SUMMARY		
BILL	**DESCRIPTION**	**AMOUNT R**
	RICHARDS BAY	
	DURBAN	
	EAST LONDON	
	NGQURA	
	PORT ELIZABETH	
	MOSSEL BAY	
	CAPE TOWN	
	SALDANHA	
	ENTERPRISE DEVELOPMENT	**270,000.00**
	SUB -TOTAL 1	
	CIDB B.U.I.L.D PROGRAMME	
	CIDB CONTRACT SKILLS DEVELOPMENT GOALS (CSDG) (0.25% FACTOR X SUB TOTAL 1)	
	SUB -TOTAL 2	
	ALLOW THE SUM OF 0.2% OF SUB TOTAL 2 FOR THE CIDB BUILD FEE	
	ESCALATION PROVISION IN TERMS OF 'CLAUSE X1' OF THE NEC	**50,763,938.00**
	NET TOTAL OF TENDER CARRIED FORWARD TO FORM OF OFFER EXCL. VAT	**R**

Note: Tenderers must incorporate the B.U.I.L.D Participation Fee of 0.2%. Transnet will withhold this percentage and it will be paid directly to CIDB as per the below:
"In terms of section 23 (3) of the CIDB Act, Transnet must pay to the CIDB a prescribed percentage of 0.2% of the total tender value..."

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
1	**Enterprise Development (CIDB B.U.I.L.D PROGRAM)** **Indirect Targeting for Enterprise Development though Construction Works Contracts, Gazette Notice No.36190 of 25 February 2013** **(a) Enterprise Development of Targeted Enterprise or JV partners**				
1.1	(a.1) Needs Analysis and Enterprise Development Plan per Targeted Enterprise (An amount of R5000 per region)	Item	3	R 5,000.00	R 15,000.00
1.2	(a.2) Monitoring and Interim Reporting per Targeted Enterprise	Per Quarter	12	R 20,000.00	R 240,000.00
1.3	(a.3) Project Completion Report per Targeted Enterprise	Item	3	R 5,000.00	R 15,000.00
	CARRIED FORWARD TO FINAL SUMMARY				**R 270,000.00**

PRELIMINARY AND GENERAL					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
A	**PORT OF RICHARDS BAY**				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
1	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

PRELIMINARY AND GENERAL					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	11		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	11		
2.3	Ablution and latrine facilities	Month	11		
2.4	Tools and equipment	Month	11		
2.5	Water supplies, electric power and communications	Month	11		
2.6	Dealing with water (Sub-clause 5.5)	Month	11		
2.7	Access (Sub-clause 5.8)	Month	11		
2.8	Plant	Month	11		
	Supervision				
2.9	Supervision for duration of construction	Month	11		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	11		
2.11	Compliance to Environmental Management Plan	Month	11		
	CARRIED FORWARD TO SUMMARY				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
C	**PORT OF RICHARDS BAY**				
	SUPPLY AND INSTALLATION OF SMART METERS				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	12500		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
	METER No. 01 -Harbour Main **Replacement of the meter including associated components, Meter size: 300mm, existing pipe material is HDPE and the pipe size: 320mm**				
2.1	Decommission and remove the existing above installation.	No.	1		
2.2	Supply and install 300mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
2.3	Supply and install a 300mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
2.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
2.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
2.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
2.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
2.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 02 - Bayview Main Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 180mm				
3.1	Decommission and remove the existing above installation.	No.	1		
3.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
3.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
3.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
3.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
3.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
3.8	Test and commision the installation	No.	1		
	METER No. 03 - Die Duine Replacement of the meter including associated components, Meter size: 250mm, existing pipe material is HDPE and the pipe size: 280mm				
4.1	Decommission and remove the existing above installation.	No.	1		
4.2	Supply and install 250mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
4.3	Supply and install a 250mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
4.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
4.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
4.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
4.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 04 - Government House Replacement of the meter including associated components Meter size: 100mm, existing pipe material is HDPE and the pipe size: 110mm				
5.1	Decommission and remove the existing above installation.	No.	1		
5.2	Supply and install 100mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
5.3	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
5.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
5.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
5.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
5.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
5.8	Test and commision the installation	No.	1		
	METER No. 05 -Water Gantry Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
6.1	Decommission and remove the existing above installation.	No.	1		
6.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
6.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
6.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
6.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
6.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
6.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
6.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 06 -Silver Ocean: Main Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 200mm				
7.1	Decommission and remove the existing above installation.	No.	1		
7.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
7.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
7.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
7.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
7.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
7.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
7.6	Test and commision the installation	No.	1		
	METER No. 07 - Newark Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 200mm				
8.1	Decommission and remove the existing above installation.	No.	1		
8.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
8.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
8.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
8.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
8.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
8.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
8.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 08 - Action Cricket Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 170mm				
9.1	Decommission and remove the existing above installation.	No.	1		
9.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
9.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
9.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
9.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
9.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
9.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
9.8	Test and commision the installation	No.	1		
	METER No. 09 - Tidal Gates (Two Meters) Replacement of the meter including associated components, Meter size: 250mm, existing pipe material is HDPE and the pipe size: 270mm				
10.1	Decommission and remove the existing above installation.	No.	1		
10.2	Supply and install 250mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
10.3	Supply and install a 250mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
10.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
10.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
10.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
10.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
10.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 10 -Checmical Berth Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 160mm				
11.1	Decommission and remove the existing above installation.	No.	1		
11.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
11.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
11.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
11.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
11.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
11.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
11.8	Test and commision the installation	No.	1		
	METER No. 11 - 300 Series Replacement of the meter including associated components, Meter size: 200mm, existing pipe material is HDPE and the pipe size: 230mm				
12.1	Decommission and remove the existing above installation.	No.	1		
12.2	Supply and install 200mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
12.3	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
12.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
12.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
12.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
12.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
12.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 12 - Baermer **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 150mm**				
13.1	Decommission and remove the existing above installation.	No.	1		
13.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
13.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
13.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
13.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
13.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
13.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
13.8	Test and commision the installation	No.	1		
	METER No. 13 - Liquid Pitch **Replacement of the meter including associated components, Meter size: 75mm, existing pipe material is HDPE and the pipe size: 90mm**				
14.1	Decommission and remove the existing above installation.	No.	1		
14.2	Supply and install 75mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
14.3	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
14.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
14.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
14.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
14.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
14.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 14 - Fedmis Main Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 180mm				
15.1	Decommission and remove the existing above installation.	No.	1		
15.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
15.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
15.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
15.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
15.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
15.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
15.8	Test and commision the installation	No.	1		
	METER No. 15 - Fedmis Fire Replacement of the meter including associated components Meter size: 20mm, existing pipe material is HDPE and the pipe size: 22mm				
16.1	Decommission and remove the existing above installation.	No.	1		
16.2	Supply and install 20mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
16.3	Supply and install a 20mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
16.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 16 - Shincell Fire Replacement of the meter including associated components Meter size: 50mm, existing pipe material is HDPE and the pipe size: 63mm				
17.1	Decommission and remove the existing above installation.	No.	1		
17.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
17.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
17.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
17.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
17.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
17.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
17.8	Test and commision the installation	No.	1		
	METER No. 17 - Shincell Ring Feed Replacement of the meter including associated components Meter size: 100mm, existing pipe material is HDPE and the pipe size: 110mm				
18.1	Decommission and remove the existing above installation.	No.	1		
18.2	Supply and install 100mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
18.3	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
18.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
18.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
18.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
18.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
18.8	Test and commision the installation	No.	1		
	METER No. 18 - Fermentech Replacement of the meter including associated components Meter size: 100mm, existing pipe material is HDPE and the pipe size: 110mm				
19.1	Decommission and remove the existing above installation.	No.	1		
19.2	Supply and install 100mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
19.3	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
19.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
19.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
19.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
19.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
19.8	Test and commision the installation	No.	1		

	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 19 - Coaking Coal Replacement of the meter including associated components Meter size: 75mm, existing pipe material is HDPE and the pipe size: 90mm				
20.1	Decommission and remove the existing above installation.	No.	1		
20.2	Supply and install 75mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
20.3	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
20.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
20.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
20.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
20.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
20.8	Test and commision the installation	No.	1		
	METER No. 20 - IVS: Administration: Small Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 63mm				
21.1	Decommission and remove the existing above installation.	No.	1		
21.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
21.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
21.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
21.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
21.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
21.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
21.8	Test and commision the installation	No.	1		
	METER No. 21 - IVS: Administration: Large Replacement of the meter including associated components, Meter size: 250mm, existing pipe material is HDPE and the pipe size: 270mm				
22.1	Decommission and remove the existing above installation.	No.	1		
22.2	Supply and install 250mm dia. flanged HDPE stub flange adaptor to AC pipe connectionC to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
22.3	Supply and install a 250mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
22.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
22.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
22.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
22.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
22.8	Test and commision the installation	No.	1		

	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 22 - IVS: Gate Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
23.1	Decommission and remove the existing above installation.	No.	1		
23.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
23.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
23.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
23.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
23.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
23.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
23.8	Test and commision the installation	No.	1		
	METER No. 23 - IVS: Fire Main Replacement of the meter including associated components, Meter size: 100mm, existing pipe material is HDPE and the pipe size: 150mm				
24.1	Decommission and remove the existing above installation.	No.	1		
24.2	Supply and install 100mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
24.3	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
24.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
24.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
24.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
24.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
24.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 24 - Richards Bay Bunker Terminal Replacement of the meter including associated components, Meter size: 25mm, existing pipe material is HDPE and the pipe size: 35mm				
25.1	Decommission and remove the existing above installation.	No.	1		
25.2	Supply and install 25mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
25.3	Supply and install a 25mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
25.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
25.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
25.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
25.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
25.8	Test and commision the installation	No.	1		
	METER No. 25 - RBCT Main (Hydra substation) Replacement of the meter including associated components, Meter size: 200mm, existing pipe material is HDPE and the pipe size: 200mm				
26.1	Decommission and remove the existing above installation.	No.	1		
26.2	Supply and install 200mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
26.3	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
26.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
26.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
26.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
26.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
26.8	Test and commision the installation	No.	1		
	METER No. 26 - Carriage & Wagon – Departure Yard Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
27.1	Decommission and remove the existing above installation.	No.	1		
27.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
27.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
27.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
27.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
27.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
27.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
27.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 27 - Shunters Cabin 124 & 138 – Silver Ocean Road Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
28.1	Decommission and remove the existing above installation.	No.	1		
28.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
28.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
28.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
28.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
28.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
28.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
28.8	Test and commision the installation	No.	1		
	METER No. 28 - Shunter's Cabin 139 – Bottom Discharger Replacement of the meter including associated components, Meter size: 20mm, existing pipe material is HDPE and the pipe size: 25mm				
29.1	Decommission and remove the existing above installation.	No.	1		
29.2	Supply and install 20mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
29.3	Supply and install a 20mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
29.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
29.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
29.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
29.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
29.8	Test and commision the installation	No.	1		
	METER No. 29 - Shunter's Cabin 229 – Arrivals Yard Replacement of the meter including associated components, Meter size: 20mm, existing pipe material is HDPE and the pipe size: 28mm				
30.1	Decommission and remove the existing above installation.	No.	1		
30.2	Supply and install 20mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
30.3	Supply and install a 20mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
30.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
30.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
30.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
30.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
30.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 30 - Shunter's Cabin – CoalLink Replacement of the meter including associated components, Meter size: 20mm, existing pipe material is HDPE and the pipe size: 22mm				
31.1	Decommission and remove the existing above installation.	No.	1		
31.2	Supply and install 20mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
31.3	Supply and install a 20mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
31.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
31.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
31.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
31.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
31.8	Test and commision the installation	No.	1		
	METER No. 31 - Shunter's Cabin – Duine Area Replacement of the meter including associated components, Meter size: 20mm, existing pipe material is HDPE and the pipe size: 22mm				
32.1	Decommission and remove the existing above installation.	No.	1		
32.2	Supply and install 20mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
32.3	Supply and install a 20mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
32.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
32.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
32.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
32.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
32.8	Test and commision the installation	No.	1		
	METER No. 32 - Carriage and Wagon – Duine Area Replacement of the meter including associated components, Meter size: 100mm, existing pipe material is HDPE and the pipe size: 110mm				
33.1	Decommission and remove the existing above installation.	No.	1		
33.2	Supply and install 100mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
33.3	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
33.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
33.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
33.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
33.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
33.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 33 - DBT Storage – Mechanical Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
34.1	Decommission and remove the existing above installation.	No.	1		
34.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
34.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
34.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
34.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
34.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
34.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
34.7	Test and commision the installation	No.	1		
	METER No. 34 - DBT Storage – Electrical Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
35.1	Decommission and remove the existing above installation.	No.	1		
35.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
35.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
35.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
35.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
35.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
35.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
35.8	Test and commision the installation	No.	1		
	METER No. 35 - DBT Storage – Administration Replacement of the meter including associated components, Meter size: 50mm, existing pipe material is HDPE and the pipe size: 50mm				
36.1	Decommission and remove the existing above installation.	No.	1		
36.2	Supply and install 50mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
36.3	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
36.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
36.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
36.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
36.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
36.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No.36 - Dry Bulk Terminal Main Meter Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 160mm				
37.1	Decommission and remove the existing above installation.	No.	1		
37.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
37.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
37.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
37.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
37.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
37.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
37.8	Test and commision the installation	No.	1		
	METER No. 37 - DBT – Saxon Road Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 150mm				
38.1	Decommission and remove the existing above installation.	No.	1		
38.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
38.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
38.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
38.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
38.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
38.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
38.8	Test and commision the installation	No.	1		
	METER No. 38 - Mhlathuze Building Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 180mm				
39.1	Decommission and remove the existing above installation.	No.	1		
39.2	Supply and install 150mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
39.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
39.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
39.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
39.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
39.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
39.8	Test and commision the installation	No.	1		
	CARRIED FORWARD				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
	METER No. 39 - Office 2279 Replacement of the meter including associated components, Meter size: 100mm, existing pipe material is HDPE and the pipe size: 110mm				
40.1	Decommission and remove the existing above installation.	No.	1		
40.2	Supply and install 100mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
40.3	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
40.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
40.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
40.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
40.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
40.8	Test and commision the installation	No.	1		
	METER No. 40 - CoalLink Locomotive Depot Replacement of the meter including associated components, Meter size: 75mm, existing pipe material is HDPE and the pipe size: 90mm				
41.1	Decommission and remove the existing above installation.	No.	1		
41.2	Supply and install 75mm dia. flanged HDPE stub flange adaptor to AC pipe connection to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
41.3	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
41.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
41.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter reading device and establish connectivity for wireless communication.	No.	1		
41.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
41.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
41.8	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY RCB				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of Energy Meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.				
1.1	Decommission and remove the existing Electricity Meters in various locations	No.	94		
1.2	Supply, install and configure a new smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	94		
1.3	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs	No.	94		
1.4	Test and commission the installation.	No.	94		
C	**Replacement of Electricity Meters in various locations (Single Phase)**				
2.1	Decommission and remove the existing Electricity Meters in various locations	No.	20		
2.2	Supply, install and configure a new Smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	20		
2.3	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs.	No.	20		
2.4	Test and commission the installation.	No.	20		
C	**Replacement of Power Quality Meters (11kV) in various locations**				
3.1	Decommission and remove the existing Power Quality Meters in various locations	No.	101		
3.2	Supply, install, configure and integrate a Class A Power Quality Meter suitable for 11kV electrical network on complete with disturbance recording, waveform capture, transient detection, harmonic analysis, event logging etc.	No.	101		
3.3	Supply and install the I/O Modules.	No.	101		
3.4	Establish connectivity: Link the meters to the existing systems (Adriot SCADA, ION Setup Vista and ECWIN), billing server and the new Utilies Management System.	No.	101		
3.5	Test and commission the installation.	No.	101		
	CARRIED FORWARD TO SUMMARY RCB				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	25000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m^3	4500		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	25000		
1.4	Reinstate exsiting surface and make good	m^2	3750		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	25		
1.6	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	25		
1.7	Supply and install a 9U swing frame cabinet 900mm deep	No.	10		
1.8	Design and construction of Manholes for fibre	No.	15		
1.9	Supply, install and setup the servers	No.	2		
1.10	Splicing of Fibres	No.	360		
1.11	OTDR Testing (Test and submit line losses)	No.	360		
1.12	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.13	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		
1.14	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY RCB				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	4		
1.2	Smart automatic energy meter reading devices	No.	28		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY RCB				

PORT OF RICHARDS BAY					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data.	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation	Sum	1		
1.4	Testing and commissioning of the software side both individually and integrated system	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY RCB				

PORT OF RICHARDS BAY		
	DESCRIPTION	**AMOUNT R**
	PORT OF RICHARDS BAY	
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

PORT OF DURBAN					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF DURBAN				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
1	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

PORT OF DURBAN					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	8		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	8		
2.3	Ablution and latrine facilities	Month	8		
2.4	Tools and equipment	Month	8		
2.5	Water supplies, electric power and communications	Month	8		
2.6	Dealing with water (Sub-clause 5.5)	Month	8		
2.7	Access (Sub-clause 5.8)	Month	8		
2.8	Plant	Month	8		
	Supervision				
2.9	Supervision for duration of construction	Month	8		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	8		
2.11	Compliance to Environmental Management Plan	Month	8		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF DURBAN				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	CARRIED FORWARD TO SUMMARY DBN				
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of Energy Meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.				
1.3	Decommission and remove the existing Electricity Meters in various locations	No.	3		
1.4	Re-wire the existing electrical circuits		14		
1.5	Supply, install and configure a new smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	52		
1.6	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs	No.	52		
1.7	Test and commission the installation.	No.	52		
	CARRIED FORWARD TO SUMMARY DBN				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	6000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m^3	1080		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	6000		
1.4	Reinstate exsiting surface and make good	m^2	1800		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	24		
1.6	Supply and install a 9U swing frame cabinet 900mm deep	No.	1		
1.6	Splicing of Fibres	No.	280		
1.7	OTDR Testing (Test and submit line losses)	No.	280		
1.8	Supply and Install industrial Gigabit Ethernet Media Converters (10/100/1000 Base-T RJ45 Ethernet interfaces)-Support full-duplex	No.	30		
1.9	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.10	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		
1.11	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY DBN				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	4		
1.2	Smart automatic energy meter reading devices	No.	28		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY DBN				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data.	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation	Sum	1		
1.4	Testing and commissioning of the software side both individually and integrated system	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY DBN				

PORT OF DURBAN		
	DESCRIPTION	**AMOUNT R**
	PORT OF DURBAN	
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
C	COMMUNICATION	
D	PROCUREMENT AND SUPPLY OF SPARES	
E	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

PRELIMINARY AND GENERAL					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF EAST LONDON				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
1	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

PRELIMINARY AND GENERAL					
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	11		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	11		
2.3	Ablution and latrine facilities	Month	11		
2.4	Tools and equipment	Month	11		
2.5	Water supplies, electric power and communications	Month	11		
2.6	Dealing with water (Sub-clause 5.5)	Month	11		
2.7	Access (Sub-clause 5.8)	Month	11		
2.8	Plant	Month	11		
	Supervision				
2.9	Supervision for duration of construction	Month	11		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	11		
2.11	Compliance to Environmental Management Plan	Month	11		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF EAST LONDON				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	6000		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
	METER No. 01 -Orient Beach TNPA **Replacement of the meter including associated components, Meter size: 32mm, existing pipe material is HDPE**				
2.1	Decommission and remove the existing above installation.	No.	1		
2.2	Supply and install a 32mm water meter compatible with AMR technology, including all necessary couplings, bolts, sealants etc.	No.	1		
2.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
2.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
2.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
2.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
2.7	Test and commision the installation	No.	1		
	METER No. 02 - Orient Beach TNPA **Replacement of the meter including associated components, Meter size: 90mm, existing pipe material is HDPE**				
3.1	Decommission and remove the existing above installation.	No.	1		
3.2	Supply and install a 90mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
3.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
3.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
3.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
3.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 02 - Bayview Main Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE and the pipe size: 180mm				
3.1	Decommission and remove the existing above installation.	No.	1		
3.2	Supply and install flange stub HDPE to flange stub AC to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
3.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
3.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
3.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
3.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
3.8	Test and commision the installation	No.	1		
	METER No. 03 - Die Duine Replacement of the meter including associated components, Meter size: 250mm, existing pipe material is HDPE and the pipe size: 280mm				
4.1	Decommission and remove the existing above installation.	No.	1		
4.2	Supply and install flange stub HDPE to flange stub AC to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
4.3	Supply and install a 250mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
4.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
4.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
4.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
4.8	Test and commision the installation	No.	1		
	METER No. 03 - Buffalo Street Replacement of the meter including associated components, Meter size: 32mm, existing pipe material is HDPE				
4.1	Decommission and remove the existing above installation.	No.	1		
4.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
4.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
4.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
4.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
4.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 04 - Buffalo Street Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE				
5.1	Decommission and remove the existing above installation.	No.	1		
5.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
5.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
5.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
5.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
5.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
5.7	Test and commision the installation	No.	1		
	METER No. 05 - Pontoon Road Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE				
6.1	Decommission and remove the existing above installation.	No.	1		
6.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
6.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
6.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
6.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
6.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
6.7	Test and commision the installation	No.	1		
	METER No. 06 - Old Guard Post near SA navy Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
7.1	Decommission and remove the existing above installation.	No.	1		
7.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
7.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
7.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
7.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
7.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
7.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 07 - Port Captain **Replacement of the meter including associated components, Meter size: 32mm, existing pipe material is HDPE**				
8.1	Decommission and remove the existing above installation.	No.	1		
8.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
8.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
8.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
8.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
8.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
8.7	Test and commision the installation	No.	1		
	METER No. 08 - Port Captain **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE**				
9.1	Decommission and remove the existing above installation.	No.	1		
9.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
9.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
9.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
9.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
9.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
9.7	Test and commision the installation	No.	1		
	METER No. 09 - Latimer's Landing **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
10.1	Decommission and remove the existing above installation.	No.	1		
10.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
10.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
10.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
10.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
10.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
10.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 10 - West Bank near B/R/Y/C Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Asbestos Cement				
11.1	Decommission and remove the existing above installation.	No.	1		
11.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
11.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
11.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
11.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
11.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
11.7	Test and commision the installation	No.	1		
	METER No. 11 - Dale Street Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Asbestos Cement				
12.1	Decommission and remove the existing above installation.	No.	1		
12.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
12.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
12.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
12.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
12.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
12.7	Test and commision the installation	No.	1		
	METER No. 12 - Dale Street TNPA Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Asbestos Cement				
13.1	Decommission and remove the existing above installation.	No.	1		
13.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
13.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
13.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
13.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
13.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
13.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 13 - Strand Street Cabin **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
14.1	Decommission and remove the existing above installation.	No.	1		
14.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
14.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
14.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
14.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
14.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
14.7	Test and commision the installation	No.	1		
	METER No. 14 - Strand Street BCM **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
15.1	Decommission and remove the existing above installation.	No.	1		
15.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
15.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
15.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
15.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
15.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
15.7	Test and commision the installation	No.	1		
	METER No. 15 - Strand Street **Replacement of the meter including associated components, Meter size: 32mm, existing pipe material is Galvanised Iron**				
16.1	Decommission and remove the existing above installation.	No.	1		
16.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
16.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 16 - Strand Street Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
17.1	Decommission and remove the existing above installation.	No.	1		
17.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
17.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
17.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
17.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
17.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
17.7	Test and commision the installation	No.	1		
	METER No. 17 - Strand Street TNPA Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
18.1	Decommission and remove the existing above installation.	No.	1		
18.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
18.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
18.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
18.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
18.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
18.7	Test and commision the installation	No.	1		
	METER No. 18 - Grey Stones W/B Replacement of the meter including associated components, Meter size: 32mm, existing pipe material is Asbestos Cement				
19.1	Decommission and remove the existing above installation.	No.	1		
19.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
19.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
19.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
19.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
19.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
19.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 19 - EMD Horseshoe **Replacement of the meter including associated components, Meter size: 32mm, existing pipe material is Copper**				
20.1	Decommission and remove the existing above installation.	No.	1		
20.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
20.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
20.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
20.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
20.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
20.7	Test and commision the installation	No.	1		
	METER No. 15 - Fedmis Fire **Replacement of the meter including associated components** **Meter size: 20mm, existing pipe material is HDPE and the pipe size: 22mm**				
16.1	Decommission and remove the existing above installation.	No.	1		
16.2	Supply and install flange stub HDPE to flange stub AC to exterior of the chamber including gaskets, bolts, sealants, etc.	No.	2		
16.3	Supply and install a 20mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
16.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.6	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.7	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.8	Test and commision the installation	No.	1		
	METER No. 20 - EMD Horseshoe **Replacement of the meter including associated components, Meter size: 90mm, existing pipe material is Copper**				
21.1	Decommission and remove the existing above installation.	No.	1		
21.2	Supply and install a 90mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
21.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
21.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
21.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
21.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
21.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 21 - Old Navy Base **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
22.1	Decommission and remove the existing above installation.	No.	1		
22.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
22.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
22.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
22.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
22.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
22.7	Test and commision the installation	No.	1		
	METER No. 22 - Almega College **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
23.1	Decommission and remove the existing above installation.	No.	1		
23.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
23.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
23.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
23.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
23.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
23.7	Test and commision the installation	No.	1		
	METER No. 23 - Almega College TNPA **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
24.1	Decommission and remove the existing above installation.	No.	1		
24.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
24.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
24.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
24.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
24.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
24.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 24 - Latimer's Complex (Bulk) Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
25.1	Decommission and remove the existing above installation.	No.	1		
25.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
25.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
25.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
25.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
25.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
25.7	Test and commision the installation	No.	1		
	METER No. 25 - Latimer's Complex (Normal) Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
26.1	Decommission and remove the existing above installation.	No.	1		
26.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
26.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
26.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
26.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
26.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
26.7	Test and commision the installation	No.	1		
	METER No. 26 - El Yacht Club, Orient Pier Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE				
27.1	Decommission and remove the existing above installation.	No.	1		
27.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
27.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
27.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
27.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
27.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
27.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 27 - Customs House **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE**				
28.1	Decommission and remove the existing above installation.	No.	1		
28.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
28.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
28.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
28.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
28.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
28.7	Test and commision the installation	No.	1		
	METER No. 28 - Latimer's Landing **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
29.1	Decommission and remove the existing above installation.	No.	1		
29.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
29.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
29.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
29.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
29.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
29.7	Test and commision the installation	No.	1		
	METER No. 29 - Shipyard Area **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Asbestos Cement**				
30.1	Decommission and remove the existing above installation.	No.	1		
30.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
30.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
30.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
30.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
30.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
30.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 30 - Power Boat Club, MC Arthur Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
31.1	Decommission and remove the existing above installation.	No.	1		
31.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
31.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
31.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
31.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
31.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
31.7	Test and commision the installation	No.	1		
	METER No. 31 - House No. 9 Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
32.1	Decommission and remove the existing above installation.	No.	1		
32.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
32.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
32.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
32.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
32.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
32.7	Test and commision the installation	No.	1		
	METER No. 32 - House No. 8 Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
33.1	Decommission and remove the existing above installation.	No.	1		
33.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
33.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
33.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
33.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
33.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
33.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 33 - Foot Prints **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
34.1	Decommission and remove the existing above installation.	No.	1		
34.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
34.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
34.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
34.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
34.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
34.7	Test and commision the installation	No.	1		
	METER No. 34 - Dept Public Works, Saps **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
35.1	Decommission and remove the existing above installation.	No.	1		
35.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
35.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
35.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
35.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
35.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
35.7	Test and commision the installation	No.	1		
	METER No. 35 - Venue **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
36.1	Decommission and remove the existing above installation.	No.	1		
36.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
36.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
36.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
36.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
36.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
36.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 36 - Car Terminal Complex Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Asbestos Cement				
37.1	Decommission and remove the existing above installation.	No.	1		
37.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
37.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
37.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
37.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
37.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
37.7	Test and commision the installation	No.	1		
	METER No. 37 - Terminal Control Bldg. Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
38.1	Decommission and remove the existing above installation.	No.	1		
38.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
38.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
38.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
38.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
38.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
38.7	Test and commision the installation	No.	1		
	METER No. 38 - Straddle Workshop Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
39.1	Decommission and remove the existing above installation.	No.	1		
39.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
39.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
39.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
39.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
39.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
39.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 39 - Mess/Ablution TPT 4 Quay **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
40.1	Decommission and remove the existing above installation.	No.	1		
40.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
40.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
40.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
40.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
40.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
40.7	Test and commision the installation	No.	1		
	METER No. 40 - TPT Admin Building, 3 Quay **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
41.1	Decommission and remove the existing above installation.	No.	1		
41.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
41.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
41.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
41.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
41.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
41.7	Test and commision the installation	No.	1		
	METER No. 41 - G Shed **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
42.1	Decommission and remove the existing above installation.	No.	1		
42.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
42.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
42.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
42.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
42.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
42.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 42 - Elevator EL&P **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
43.1	Decommission and remove the existing above installation.	No.	1		
43.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
43.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
43.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
43.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
43.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
43.7	Test and commision the installation	No.	1		
	METER No. 43 - Elevator Building **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
44.1	Decommission and remove the existing above installation.	No.	1		
44.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
44.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
44.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
44.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
44.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
44.7	Test and commision the installation	No.	1		
	METER No. 44 - TPT Office (Old CPO), 4 QUAY **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
45.1	Decommission and remove the existing above installation.	No.	1		
45.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
45.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
45.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
45.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
45.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
45.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 45 - TPT & IT & Bills Office 4 Quay Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
46.1	Decommission and remove the existing above installation.	No.	1		
46.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
46.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
46.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
46.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
46.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
46.8	Test and commision the installation	No.	1		
	METER No. 47 - Dry Dock Pump Room Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
48.1	Decommission and remove the existing above installation.	No.	1		
48.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
48.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
48.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
48.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
48.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
48.7	Test and commision the installation	No.	1		
	METER No. 48 - Repair Quay Area Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron				
49.1	Decommission and remove the existing above installation.	No.	1		
49.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
49.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
49.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
49.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
49.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
49.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 49 - Shop 17 Workshop **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
50.1	Decommission and remove the existing above installation.	No.	1		
50.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
50.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
50.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
50.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
50.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
50.7	Test and commision the installation	No.	1		
	METER No. 50 - Shop 17 M & A **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
51.2	Decommission and remove the existing above installation.	No.	1		
51.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
51.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
51.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
51.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
51.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
51.7	Test and commision the installation	No.	1		
	METER No. 51 - Procurement/Security **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is HDPE**				
52.2	Decommission and remove the existing above installation.	No.	1		
52.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
52.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
52.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
52.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
52.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
52.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 52 - MHA Area **Replacement of the meter including associated components, Meter size: 150mm, existing pipe material is Galvanised Iron**				
53.2	Decommission and remove the existing above installation.	No.	1		
53.3	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
53.4	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
53.5	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
53.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
53.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
53.7	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY EL				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of Energy Meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.				
1.1	Decommission and remove the existing Electricity Meters in various locations	No.	90		
1.2	Supply, install and configure a new smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	90		
1.3	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs	No.	90		
1.4	Test and commission the installation.	No.	90		
	CARRIED FORWARD TO SUMMARY EL				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	12000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m^3	2160		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	12000		
1.4	Reinstate exsiting surface and make good	m^2	3750		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	15		
1.6	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	15		
1.7	Supply and install a 9U swing frame cabinet 900mm deep	No.	10		
1.8	Design and construction of Manholes for fibre	No.	10		
1.9	Supply, install and setup the severs	No.	2		
1.10	Splicing of Fibres	No.	360		
1.11	OTDR Testing (Test and submit line losses)	No.	360		
1.12	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.13	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		

1.14	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY EL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	5		
1.2	Smart automatic energy meter reading devices	No.	9		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY EL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data.	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation	Sum	1		
1.4	Testing and commissioning of the software side both individually and integrated system	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY EL				

PORT OF EAST LONDON		
	DESCRIPTION	**AMOUNT**
	PORT OF EAST LONDON	
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF NGQURA				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
1	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	9		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	9		
2.3	Ablution and latrine facilities	Month	9		
2.4	Tools and equipment	Month	9		
2.5	Water supplies, electric power and communications	Month	9		
2.6	Dealing with water (Sub-clause 5.5)	Month	9		
2.7	Access (Sub-clause 5.8)	Month	9		
2.8	Plant	Month	9		
	Supervision				
2.9	Supervision for duration of construction	Month	9		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	9		
2.11	Compliance to Environmental Management Plan	Month	9		

	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF NGQURA				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	5000		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
2	**NMBM**				
2.1	Decommission and remove the existing water meter.	No.	1		
2.2	Supply and install a new 450 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
2.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
2.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
2.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
2.6	Test and commision the installation	No.	1		
3	**Main Ent. Zone 1 (B1)**				
3.1	Decommission and remove the existing water meter.	No.	1		
3.2	Supply and install a new 315 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
3.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
3.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
3.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
3.6	Test and commision the installation	No.	1		
4	**Main Port Entrance (C1)**				
4.1	Decommission and remove the existing water meter.	No.	1		
4.2	Supply and install a new 110 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
4.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
4.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
4.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
4.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
5	**Main Port Entrance (C2)**				
5.1	Decommission and remove the existing water meter.	No.	1		
5.2	Supply and install a new 110 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
5.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
5.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
5.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
5.6	Test and commision the installation	No.	1		
6	**Main Port Entrance (C3)**				
6.1	Decommission and remove the existing water meter.	No.	1		
6.2	Supply and install a new 110 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
6.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
6.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
6.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
6.6	Test and commision the installation	No.	1		
7	**Joorst Park Offices (D)**				
7.1	Decommission and remove the existing water meter.	No.	1		
7.2	Supply and install a new 160 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
7.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
7.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
7.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
7.6	Test and commision the installation	No.	1		
8	**NCT Trailer Park (G1)**				
8.1	Decommission and remove the existing water meter.	No.	1		
8.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
8.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
8.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
8.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
8.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
9	**NCT Entrance (F)**				
9.1	Decommission and remove the existing water meter.	No.	1		
9.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
9.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
9.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
9.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
9.6	Test and commision the installation	No.	1		
10	**NCT Exit (Sec) – (H)**				
10.1	Decommission and remove the existing water meter.	No.	1		
10.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
10.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
10.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
10.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
10.6	Test and commision the installation	No.	1		
11	**NCT Entrance (Sec) – (I)**				
11.1	Decommission and remove the existing water meter.	No.	1		
11.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
11.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
11.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
11.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
11.6	Test and commision the installation	No.	1		
12	**NCT Admin Building (K)**				
12.1	Decommission and remove the existing water meter.	No.	1		
12.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
12.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
12.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
12.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
12.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
13	**NCT Terminal Supply Nort Rail (L)**				
13.1	Decommission and remove the existing water meter.	No.	1		
13.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
13.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
13.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
13.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
13.6	Test and commision the installation	No.	1		
14	**NCT Hauler Zone (N)**				
14.1	Decommission and remove the existing water meter.	No.	1		
14.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
14.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
14.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
14.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
14.6	Test and commision the installation	No.	1		
15	**NCT Workshop (S)**				
15.1	Decommission and remove the existing water meter.	No.	1		
15.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
15.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
15.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
15.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
15.6	Test and commision the installation	No.	1		
16	**Sand Bypass Main Pump Station (E)**				
16.1	Decommission and remove the existing water meter.	No.	1		
16.2	Supply and install a new 63 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
16.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
17	**BP1 (M)**				
17.1	Decommission and remove the existing water meter.	No.	1		
17.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
17.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
17.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
17.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
17.6	Test and commision the installation	No.	1		
18	**BP2 (T)**				
18.1	Decommission and remove the existing water meter.	No.	1		
18.2	Supply and install a new 250 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
18.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
18.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
18.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
18.6	Test and commision the installation	No.	1		
19	**BP3 (P)**				
19.1	Decommission and remove the existing water meter.	No.	1		
19.2	Supply and install a new 160 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
19.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
19.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
19.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
19.6	Test and commision the installation	No.	1		
20	**TNPA Admin Building (V)**				
20.1	Decommission and remove the existing water meter.	No.	1		
20.2	Supply and install a new 110 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
20.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
20.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
20.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
20.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
21	**(U)**				
21.1	Decommission and remove the existing water meter.	No.	1		R -
21.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		R -
21.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		R -
21.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		R -
21.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		R -
21.6	Test and commision the installation	No.	1		R -
11.8	Test and commision the installation	No.	1		R -
22	**(R)**				
22.1	Decommission and remove the existing water meter.	No.	1		
22.2	Supply and install a new 200 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
22.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
22.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
22.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
22.6	Test and commision the installation	No.	1		
23	**Port Control (O)**				
23.1	Decommission and remove the existing water meter.	No.	1		
23.2	Supply and install a new 110 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
23.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
23.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
23.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
23.6	Test and commision the installation	No.	1		
24	**ACB Admin (Q)**				
24.1	Decommission and remove the existing water meter.	No.	1		
24.2	Supply and install a new 110 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
24.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
24.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
24.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
24.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
25	**To Be Confirmed**				
25.1	Decommission and remove the existing water meter.	No.	1		
25.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
25.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
25.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
25.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
25.6	Test and commision the installation	No.	1		
26	**To Be Confirmed**				
26.1	Decommission and remove the existing water meter.	No.	1		
26.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
26.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
26.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
26.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
26.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of Energy Meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.				
1.1	Decommission and remove the existing Electricity Meters in various locations	No.	32		
1.2	Supply, install and configure a new smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	32		
1.3	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs	No.	32		
1.4	Test and commission the installation.	No.	32		
	CARRIED FORWARD TO SUMMARY NGQURA				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	10000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m3	1800		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	10000		
1.4	Reinstate exsiting surface and make good	m2	3000		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	12		
1.6	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	12		
1.7	Supply and install a 9U swing frame cabinet 900mm deep	No.	8		
1.8	Design and construction of Manholes for fibre	No.	8		
1.9	Supply, install and setup the servers	No.	6		
1.10	Splicing of Fibres	No.	288		
1.11	OTDR Testing (Test and submit line losses)	No.	288		
1.12	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.13	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	3		
1.14	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY NGQURA				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	3		
1.2	Smart automatic energy meter reading devices	No.	3		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY NGQURA				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data.	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation	Sum	1		
1.4	Testing and commissioning of the software side both individually and integrated system	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY NGQURA				

PORT OF NGQURA		
	DESCRIPTION	**AMOUNT**
	PORT OF NGQURA	
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF PORT ELIZABETH				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
A	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

	PRELIMINARY AND GENERAL

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	12		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	12		
2.3	Ablution and latrine facilities	Month	12		
2.4	Tools and equipment	Month	12		
2.5	Water supplies, electric power and communications	Month	12		
2.6	Dealing with water (Sub-clause 5.5)	Month	12		
2.7	Access (Sub-clause 5.8)	Month	12		
2.8	Plant	Month	12		
	Supervision				
2.9	Supervision for duration of construction	Month	12		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	12		
2.11	Compliance to Environmental Management Plan	Month	12		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF PORT ELIZABETH				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	6000		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
2	**Procurement:** **Replacement of the meter including associated components, Meter size: 15mm**				
2.1	Decommission and remove the existing water meter.	No.	1		
2.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
2.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
2.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
2.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
2.6	Test and commision the installation	No.	1		
3	**Security cabin green street:** **Replacement of the meter including associated components, Meter size: 15mm**				
3.1	Decommission and remove the existing water meter.	No.	1		
3.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
3.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
3.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
3.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
3.6	Test and commision the installation	No.	1		
4	**Clinic:** **Replacement of the meter including associated components, Meter size: 15mm**				
4.1	Decommission and remove the existing water meter.	No.	1		
4.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
4.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
4.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
4.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
4.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
5	**SHEQ Building TPT: Replacement of the meter including associated components, Meter size: 15mm**				
5.1	Decommission and remove the existing water meter.	No.	1		
5.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
5.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
5.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
5.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
5.6	Test and commision the installation	No.	1		
6	**VW Office opposite Shed 101: Replacement of the meter including associated components, Meter size: 15mm**				
6.1	Decommission and remove the existing water meter.	No.	1		
6.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
6.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
6.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
6.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
6.6	Test and commision the installation	No.	1		
7	**Shunters Cabin (TFR): Replacement of the meter including associated components, Meter size: 15mm**				
7.1	Decommission and remove the existing water meter.	No.	1		
7.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
7.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
7.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
7.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
7.6	Test and commision the installation	No.	1		
8	**Black Impala: Replacement of the meter including associated components, Meter size: 15mm**				
8.1	Decommission and remove the existing water meter.	No.	1		
8.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
8.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
8.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
8.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
8.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
9	**Rennies Group: Replacement of the meter including associated components, Meter size: 15mm**				
9.1	Decommission and remove the existing water meter.	No.	1		
9.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
9.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
9.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
9.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
9.6	Test and commision the installation	No.	1		
10	**Greystone Cargo Systems (PTY) LTD: Replacement of the meter including associated components, Meter size: 15 mm**				
10.1	Decommission and remove the existing water meter.	No.	1		
10.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
10.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
10.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
10.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
10.6	Test and commision the installation	No.	1		
11	**Bidfreight Port Operations (PTY) LTD: Replacement of the meter including associated components, Meter size: 15 mm**				
11.1	Decommission and remove the existing water meter.	No.	2		
11.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	2		
11.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
11.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
11.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
11.6	Test and commision the installation	No.	2		
12	**J.L Wessels: Replacement of the meter including associated components, Meter size: 15 mm**				
12.1	Decommission and remove the existing water meter.	No.	1		
12.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
12.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
12.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
12.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
12.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
13	**Commercial Marine: Replacement of the meter including associated components, Meter size: 15 mm**				
13.1	Decommission and remove the existing water meter.	No.	1		
13.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
13.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
13.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
13.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
13.6	Test and commision the installation	No.	1		
14	**CDC Commercial Divers: Replacement of the meter including associated components, Meter size: 15 mm**				
14.1	Decommission and remove the existing water meter.	No.	1		
14.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
14.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
14.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
14.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
14.6	Test and commision the installation	No.	1		
15	**Security Foot Bridge: Replacement of the meter including associated components, Meter size: 22 mm**				
15.1	Decommission and remove the existing water meter.	No.	1		
15.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
15.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
15.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
15.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
15.6	Test and commision the installation	No.	1		
16	**HR Offices/ Building: Replacement of the meter including associated components, Meter size: 22 mm**				
16.1	Decommission and remove the existing water meter.	No.	1		
16.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
16.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
17	**103 Tower: Replacement of the meter including associated components, Meter size: 22 mm**				
17.1	Decommission and remove the existing water meter.	No.	1		
17.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
17.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
17.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
17.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
17.6	Test and commision the installation	No.	1		
18	**102 Tower: Replacement of the meter including associated components, Meter size: 22 mm**				
18.1	Decommission and remove the existing water meter.	No.	1		
18.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
18.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
18.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
18.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
18.6	Test and commision the installation	No.	1		
19	**Security Container Entrance: Replacement of the meter including associated components, Meter size: 22 mm**				
19.1	Decommission and remove the existing water meter.	No.	1		
19.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
19.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
19.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
19.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
19.6	Test and commision the installation	No.	1		
20	**103 Quay Side: Replacement of the meter including associated components, Meter size: 22 mm**				
20.1	Decommission and remove the existing water meter.	No.	1		
20.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
20.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
20.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
20.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
20.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
21	**102 Quay Side: Replacement of the meter including associated components, Meter size: 22 mm**				
21.1	Decommission and remove the existing water meter.	No.	1		
21.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
21.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
21.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
21.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
21.6	Test and commision the installation	No.	1		
22	**Shed 101: Replacement of the meter including associated components, Meter size: 22 mm**				
22.1	Decommission and remove the existing water meter.	No.	1		
22.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
22.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
22.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
22.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
22.6	Test and commision the installation	No.	1		
23	**Car Terminal Admin Office: Replacement of the meter including associated components, Meter size: 22 mm**				
23.1	Decommission and remove the existing water meter.	No.	1		
23.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
23.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
23.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
23.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
23.6	Test and commision the installation	No.	1		
24	**Spoornet: Replacement of the meter including associated components, Meter size: 22 mm**				
24.1	Decommission and remove the existing water meter.	No.	1		
24.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
24.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
24.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
24.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
24.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
25	**Malgas (TFR): Replacement of the meter including associated components, Meter size: 22 mm**				
25.1	Decommission and remove the existing water meter.	No.	1		
25.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
25.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
25.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
25.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
25.6	Test and commision the installation	No.	1		
26	**National Sea Rescue Institute: Replacement of the meter including associated components, Meter size: 22 mm**				
26.1	Decommission and remove the existing water meter.	No.	1		
26.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
26.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
26.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
26.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
26.6	Test and commision the installation	No.	1		
27	**Stormfire Trading 11 CC: Replacement of the meter including associated components, Meter size: 22 mm**				
27.1	Decommission and remove the existing water meter.	No.	1		
27.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
27.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
27.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
27.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
27.6	Test and commision the installation	No.	1		
28	**Tabak: Replacement of the meter including associated components, Meter size: 22 mm**				
28.1	Decommission and remove the existing water meter.	No.	1		
28.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
28.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
28.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
28.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
28.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
29	**Umsobomvu (No.2): Replacement of the meter including associated components, Meter size: 22 mm**				
29.1	Decommission and remove the existing water meter.	No.	1		
29.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
29.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
29.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
29.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
29.6	Test and commision the installation	No.	1		
30	**Shell South Africa Marketing (PTY)LTD: Replacement of the meter including associated components, Meter size: 22 mm**				
30.1	Decommission and remove the existing water meter.	No.	2		
30.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
30.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	m	8		
30.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
30.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
30.6	Test and commision the installation	No.	1		
31	**Shell SA (PTY) LTD Replacement of the meter including associated components, Meter size: 22 mm**				
31.1	Decommission and remove the existing water meter.	No.	1		
31.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
31.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
31.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
31.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
31.6	Test and commision the installation	No.	1		
32	**Extreme Projects: Replacement of the meter including associated components, Meter size: 22 mm**				
32.1	Decommission and remove the existing water meter.	No.	1		
32.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
32.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
32.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
32.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
32.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
33	**DS +CL Sgacace Fishing Farming Replacement of the meter including associated components, Meter size: 22 mm**				
33.1	Decommission and remove the existing water meter.	No.	1		
33.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
33.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
33.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
33.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
33.6	Test and commision the installation	No.	1		
34	**CVC Africa: Replacement of the meter including associated components, Meter size: 22 mm**				
34.1	Decommission and remove the existing water meter.	No.	1		
34.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
34.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
34.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
34.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
34.6	Test and commision the installation	No.	1		
35	**Toilet TPM Kepli Petroleum Replacement of the meter including associated components, Meter size: 22 mm**				
35.1	Decommission and remove the existing water meter.	No.	1		
35.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
35.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
35.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
35.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
35.6	Test and commision the installation	No.	1		
36	**Blue Water Fishing: Replacement of the meter including associated components, Meter size: 22 mm**				
36.1	Decommission and remove the existing water meter.	No.	1		
36.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
36.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
36.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
36.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
36.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
37	**Van Niekerk/ Zandalee: Replacement of the meter including associated components, Meter size: 22 mm**				
37.1	Decommission and remove the existing water meter.	No.	1		
37.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
37.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
37.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
37.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
37.6	Test and commision the installation	No.	1		
38	**Kepu Petroleum: Replacement of the meter including associated components, Meter size: 22 mm**				
38.1	Decommission and remove the existing water meter.	No.	1		
38.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
38.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
38.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
38.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
38.6	Test and commision the installation	No.	1		
39	**Algoa Bay Sailing Marina: Replacement of the meter including associated components, Meter size: 22 mm**				
39.1	Decommission and remove the existing water meter.	No.	1		
39.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
39.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
39.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
39.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
39.6	Test and commision the installation	No.	1		
40	**Albatross Offshore Services (PTY)LTD: Replacement of the meter including associated components, Meter size: 22 mm**				
40.1	Decommission and remove the existing water meter.	No.	1		
40.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
40.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
40.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
40.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
40.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
41	**Albatross: Replacement of the meter including associated components, Meter size: 22 mm**				
41.1	Decommission and remove the existing water meter.	No.	1		
41.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
41.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
41.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
41.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
41.6	Test and commision the installation	No.	1		
42	**Rail to Rail – Red Grouwa (No.1): Replacement of the meter including associated components, Meter size: 22 mm**				
42.1	Decommission and remove the existing water meter.	No.	1		
42.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
42.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
42.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
42.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
42.6	Test and commision the installation	No.	1		
43	**Camanga: Replacement of the meter including associated components, Meter size: 22 mm**				
43.1	Decommission and remove the existing water meter.	No.	1		
43.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
43.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
43.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
43.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
43.6	Test and commision the installation	No.	1		
44	**Blue Water Fish Traders: Replacement of the meter including associated components, Meter size: 22 mm**				
44.1	Decommission and remove the existing water meter.	No.	1		
44.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
44.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
44.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
44.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
44.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
45	**Bereau Veritus: Replacement of the meter including associated components, Meter size: 22 mm**				
45.1	Decommission and remove the existing water meter.	No.	1		
45.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
45.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
45.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
45.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
45.6	Test and commision the installation	No.	1		
46	**Tanker Berth Control Room: Replacement of the meter including associated components, Meter size: 22 mm**				
46.1	Decommission and remove the existing water meter.	No.	1		
46.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
46.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
46.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
46.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
46.6	Test and commision the installation	No.	1		
47	**Tanker Berth Security Cabin: Replacement of the meter including associated components, Meter size: 22 mm**				
47.1	Decommission and remove the existing water meter.	No.	1		
47.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
47.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
47.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
47.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
47.6	Test and commision the installation	No.	1		
48	**Rail Buildings (3): Replacement of the meter including associated components, Meter size: 22 mm**				
48.1	Decommission and remove the existing water meter.	No.	1		
48.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
48.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
48.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
48.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
48.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
49	**Engen Petroleum Limited: Replacement of the meter including associated components, Meter size: 25 mm**				
49.1	Decommission and remove the existing water meter.	No.	1		
49.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
49.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
49.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
49.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
49.6	Test and commision the installation	No.	1		
50	**Shell South Africa (PTY) LTD: Replacement of the meter including associated components, Meter size: 25 mm**				
50.1	Decommission and remove the existing water meter.	No.	1		
50.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
50.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
50.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
50.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
50.6	Test and commision the installation	No.	1		
51	**Chevron South Africa (PTY) LTD: Replacement of the meter including associated components, Meter size: 25 mm**				
51.1	Decommission and remove the existing water meter.	No.	1		
51.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
51.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
51.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
51.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
51.6	Test and commision the installation	No.	1		
52	**Umsobomvu: Replacement of the meter including associated components, Meter size: 25 mm**				
52.1	Decommission and remove the existing water meter.	No.	1		
52.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
52.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
52.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
52.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
52.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
53	**Finance Building: Replacement of the meter including associated components, Meter size: 32 mm**				
53.1	Decommission and remove the existing water meter.	No.	1		
53.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
53.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
53.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
53.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
53.6	Test and commision the installation	No.	1		
54	**Bus Depot (Clinic): Replacement of the meter including associated components, Meter size: 32 mm**				
54.1	Decommission and remove the existing water meter.	No.	1		
54.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
54.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
54.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
54.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
54.6	Test and commision the installation	No.	1		
55	**Shed 12 TPT Ablutions: Replacement of the meter including associated components, Meter size: 32 mm**				
55.1	Decommission and remove the existing water meter.	No.	1		
55.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
55.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
55.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
55.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
55.6	Test and commision the installation	No.	1		
56	**Shunters T/S Double Storey: Replacement of the meter including associated components, Meter size: 32 mm**				
56.1	Decommission and remove the existing water meter.	No.	1		
56.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
56.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
56.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
56.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
56.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
57	**Shell South Africa (PTY) LTD: Replacement of the meter including associated components, Meter size: 32 mm**				
57.1	Decommission and remove the existing water meter.	No.	1		
57.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
57.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
57.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
57.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
57.6	Test and commision the installation	No.	1		
58	**Total Oil SA (PTY) LTD: Replacement of the meter including associated components, Meter size: 32 mm**				
58.1	Decommission and remove the existing water meter.	No.	1		
58.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
58.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
58.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
58.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
58.6	Test and commision the installation	No.	1		
59	**ABSM Crane: Replacement of the meter including associated components, Meter size: 32 mm**				
59.1	Decommission and remove the existing water meter.	No.	1		
59.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
59.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
59.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
59.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
59.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
60	**Eyethu Fishing (PTY) LTD: Replacement of the meter including associated components, Meter size: 32 mm**				
60.1	Decommission and remove the existing water meter.	No.	1		
60.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
60.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
60.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
60.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
60.6	Test and commision the installation	No.	1		
61	**Talhado Fishing Replacement of the meter including associated components, Meter size: 32 mm**				
61.1	Decommission and remove the existing water meter.	No.	1		
61.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
61.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
61.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
61.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
61.6	Test and commision the installation	No.	1		
62	**Fingcorp 113 CC: Replacement of the meter including associated components, Meter size: 32 mm**				
62.1	Decommission and remove the existing water meter.	No.	1		
62.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
62.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
62.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
62.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
62.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
63	**Vacant Building 1: Replacement of the meter including associated components, Meter size: 32 mm**				
63.1	Decommission and remove the existing water meter.	No.	1		
63.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
63.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
63.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
63.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
63.6	Test and commision the installation	No.	1		
64	**Vacant Building 2: Replacement of the meter including associated components, Meter size: 32 mm**				
64.1	Decommission and remove the existing water meter.	No.	1		
64.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
64.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
64.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
64.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
64.6	Test and commision the installation	No.	1		
65	**Vacant Building 3 Replacement of the meter including associated components, Meter size: 32 mm**				
65.1	Decommission and remove the existing water meter.	No.	1		
65.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
65.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
65.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
65.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
65.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
66	**Vacant Building 4: Replacement of the meter including associated components, Meter size: 32 mm**				
66.1	Decommission and remove the existing water meter.	No.	1		
66.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		R -
66.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		R -
66.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		R -
66.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		R -
66.6	Test and commision the installation	No.	1		R -
67	**CVC Building (Ablution Block): Replacement of the meter including associated components, Meter size: 32 mm**				
67.1	Decommission and remove the existing water meter.	No.	1		
67.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
67.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
67.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
67.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
67.6	Test and commision the installation	No.	1		
68	**Ore Berth (Ablution Block): Replacement of the meter including associated components, Meter size: 32 mm**				
68.1	Decommission and remove the existing water meter.	No.	1		
68.2	Supply and install a new 32 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
68.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
68.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
68.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
68.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
69	**Civil Depot: Replacement of the meter including associated components, Meter size: 40 mm**				
69.1	Decommission and remove the existing water meter.	No.	1		
69.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
69.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
69.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
69.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
69.6	Test and commision the installation	No.	1		
70	**Business Manager (MPT): Replacement of the meter including associated components, Meter size: 40 mm**				
70.1	Decommission and remove the existing water meter.	No.	1		
70.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
70.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
70.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
70.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
70.6	Test and commision the installation	No.	1		
71	**ULwandle (Next to Oyster): Replacement of the meter including associated components, Meter size: 40 mm**				
71.1	Decommission and remove the existing water meter.	No.	1		
71.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
71.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
71.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
71.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
71.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
72	**Live Fish Tanks (East Coast): Replacement of the meter including associated components, Meter size: 40 mm**				
72.1	Decommission and remove the existing water meter.	No.	1		
72.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
72.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
72.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
72.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
72.6	Test and commision the installation	No.	1		
73	**Department of Public Works: Replacement of the meter including associated components, Meter size: 40 mm**				
73.1	Decommission and remove the existing water meter.	No.	1		
73.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
73.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
73.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
73.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
73.6	Test and commision the installation	No.	1		
74	**Alvodex CC: Replacement of the meter including associated components, Meter size: 40 mm**				
74.1	Decommission and remove the existing water meter.	No.	1		
74.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
74.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
74.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
74.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
74.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
75	**Pumpstation House (Seawater): Replacement of the meter including associated components, Meter size: 40 mm**				
75.1	Decommission and remove the existing water meter.	No.	1		
75.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
75.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
75.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
75.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
75.6	Test and commision the installation	No.	1		
76	**Trade Motto (1): Replacement of the meter including associated components, Meter size: 40 mm**				
76.1	Decommission and remove the existing water meter.	No.	1		
76.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
76.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
76.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
76.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
76.6	Test and commision the installation	No.	1		
77	**Trade Motto (2): Replacement of the meter including associated components, Meter size: 40 mm**				
77.1	Decommission and remove the existing water meter.	No.	1		
77.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
77.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
77.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
77.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
77.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
78	**Rail Buildings (1): Replacement of the meter including associated components, Meter size: 40 mm**				
78.1	Decommission and remove the existing water meter.	No.	1		
78.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
78.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
78.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
78.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
78.6	Test and commision the installation	No.	1		
79	**Rail Buildings (2): Replacement of the meter including associated components, Meter size: 40 mm**				
79.1	Decommission and remove the existing water meter.	No.	1		
79.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
79.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
79.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
79.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
79.6	Test and commision the installation	No.	1		
80	**Marine Services: Replacement of the meter including associated components, Meter size: 50 mm**				
80.1	Decommission and remove the existing water meter.	No.	2		
80.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	2		
80.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
80.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
80.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
80.6	Test and commision the installation	No.	2		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
81	**Port Admin Building (Port Authority): Replacement of the meter including associated components, Meter size: 50 mm**				
81.1	Decommission and remove the existing water meter.	No.	1		
81.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
81.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
81.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
81.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
81.6	Test and commision the installation	No.	1		
82	**Port Control Tower (Port Captain) Replacement of the meter including associated components, Meter size: 50 mm**				
82.1	Decommission and remove the existing water meter.	No.	1		
82.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
82.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
82.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
82.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
82.6	Test and commision the installation	No.	1		
83	**Minor Building (Offices): Replacement of the meter including associated components, Meter size: 50 mm**				
83.1	Decommission and remove the existing water meter.	No.	1		
83.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
83.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
83.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
83.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
83.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
84	**Minor Building (Ablutions): Replacement of the meter including associated components, Meter size: 50 mm**				
84.1	Decommission and remove the existing water meter.	No.	1		
84.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
84.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
84.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
84.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
84.6	Test and commision the installation	No.	1		
85	**TPT Offices: Replacement of the meter including associated components, Meter size: 50 mm**				
85.1	Decommission and remove the existing water meter.	No.	1		
85.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
85.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
85.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
85.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
85.6	Test and commision the installation	No.	1		
86	**Shell South Africa (PTY) LTD: Replacement of the meter including associated components, Meter size: 50 mm**				
86.1	Decommission and remove the existing water meter.	No.	1		
86.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
86.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
86.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
86.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
86.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
87	**Talhado Fishing Enterprise (PTY) LTD: Replacement of the meter including associated components, Meter size: 50 mm**				
87.1	Decommission and remove the existing water meter.	No.	1		
87.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
87.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
87.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
87.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
87.6	Test and commision the installation	No.	1		
88	**P.E Deep Sea Angling Club: Replacement of the meter including associated components, Meter size: 50 mm**				
88.1	Decommission and remove the existing water meter.	No.	1		
88.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
88.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
88.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
88.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
88.6	Test and commision the installation	No.	1		
89	**Shall South Africa (PTY) LTD: Replacement of the meter including associated components, Meter size: 50 mm**				
89.1	Decommission and remove the existing water meter.	No.	1		
89.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
89.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
89.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
89.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
89.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
90	**Biblia Harbour Mission: Replacement of the meter including associated components, Meter size: 50 mm**				
90.1	Decommission and remove the existing water meter.	No.	1		
90.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
90.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
90.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
90.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
90.6	Test and commision the installation	No.	1		
91	**Talhado Fishing: Replacement of the meter including associated components, Meter size: 50 mm**				
91.1	Decommission and remove the existing water meter.	No.	1		
91.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
91.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
91.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
91.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
91.6	Test and commision the installation	No.	1		
92	**TNPA Lighthouse Services: Replacement of the meter including associated components, Meter size: 50 mm**				
92.1	Decommission and remove the existing water meter.	No.	1		
92.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
92.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
92.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
92.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
92.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
93	**Plot No.1 (Shop 17) Breakeven: Replacement of the meter including associated components, Meter size: 50 mm**				
93.1	Decommission and remove the existing water meter.	No.	1		
93.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
93.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
93.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
93.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
93.6	Test and commision the installation	No.	1		
94	**Zwembesi Farm: Replacement of the meter including associated components, Meter size: 50 mm**				
94.1	Decommission and remove the existing water meter.	No.	1		
94.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
94.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
94.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
94.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
94.6	Test and commision the installation	No.	1		
95	**BPO: Replacement of the meter including associated components, Meter size: 50 mm**				
95.1	Decommission and remove the existing water meter.	No.	1		
95.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
95.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
95.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
95.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
95.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
96	**Cargo: Replacement of the meter including associated components, Meter size: 50 mm**				
96.1	Decommission and remove the existing water meter.	No.	1		
96.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
96.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
96.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
96.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
96.6	Test and commision the installation	No.	1		
97	**Ore Berth Control Tower: Replacement of the meter including associated components, Meter size: 75 mm**				
97.1	Decommission and remove the existing water meter.	No.	1		
97.2	Supply and install a new 75 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
97.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
97.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
97.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
97.6	Test and commision the installation	No.	1		
98	**Eyethu Fishing (PTY) LTD Replacement of the meter including associated components, Meter size: 75 mm**				
98.1	Decommission and remove the existing water meter.	No.	1		
98.2	Supply and install a new 75 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
98.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
98.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
98.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
98.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
99	**Siyaloba Fishing Academy: Replacement of the meter including associated components, Meter size: 75 mm**				
99.1	Decommission and remove the existing water meter.	No.	1		
99.2	Supply and install a new 75 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
99.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
99.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
99.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
99.6	Test and commision the installation	No.	1		
100	**FPT Port Leasing: Replacement of the meter including associated components, Meter size: 75 mm**				
100.1	Decommission and remove the existing water meter.	No.	1		
100.2	Supply and install a new 75 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
100.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
100.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
100.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
100.6	Test and commision the installation	No.	1		
101	**Technical Manager (Shop 17): Replacement of the meter including associated components, Meter size: 100 mm**				
101.1	Decommission and remove the existing water meter.	No.	1		
101.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
101.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
101.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
101.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
101.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
102	**Technical Manager: Replacement of the meter including associated components, Meter size: 100 mm**				
102.1	Decommission and remove the existing water meter.	No.	1		
102.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
102.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
102.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
102.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
102.6	Test and commision the installation	No.	1		
103	**Tipplers: Replacement of the meter including associated components, Meter size: 100 mm**				
103.1	Decommission and remove the existing water meter.	No.	1		
103.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
103.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
103.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
103.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
103.6	Test and commision the installation	No.	1		
104	**Shell South Africa (PTY) LTD: Replacement of the meter including associated components, Meter size: 100 mm**				
104.1	Decommission and remove the existing water meter.	No.	1		
104.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
104.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
104.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
104.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
104.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
105	**Talhado Fishing Enterprise (PTY) LTD: Replacement of the meter including associated components, Meter size: 100 mm**				
105.1	Decommission and remove the existing water meter.	No.	1		
105.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
105.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
105.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
105.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
105.6	Test and commision the installation	No.	1		
106	**Oil Sites main Supply: Replacement of the meter including associated components, Meter size: 150 mm**				
106.1	Decommission and remove the existing water meter.	No.	1		
106.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
106.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
106.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
106.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
106.6	Test and commision the installation	No.	1		
107	**Baakens Main Supply: Replacement of the meter including associated components, Meter size: 150 mm**				
107.1	Decommission and remove the existing water meter.	No.	1		
107.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
107.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
107.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
107.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
107.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
108	**Jetty Main Supply: Replacement of the meter including associated components, Meter size: 150 mm**				
108.1	Decommission and remove the existing water meter.	No.	1		
108.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
108.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
108.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
108.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
108.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY PE				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of Energy Meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.				
1.3	Decommission and remove the existing Electricity Meters in various locations	No.	108		
1.4	Re-wire the existing electrical circuits		108		
1.5	Supply, install and configure a new smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	108		
1.6	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs	No.	108		
1.7	Test and commission the installation.	No.	108		
	CARRIED FORWARD TO SUMMARY PE				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	12000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m^3	2160		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	12000		
1.4	Reinstate exsiting surface and make good	m^2	3600		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	15		
1.6	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	15		
1.7	Supply, install and configure media converters	No.	6		
1.8	Supply and install a 9U swing frame cabinet 900mm deep	No.	10		
1.9	Design and construction of Manholes for fibre	No.	10		
1.10	Supply, install and setup the severs	No.	2		
1.11	Splicing of Fibres	No.	360		
1.12	OTDR Testing (Test and submit line losses)	No.	360		
1.13	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.14	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		
1.15	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD SUMMARY PE				
		28			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	12		
1.2	Smart automatic energy meter reading devices	No.	11		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD SUMMARY PE				
		27			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
	Metering gateways				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data.	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation.	Sum	1		
1.4	Testing and commissioning of the software side both individu	Sum	1		
1.5	AMR Training for End Users	Sum	1		

	CARRIED FORWARD SUMMARY PE				

PORT OF PORT ELIZABETH		
	DESCRIPTION	**AMOUNT R**
	PORT OF PORT ELIZABETH	
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF MOSSEL BAY				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
A	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	11		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	11		
2.3	Ablution and latrine facilities	Month	11		
2.4	Tools and equipment	Month	11		
2.5	Water supplies, electric power and communications	Month	11		
2.6	Dealing with water (Sub-clause 5.5)	Month	11		
2.7	Access (Sub-clause 5.8)	Month	11		
2.8	Plant	Month	11		
	Supervision				
2.9	Supervision for duration of construction	Month	11		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	11		
2.11	Compliance to Environmental Management Plan	Month	11		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF MOSSEL BAY				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	2500		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
	METER No. 01 Installation of New meter including associated components **Meter size: 160mm, existing pipe material is u-PVC**				
2.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
2.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
2.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
2.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
2.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
2.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
2.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
2.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
2.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
2.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	
	BROUGHT FORWARD				
	METER No. 02 Installation of New meter including associated components **Meter size: 160mm, existing pipe material is u-PVC**				
3.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
3.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
3.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
3.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
3.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
3.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
3.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 03 Installation of New meter including associated components **Meter size: 160mm, existing pipe material is u-PVC**				
4.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
4.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
4.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
4.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
4.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
4.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
4.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 04 Installation of New meter including associated components **Meter size: 160mm, existing pipe material is u-PVC**				
5.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
5.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
5.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
5.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
5.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
5.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
5.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
5.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
5.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
5.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 05 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
6.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
6.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
6.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
6.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
6.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
6.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
6.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
6.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
6.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
6.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 06 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
7.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
7.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
7.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
7.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
7.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
7.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
7.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
7.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
7.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
7.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 07 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
8.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
8.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
8.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
8.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
8.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
8.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
8.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
8.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
8.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
8.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 09 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
10.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
10.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
10.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
10.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
10.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
10.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
10.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
10.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
10.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
10.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 10 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
11.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
11.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
11.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
11.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
11.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
11.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
11.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
11.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
11.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
11.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 11 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
12.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
12.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
12.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
12.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
12.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
12.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
12.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
12.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
12.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
12.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 12 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
13.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
13.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
13.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
13.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
13.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
13.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
13.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
13.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
13.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
13.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 13 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
14.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
14.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
14.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
14.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
14.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
14.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
14.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
14.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
14.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
14.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 14 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
15.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
15.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
15.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
15.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
15.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
15.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
15.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
15.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
15.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
15.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 15 Installation of New meter including associated components **Meter size: 160mm, existing pipe material is u-PVC**				
16.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
16.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
16.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
16.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
16.5	Supply and install 160mm dia. spool pieces iapproximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
16.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
16.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 16 Installation of New meter including associated components **Meter size: 160mm, existing pipe material is u-PVC**				
17.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
17.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
17.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
17.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
17.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
17.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
17.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
17.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
17.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
17.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 17 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
18.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
18.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
18.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
18.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
18.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
18.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
18.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
18.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
18.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
18.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 18 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
19.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
19.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
19.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
19.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
19.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
19.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
19.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
19.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
19.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
19.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 19 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
20.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
20.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
20.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
20.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
20.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
20.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
20.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
20.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
20.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
20.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 20 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
21.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
21.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
21.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
21.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
21.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
21.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
21.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
21.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
21.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
21.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 21 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
22.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
22.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
22.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
22.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
22.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
22.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
22.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
22.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
22.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
22.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 22 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
23.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m3	5		
23.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
23.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
23.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
23.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
23.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
23.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
23.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
23.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
23.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 23 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
24.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
24.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
24.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
24.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
24.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
24.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
24.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
24.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
24.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
24.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 24 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
251	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
251.1	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
251.2	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
251.3	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
251.4	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
251.5	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
251.6	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
251.7	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
251.8	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
25.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 25 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
26.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
26.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
26.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
26.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
26.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
26.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
26.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
26.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
26.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
26.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 26 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
27.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
27.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
27.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
27.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
27.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
27.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
27.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
27.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
27.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
27.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 27 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
28.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
28.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
28.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
28.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
28.5	Supply and install 160mm dia spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
28.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
28.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
28.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
28.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
28.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 28 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
29.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
29.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
29.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
29.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
29.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
29.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
29.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
29.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
29.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
29.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 29 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
30.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
30.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
30.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
30.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
30.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
30.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
30.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
30.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
30.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
30.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
31	**MZR 181 Flames Area**				
31.1	Decommission and remove the existing water meter.	No.	1		
31.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
31.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
31.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
31.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
31.6	Test and commision the installation	No.	1		
32	**Flames Restaurant**				
32.1	Decommission and remove the existing water meter.	No.	1		
32.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
32.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
32.4	Register the meter on both the billing server and the new Utility Mana	No.	1		
32.5	Create an account and link the meter to the account and apply the ap	No.	1		
32.6	Test and commision the installation	No.	1		
33	**Car Wash**				
33.1	Decommission and remove the existing water meter.	No.	1		
33.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
33.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
33.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
33.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
33.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
34	**Station Complex (Check Meter)**				
34.1	Decommission and remove the existing water meter.	No.	1		
34.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
34.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
34.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
34.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
34.6	Test and commision the installation	No.	1		
35	**Bedding Stores**				
35.1	Decommission and remove the existing water meter.	No.	1		
35.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
35.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
35.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
35.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
35.6	Test and commision the installation	No.	1		
36	**Station 1**				
36.1	Decommission and remove the existing water meter.	No.	1		
36.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
36.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
36.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
36.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
36.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
37	**Station 2 Laparon**				
37.1	Decommission and remove the existing water meter.	No.	1		
37.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
37.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
37.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
37.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
37.6	Test and commision the installation	No.	1		
38	**Old Electrical Workshop**				
38.1	Decommission and remove the existing water meter.	No.	1		
38.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
38.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
38.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
38.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
38.6	Test and commision the installation	No.	1		
39	**Station Platform**				
39.1	Decommission and remove the existing water meter.	No.	1		
39.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
39.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
39.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
39.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
39.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
40	**GZR 257 Bridge Bulk (Quay 4)**				
40.1	Decommission and remove the existing water meter.	No.	1		
40.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
40.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
40.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
40.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
40.6	Test and commision the installation	No.	1		
41	**Recreational Slipway Office**				
41.1	Decommission and remove the existing water meter.	No.	1		
41.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
41.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
41.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
41.5	Create an account and link the meter to the account and apply the ap	No.	1		
41.6	Test and commision the installation	No.	1		
42	**Recreational Brick Building Ablutions TNPA**				
42.1	Decommission and remove the existing water meter.	No.	1		
42.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
42.3	Supply, install, mount and configure a smart IP68 automatic data logg	No.	1		
42.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
42.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
42.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
43	**Mobile Toilets TNPA**				
43.1	Decommission and remove the existing water meter.	No.	1		
43.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
43.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
43.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
43.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
43.6	Test and commision the installation	No.	1		
44	**WAG/Steakhouse**				
44.1	Decommission and remove the existing water meter.	No.	1		
44.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
44.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
44.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
44.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
44.6	Test and commision the installation	No.	1		
45	**KAAI 4**				
45.1	Decommission and remove the existing water meter.	No.	1		
45.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
45.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
45.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
45.5	Create an account and link the meter to the account and apply the ap	No.	1		
45.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
46	**London Bus/Oyster Bar**				
46.1	Decommission and remove the existing water meter.	No.	1		
46.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
46.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
46.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
46.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
46.6	Test and commision the installation	No.	1		
47	**Waterfront 1**				
47.1	Decommission and remove the existing water meter.	No.	1		
47.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
47.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
47.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
47.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
47.6	Test and commision the installation	No.	1		
48	**Waterfront 2**				
48.1	Decommission and remove the existing water meter.	No.	1		
48.2	Supply and install a new 22 mm water meter compatible with AMR tec	No.	1		
48.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
48.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
48.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
48.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
49	**Romonza**				
49.1	Decommission and remove the existing water meter.	No.	1		
49.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
49.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
49.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
49.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
49.6	Test and commision the installation	No.	1		
50	**Minoli**				
50.1	Decommission and remove the existing water meter.	No.	1		
50.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
50.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
50.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
50.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
50.6	Test and commision the installation	No.	1		
51	**Gate No 2**				
51.1	Decommission and remove the existing water meter.	No.	1		
51.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
51.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
51.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
51.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
51.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
52	**Good Shed**				
52.1	Decommission and remove the existing water meter.	No.	1		
52.2	Supply and install a new 80 mm water meter compatible with AMR tec	No.	1		
52.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
52.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
52.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
52.6	Test and commision the installation	No.	1		
53	**F/H Supply Bulk meter (Station Platform)**				
53.1	Decommission and remove the existing water meter.	No.	1		
53.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
53.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
53.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
53.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
53.6	Test and commision the installation	No.	1		
54	**Check Meter VJ**				
54.1	Decommission and remove the existing water meter.	No.	1		
54.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
54.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
54.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
54.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
54.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
55	**VJ Security Guardhouse**				
55.1	Decommission and remove the existing water meter.	No.	1		
55.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
55.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
55.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
55.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
55.6	Test and commision the installation	No.	1		
56	**TNPA Marine Supply Point Artic Turn**				
56.1	Decommission and remove the existing water meter.	No.	1		
56.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
56.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
56.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
56.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
56.6	Test and commision the installation	No.	1		
57	**TNPA Marine Supply Point Snipe**				
57.1	Decommission and remove the existing water meter.	No.	1		
57.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
57.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
57.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
57.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
57.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
58	**Smit Amandla**				
58.1	Decommission and remove the existing water meter.	No.	1		
58.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
58.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
58.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
58.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
58.6	Test and commision the installation	No.	1		
59	**VJ Quay Side Supply Pnt #1**				
59.1	Decommission and remove the existing water meter.	No.	1		
59.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
59.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
59.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
59.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
59.6	Test and commision the installation	No.	1		
60	**VJ Quay Side Supply Pnt #2**				
60.1	Decommission and remove the existing water meter.	No.	1		
60.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
60.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
60.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
60.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
60.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
61	**VJ Quay Side Supply Pnt #3**				
61.1	Decommission and remove the existing water meter.	No.	1		
61.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
61.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
61.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
61.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
61.6	Test and commision the installation	No.	1		
62	**VJ Quay Side Supply Pnt #4**				
62.1	Decommission and remove the existing water meter.	No.	1		
62.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
62.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
62.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
62.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
62.6	Test and commision the installation	No.	1		
63	**Sliding Door**				
63.1	Decommission and remove the existing water meter.	No.	1		
63.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
63.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
63.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
63.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
63.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
64	**Store Racks**				
64.1	Decommission and remove the existing water meter.	No.	1		
64.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
64.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
64.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
64.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
64.6	Test and commision the installation	No.	1		
65	**Wash Bay**				
65.1	Decommission and remove the existing water meter.	No.	1		
65.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
65.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
65.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
65.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
65.6	Test and commision the installation	No.	1		
66	**Tsisa yama**				
66.1	Decommission and remove the existing water meter.	No.	1		
66.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
66.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
66.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
66.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
66.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
67	**Sea Gypsey**				
67.1	Decommission and remove the existing water meter.	No.	1		
67.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
67.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
67.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
67.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
67.6	Test and commision the installation	No.	1		
68	**Biblia**				
68.1	Decommission and remove the existing water meter.	No.	1		
68.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
68.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
68.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
68.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
68.6	Test and commision the installation	No.	1		
69	**Gate 1 Guard House**				
69.1	Decommission and remove the existing water meter.	No.	1		
69.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
69.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
69.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
69.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
69.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
70	**Border Management Agency**				
70.1	Decommission and remove the existing water meter.	No.	1		
70.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
70.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
70.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
70.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
70.6	Test and commision the installation	No.	1		
71	**Luna Moon**				
71.1	Decommission and remove the existing water meter.	No.	1		
71.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
71.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
71.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
71.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
71.6	Test and commision the installation	No.	1		
72	**PetroSA Office**				
72.1	Decommission and remove the existing water meter.	No.	1		
72.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
72.30	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
72.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
72.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
72.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
73	**PetroSA Mess & Ablution**				
73.1	Decommission and remove the existing water meter.	No.	1		
73.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
73.3	Supply, install, mount and configure a smart IP68 automatic data logg	No.	1		
73.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
73.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
73.6	Test and commision the installation	No.	1		
74	**Meg Plant (Tanks)**				
74.1	Decommission and remove the existing water meter.	No.	1		
74.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
74.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
74.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
74.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
74.6	Test and commision the installation	No.	1		
75	**Long Shed (PetroSA) Q4**				
75.1	Decommission and remove the existing water meter.	No.	1		
75.2	Supply and install a new 90 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
75.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
75.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
75.50	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
75.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
76	**Quay Side Point 1 (Charlie)**				
76.1	Decommission and remove the existing water meter.	No.	1		
76.2	Supply and install a new 90 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
76.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
76.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
76.5	Create an account and link the meter to the account and apply the ap	No.	1		
76.6	Test and commision the installation	No.	1		
77	**Quay Side Point 2 (Bravo)**				
77.1	Decommission and remove the existing water meter.	No.	1		
77.2	Supply and install a new 90 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
77.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
77.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
77.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
77.6	Test and commision the installation	No.	1		
78	**Quay Side Point 3 (Alpha)**				
78.1	Decommission and remove the existing water meter.	No.	1		
78.2	Supply and install a new 90 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
78.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
78.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
78.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
78.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
79	**UZR 752 Viking Area**				
79.1	Decommission and remove the existing water meter.	No.	1		
79.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
79.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
79.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
79.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
79.6	Test and commision the installation	No.	1		
80	**Blue Shed**				
80.1	Decommission and remove the existing water meter.	No.	1		
80.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
80.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
80.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
80.5	Create an account and link the meter to the account and apply the ap	No.	1		
80.6	Test and commision the installation	No.	1		
81	**Afro Fishing 2 (Old I & J Site) On quay side**				
81.1	Decommission and remove the existing water meter.	No.	1		
81.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
81.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
81.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
81.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
81.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
82	**Viking Fishing**				
82.1	Decommission and remove the existing water meter.	No.	1		
82.20	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
82.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
82.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
82.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
82.6	Test and commision the installation	No.	1		
83	**Gate No.3 TNPA**				
83.1	Decommission and remove the existing water meter.	No.	1		
83.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
83.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
83.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
83.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
83.6	Test and commision the installation	No.	1		
84	**Kepu Site**				
84.1	Decommission and remove the existing water meter.	No.	1		
84.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
84.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
84.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
84.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
84.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
85	**Quay No.3 TNPA Supply Point**				
85.1	Decommission and remove the existing water meter.	No.	1		
85.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
85.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
85.40	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
85.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
85.6	Test and commision the installation	No.	1		
86	**NSRI**				
86.1	Decommission and remove the existing water meter.	No.	1		
86.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
86.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
86.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
86.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
86.6	Test and commision the installation	No.	1		
87	**Tuck Shop**				
87.1	Decommission and remove the existing water meter.	No.	1		
87.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
87.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
87.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
87.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
87.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
88	**Slipway**				
88.1	Decommission and remove the existing water meter.	No.	1		
88.2	Supply and install a new 28 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
88.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
88.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
88.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
88.60	Test and commision the installation	No.	1		
89	**Administration Building (TNPA)**				
89.1	Decommission and remove the existing water meter.	No.	1		
89.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
89.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
89.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
89.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
89.6	Test and commision the installation	No.	1		
90	**Vincent Jetty Quay Side Supply @ Romonza**				
90.1	Decommission and remove the existing water meter.	No.	1		
90.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
90.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
90.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
90.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
90.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
91	**Marine Park Home**				
91.1	Decommission and remove the existing water meter.	No.	1		
91.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
91.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
91.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
91.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
91.6	Test and commision the installation	No.	1		
92	**Pioneer 1**				
92.1	Decommission and remove the existing water meter.	No.	1		
92.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
92.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
92.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
92.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
92.6	Test and commision the installation	No.	1		
93	**Pioneer 2**				
93.1	Decommission and remove the existing water meter.	No.	1		
93.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
93.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
93.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
93.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
93.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
94	**Lucky Star**				
94.1	Decommission and remove the existing water meter.	No.	1		
94.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
94.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
94.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
94.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
94.6	Test and commision the installation	No.	1		
95	**Walk on Moorings (TNPA)**				
95.1	Decommission and remove the existing water meter.	No.	1		
95.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
95.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
95.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
95.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
95.6	Test and commision the installation	No.	1		
96	**Wash-bay (TNPA)**				
96.1	Decommission and remove the existing water meter.	No.	1		
96.2	Supply and install a new 22 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
96.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
96.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
96.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
96.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
97	**LBS 185 (Yacht Club) – Bulk Meter**				
97.1	Decommission and remove the existing water meter.	No.	1		
97.2	Supply and install a new 28 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
97.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
97.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
97.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
97.6	Test and commision the installation	No.	1		
98	**Blue Door**				
98.1	Decommission and remove the existing water meter.	No.	1		
98.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
98.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
98.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
98.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
98.6	Test and commision the installation	No.	1		
99	**Mozambiek**				
99.1	Decommission and remove the existing water meter.	No.	1		
99.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
99.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
99.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
99.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
99.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
100	**Ladies Ablutions (TNPA)**				
100.1	Decommission and remove the existing water meter.	No.	1		
100.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
100.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
100.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
100.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
100.6	Test and commision the installation	No.	1		
101	**Men's Ablutions (TNPA)**				
101.1	Decommission and remove the existing water meter.	No.	1		
101.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
101.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
101.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
101.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
101.6	Test and commision the installation	No.	1		
102	**Aquamarine**				
102.1	Decommission and remove the existing water meter.	No.	1		
102.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
102.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
102.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
102.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
102.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY MSB				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of Electricity Meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.,				
1.1	Decommission and remove the existing Electricity Meters in various locations	No.	68		
1.2	Supply, install and configure a new Smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.),	No.	68		
1.3	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs.	No.	68		
1.4	Test and commission the installation.	No.	68		
	Replacement of Electricity Meters in various locations (Single Phase)				
2.1	Decommission and remove the existing Electricity Meters in various locations	No.	2		
2.2	Supply, install and configure a new Smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.).	No.	2		
2.3	Establish connectivity: Link the meters to the billing server and the new Utilities Management System via the LAN.	No.	2		
2.4	Test and commission the installation.	No.	2		
2.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
2.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
2.7	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY MSB				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	5000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m^3	900		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	5000		
1.4	Reinstate exsiting surface and make good	m^2	1500		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	2		
1.6	Supply, install and configure media converters	No.	6		
1.7	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	2		
1.8	Supply and install a 9U swing frame cabinet 900mm deep	No.	1		
1.90	Design and construction of Manholes for fibre	No.	5		
1.10	Supply, install and setup the severs	No.	2		
1.12	Splicing of Fibres	No.	48		
1.13	OTDR Testing (Test and submit line losses)	No.	48		
1.14	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.15	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		
1.16	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY MSB				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	6		
1.2	Smart automatic energy meter reading devices	No.	7		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY MSB				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
	Metering gateways				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data.	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation.	Sum	1		
1.4	Testing and commissioning of the software side both individually and	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY MSB				

PORT OF MOSSEL BAY		
	DESCRIPTION	**AMOUNT R**
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF CAPE TOWN				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
A	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	11		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	11		
2.3	Ablution and latrine facilities	Month	11		
2.4	Tools and equipment	Month	11		
2.5	Water supplies, electric power and communications	Month	11		
2.6	Dealing with water (Sub-clause 5.5)	Month	11		
2.7	Access (Sub-clause 5.8)	Month	11		
2.8	Plant	Month	11		
	Supervision				
2.9	Supervision for duration of construction	Month	11		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	11		
2.11	Compliance to Environmental Management Plan	Month	11		
	CARRIED FORWARD TO SUMMARY				0.00

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF CAPE TOWN				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	2500		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
	METER No. 01 Replacement of the meter including associated components **Meter size: 200mm, existing pipe material is unknown**				
2.1	Decommission and remove the existing above installation.	No.	1		
2.2	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
2.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
2.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				
		7			

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 02 Replacement of the meter including associated components Meter size: 200mm, existing pipe material is unknown				
3.1	Decommission and remove the existing above installation.	No.	1		
3.2	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
3.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	METER No. 03 Installation of Automatic Meter Reading Device				
4.1	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	METER No. 04 Installation of Automatic Meter Reading Device				
5.1	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	METER No. 05 Installation of Automatic Meter Reading Device				
6.1	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	METER No. 06 Installation of Automatic Meter Reading Device				
7.1	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication. Link the meter on both the billing server and the new Utilites Management System Link the meter on both the billing server and the new Utilites Management System	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	Replacement of Existing Water Meters				
8	**NPA House out building (Plan room & toilet)**				
8.1	Decommission and remove the existing water meter.	No.	1		
8.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
8.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
8.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
8.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
8.6	Test and commision the installation	No.	1		
9	**Security hut - A Berth**				
9.1	Decommission and remove the existing water meter.	No.	1		
9.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
9.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
9.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
9.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
9.6	Test and commision the installation	No.	1		
10	**Corner A & B Berth tunnel.**				
10.1	Decommission and remove the existing water meter.	No.	1		
10.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
10.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
10.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
10.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
10.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
11	**Ferro-marine - A Berth - Ablution**				
11.1	Decommission and remove the existing water meter.	No.	1		
11.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
11.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
11.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
11.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
11.6	Test and commision the installation	No.	1		
12	**Ferro-marine - A Berth - Admin office**				
12.1	Decommission and remove the existing water meter.	No.	1		
12.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
12.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
12.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
12.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
12.6	Test and commision the installation	No.	1		
13	**NPA House**				
13.1	Decommission and remove the existing water meter.	No.	1		
13.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
13.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
13.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
13.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
13.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
14	**A Berth area.**				
14.1	Decommission and remove the existing water meter.	No.	1		
14.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
14.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
14.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
14.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
14.6	Test and commision the installation	No.	1		
15	**Corporate Affairs - B Berth**				
15.1	Decommission and remove the existing water meter.	No.	1		
15.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
15.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
15.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
15.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
15.6	Test and commision the installation	No.	1		
16	**IT - Opp Corp Affrs - vacant**				
16.1	Decommission and remove the existing water meter.	No.	1		
16.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
16.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
17	**Training Centre**				
17.1	Decommission and remove the existing water meter.	No.	1		
17.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
17.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
17.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
17.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
17.6	Test and commision the installation	No.	1		
18	**Fresh Produce Term. (in manhole on B/C Berth)**				
18.1	Decommission and remove the existing water meter.	No.	1		
18.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
18.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
18.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
18.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
18.6	Test and commision the installation	No.	1		
19	**Fresh Produce Term. (in manhole on B/C Berth)**				
19.1	Decommission and remove the existing water meter.	No.	1		
19.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
19.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
19.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
19.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
19.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
20	**Fresh Produce Terminals Cape Town.**				
20.1	Decommission and remove the existing water meter.	No.	1		
20.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
20.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
20.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
20.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
20.6	Test and commision the installation	No.	1		
21	**Fresh Produce Terminals Cape Town. (On balcony)**				
21.1	Decommission and remove the existing water meter.	No.	1		
21.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
21.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
21.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
21.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
21.6	Test and commision the installation	No.	1		
22	**B-C Berth (Tunnel - sprinkler system) - FPT**				
22.1	Decommission and remove the existing water meter.	No.	1		
22.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
22.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
22.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
22.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
22.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
23	**Fresh Produce Term. (Against wall- inside D Shed)**				
23.1	Decommission and remove the existing water meter.	No.	1		
23.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
23.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
23.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
23.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
23.6	Test and commision the installation	No.	1		
24	**Long Line Tuna Corporation (pty) ltd**				
24.1	Decommission and remove the existing water meter.	No.	1		
24.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
24.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
24.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
24.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
24.6	Test and commision the installation	No.	1		
25	**Portside Stevedoring Services offices.**				
25.1	Decommission and remove the existing water meter.	No.	1		
25.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
25.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
25.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
25.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
25.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
26	**SA Police / Dept.of Public Works**				
26.1	Decommission and remove the existing water meter.	No.	1		
26.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
26.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
26.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
26.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
26.6	Test and commision the installation	No.	1		
27	**South Arm Rd Security building**				
27.1	Decommission and remove the existing water meter.	No.	1		
27.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
27.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
27.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
27.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
27.6	Test and commision the installation	No.	1		
28	**CCC Municipal water meter at Dock Road.**				
28.1	Decommission and remove the existing water meter.	No.	1		
28.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
28.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
28.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
28.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
28.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
29	**Transnet Projects RME (Bruce)**				
29.1	Decommission and remove the existing water meter.	No.	1		
29.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
29.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
29.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
29.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
29.6	Test and commision the installation	No.	1		
30	**Svitzer Wijsmuller (inside Filing room)**				
30.1	Decommission and remove the existing water meter.	No.	1		
30.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
30.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
30.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
30.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
30.6	Test and commision the installation	No.	1		
31	**Svitzer Wijsmuller**				
31.1	Decommission and remove the existing water meter.	No.	1		
31.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
31.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
31.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
31.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
31.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
32	**Bid freight.**				
32.1	Decommission and remove the existing water meter.	No.	1		
32.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
32.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
32.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
32.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
32.6	Test and commision the installation	No.	1		
33	**SA Stevedores**				
33.1	Decommission and remove the existing water meter.	No.	1		
33.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
33.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
33.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
33.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
33.6	Test and commision the installation	No.	1		
34	**SA Stevedores / Lighthouse Martinet Ind.Eng.CC**				
34.1	Decommission and remove the existing water meter.	No.	1		
34.2	Supply and install a new 200 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
34.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
34.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
34.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
34.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
35	**Magmaster (Lighthouse) (INCOMING)**				
35.1	Decommission and remove the existing water meter.	No.	1		
35.2	Supply and install a new 200 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
35.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
35.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
35.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
35.6	Test and commision the installation	No.	1		
36	**Magmaster (Lighthouse) (REVERSE)**				
36.1	Decommission and remove the existing water meter.	No.	1		
36.2	Supply and install a new 200 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
36.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
36.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
36.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
36.6	Test and commision the installation	No.	1		
37	**Magmaster (Lighthouse) (NETT INCOMING)**				
37.1	Decommission and remove the existing water meter.	No.	1		
37.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
37.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
37.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
37.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
37.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
38	**Lighthouse Services**				
38.1	Decommission and remove the existing water meter.	No.	1		
38.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
38.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
38.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
38.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
38.6	Test and commision the installation	No.	1		
39	**SA Stevedores (Melfra)**				
39.1	Decommission and remove the existing water meter.	No.	1		
39.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
39.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
39.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
39.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
39.6	Test and commision the installation	No.	1		
40	**Robben Marine / SA Stevedores**				
40.1	Decommission and remove the existing water meter.	No.	1		
40.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
40.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
40.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
40.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
40.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
41	**Safbulk (pty) ltd**				
41.1	Decommission and remove the existing water meter.	No.	1		
41.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
41.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
41.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
41.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
41.6	Test and commision the installation	No.	1		
42	**Atlatech (pty) ltd - offices**				
42.1	Decommission and remove the existing water meter.	No.	1		
42.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
42.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
42.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
42.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
42.6	Test and commision the installation	No.	1		
43	**Atlatech (pty) ltd - workshop**				
43.1	Decommission and remove the existing water meter.	No.	1		
43.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
43.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
43.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
43.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
43.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
44	**Mission to seamen in SA**				
44.1	Decommission and remove the existing water meter.	No.	1		
44.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
44.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
44.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
44.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
44.6	Test and commision the installation	No.	1		
45	**Electrical workshop**				
45.1	Decommission and remove the existing water meter.	No.	1		
45.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
45.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
45.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
45.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
45.6	Test and commision the installation	No.	1		
46	**Elect. Depot Mess & Ablution.**				
46.1	Decommission and remove the existing water meter.	No.	1		
46.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
46.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
46.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
46.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
46.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
47	**Berthing Office**				
47.1	Decommission and remove the existing water meter.	No.	1		
47.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
47.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
47.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
47.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
47.6	Test and commision the installation	No.	1		
48	**P&O Ports Nationwide Cargo Terminal SA (pty) ltd.**				
48.1	Decommission and remove the existing water meter.	No.	1		
48.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
48.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
48.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
48.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
48.6	Test and commision the installation	No.	1		
49	**Cowrie place (MPT) - Bon 1**				
49.1	Decommission and remove the existing water meter.	No.	1		
49.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
49.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
49.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
49.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
49.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
50	**Cowrie place (MPT) - Bon 1**				
50.1	Decommission and remove the existing water meter.	No.	1		
50.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
50.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
50.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
50.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
50.6	Test and commision the installation	No.	1		
51	**Ship Society of SA / Port Services (pty) ltd - Bon 1**				
51.1	Decommission and remove the existing water meter.	No.	1		
51.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
51.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
51.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
51.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
51.6	Test and commision the installation	No.	1		
52	**Christelike Seemans Organisasie - D Mast Bon 1**				
52.1	Decommission and remove the existing water meter.	No.	1		
52.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
52.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
52.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
52.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
52.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
53	**Marine Operations Manager - Dock Master Bon 1**				
53.1	Decommission and remove the existing water meter.	No.	1		
53.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
53.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
53.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
53.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
53.6	Test and commision the installation	No.	1		
54	**Dockland**				
54.1	Decommission and remove the existing water meter.	No.	1		
54.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
54.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
54.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
54.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
54.6	Test and commision the installation	No.	1		
55	**Control Point 26 (Spoornet)**				
55.1	Decommission and remove the existing water meter.	No.	1		
55.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
55.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
55.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
55.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
55.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				R -

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
56	**Security Hut (Heerengracht Entrance)**				
56.1	Decommission and remove the existing water meter.	No.	1		
56.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
56.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
56.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
56.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
56.6	Test and commision the installation	No.	1		
57	**Maritime Training (Ex Creche)**				
57.1	Decommission and remove the existing water meter.	No.	1		
57.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
57.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
57.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
57.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
57.6	Test and commision the installation	No.	1		
58	**Spoornet (Heerengracht Entrance)**				
58.1	Decommission and remove the existing water meter.	No.	1		
58.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
58.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
58.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
58.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
58.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
59	**Die Evangelie aan die seelui.**				
59.1	Decommission and remove the existing water meter.	No.	1		
59.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
59.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
59.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
59.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
59.6	Test and commision the installation	No.	1		
60	**Training Centre for Seamen.**	No.	1		
60.1	Decommission and remove the existing water meter.	No.	1		
60.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
60.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
60.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
60.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
60.6	Test and commision the installation	No.	1		
61	**Eastern deli**				
61.1	Decommission and remove the existing water meter.	No.	1		
61.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
61.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
61.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
61.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
61.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
62	**SHEQ building**				
62.1	Decommission and remove the existing water meter.	No.	1		
62.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
62.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
62.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
62.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
62.6	Test and commision the installation	No.	1		
63	**Pirow St. Security building**				
63.1	Decommission and remove the existing water meter.	No.	1		
63.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
63.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
63.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
63.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
63.6	Test and commision the installation	No.	1		
64	**E-Berth Shed (Cold Store)**				
64.1	Decommission and remove the existing water meter.	No.	1		
64.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
64.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
64.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
64.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
64.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
65	**E-Berth Shed (Passenger Terminal)**				
65.1	Decommission and remove the existing water meter.	No.	4		
65.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	4		
65.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	4		
65.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	4		
65.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	4		
65.6	Test and commision the installation	No.	4		
66	**F-Berth Security bldg.**				
66.1	Decommission and remove the existing water meter.	No.	1		
66.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
66.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
66.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
66.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
66.6	Test and commision the installation	No.	1		
67	**Weighbridge (F Berth)**				
67.1	Decommission and remove the existing water meter.	No.	1		
67.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
67.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
67.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
67.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
67.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
68	**Duty Free Shop**				
68.1	Decommission and remove the existing water meter.	No.	1		
68.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
68.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
68.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
68.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
68.6	Test and commision the installation	No.	1		
69	**Heribi House**				
69.1	Decommission and remove the existing water meter.	No.	1		
69.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
69.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
69.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
69.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
69.6	Test and commision the installation	No.	1		
70	**SA Stevedores (Port Services) - ex gardener bldg**				
70.1	Decommission and remove the existing water meter.	No.	1		
70.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
70.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
70.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
70.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
70.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
71	**Combi Terminal bldg.**				
71.1	Decommission and remove the existing water meter.	No.	1		
71.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
71.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
71.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
71.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
71.6	Test and commision the installation	No.	1		
72	**G-Berth Shed (New meter)**				
72.1	Decommission and remove the existing water meter.	No.	1		
72.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
72.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
72.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
72.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
72.6	Test and commision the installation	No.	1		
73	**G-Berth Shed (Against inside wall)**				
73.1	Decommission and remove the existing water meter.	No.	1		
73.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
73.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
73.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
73.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
73.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
74	**G-Berth mess & ablution.**				
74.1	Decommission and remove the existing water meter.	No.	1		
74.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
74.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
74.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
74.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
74.6	Test and commision the installation	No.	1		
75	**G-Berth Quay office**				
75.1	Decommission and remove the existing water meter.	No.	1		
75.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
75.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
75.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
75.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
75.6	Test and commision the installation	No.	1		
76	**H-Berth Security kiosk**				
76.1	Decommission and remove the existing water meter.	No.	1		
76.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
76.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
76.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
76.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
76.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
77	**H-Berth Shed**				
77.1	Decommission and remove the existing water meter.	No.	3		
77.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	3		
77.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	3		
77.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	3		
77.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	3		
77.6	Test and commision the installation	No.	3		
78	**J-Berth mess & ablution**				
78.1	Decommission and remove the existing water meter.	No.	1		
78.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
78.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
78.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
78.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
78.6	Test and commision the installation	No.	1		
79	**J-Berth Shed**				
79.1	Decommission and remove the existing water meter.	No.	2		
79.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	2		
79.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
79.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
79.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
79.6	Test and commision the installation	No.	2		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
80	**J-Berth store & Toilets**				
80.1	Decommission and remove the existing water meter.	No.	1		
80.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
80.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
80.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
80.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
80.6	Test and commision the installation	No.	1		
81	**Operations Rail to rail control block offices**				
81.1	Decommission and remove the existing water meter.	No.	1		
81.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
81.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
81.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
81.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
81.6	Test and commision the installation	No.	1		
82	**Forklift depot**				
82.1	Decommission and remove the existing water meter.	No.	1		
82.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
82.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
82.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
82.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
82.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
83	**L-Berth Mess & Ablution bldg**				
83.1	Decommission and remove the existing water meter.	No.	1		
83.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
83.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
83.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
83.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
83.6	Test and commision the installation	No.	1		
84	**L-Berth Security bldg.**				
84.1	Decommission and remove the existing water meter.	No.	1		
84.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
84.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
84.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
84.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
84.6	Test and commision the installation	No.	1		
85	**J-Berth Security kiosk**				
85.1	Decommission and remove the existing water meter.	No.	1		
85.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
85.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
85.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
85.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
85.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
86	**Commercial Cold Store (Duncan Dock) (pty) ltd**				
86.1	Decommission and remove the existing water meter.	No.	1		
86.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
86.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
86.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
86.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
86.6	Test and commision the installation	No.	1		
87	**SAS Unitie M-Berth**				
87.1	Decommission and remove the existing water meter.	No.	2		
87.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	2		
87.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
87.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
87.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
87.6	Test and commision the installation	No.	2		
88	**Security hut (M-Berth)**				
88.1	Decommission and remove the existing water meter.	No.	1		
88.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
88.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
88.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
88.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
88.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
89	**Boss marine**				
89.1	Decommission and remove the existing water meter.	No.	1		
89.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
89.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
89.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
89.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
89.6	Test and commision the installation	No.	1		
90	**Resource Ballast**				
90.1	Decommission and remove the existing water meter.	No.	1		
90.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
90.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
90.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
90.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
90.6	Test and commision the installation	No.	1		
91	**RCYC Water supply to ships.**				
91.1	Decommission and remove the existing water meter.	No.	1		
91.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
91.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
91.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
91.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
91.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
92	**RCYC (inside repair area)**				
92.1	Decommission and remove the existing water meter.	No.	1		
92.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
92.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
92.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
92.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
92.6	Test and commision the installation	No.	1		
93	**RCYC (entrance - inside)**				
93.1	Decommission and remove the existing water meter.	No.	1		
93.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
93.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
93.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
93.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
93.6	Test and commision the installation	No.	1		
94	**RCYC (entrance - outside)**				
94.1	Decommission and remove the existing water meter.	No.	1		
94.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
94.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
94.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
94.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
94.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
95	**RCYC (kitchen area)**				
95.1	Decommission and remove the existing water meter.	No.	1		
95.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
95.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
95.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
95.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
95.6	Test and commision the installation	No.	1		
96	**Sailing School (RCYC)**				
96.1	Decommission and remove the existing water meter.	No.	1		
96.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
96.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
96.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
96.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
96.6	Test and commision the installation	No.	1		
97	**International Yacht Brokers Cape (pty) ltd**				
97.1	Decommission and remove the existing water meter.	No.	1		
97.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
97.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
97.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
97.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
97.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
98	**Spoornet (opposite RCYC)**				
98.1	Decommission and remove the existing water meter.	No.	1		
98.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
98.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
98.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
98.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
98.6	Test and commision the installation	No.	1		
99	**Globe Engineering Works (pty) ltd**				
99.1	Decommission and remove the existing water meter.	No.	1		
99.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
99.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
99.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
99.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
99.6	Test and commision the installation	No.	1		
100	**Misplon bridge Security building**				
100.1	Decommission and remove the existing water meter.	No.	1		
100.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
100.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
100.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
100.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
100.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
101	**Misplon bridge Security building**				
101.1	Decommission and remove the existing water meter.	No.	1		
101.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
101.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
101.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
101.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
101.6	Test and commision the installation	No.	1		
102	**JJ van Greunen**				
102.1	Decommission and remove the existing water meter.	No.	1		
102.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
102.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
102.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
102.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
102.6	Test and commision the installation	No.	1		
103	**De Beers**				
103.1	Decommission and remove the existing water meter.	No.	1		
103.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
103.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
103.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
103.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
103.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
104	**Harbour Weld**				
104.1	Decommission and remove the existing water meter.	No.	1		
104.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
104.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
104.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
104.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
104.6	Test and commision the installation	No.	1		
105	**Fusion Hydraulics CC**				
105.1	Decommission and remove the existing water meter.	No.	1		
105.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
105.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
105.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
105.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
105.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
106	**MRH**				
106.1	Decommission and remove the existing water meter.	No.	1		
106.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
106.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
106.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
106.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
106.6	Test and commision the installation	No.	1		
107	**NNA**				
107.1	Decommission and remove the existing water meter.	No.	1		
107.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
107.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
107.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
107.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
107.6	Test and commision the installation	No.	1		
108	**SGB Scaffolding**				
108.1	Decommission and remove the existing water meter.	No.	1		
108.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
108.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
108.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
108.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
108.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
109	**Hazard Marine CC**				
109.1	Decommission and remove the existing water meter.	No.	1		
109.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
109.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
109.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
109.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
109.6	Test and commision the installation	No.	1		
110	**Marine manager CC Propnet**				
110.1	Decommission and remove the existing water meter.	No.	1		
110.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
110.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
110.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
110.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
110.6	Test and commision the installation	No.	1		
111	**Quantum leap**				
111.1	Decommission and remove the existing water meter.	No.	1		
111.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
111.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
111.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
111.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
111.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
112	**Cape Diving (Pty) Ltd**				
112.1	Decommission and remove the existing water meter.	No.	1		
112.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
112.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
112.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
112.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
112.6	Test and commision the installation	No.	1		
113	**NPA Staff SDD ablution (Grant Walker-Dockmaster)**				
113.1	Decommission and remove the existing water meter.	No.	1		
113.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
113.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
113.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
113.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
113.6	Test and commision the installation	No.	1		
114	**Dock Master's office**				
114.1	Decommission and remove the existing water meter.	No.	1		
114.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
114.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
114.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
114.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
114.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
115	**ALBATROSS (trevshan)**				
115.1	Decommission and remove the existing water meter.	No.	1		
115.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
115.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
115.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
115.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
115.6	Test and commision the installation	No.	1		
116	**Globe Engineering (office block & Ablution).**				
116.1	Decommission and remove the existing water meter.	No.	1		
116.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
116.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
116.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
116.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
116.6	Test and commision the installation	No.	1		
117	**Supply pipe for lessees in SSD area.**				
117.1	Decommission and remove the existing water meter.	No.	1		
117.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
117.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
117.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
117.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
117.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
118	**Security hut SSD boom entrance**				
118.1	Decommission and remove the existing water meter.	No.	1		
118.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
118.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
118.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
118.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
118.6	Test and commision the installation	No.	1		
119	**The Pure Cane Molasses Co.**				
119.1	Decommission and remove the existing water meter.	No.	1		
119.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
119.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
119.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
119.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
119.6	Test and commision the installation	No.	1		
120	**Elekt. Werkwinkel**				
120.1	Decommission and remove the existing water meter.	No.	1		
120.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
120.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
120.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
120.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
120.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
121	**Taipei Liaison office**				
121.1	Decommission and remove the existing water meter.	No.	1		
121.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
121.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
121.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
121.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
121.6	Test and commision the installation	No.	1		
122	**South East Marine services (pty) ltd**				
122.1	Decommission and remove the existing water meter.	No.	1		
122.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
122.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
122.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
122.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
122.6	Test and commision the installation	No.	1		
123	**Nautilus (pty) ltd**				
123.1	Decommission and remove the existing water meter.	No.	3		
123.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	3		
123.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	3		
123.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	3		
123.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	3		
123.6	Test and commision the installation	No.	3		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
124	**Marine Slops (pty) ltd**				
124.1	Decommission and remove the existing water meter.	No.	1		
124.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
124.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
124.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
124.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
124.6	Test and commision the installation	No.	1		
125	**Albatross Offshore Services**				
125.1	Decommission and remove the existing water meter.	No.	1		
125.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
125.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
125.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
125.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
125.6	Test and commision the installation	No.	1		
126	**To be confirmed**				
126.1	Decommission and remove the existing water meter.	No.	1		
126.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
126.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
126.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
126.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
126.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
127	**Elgin Brown Hamer (pty) ltd**				
127.1	Decommission and remove the existing water meter.	No.	1		
127.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
127.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
127.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
127.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
127.6	Test and commision the installation	No.	1		
128	**Security hut SSDb**				
128.1	Decommission and remove the existing water meter.	No.	1		
128.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
128.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
128.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
128.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
128.6	Test and commision the installation	No.	1		
129	**Watermain feeding Landing Wall.**				
129.1	Decommission and remove the existing water meter.	No.	1		
129.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
129.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
129.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
129.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
129.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
130	**Crossberth Cold Stores (PTY) LTD**				
130.1	Decommission and remove the existing water meter.	No.	1		
130.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
130.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
130.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
130.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
130.6	Test and commision the installation	No.	1		
131	**Crossberth Cold Stores (PTY) LTD**				
131.1	Decommission and remove the existing water meter.	No.	1		
131.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
131.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
131.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
131.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
131.6	Test and commision the installation	No.	1		
132	**Globe Engineering Works (pty) ltd**				
132.1	Decommission and remove the existing water meter.	No.	1		
132.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
132.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
132.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
132.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
132.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
133	**Feedline to Caltex area.**				
133.1	Decommission and remove the existing water meter.	No.	1		
133.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
133.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
133.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
133.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
133.6	Test and commision the installation	No.	1		
134	**Security hut Tanker basin**				
134.1	Decommission and remove the existing water meter.	No.	1		
134.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
134.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
134.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
134.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
134.6	Test and commision the installation	No.	1		
135	**Astron Energy (PTY) LTD**				
135.1	Decommission and remove the existing water meter.	No.	1		
135.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
135.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
135.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
135.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
135.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
136	**BP, Caltex, SA Energy Co, Shell (JBS)**				
136.1	Decommission and remove the existing water meter.	No.	1		
136.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
136.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
136.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
136.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
136.6	Test and commision the installation	No.	1		
137	**Fire Dept. Tanker basin 2 - NPA**				
137.1	Decommission and remove the existing water meter.	No.	1		
137.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
137.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
137.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
137.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
137.6	Test and commision the installation	No.	1		
138	**Fire Dept. (Steel scrap yard - Reclaimed Area).**				
138.1	Decommission and remove the existing water meter.	No.	1		
138.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
138.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
138.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
138.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
138.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
139	**Astron Energy (PTY) LTD**				
139.1	Decommission and remove the existing water meter.	No.	2		
139.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	2		
139.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
139.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
139.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
139.6	Test and commision the installation	No.	2		
140	**Pump room on Eastern Mole No.2**				
140.1	Decommission and remove the existing water meter.	No.	1		
140.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
140.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
140.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
140.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
140.6	Test and commision the installation	No.	1		
141	**Mess & Ablution on Eastern Mole No.2.**				
141.1	Decommission and remove the existing water meter.	No.	1		
141.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
141.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
141.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
141.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
141.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
142	**Toilet on Eastern Mole No.2.**				
142.1	Decommission and remove the existing water meter.	No.	1		
142.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
142.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
142.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
142.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
142.6	Test and commision the installation	No.	1		
143	**Telkom SA ltd**				
143.1	Decommission and remove the existing water meter.	No.	1		
143.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
143.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
143.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
143.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
143.6	Test and commision the installation	No.	1		
144	**Standpipe TAP**				
144.1	Decommission and remove the existing water meter.	No.	1		
144.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
144.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
144.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
144.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
144.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
145	**FFS**				
145.1	Decommission and remove the existing water meter.	No.	1		
145.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
145.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
145.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
145.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
145.6	Test and commision the installation	No.	1		
146	**Cape Town Bulk Storage (pty) ltd FFS**				
146.1	Decommission and remove the existing water meter.	No.	1		
146.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
146.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
146.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
146.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
146.6	Test and commision the installation	No.	1		
147	**Cape Town Bulk Storage (pty) ltd**				
147.1	Decommission and remove the existing water meter.	No.	1		
147.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
147.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
147.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
147.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
147.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
148	**Elliott Basin security bldg**				
148.1	Decommission and remove the existing water meter.	No.	1		
148.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
148.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
148.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
148.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
148.6	Test and commision the installation	No.	1		
149	**Dorbyl Marine (pty) ltd.**				
149.1	Decommission and remove the existing water meter.	No.	1		
149.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
149.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
149.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
149.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
149.6	Test and commision the installation	No.	1		
150	**Dorbyl Marine (pty) ltd (right next to workshop)**				
150.1	Decommission and remove the existing water meter.	No.	1		
150.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
150.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
150.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
150.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
150.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
151	**Dorbyl Marine (pty) ltd (workshop) (inside building)**				
151.1	Decommission and remove the existing water meter.	No.	1		
151.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
151.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
151.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
151.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
151.6	Test and commision the installation	No.	1		
152	**Globe Engineering (domestic main)**				
152.1	Decommission and remove the existing water meter.	No.	1		
152.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
152.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
152.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
152.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
152.6	Test and commision the installation	No.	1		
153	**Globe Engineering**				
153.1	Decommission and remove the existing water meter.	No.	1		
153.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
153.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
153.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
153.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
153.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
154	**Elliott Basin ring feed meter**				
154.1	Decommission and remove the existing water meter.	No.	1		
154.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
154.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
154.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
154.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
154.6	Test and commision the installation	No.	1		
155	**Indo Atlantic Fishing (SHIPPING)**				
155.1	Decommission and remove the existing water meter.	No.	1		
155.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
155.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
155.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
155.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
155.6	Test and commision the installation	No.	1		
156	**Theodore Luis Camara**				
156.1	Decommission and remove the existing water meter.	No.	1		
156.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
156.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
156.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
156.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
156.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
157	**Mechanical workshop**				
157.1	Decommission and remove the existing water meter.	No.	1		
157.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
157.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
157.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
157.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
157.6	Test and commision the installation	No.	1		
158	**Shop 24**				
158.1	Decommission and remove the existing water meter.	No.	1		
158.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
158.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
158.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
158.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
158.6	Test and commision the installation	No.	1		
1.16	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
159	**Shop 24 mess & ablution for general workers.**				
159.1	Decommission and remove the existing water meter.	No.	1		
159.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
159.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
159.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
159.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
159.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
160	**Farocean marine (Damen Shipping)**				
160.1	Decommission and remove the existing water meter.	No.	1		
160.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
160.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
160.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
160.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
160.6	Test and commision the installation	No.	1		
161	**Bassticks**				
161.1	Decommission and remove the existing water meter.	No.	1		
161.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
161.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
161.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
161.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
161.6	Test and commision the installation	No.	1		
162	**Damen Shipping (Back yard).**				
162.1	Decommission and remove the existing water meter.	No.	1		
162.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
162.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
162.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
162.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
162.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
163	**Panama Jacks (pty) ltd**				
163.1	Decommission and remove the existing water meter.	No.	1		
163.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
163.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
163.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
163.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
163.6	Test and commision the installation	No.	1		
164	**Damen**				
164.1	Decommission and remove the existing water meter.	No.	1		
164.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
164.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
164.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
164.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
164.6	Test and commision the installation	No.	1		
165	**Royal Cape Yacht Club (meter that supplies yachts)**				
165.1	Decommission and remove the existing water meter.	No.	2		
165.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	2		
165.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
165.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
165.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
165.6	Test and commision the installation	No.	2		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
166	**Security hut Quay 500**				
166.1	Decommission and remove the existing water meter.	No.	1		
166.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
166.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
166.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
166.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
166.6	Test and commision the installation	No.	1		
167	**Quay 500 Polution.**				
167.1	Decommission and remove the existing water meter.	No.	1		
167.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
167.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
167.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
167.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
167.6	Test and commision the installation	No.	1		
168	**Ro-Ro Pier (Quay 500) Mountain side**				
168.1	Decommission and remove the existing water meter.	No.	1		
168.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
168.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
168.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
168.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
168.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
169	**WBHO Work site (Panama Jacks)**				
169.1	Decommission and remove the existing water meter.	No.	1		
169.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
169.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
169.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
169.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
169.6	Test and commision the installation	No.	1		
170	**Damen Shipping (Panama Jacks side)**				
170.1	Decommission and remove the existing water meter.	No.	1		
170.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
170.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
170.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
170.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
170.6	Test and commision the installation	No.	1		
171	**WBHO Container (Medite bldg.)**				
171.1	Decommission and remove the existing water meter.	No.	1		
171.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
171.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
171.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
171.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
171.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
172	**Civil Store under BS bridge**				
172.1	Decommission and remove the existing water meter.	No.	1		
172.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
172.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
172.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
172.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
172.6	Test and commision the installation	No.	1		
173	**Crest Chemicals**				
173.1	Decommission and remove the existing water meter.	No.	1		
173.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
173.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
173.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
173.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
173.6	Test and commision the installation	No.	1		
174	**Lusitania Frozen Goods Container Road**				
174.1	Decommission and remove the existing water meter.	No.	1		
174.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
174.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
174.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
174.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
174.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
175	**R.J.Sauthey (Scaffolding)**				
175.1	Decommission and remove the existing water meter.	No.	1		
175.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
175.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
175.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
175.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
175.6	Test and commision the installation	No.	1		
176	**Old Container link (Grindrod Logistics) (SACD)**				
176.1	Decommission and remove the existing water meter.	No.	1		
176.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
176.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
176.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
176.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
176.6	Test and commision the installation	No.	1		
177	**Caltex service station Marine Drive/Astron Energy (PTY) LTD**				
177.1	Decommission and remove the existing water meter.	No.	1		
177.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
177.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
177.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
177.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
177.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
178	**TCP (Ismail)**				
178.1	Decommission and remove the existing water meter.	No.	1		
178.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
178.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
178.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
178.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
178.6	Test and commision the installation	No.	1		
179	**Security gate NPA Paarden Eiland**				
179.1	Decommission and remove the existing water meter.	No.	1		
179.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
179.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
179.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
179.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
179.6	Test and commision the installation	No.	1		
180	**Joint Bunkering Services Container Road**				
180.1	Decommission and remove the existing water meter.	No.	1		
180.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
180.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
180.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
180.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
180.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
181	**Shmidthauser**				
181.1	Decommission and remove the existing water meter.	No.	1		
181.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
181.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
181.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
181.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
181.6	Test and commision the installation	No.	1		
182	**Y & L Frozen Fish Enterprises Container Road**				
182.1	Decommission and remove the existing water meter.	No.	1		
182.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
182.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
182.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
182.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
182.6	Test and commision the installation	No.	1		
183	**Y & L Frozen Fish Enterprises Container Road**				
183.1	Decommission and remove the existing water meter.	No.	1		
183.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
183.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
183.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
183.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
183.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
184	**M.M.Hilario**				
184.1	Decommission and remove the existing water meter.	No.	1		
184.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
184.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
184.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
184.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
184.6	Test and commision the installation	No.	1		
185	**BSD Weigh bridge**				
185.1	Decommission and remove the existing water meter.	No.	1		
185.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
185.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
185.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
185.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
185.6	Test and commision the installation	No.	1		
186	**BSD Weigh bridge**				
186.1	Decommission and remove the existing water meter.	No.	1		
186.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
186.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
186.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
186.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
186.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
187	**Container Terminal drivers mess & ablution. (Reverse)**				
187.1	Decommission and remove the existing water meter.	No.	1		
187.2	Supply and install a new 40 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
187.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
187.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
187.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
187.6	Test and commision the installation	No.	1		
188	**Container Terminal drivers mess & ablution.**				
188.1	Decommission and remove the existing water meter.	No.	1		
188.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
188.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
188.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
188.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
188.6	Test and commision the installation	No.	1		
189	**Security bldg (Quay 700)**				
189.1	Decommission and remove the existing water meter.	No.	1		
189.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
189.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
189.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
189.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
189.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
190	**WBHO Site office (Quay 700)**				
190.1	Decommission and remove the existing water meter.	No.	1		
190.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
190.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
190.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
190.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
190.6	Test and commision the installation	No.	1		
191	**SAPO ski-cabin**				
191.1	Decommission and remove the existing water meter.	No.	1		
191.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
191.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
191.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
191.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
191.6	Test and commision the installation	No.	1		
192	**Vehicle Testing Centre (old) (Kershaw 073 257 1736)**				
192.1	Decommission and remove the existing water meter.	No.	1		
192.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
192.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
192.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
192.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
192.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
193	**Vehicle Repair Centre (Freight Dynamics)**				
193.1	Decommission and remove the existing water meter.	No.	1		
193.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
193.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
193.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
193.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
193.6	Test and commision the installation	No.	1		
194	**Container Fruit Terminal (inside Fire Control room)**				
194.1	Decommission and remove the existing water meter.	No.	1		
194.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
194.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
194.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
194.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
194.6	Test and commision the installation	No.	1		
195	**Helicopter Africa (pty) ltd**				
195.1	Decommission and remove the existing water meter.	No.	1		
195.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
195.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
195.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
195.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
195.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
196	**Makhulu**				
196.1	Decommission and remove the existing water meter.	No.	1		
196.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
196.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
196.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
196.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
196.6	Test and commision the installation	No.	1		
197	**Blastrite (pty) ltd**				
197.1	Decommission and remove the existing water meter.	No.	1		
197.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
197.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
197.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
197.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
197.6	Test and commision the installation	No.	1		
198	**Road to Rail building**				
198.1	Decommission and remove the existing water meter.	No.	1		
198.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
198.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
198.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
198.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
198.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
199	**Spoornet (Bay Road)**				
199.1	Decommission and remove the existing water meter.	No.	1		
199.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
199.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
199.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
199.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
199.6	Test and commision the installation	No.	1		
200	**Tryang Trading Import & Export (Pty) Ltd**				
200.1	Decommission and remove the existing water meter.	No.	1		
200.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
200.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
200.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
200.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
200.6	Test and commision the installation	No.	1		
201	**Optimal Maintenance services CC**				
201.1	Decommission and remove the existing water meter.	No.	1		
201.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
201.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
201.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
201.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
201.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
202	**Raw Engineering CC**				
202.1	Decommission and remove the existing water meter.	No.	1		
202.2	Supply and install a new 25 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
202.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
202.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
202.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
202.6	Test and commision the installation	No.	1		
203	**Helicopter Heli Pad Cold Storage**				
203.1	Decommission and remove the existing water meter.	No.	1		
203.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
203.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
203.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
203.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
203.6	Test and commision the installation	No.	1		
204	**Transea Shipping Services (Pty) Ltd**				
204.1	Decommission and remove the existing water meter.	No.	1		
204.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
204.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
204.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
204.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
204.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
205	**PIP Site main meter (Entrance)**				
205.1	Decommission and remove the existing water meter.	No.	1		
205.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
205.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
205.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
205.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
205.6	Test and commision the installation	No.	1		
206	**SACD PIP Site**				
206.1	Decommission and remove the existing water meter.	No.	1		
206.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
206.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
206.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
206.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
206.6	Test and commision the installation	No.	1		
207	**Eskom PIP site**				
207.1	Decommission and remove the existing water meter.	No.	1		
207.2	Supply and install a new 300 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
207.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
207.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
207.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
207.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
208	**East Coast Containers**				
208.1	Decommission and remove the existing water meter.	No.	1		
208.2	Supply and install a new 200 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
208.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
208.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
208.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
208.6	Test and commision the installation	No.	1		
209	**CCC Municipal water meter at Marine Drive.**				
209.1	Decommission and remove the existing water meter.	No.	1		
209.2	Supply and install a new 200 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
209.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
209.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
209.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
209.6	Test and commision the installation	No.	1		
210	**Magmaster**				
210.1	Decommission and remove the existing water meter.	No.	3		
210.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	3		
210.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	3		
210.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	3		
210.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	3		
210.6	Test and commision the installation	No.	3		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
211	**Two Oceans Boat Sales Marine Drive**				
211.1	Decommission and remove the existing water meter.	No.	3		
211.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	3		
211.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	3		
211.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	3		
211.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	3		
211.6	Test and commision the installation	No.	3		
212	**Province Log Cabins Marine Drive**				
212.1	Decommission and remove the existing water meter.	No.	1		
212.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
212.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
212.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
212.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
212.6	Test and commision the installation	No.	1		
213	**RME is occupying a site next to House of Cabin.**				
213.1	Decommission and remove the existing water meter.	No.	1		
213.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
213.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
213.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
213.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
213.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
214	**Shop 17**				
214.1	Decommission and remove the existing water meter.	No.	1		
214.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
214.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
214.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
214.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
214.6	Test and commision the installation	No.	1		
215	**Shop 17**				
215.1	Decommission and remove the existing water meter.	No.	1		
215.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
215.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
215.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
215.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
215.6	Test and commision the installation	No.	1		
216	**Civil Depot watermain**				
216.1	Decommission and remove the existing water meter.	No.	1		
216.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
216.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
216.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
216.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
216.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
217	**Roro Control office & abl. BSD**				
217.1	Decommission and remove the existing water meter.	No.	1		
217.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
217.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
217.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
217.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
217.6	Test and commision the installation	No.	1		
218	**Old SACD site (TCP - Bert)**				
218.1	Decommission and remove the existing water meter.	No.	1		
218.2	Supply and install a new 80 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
218.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
218.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
218.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
218.6	Test and commision the installation	No.	1		
219	**New Container Entrance to Terminal**				
219.1	Decommission and remove the existing water meter.	No.	1		
219.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
219.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
219.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
219.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
219.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
220	**Old Mediterranean Shipping building**				
220.1	Decommission and remove the existing water meter.	No.	1		
220.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
220.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
220.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
220.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
220.6	Test and commision the installation	No.	1		
221	**Quay 501 Container control office & abl. BSD**				
221.1	Decommission and remove the existing water meter.	No.	1		
221.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
221.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
221.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
221.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
221.6	Test and commision the installation	No.	1		
222	**Quay 601 Container control office & abl. BSD**				
222.1	Decommission and remove the existing water meter.	No.	1		
222.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
222.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
222.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
222.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
222.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
223	**Quay 602 Container control office & abl. BSD**				
223.1	Decommission and remove the existing water meter.	No.	1		
223.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
223.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
223.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
223.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
223.6	Test and commision the installation	No.	1		
224	**Quay 603 Container control office & abl. BSD**				
224.1	Decommission and remove the existing water meter.	No.	1		
224.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
224.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
224.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
224.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
224.6	Test and commision the installation	No.	1		
225	**Quay 604 Container control office & abl. BSD**				
225.1	Decommission and remove the existing water meter.	No.	1		
225.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
225.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
225.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
225.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
225.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
226	**Quay 602 Container control office & abl. BSD seaside**				
226.1	Decommission and remove the existing water meter.	No.	1		
226.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
226.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
226.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
226.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
226.6	Test and commision the installation	No.	1		
227	**Container Terminal building**				
227.1	Decommission and remove the existing water meter.	No.	1		
227.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
227.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
227.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
227.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
227.6	Test and commision the installation	No.	1		
228	**Chevron (Tanker Basin Cross Berth)**				
228.1	Decommission and remove the existing water meter.	No.	1		
228.2	Supply and install a new 150 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
228.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
228.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
228.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
228.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
229	**Joint Bunkering Services (TBXB)**				
229.1	Decommission and remove the existing water meter.	No.	1		
229.2	Supply and install a new 100 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
229.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
229.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
229.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
229.6	Test and commision the installation	No.	1		
230	**Quay 502 Container control office & abl. BSD**				
230.1	Decommission and remove the existing water meter.	No.	1		
230.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
230.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
230.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
230.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
230.6	Test and commision the installation	No.	1		
231	**WBHO**				
231.1	Decommission and remove the existing water meter.	No.	2		
231.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	2		
231.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
231.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
231.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
231.6	Test and commision the installation	No.	2		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
232	**PIP Site (S a fence & Gate)**				
232.1	Decommission and remove the existing water meter.	No.	1		
232.2	Supply and install a new 15 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
232.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
232.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
232.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
232.6	Test and commision the installation	No.	1		
233	**PIP site (Christopher Clement)**				
233.1	Decommission and remove the existing water meter.	No.	1		
233.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
233.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
233.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
233.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
233.6	Test and commision the installation	No.	1		
234	**Proticon Containers**				
234.1	Decommission and remove the existing water meter.	No.	1		
234.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
234.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
234.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
234.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
234.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
235	**Q 501 (Security) Robben Eiland**				
235.1	Decommission and remove the existing water meter.	No.	1		
235.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
235.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
235.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
235.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
235.6	Test and commision the installation	No.	1		
236	**PIP SITE NEW SECURITY BLDG**				
236.1	Decommission and remove the existing water meter.	No.	1		
236.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
236.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
236.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
236.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
236.6	Test and commision the installation	No.	1		
237	**DAMEN SPRAY ROOM**				
237.1	Decommission and remove the existing water meter.	No.	1		
237.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
237.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
237.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
237.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
237.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
238	**Etlin International (pty) ltd (Cape Cold Storage) Heli pad**				
238.1	Decommission and remove the existing water meter.	No.	1		
238.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
238.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
238.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
238.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
238.6	Test and commision the installation	No.	1		
239	**CONTAINER X-RAY**				
239.1	Decommission and remove the existing water meter.	No.	1		
239.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
239.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
239.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
239.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
239.6	Test and commision the installation	No.	1		
240	**SJW CIVILS**				
240.1	Decommission and remove the existing water meter.	No.	1		
240.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
240.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
240.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
240.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
240.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
241	**Servest Marine**				
241.1	Decommission and remove the existing water meter.	No.	1		
241.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
241.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
241.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
241.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
241.6	Test and commision the installation	No.	1		
242	**Shounters Kiosk Blue Store**				
242.1	Decommission and remove the existing water meter.	No.	1		
242.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
242.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
242.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
242.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
242.6	Test and commision the installation	No.	1		
243	**Washing Bay TPT**				
243.1	Decommission and remove the existing water meter.	No.	1		
243.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
243.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
243.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
243.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
243.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
244	**De Beers @ L-Berth**				
244.1	Decommission and remove the existing water meter.	No.	1		
244.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
244.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
244.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
244.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
244.6	Test and commision the installation	No.	1		
245	**Construction @ Eastern Mole**				
245.1	Decommission and remove the existing water meter.	No.	1		
245.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
245.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
245.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
245.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
245.6	Test and commision the installation	No.	1		
246	**Next to old Fire**				
246.1	Decommission and remove the existing water meter.	No.	1		
246.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
246.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
246.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
246.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
246.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
247	**FFS New Buildings**				
247.1	Decommission and remove the existing water meter.	No.	2		
247.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	2		
247.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	2		
247.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	2		
247.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	2		
247.6	Test and commision the installation	No.	2		
248	**Security bldg (Quay 500) new meter**				
248.1	Decommission and remove the existing water meter.	No.	1		
248.2	Supply and install a new 20 mm water meter compatible with AMR technology including all necessary fittings, couplings, sealants etc.	No.	1		
248.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
248.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
248.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
248.6	Test and commision the installation	No.	1		
249	**Ams Construction (Ocean Road)**				
249.1	Decommission and remove the existing water meter.	No.	1		
249.2	Supply and install a new 50 mm water meter compatible with AMR technology including all necessary fittings, couplings, bolts, sealants etc.	No.	1		
249.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
249.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
249.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
249.6	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY CPT				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METERS				
C	**Replacement of energy meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.,				
1.1	Decommission and remove the existing Electricity Meters in various locations	No.	160		
1.2	Supply and Install Metering panels for substations.	No.	36		
1.3	Supply, install and configure a new Smart Electricity Meter with all the necessary comms required (communication module, GSM antenna etc.),	No.	160		
1.4	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs.	No.	160		
1.5	Test and commission the installation.	No.	160		
	CARRIED FORWARD TO SUMMARY CPT				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
D	**COMMUNICATION**				
1.1	Supply and install signal repeaters to be linked to closest meters and gateway.	No.	20		
1.2	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	13000		
1.3	Excavate and backfill where depth is not exceeding 2m deep	m^3	2340		
1.4	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	13000		
1.5	Reinstate exsiting surface and make good	m^2	3900		
1.6	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	15		
1.7	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	15		
1.8	Supply and install a 9U swing frame cabinet 900mm deep	No.	10		
1.9	Design and construction of Manholes for fibre	No.	10		
1.10	Supply, install and setup the severs	No.	2		
1.11	Splicing of Fibres	No.	360		
1.12	OTDR Testing (Test and submit line losses)	No.	360		
1.13	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.14	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		
1.15	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY CPT				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	3		
1.2	Smart automatic energy meter reading devices	No.	26		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY CPT				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
	Metering gateways				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data. I	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation.	Sum	1		
1.4	Testing and commissioning of the software side both individu	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY CPT				

PORT OF CAPE TOWN		
	DESCRIPTION	**AMOUNT**
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	PORT OF SALDANHA				
	PREAMBLES				
	Fixed preliminary items will be valuated and paid on a proven cost basis up to the total value The tenderer is expected to understand the site, restrictions, and scope of work and price only the relevant items within the Preliminaries. All items priced will be assessed in relevance to the contract prior to any payments being made				
A	**FIXED-CHARGE ITEMS**				
	Contractual Requirements				
1.1	Contractual Requirements: Allow for all contractual obligations in accordance with the NEC3 Engineering and Construction Contract (ECC), including the provision and maintenance of all required performance securities, guarantees, insurances, bonds, warranties, and statutory compliance for the full duration of the Contract.	sum	1		
	Establishment of Facilities on Site				
	Facilities for the Contractor				
1.2	Offices and storage sheds	sum	1		
1.3	Ablution and latrine facilities	sum	1		
1.4	Tools and equipment	sum	1		
1.5	Water supplies, electric power and communications	sum	1		
1.6	Dealing with water	sum	1		
1.7	Access	sum	1		
1.8	Plant	sum	1		
	Other Fixed-charge Obligations:				
1.9	Survey, setting out and preparation of as-built drawings	sum	1		
1.10	Health and Saftey Compliance	sum	1		
1.11	Environmental management	sum	1		
	CARRIED FORWARD				

	PRELIMINARY AND GENERAL				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
	BROUGHT FORWARD				
1.12	Security	sum	1		
1.13	Removal of Site Estalishment	sum	1		
1.14	Plant	sum	1		
2	**TIME-RELATED ITEMS**				
	Operation and maintenance of facilities on the Site for duration of construction				
	Facilities for the Engineer				
2.1	Survey assistants and materials	Month	10		
	Facilities for the Contractor				
2.2	Offices and storage sheds	Month	10		
2.3	Ablution and latrine facilities	Month	10		
2.4	Tools and equipment	Month	10		
2.5	Water supplies, electric power and communications	Month	10		
2.6	Dealing with water (Sub-clause 5.5)	Month	10		
2.7	Access (Sub-clause 5.8)	Month	10		
2.8	Plant	Month	10		
	Supervision				
2.9	Supervision for duration of construction	Month	10		
	Other time-related obligations				
2.10	Compliance Occupational Health and Safety Act and Construction Regulations	Month	10		
2.11	Compliance to Environmental Management Plan	Month	10		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	PORT OF SALDANHA				
B	**SUPPLY AND INSTALLATION OF SMART METERS**				
1.1	Investigations and site assessment (Refer to WI Clauses 4.3)	sum	1		
1.2	Survey and Ground-Penetrating Radar (GPR) Scans on the route for any potential underground services	m^2	31250		
	SITE CLEARANCE, SITEWORKS, ETC.				
	Site Clearance				
1.3	Digging up and removing rubbish, debris, vegetation, hedges, shrubs, bush, etc and trees not exceeding 200mm girth	m^2	2500		
	Earthworks				
1.4	Excavate and backfill where depth is not exceeding 2m deep (600mm x 600mm x 600mm)	m^3	53		
	SUPPLY AND INSTALLATION OF SMART WATER METERS				
	Below Ground Installation Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
	METER No. 01 Replacement of the meter including associated components **Meter size: 300mm, existing pipe material is u-PVC**				
2.1	Decommission and remove the existing above installation.	No.	1		
2.2	Supply and install a 300mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
2.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
2.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
2.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
2.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
2.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 02 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is u-PVC				
3.1	Decommission and remove the existing above installation.	No.	1		
3.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
3.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
3.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
3.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
3.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
3.7	Test and commision the installation	No.	1		
3.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
	METER No. 03 Replacement of the meter including associated components Meter size: 200mm, existing pipe material is u-PVC				
4.1	Decommission and remove the existing above installation.	No.	1		
4.2	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
4.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
4.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
4.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
4.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
4.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 04 Replacement of the meter including associated components Meter size: 50mm, existing pipe material is u-PVC				
5.1	Decommission and remove the existing above installation.	No.	1		
5.2	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
5.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
5.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
5.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
5.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
5.7	Test and commision the installation	No.	1		
	METER No. 05 Replacement of the meter including associated components Meter size: 32mm, existing pipe material is Polycop				
6.1	Decommission and remove the existing above installation.	No.	1		
6.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
6.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
6.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
6.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
6.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
6.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 06 Replacement of the meter including associated components Meter size: 32mm, existing pipe material is Polycop				
7.1	Decommission and remove the existing above installation.	No.	1		
7.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
7.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
7.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
7.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
7.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
7.7	Test and commision the installation	No.	1		
	METER No. 07 Replacement of the meter including associated components Meter size: 32mm, existing pipe material is Polycop				
8.1	Decommission and remove the existing above installation.	No.	1		
8.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
8.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
8.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
8.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
8.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
8.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 08 Replacement of the meter including associated components Meter size: 200mm, existing pipe material is u-PVC				
9.1	Decommission and remove the existing above installation.	No.	1		
9.2	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
9.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
9.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
9.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
9.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
9.7	Test and commision the installation	No.	1		
	METER No. 09 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is HDPE				
10.1	Decommission and remove the existing above installation.	No.	1		
10.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
10.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
10.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
10.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
10.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
10.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 10 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is u-PVC				
11.1	Decommission and remove the existing above installation.	No.	1		
11.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
11.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
11.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
11.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
11.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
11.7	Test and commision the installation	No.	1		
	METER No. 11 Replacement of the meter including associated components Meter size: 22mm, existing pipe material is Polycop				
12.1	Decommission and remove the existing above installation.	No.	1		
12.2	Supply and install a 22mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
12.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
12.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
12.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
12.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
12.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 14 Replacement of the meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
13.1	Decommission and remove the existing above installation.	No.	1		
13.2	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
13.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
13.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
13.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
13.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
13.7	Test and commision the installation	No.	1		
	METER No. 15 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is u-PVC/HDPE				
14.1	Decommission and remove the existing above installation.	No.	1		
14.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
14.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
14.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
14.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
14.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
14.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 18 Replacement of the meter including associated components Meter size: 150mm, existing pipe material is Asbestos Cement				
15.1	Decommission and remove the existing above installation.	No.	1		
15.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
15.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
15.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
15.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
15.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
15.7	Test and commision the installation	No.	1		
	METER No. 19 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is Asbestos Cement				
16.1	Decommission and remove the existing above installation.	No.	1		
16.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
16.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
16.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
16.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
16.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
16.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 20 Replacement of the meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
17.1	Decommission and remove the existing above installation.	No.	1		
17.2	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
17.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
17.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
17.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
17.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
17.7	Test and commision the installation	No.	1		
	METER No. 21 Replacement of the meter including associated components Meter size: 50mm, existing pipe material is u-PVC				
18.1	Decommission and remove the existing above installation.	No.	1		
18.2	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
18.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
18.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
18.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
18.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
18.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 22 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is u-PVC				
19.1	Decommission and remove the existing above installation.	No.	1		
19.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
19.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
19.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
19.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
19.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
19.7	Test and commision the installation	No.	1		
	METER No. 23 Replacement of the meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
20.1	Decommission and remove the existing above installation.	No.	1		
20.2	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
20.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
20.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
20.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
20.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
20.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 25 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is Asbestos Cement				
21.1	Decommission and remove the existing above installation.	No.	1		
21.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
21.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
21.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
21.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
21.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
21.7	Test and commision the installation	No.	1		
	METER No. 26 Replacement of the meter including associated components Meter size: 22mm, existing pipe material is Polycop				
22.1	Decommission and remove the existing above installation.	No.	1		
22.2	Supply and install a 22mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
22.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
22.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
22.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
22.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
22.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
	METER No. 28 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is Asbestos Cement				
23.1	Decommission and remove the existing above installation.	No.	1		
23.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
23.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
23.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
23.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
23.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
23.7	Test and commision the installation	No.	1		
	METER No. 30 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is Asbestos Cement				
24.1	Decommission and remove the existing above installation.	No.	1		
24.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
24.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
24.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
24.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
24.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
24.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 31 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is u-PVC				
25.1	Decommission and remove the existing above installation.	No.	1		
25.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
25.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
25.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
25.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
25.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
25.7	Test and commision the installation	No.	1		
	METER No. 32 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is u-PVC				
26.1	Decommission and remove the existing above installation.	No.	1		
26.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
26.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
26.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
26.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
26.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
26.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
	METER No. 33 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is u-PVC				
27.1	Decommission and remove the existing above installation.	No.	1		
27.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
27.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
27.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
27.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
27.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
27.7	Test and commision the installation	No.	1		
	METER No. 35 Replacement of the meter including associated components Meter size: 200mm, existing pipe material is Galvanised Steel				
28.1	Decommission and remove the existing above installation.	No.	1		
28.2	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
28.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
28.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
28.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
28.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
28.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 36 Replacement of the meter including associated components Meter size: 150mm, existing pipe material is Asbestos Cement				
29.1	Decommission and remove the existing above installation.	No.	1		
29.2	Supply and install a 150mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
29.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
29.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
29.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
29.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
29.7	Test and commision the installation	No.	1		
	METER No. 37 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is Asbestos Cement				
30.1	Decommission and remove the existing above installation.	No.	1		
30.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
30.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
30.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
30.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
30.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
30.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 40 Replacement of the meter including associated components Meter size: 100mm, existing pipe material is Asbestos Cement				
31.1	Decommission and remove the existing above installation.	No.	1		
31.2	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
31.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
31.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
31.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
31.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
31.7	Test and commision the installation	No.	1		
	METER No. 43 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is Steel				
32.1	Decommission and remove the existing above installation.	No.	1		
32.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
32.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
32.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
32.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
32.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
32.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
	METER No. 44 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is Steel				
33.1	Decommission and remove the existing above installation.	No.	1		
33.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
33.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
33.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
33.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
33.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
33.7	Test and commision the installation	No.	1		
	METER No. 45 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is Steel				
34.1	Decommission and remove the existing above installation.	No.	1		
34.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
34.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
34.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
34.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
34.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
34.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 47 Replacement of the meter including associated components Meter size: 32mm, existing pipe material is Polycop				
35.1	Decommission and remove the existing above installation.	No.	1		
35.2	Supply and install a 32mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
35.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
35.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
35.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
35.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
35.7	Test and commision the installation	No.	1		
	METER No. 49 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is u-PVC				
36.1	Decommission and remove the existing above installation.	No.	1		
36.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
36.3	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
36.4	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
36.5	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
36.6	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
36.7	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	Above Ground Installation				
	Supply, install, test and commission smart water meters and shall be configured for measurement of water conSumption (KL), alarm notification for high flow set points and trigger night flow analysis				
	METER No. 27 Replacement of the meter including associated components Meter size: 22mm, existing pipe material is Polycop				
37.1	Decommission and remove the existing installation.	No.	1		
37.2	Supply and install a 22mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
37.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
37.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
37.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
37.6	Test and commision the installation	No.	1		
	METER No. 29 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is Steel				
38.1	Decommission and remove the existing installation.	No.	1		
38.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
38.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
38.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
38.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
38.6	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 46 Replacement of the meter including associated components Meter size: 75mm, existing pipe material is Steel				
39.1	Decommission and remove the existing installation.	No.	1		
39.2	Supply and install a 75mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
39.3	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
39.4	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
39.5	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
39.6	Test and commision the installation	No.	1		
39.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 13 Installation of New meter including associated components Meter size: 200mm, existing pipe material is u-PVC				
40.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
40.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
40.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
40.4	Supply and install 200mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
40.5	Supply and install 200mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
40.6	Supply and install a 200mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
40.7	Supply and install a 200mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
40.8	Supply and install a 200mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
40.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
40.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
40.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
40.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
40.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 16 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
41.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
41.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
41.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
41.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
41.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
41.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
41.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
41.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
41.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
41.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
41.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
41.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
41.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 17 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
42.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
42.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
42.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
42.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
42.5	Supply and install 160mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
42.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
42.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
42.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
42.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
42.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
42.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
42.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
42.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 34 Installation of New meter including associated components Meter size: 110mm, existing pipe material is u-PVC				
43.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
43.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
43.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
43.4	Supply and install 110mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
43.5	Supply and install 110mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
43.6	Supply and install a 110mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
43.7	Supply and install a 110mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
43.8	Supply and install a 110mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
43.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
43.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
43.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
43.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
43.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 38 Installation of New meter including associated components Meter size: 50mm, existing pipe material is u-PVC				
44.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
44.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
44.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
44.4	Supply and install 50mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
44.5	Supply and install 50mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
44.6	Supply and install a 50mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
44.7	Supply and install a 50mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
44.8	Supply and install a 50mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
44.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
44.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
44.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
44.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
44.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 39 Installation of New meter including associated components Meter size: 50mm, existing pipe material is HDPE				
45.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
45.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
45.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
45.4	Supply and install 40mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
45.5	Supply and install 40mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
45.6	Supply and install a 40mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
45.7	Supply and install a 40mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
45.8	Supply and install a 40mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
45.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
45.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
45.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
45.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
45.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 41 Installation of New meter including associated components Meter size: 100mm, existing pipe material is Asbestos Cement				
46.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
46.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
46.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
46.4	Supply and install 100mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
46.5	Supply and install 100mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
46.6	Supply and install a 100mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
46.7	Supply and install a 100mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
46.8	Supply and install a 100mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
46.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
46.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
46.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
46.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
46.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 42 Installation of New meter including associated components Meter size: 110mm, existing pipe material is u-PVC				
47.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
47.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
47.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
47.4	Supply and install 110mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
47.5	Supply and install 110mm dia. spool pieces approximately 250mm in lenght flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
47.6	Supply and install a 110mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
47.7	Supply and install a 110mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
47.8	Supply and install a 110mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
47.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
47.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
47.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
47.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
47.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 48 Installation of New meter including associated components Meter size: 160mm, existing pipe material is u-PVC				
48.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
48.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
48.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
48.4	Supply and install 160mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
48.5	Supply and install 160mm dia. spool pieces approximately 250 mm in lenght flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
48.6	Supply and install a 160mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
48.7	Supply and install a 160mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
48.8	Supply and install a 160mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
48.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
48.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
48.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
48.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
48.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				R -
	METER No. 50 Installation of New meter including associated components Meter size: 110mm, existing pipe material is u-PVC				
49.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
49.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
49.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
49.4	Supply and install 110mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
49.5	Supply and install 110mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
49.6	Supply and install a 110mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
49.7	Supply and install a 110mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
49.8	Supply and install a 110mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
49.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
49.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
49.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
49.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
49.13	Test and commision the installation	No.	1		
	CARRIED FORWARD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
	METER No. 51 Installation of New meter including associated components Meter size: 110mm, existing pipe material is u-PVC				
50.1	Proof trench and verify the pipe material, depth and pipe size before procuring any material for the installation.	m^3	5		
50.2	Cutting off approximately 4.5m of pipe including fitting of flanges on both ends of exposed pipe as per drawings and specifications	m	4.5		
50.3	Construct a new water meter manhole with overall size 2.66m x 1.66m and varying depths not exceeding 2.53m deep including all necessary additional excavations, risk of collapse, blinding, manhole base, stone bedding, 230mm brickwork, backfilling, concrete cover slab, including breaking openings on both ends for new pipe and cart away of surplus material all in accordance with drawings and specifications.	No.	1		
50.4	Supply and install 110mm diameter steel pipes each approximately 1.4m in length, flanged on both ends and fitted on either end of manhole to existing flanged asbestos pipes and in new manholes including sealing off ends of manholes, support/thrust blocks, etc., gaskets, bolts, sealants etc.	No.	2		
50.5	Supply and install 110mm dia. spool pieces approximately 250mm in length flanged on both ends and fitted to meter, strainer & valve including all necessary, gaskets, bolts, sealants etc.	No.	2		
50.6	Supply and install a 110mm swing check valve flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
50.7	Supply and install a 110mm In-line strainer, flanged on both ends and fitted to new flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
50.8	Supply and install a 110mm water meter compatible with AMR technology, flanged on both ends and fitted to new-flanged pipes including all necessary gaskets, bolts, sealants etc.	No.	1		
50.9	Pipes underground to be taped shall be coated with appropriate primer and the tape shall be applied with minimum 15mm lap per spiral	m	8		
50.10	Supply, install, mount and configure a smart IP68 automatic data logger and meter-reading device and establish connectivity for wireless communication.	No.	1		
50.11	Register the meter on both the billing server and the new Utility Management System with apprioptiate tagging	No.	1		
50.12	Create an account and link the meter to the account and apply the appriopriate tariffs	No.	1		
50.13	Test and commision the installation	No.	1		
	CARRIED FORWARD TO SUMMARY SLD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	SUPPLY AND INSTALLATION OF SMART ELECTRICITY METER READING DEVICES				
C	**Replacement of energy meters in various locations (Three Phase)**				
	Supply, install, configure, test and commission Smart Electricity Meters for measurement of different electrical parameters listed elsewhere in the document including Active energy (kWh/MWh), Reactive energy (kVArh/MVArh), Apparent energy (kVAh/MVAh) etc.,				
1.1	Decommission and remove the existing Electricity Meters in various locations	No.	2		
	Supply, Install, test and commission low-voltage current transformers (CTs) for use with electricity meters on 400V systems, secondary current: 5A, Class 0.5,				
1.2	100/5A	No.	3		
1.3	200/5A	No.	3		
1.4	300/5A	No.	3		
1.5	400/5A	No.	3		
1.6	600/5A	No.	3		
1.7	800/5A	No.	3		
1.8	Supply, install and configure a new smart energy meter with all the necessary comms required (communication module, GSM antenna etc.),	No.	13		
1.9	Establish connectivity: Link the meters to the billing server and the new Utilities Management System, Create Accounts and apply the tariffs.	No.	19		
2	Test and commission the installation.	No.	19		
	CARRIED FORWARD TO SUMMARY SLD				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
D	**COMMUNICATION**				
1.1	Standalone Fibre Network - Design, supply, install and patch 48 pair single mode fibre optic cable (652D)	m	10000		
1.2	Excavate and backfill where depth is not exceeding 2m deep	m^3	1800		
1.3	Supply and install 110mm PVC pipe and chamber system for the fibre.	m	10000		
1.4	Reinstate exsiting surface and make good	m^2	3000		
1.5	Supply and install patch panels fully populated 48 pair with Lucent Connector (LC) patch leads	No.	10		
1.6	Supply and install a media converter	No.	12		
1.7	Supply, install and configure 24 ports managed enterprise network switches including routing and setting up VLANs	No.	10		
1.8	Supply and install a 9U swing frame cabinet 900mm deep	No.	10		
1.9	Design and construction of Manholes for fibre	No.	10		
1.10	Supply, install and setup the severs	No.	2		
1.12	Splicing of Fibres	No.	240		
1.13	OTDR Testing (Test and submit line losses)	No.	240		
1.14	Supply, install, configure and commission a Firewall for LAN, ensure that old and new services going through the Firewall are reinstated. Setup DMZ and position a management workstation within DMZ	Sum	1		
1.15	Supply and install management workstation desktops and link to TNPA corporate network. Setup rules for management workstation and provide dashboards whilst second LAN on machine connects to Transnet Data Network. Management station needs to be on Transnet domain and have relative Transnet Policies applied to it.	No.	1		
1.16	Supply and install the latest Microsoft SQL server (permanent license)	No.	2		
	CARRIED FORWARD TO SUMMARY				

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	BROUGHT FORWARD				
E	**PROCUREMENT AND SUPPLY OF SPARES**				
1.1	Smart automatic water meter reading devices	No.	52		
1.2	Smart automatic energy meter reading devices	No.	19		
1.3	Supply hand held automatic meter reading device (water & energy)	No.	2		
	CARRIED FORWARD TO SUMMARY SLD				
ITEM	**DESCRIPTION**	**UNIT**	**QUANTITY**	**RATE R**	**AMOUNT R**
F	**AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION**				
	Metering gateways				
1.1	Supply, installation, configure and integrate the metering gateways onto the LAN and utilities management system for uploading water meter data. Including civil and structural works and all appurtenances	No.	5		
1.2	**New Utilities Management System** Development, Programming and Software integration into the billing server, tariff setup, designing billing template and setting up billing accounts on billing server. Configure the server to send an Alert (SMS) to TNPA for abnormalities. Including linking all Port meters to new utilites management system. Provide license package. Develop an API and link it to the back end of IPMS and SAP ERP.	Sum	1		
1.3	Mapping the meters onto the Geographic Information System (GIS) showing the exact installation point, opening meter reading and the picture of the installation.	Sum	1		
1.4	Testing and commissioning of the software side both individ	Sum	1		
1.5	AMR Training for End Users	Sum	1		
	CARRIED FORWARD TO SUMMARY SLD				

PORT OF SALDANHA

	DESCRIPTION	AMOUNT R
A	PRELIMINARIES AND GENERALS	
B	SUPPLY AND INSTALLATION OF SMART AUTOMATIC WATER METER READING DEVICES	
C	SUPPLY AND INSTALLATION OF SMART AUTOMATIC ENERGY METER READING DEVICES	
D	COMMUNICATION	
E	PROCUREMENT AND SUPPLY OF SPARES	
F	AUTOMATIC METER READING (AMR) SYSTEM AND SOFTWARE INTEGRATION	
TOTAL CARRIED FORWARD TO SUMMARY PAGE:		