



BA-PHALABORWA MUNICIPALITY  
MEMORANDUM  
- BUDGET AND TREASURY –

**TO** : *Prospective Service Provider*  
**FROM** : **SCM /STORES**  
**DATE** : **03/11/2020**  
**ENQUIRIES** : **STORES**  
**TELEPHONE** : **015 780 6362/61**  
**REF** : **136281**

Kindly furnish this office with a written quotation for supply of goods/ services as detailed below. The quotation must be submitted on the letterhead of your Business and Brought to our offices 3 Nyala Street, Phalaborwa not later than 11/11/2020

| <b>QUANTITY</b> | <b>Description</b>   | <b>PRICE/UNIT<br/>(Inc. VAT)</b> | <b>DELIVERY<br/>PERIOD</b> |
|-----------------|--|----------------------------------|----------------------------|
| 50              | Single Phase 80 A prepaid Electricity meters/PLC operated, complete<br>With CIU/ As per attached specification |                                  |                            |
|                 |  |                                  |                            |
|                 |  |                                  |                            |
|                 |  |                                  |                            |
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|                 |  |                                  |                            |
|                 |  |                                  |                            |
|                 |  |                                  |                            |

**Please number your quotes (Your Ref no)**

*The following conditions will apply:*

- *Price (s) quoted must be valid for at least thirty (30) days from date of your offer.*
- *The municipality retains the prerogative to reject any quotes it deems to be excessive  
A firm delivery period must be indicated.*
- *Tax Clearance Certificate*
- *A service provider be registered with central supplier database (CSD)*
- *Registered with CIPRO (CK 1 or 2 document)*
- *BBBEE Certificate certified by a SANAS accredited institution.*
- *Completed MBD4 (Declaration of Interest) Form*
- *COMPLETE MBD6.2*

## **BID SPECIFICATIONS**

### **BID DESCRIPTION: SUPPLY AND DELIVERY OF SINGLE AND THREE PHASE PRE-PAYMENT METERS**

1. The prepayment meter must be a Split meter which shall consists of the following components:
  - a) Energy management Unit (EMU)
  - b) Consumer interface Unit (CIU)
2. Communication between consumer interface unit and energy management unit:
  - a) By means of power line carriers (PLC) technology.
  - b) MUST be of design that doesn't allow appliances or equipment to interfere with the communication of the meter.
3. **Energy management unit (EMU)**
  - a) The footprint of the energy management unit (metering unit) must be a compact meter (EMU) design, with DIN rail-mount or compact BS housing layout for single phase and compact BS housing for triple phase.
  - b) Rated voltage 230 Volts AC.
  - c) Operating voltage 230 volts (-20% to +15%)
  - d) Over voltage to withstand SABS (1524) 400 volts for 48 hours.
  - e) Basic current  $I_b$  – 20 Amps
  - f) Maximum continuous Current  $I_{max}$ . – (s/p)80 Amps and (t/p)100Amps
  - g) Measuring currency (SABS; IEC6 1036 Accuracy class) – Class 2 (approx. 2% from 0,1I<sub>b</sub> to I<sub>max</sub>).
  - h) Rated frequency – 50 Hz
  - i) Power consumption / Burden - Voltage circuit < 3 Watts / 12 VA Current circuit < 2,5VA
  - j) Inherent voltage impulse withstand (BIL) – 6Kv 1,2/50 $\mu$ s  
(No surge arrestor)With surge arrestor – Service rating – 5Ka (8/20 $\mu$ s waveform)  
Withstand rating (2minutes) - 30Ka (8/20 $\mu$ s waveform) Insulation properties (1minute) – 2kVrms (Class 1) 4kV impulse (Class 1) 1,2/50 $\mu$ s waveform Over voltage 400 volts for 48 hours
  - k) Energy direction – Forward and reverse
  - l) Disconnecting Device Type :Single pole latching contactor Rated current 100 Amps Type: 3 pole latching contactor Rated current 100 Amps
  - m) Applicable specifications : (SABS) IEC 6 1036SABS 1524 NRS 009
  - n) Short circuit current : 2,4Ka

**3.1 Environmental Conditions:**

- a) Operating temp. range : -10°C (+14°F) to +55°C (+131°F)
  - b) Storage temp. range : -25°C (-13°F) to +70°C (+158°F)
  - c) Relative humidity (IEC 6 1036) – annual mean 75% (Max. 95%)
  - d) Degree of protection : IP 51
4. Total encryption method 20-Digit-STS
5. Communication circuitry: Up to 100 metres.
6. Sealing: Factory sealed with screw-seals or stainless steel wire ferrul seal.

**ALL Energy meters will be programmed with 50 Units of Kwh before delivery to Ba-Phalaborwa Municipality.**

**7. Consumer interface Unit (CIU)**

- a) The following must be printed on the consumer interface unit: This electrical unit is the property of the local supply authority. The use of it is subject to the local authority's conditions of supply.
- b) Keypad: 12 key international standard layout including "information" and "backspace" keys.
- c) Rate of consumption indicator (Pulse rate proportional to current rate of consumption).
- d) Diagnostic information: 20 additional meter parameters accessible via "information" key.
- e) Must be a user friendly consumer interface unit, making use of a clear language and must display all parameters of the meter including low credit warning, energy consumption and load contactor status.

PRICE SCHEDULE

1. COMMUNICATION BETWEEN INTERFACE UNIT AND ENERGY MANAGEMENT UNIT BY MEANS OF POWER LINE CARRIER (PLC) TECHNOLOGY

1.1 Single phase split prepayment meter using power line carrier (PLC) Technology

| DESCRIPTION   | PRICE PER UNIT<br>(VAT INCLUDED) | SABS Mark | Delivery Period | Settlement<br>discount for 30<br>days: |
|---|----------------------------------|-----------|-----------------|--|
| 1) Interface Unit (Remote Control)                                |                                  |           |                 |  |
| 2) Energy Management Unit<br>DIN RAIL MOUNTED.<br>(Metering Unit) |                                  |           |                 |  |
| Name of Manufacturer  |                                  |           |                 |  |
| <b>Total 1 &amp; 2</b>  | <b>(A)</b>                       |           |                 |  |

1.2 Three phase split prepayment meter using power line carrier (PLC) Technology

| DESCRIPTION  | PRICE PER UNIT<br>(VAT INCLUDED) | SABS Mark | Delivery Period | Settlement<br>discount for 30<br>days: |
|--|----------------------------------|-----------|-----------------|--|
| 3) Interface Unit (Remote<br>Control)  |                                  |           |                 |  |
| 4) Energy Management Unit<br>COMPACT BS HOUSING<br>(Metering Unit)                               |                                  |           |                 |  |
| Name of Manufacturer   |                                  |           |                 |  |
| Totals 3 & 4<br>(B)  |                                  |           |                 |  |
| Totals<br>(A & B)  |                                  |           |                 |  |
| <b>NOTE: 1) PRICES WILL INCLUDE TRANSPORT AND DELIVERY AT BA-PHALABORWA MUNICIPALITY STORES.</b> |                                  |           |                 |  |