3	9,028	10%	903	497	1303	68	181	2,951
N300	no	3	11,626	10%	1163	639	1678	87	233	3,800
N400	no	3	18,154	10%	1815	998	2621	136	363	5,934
N600	no	6	57,825	10%	5782	3180	8348	434	1156	18,901
N1000	no	3	83,898	10%	8390	4614	12113	629	1678	27,424
ir release valve										
N110	no	10	15,051	10%	1505	828	2173	113	301	4,920
N160	no	104	165,868	10%	16587	9123	23947	1244	3317	54,218
N200	no	92	159,418	10%	15942	8768	23016	1196	3188	52,110
N250	no	29	89,427	10%	8943	4918	12911	671	1789	29,231
N300	no	20	71,048	10%	7105	3908	10258	533	1421	23,224
N400	no	20	92,189	10%	9219	5070	13310	691	1844	30,134
N600	no	36	175,514	10%	17551	9653	25340	1316	3510	57,371
N1000	no	9	82,887	10%	8289	4559	11967	622	1658	27,094
ashout valve										
N110	no	14	4,206	10%	421	231	607	32	84	1,375
N160	no	43	19,593	10%	1959	1078	2829	147	392	6,405
N200	no	43	30,861	10%	3086	1697	4456	231	617	10,088
N250	no	7	14,480	10%	1448	796	2091	109	290	4,733
N300	no	7	17,761	10%	1776	977	2564	133	355	5,806
N400	no	7	25,161	10%	2516	1384	3633	189	503	8,224
N600	no	14	54,044	10%	5404	2972	7803	405	1081	17,666
N1000	no	4	32,496	10%	3250	1787	4692	244	650	10,622
owmeter										
N110	no	4	9,778	5%	489	513	1348	73	196	2,619
N160	no	20	57,863	5%	2893	3038	7974	434	1157	15,496
N200	no	6	20,198	5%	1010	1060	2784	151	404	5,409
N250	no	3	11,978	5%	599	629	1651	90	240	3,208
N300	no	3	14,069	5%	703	739	1939	106	281	3,768
N400	no	3	22,945	5%	1147	1205	3162	172	459	6,145
N600	no	6	265,643	5%	13282	13946	36609	1992	5313	71,142

Wireless Mbus solution for flowmeter readings	no	1	11,093	5%	555	582	1529	83	222	2,971
Mechanical Secondary Distribution mains and House Connections water only										
HDPE pipe and fittings only										
Distribution Pipes										
HDPE Pipes	m	156000	65,520	20%	13104	3931	10319	491	1310	29,156
HDPE Pipes	m	164000	350,960	20%	70192	21058	55276	2632	7019	156,177
HDPE Pipes	no	7800	52,416	20%	10483	3145	8256	393	1048	23,325
HDPE Pipes	no	8200	66,420	20%	13284	3985	10461	498	1328	29,557
Reducers										
- 50	no	32	786	20%	157	47	124	6	16	350
- 75	no	32	975	20%	195	58	154	7	19	434
0 - 90	no	32	975	20%	195	58	154	7	19	434
0 - 110	no	12	897	20%	179	54	141	7	18	399
0 - 160	no	4	426	20%	85	26	67	3	9	190
couplings (Socket type)										
HDPE Pipes	no	1599	3,470	20%	694	208	546	26	69	1,544
HDPE Pipes	no	1681	5,396	20%	1079	324	850	40	108	2,401
use connections comprising the supply 50x50x20 tee, Hydrus ultrasonic meter, cable meter/valve box, tamper proof isolation cock, HDPE pipe and fittings	no	10000	3,797,000	20%	759400	227820	598028	28478	75940	1,689,665
umber and plywood for concrete network	LS	1	570,666	20%	114,133	34240	89880	4280	11413	253,946
el roof structures	LS	1	1,332,707	20%	266541	79962	209901	9995	26654	593,055
of sheeting	LS	1	361,757	20%	72351	21705	56977	2713	7235	160,982

doors and frames, window and louvered windows	LS	1	328,182	20%	65636	19691	51689	2461	6564	146,041
rainwater pipes and gutters	LS	1	26,241	20%	5248	1574	4133	197	525	11,677
DPE pipe	LS	1	2,550,000	20%	510000	153000	401625	19125	51000	1,134,750
air conditioning units	LS	1	44,072	20%	8814	2644	6941	331	0	18,731
road material	lm	1350	202,500	20%	40500	12150	31894	1519	4050	90,113
Power Supply Local costs:										
35kV overhead power line from the 35kV main power line to Intake Substation. Cable mounted on steel poles.	Item	1	7,811	10%	15781	450	1128	59	0	2,397
35kV dedicated overhead power line for Gabaga reservoir. Cable mounted on steel poles.	Item	1	58,582	10%	117164	3222	8458	439	0	17,977
35kV dedicated overhead power line for Kaladan reservoir. Cable mounted on steel poles.	Item	1	42,973	10%	85946	2364	6204	322	0	13,187
35kV overhead power line from Buipe to water treatment plant. Cable mounted on steel poles.	Item	1	1,373,639	10%	2747278	75550	198319	10302	0	421,535
Dedicated 34.5kV overhead power line from Tamale to Dalun. Cable mounted on steel poles.	Item	1	1,185,471	10%	2370942	65201	171152	8891	0	363,792
Small tools and equipment	LS	1	100,000	10%	200000	5500	14438	750	0	30,688
Plant Spares	LS	1	500,275	10%	1000550	27515	72227	3752	0	153,522
Ground engaging wear parts for equipment and machinery	LS	1	225,150	10%	450300	12383	32506	1689	0	69,093
Refabricated site office units at Yapei, Gabaga, Kaladan and Revenue Office including air conditioning	LS	1	550,000	20%	1100000	33000	86625	4125	11000	244,750
Plant repair workshop unit including steel frame building	LS	1	350,750	20%	701500	21045	55243	2631	7015	156,084
Office materials, stationary, office equipment	LS	1	225,000	20%	450000	13500	35438	1688	4500	100,125
Construction Plant and Equipment										
Tractor Trucks	No	6	899,418	25%	1798836	47219	123951	6746	17988	240,875

uck with Crane	No	3	511,200	5%	25560	26838	70450	3834	10224	136,906
ixmate Small Concrete Truck Mixer	No	2	175,562	5%	8778	9217	24195	1317	3511	47,018
oncrete Batching Plant c/w Generator	No	1	236,637	5%	11832	12423	32612	1775	0	58,642
oncrete Truck Mixer	No	2	292,834	5%	14642	15374	40356	2196	0	72,568
oncrete Pump	No	1	550,805	5%	27540	28917	75908	4131	0	136,496
essersi F-750 Concrete Mixer	No	2	50,978	5%	2549	2676	7025	382	0	12,633
oncrete Dumper	No	3	63,474	5%	3174	3332	8748	476	1269	16,999
on Dumper	No	3	105,711	5%	5286	5550	14568	793	2114	28,311
ashDown Pump	No	3	4,473	5%	224	1235	616	34	89	1,198
0mm Sykes Univac Pump	No	1	14,058	5%	703	738	1937	105	281	3,765
0mm Sykes Univac Pump	No	2	31,240	5%	1562	1640	4305	234	625	8,366
5cfm Compressor	No	4	55,948	10%	5595	3077	8077	420	1119	18,288
illdozer	No	1	255,600	5%	12780	13419	35225	1917	0	63,341
ff bus	No	3	106,500	5%	5325	5591	14677	799	0	26,392
ton Tipper Trailer	No	3	234,300	5%	11715	12301	32289	1757	4686	62,748
ow Loader Trailer	No	2	237,056	5%	11853	12445	32669	1778	4741	63,487
ton Flat Site Trailer	No	2	42,600	5%	2130	2237	5871	320	852	11,409
B Fastrac Tractor	No	1	113,600	5%	5680	5964	15656	852	2272	30,424
ton Crawler Crane	No	3	340,800	5%	17040	0	0	2556	6816	26,412
ton Mobile Telescopic Crane	No	2	341,400	5%	17070	0	0	2561	6828	26,459
B 3CX Excavator	No	4	348,144	5%	17407	0	0	2611	0	20,018
B 803 Excavator	No	2	76,120	5%	3806	0	0	571	0	4,377
t 345B or C excavator	No	3	920,001	5%	46000	0	0	6900	0	52,900
t 330 Excavator	No	3	621,000	5%	31050	0	0	4658	0	35,708
t 315 Excavator	No	4	410,980	5%	20549	0	0	3082	0	23,631
mm Air Vibrator Poker	No	2	654	5%	33	70	0	5	0	38
mm Air Vibrator Poker	No	4	1,592	5%	80	0	0	12	0	92
brator Poker Unit	No	4	2,728	5%	136	0	0	20	0	157
ite Compacter	No	9	12,267	5%	613	0	0	92	0	705
ench Roller	No	6	169,548	5%	8477	0	0	1272	0	9,749
nford TV 100 Roller	No	2	60,118	5%	3006	0	0	451	0	3,457
w Bench	No	2	3,976	5%	199	0	0	30	80	308
ner/Thickneser	No	1	14,761	5%	738	775	2034	111	295	3,953
hl Saw	No	4	3,268	5%	163	172	450	25	65	875
va Generator set	No	6	51,078	5%	2554	2682	7039	383	0	12,658

0Kva Generator set	No	7	98,007	5%	1,900	5145	13507	735	0	24,287
0Kva Generator set	No	3	34,485	5%	1,721	1810	4752	259	0	8,546
00Amp Welding Set	No	2	10,366	5%	518	544	1429	78	0	2,569
000litre Dual Flow Skip	No	2	3,550	5%	178	0	0	27	71	275
00litre Dual Flow Skip	No	2	3,110	5%	156	0	0	23	62	241
000litre GR Skip	No	2	5,254	5%	263	0	0	39	105	407
reinforcement Bar Bender	No	2	19,640	5%	982	0	0	147	393	1,522
reinforcement Bar Cropper	No	2	16,118	5%	806	0	0	121	322	1,249
aterials Telehandler	No	2	347,046	5%	17352	18220	47827	2603	6941	92,943
00 gallon Stacking Tank	No	4	14,200	10%	1120	781	2050	107	284	4,642
000 gallon Static Tank	No	2	51,120	10%	15112	2812	7380	383	1022	16,710
railer Bowser	No	4	38,908	5%	1945	2043	5362	292	778	10,420
ater/Fuel Tankers	No	2	262,156	5%	13108	13763	36128	1966	5243	70,209
heeled Pay Loader	No	3	732,084	5%	36604	38434	100890	5491	0	181,420
ydraulic Breaker Hammer	No	5	248,500	5%	12425	13046	34246	1864	0	61,581
DPE Pipe Welder - 350 to 630mm	No	2	73,850	5%	3693	3877	10177	554	0	18,301
DPE Pipe Welder - 80 to 300 mm	No	5	78,565	5%	3928	4125	10827	589	0	19,469
ipeline Hydraulic Test Pump	No	5	28,400	5%	1420	1491	3914	213	0	7,038
Operational Spares for Construction Plant and Equipment										
orry Tractor Unit for Articulated Trucks	Set	1	361,694	5%	18085	18989	49846	2713	7234	96,866
pper Trucks	Set	1	254,634	5%	12732	13368	35092	1910	5093	68,194
uck with Crane	Set	1	133,658	5%	6683	7017	18420	1002	2673	35,795
ixmate Small Concrete Truck Mixer	Set	1	44,381	5%	2219	2330	6116	333	888	11,886
oncrete Batching Plant c/w Generator	Set	1	31,946	5%	1597	1677	4403	240	639	8,556
oncrete Truck Mixer	Set	1	39,532	5%	1977	2075	5448	296	791	10,587
oncrete Pump	Set	1	74,359	5%	3718	3904	10248	558	1487	19,914
essersi F-750 Concrete Mixer	Set	1	9,176	5%	459	482	1265	69	184	2,457
oncrete Dumper	Set	1	18,667	5%	933	980	2573	140	373	4,999
on Dumper	Set	1	27,207	5%	1360	1428	3749	204	0	6,742

ashDown Pump	Set	1	1,539	5%	77	81	212	12	0	381
0mm Sykes Univac Pump	Set	1	3,411	5%	171	179	470	26	0	845
0mm Sykes Univac Pump	Set	1	8,271	5%	414	434	1140	62	0	2,050
5cfm Compressor	Set	1	10,501	5%	525	551	1447	79	0	2,602
llozer	Set	1	16,794	5%	840	882	2314	126	0	4,162
ff bus	Set	1	23,963	5%	1198	1258	3302	180	479	6,418
ton Tipper Trailer	Set	1	28,018	5%	1401	1471	3861	210	560	7,504
ft Flat Bed Trailer	Set	1	90,738	5%	4537	4764	12505	681	1815	24,301
w Loader Trailer	Set	1	36,348	5%	1817	1908	5009	273	727	9,734
ton Flat Site Trailer	Set	1	7,157	5%	358	376	986	54	143	1,917
B Fastrac Tractor	Set	1	23,856	5%	1193	1252	3288	179	477	6,389
ton Crawler Crane	Set	1	42,600	5%	2130	0	0	320	0	2,450
on Mobile Telescopic Crane	Set	1	40,825	5%	2041	0	0	306	0	2,347
B 3CX Excavator	Set	1	72,228	5%	3611	380	0	542	0	4,153
B 803 Excavator	Set	1	25,901	5%	1295	0	0	194	0	1,489
345B or C excavator	Set	1	167,325	5%	8366	0	0	1255	0	9,621
330 Excavator	Set	1	126,413	5%	6321	0	0	948	0	7,269
315 Excavator	Set	1	122,013	5%	6101	0	0	915	0	7,016
nm Air Vibrator Poker	Set	1	127	5%	16	0	0	1	0	7
ibrator Poker Unit	Set	1	273	5%	14	0	0	2	0	16
te Compacter	Set	1	1,982	5%	99	10	0	15	0	114
nch Roller	Set	1	23,737	5%	1187	0	0	178	475	1,840
v Bench	Set	1	497	5%	25	26	68	4	10	133
ner/Thicknesser	Set	1	1,845	5%	92	97	254	14	37	494
il Saw	Set	1	327	5%	16	17	45	2	7	88
va Generator set	Set	1	7,662	5%	383	402	1056	57	0	1,899
va Generator set	Set	1	17,642	5%	882	926	2431	132	0	4,372
va Generator set	Set	1	4,138	5%	207	217	570	31	0	1,025
Amp Welding Set	Set	1	2,169	5%	108	114	299	16	43	581
0litre Dual Flow Skip	Set	1	142	5%	7	7	20	1	3	38
0litre Dual Flow Skip	Set	1	124	5%	6	7	17	1	2	33
0litre GR Skip	Set	1	210	5%	11	11	29	2	4	56
nforcement Bar Bender	Set	1	982	5%	49	40	0	7	20	76
nforcement Bar Cropper	Set	1	806	5%	40	0	0	6	16	62
aterials Telehandler	Set	1	67,833	5%	3392	0	0	509	1357	5,257

100 gallon Stacking Tank	Set	1	710	10%	710	39	103	15	14	232
100 gallon Static Tank	Set	1	2,556	10%	256	141	369	19	51	835
ailer Bowser	Set	1	4,785	5%	239	251	659	36	0	1,186
ater/Fuel Tankers	Set	1	69,635	5%	3,482	3,656	9,597	522	1,393	18,649
heeled Pay Loader	Set	1	177,468	5%	8,873	9,317	24,457	1,331	0	43,979
Hydraulic Breaker Hammer	Set	1	34,790	5%	1,740	1,826	4,794	261	0	8,621
DPE Pipe Welder - 350 to 630mm	Set	1	10,339	5%	517	543	1,425	78	0	2,562
DPE Pipe Welder - 80 to 300 mm	Set	1	10,999	5%	550	577	1,516	82	0	2,726
eline Hydraulic Test Pump	Set	1	3,976	5%	199	209	548	30	0	985
ontractor vehicle spares	Set	1	240,000	10%	24,000	13,200	34,650	1,800	4,800	78,450
orry Tractor Unit for Articulated Trucks	No	11	1,453,804	5%	72,690	76,325	200,352	10,904	29,076	389,347
ft Flat Bed Trailer	No	12	323,760	5%	16,188	16,997	44,618	2,428	6,475	86,707
Contractor Site vehicles:										
ew cabs 4 x 4 Pickups	No	22	749,760	5%	37,488	39,362	103,326	5,623	14,995	200,795
edium 4 x 4 vehicles	No	3	149,100	20%	29,820	8,946	23,483	1,118	2,982	66,350
mall 4 x 4 vehicle	No	5	213,000	20%	42,600	12,780	33,548	1,598	4,260	94,785
TOTAL			131,767,091		6,214,463.77	7,362,951	19,327,747	988,253	1,724,297	50,849,624

TOTAL TAX LIABILITY - 50,849,624 US DOLLARS

This is to certify that the assessment given is true and correct.

Signature:

Importer/Agent's Name & Designation:

For Official Use

Assessment rechecked and found correct and complete.

Signature:

.....29-08-2019.....

Officer's Name & Rank: GIDEON GLEY

Date

(SNR REV OFFICER)