



## Specifications: Bid No: 50/2020

### PURCHASE AND DELIVERY OF NEW PRE-PAID ELECTRICITY METERS

#### 1. Back Ground:

This is part of an existing ongoing project to replace the metering system to AMI metering at Senqu Municipality in order to sustain revenue and data collection as well as monitor & record QoS, where required. All meters supplied MUST be able to change to STS (Standard Transfer Specification Association) Token Identifier Edition 2 ready (change over by 2024) as approved by the National Institute of Standards and Technology for use up to the year 2045.

#### 2. Description of specifications:

Purchase and delivery of New Pre-Paid Electricity Meters that are equivalent to, compatible with and the same functionality, and usable as on the existing metering systems currently being used by the Municipality. The system must be wireless communication with the keypad. Meters must be programmed with the Senqu Municipality vending codes which will be supplied once the Tender is awarded.

**Please note:** Should a supplier be awarded the tender and the meters do not work on the existing system, the supplier WILL be held financially and legally responsible for any damages or losses that may occur to the Senqu Municipality.

#### 3. Pricing & detail

- All prices must be VAT Incl.
- The tender award only becomes valid from the date of signature of both parties to the compulsory Service Level Agreement that will be supplied by the Senqu Municipality.

Item	Equipment required	Quantity	Price inclusive of VAT
1	Measurement and Control Unit (MCU) with integrated wireless. Single phase wireless, split configuration. Smart Meter ready	500	
2	User Interface Unit Wireless UIU (wUIU) Single phase wireless Smart Meter Ready	500	
3	63 Amp Single phase Circuit Breaker Dan rail to fit in pole box. 6KA	500	
4	Two way Pole mounted box to accommodate Meter with Circuit breaker	300	
Total Price			
TO BE COMPLETED BY THE TENDERER			
Name and Surname of Tenderer or Authorised Representative declaring their compliance with specifications			

Signature of Tender declaring that He / She complies with all the specifications listed above and below	
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**(1). Measurement and Control Unit (MCU) with integrated wireless. Single phase wireless.**

<b>MCU with integrated wireless</b>	
Type	Single phase, direct connected wireless prepayment metre
<b>Electrical ratings</b>	
Voltage measurement (Un)	110 VAC - 127 VAC/220VAC - 240 VAC
Frequency	50/60 Hz
Current measurement	I <sub>max</sub> =100A
<b>MCU Enclosure</b>	
Mounting	DIN rail mounted
IP Rating	IP 54
Dimensions (max)	160 mm X 50 mm X 80 mm
<b>Terminals</b>	
Maximum cable size	35 mm <sup>2</sup>
Minimum cable size	16 mm <sup>2</sup>
<b>Operating environment</b>	
Operating temperature range	-10 to 60 °C
Storage temperature range	-25 to 70 °C
Relative humidity	Maximum 95 %
<b>Insulation: Over voltage and surge protection</b>	
Impulse voltage/ lightning protector acknowledgement	6 kV

**(2). Measurement and Control Unit (MCU). Single phase wired / wireless.**

<b>User Interface Unit w(UIU) single phase wireless Smart meter ready</b>	
Type	RF Wireless, keypad compatible with meter
<b>Communication Circuitry</b>	
Communication Distance	Minimum 100 metres line of sight
<b>Operating Environment</b>	
Operating Temperature Range	-10 °C to 60 °C
Storage Temperature Range	-25 °C to 70 °C
<b>UIU Enclosure</b>	
Material	flame and fire retardant
Components	Pictographic/Numeric LCD display, keypad, rate of consumption indicator, audio feedback
Liquid Crystal Display (LCD)	At least 7 digits + 11 icons; icon information; numeric information display of various meter information such as credit levels, token entry
Minimum character size	10mm

Keypad	12-key, international standard layout including "information" and "backspace" keys, braille characters.
Buzzer	Feedback on key press, Token Accept and Reject melodies, low-credit alarms as a factory-programmable option
<b>Power source</b>	
Type	Options of Lithium battery, NiMH or Alkaline
Operational life	Minimum of 2 years operational life

**The Tender must comply with the Following conditions or will not be considered:**

- The Supplier must give Warranty of 12 months on all products
- Tender must be valid for 90 Days
- Price must include delivery at Lady Grey Eastern Cape of all Material.
- Proof of Metering products stipulated in this specification document must be provided in a form of a catalogue or manufacturer specification sheets. This MUST be included in the Bid Document in order to evaluate if the correct product is going to be supplied. This is a compulsory request and if not adhered to the Bidder will be disqualified.
- Suppliers must tender on all products to be considered.