

# MATERIAL SPECIFICATION

VOCAB NUMBER	ITEM DESCRIPTION
151032	GEM METER – CASHPOWER 2000, PREPAYMENT, 20 DIGITS, 240V, 50Hz, DIRECT CONNECTED, THREE PHASE, 8 TERMINAL CLASS, 20 TO 100A CURRENT.

## SPECIFICATION DETAILS

**1. STANDARDS:**

The meter shall comply with the relevant requirement of the Australian Standards specification for "General Purpose Watt-hour Meters" AS1284 Part 1, 1991 as amended or the equivalent PNG Standards as adopted specifically covering prepayment meters.

**2. ELECTRICAL SPECIFICATIONS**

2.1 Current:

The rated current shall be 20A (Ib) and the maximum continuous current shall be 100A (Imax).

2.2 Accuracy:

It shall be class 2 or  $\pm 2\%$  from 0.1Ib to Imax. The accuracy shall also be monitored by dKW/dt as indicated by the LED indicator which must pulsate at a rate of 800 impulses per kWh.

2.1 Voltage:

The voltage shall be at 240V at 50Hz and permitted to regulate between -20% to +50% of nominal voltage per phase.

- **Unit of Measure:** Each
- **Rejection:** PNG Power Ltd reserves all rights to reject whole or part of the order not complying with this specification and is not liable for any cost or loss with the return of rejects to the Supplier. Facilitation of Invoice Credit must commence between the supplier and PNG Power Ltd through the process of PNG Power Ltd Discrepancy Report provisions.

**Drawing References:** **Manufacturer's Product Code:**

### STANDARDS COMMITTEE APPROVAL

Approval by Grevasius Peni: Signature:  Date: 11/12/18  
**Chairman**

### DATA REVIEW ENDORSEMENT

NAME	TITLE	SIGNATURE	DATE
Rawali Rawali	Engineer - Standards & Materials		11/12/18

**SPECIFICATION DETAILS FOR VOCAB: 151032****3. OPERATION:**

The GEM meter operates exactly the same manner as the standard Cashpower 2000 prepayment electricity meter. However instead of using a miniature breaker/isolator with manual, external lever to connect power, it utilizes a bi-stable latch which is located within the meter and is not accessible from the outside.

Power is automatically connected to the load side of the meter when there is credit in the meter and automatically disconnects the power if no credit is left. Power will also be terminated if any attempt is made to tamper with the meter.

In the case of trip due to overload, the meter will try to reconnect power five times at 30 seconds intervals. If after five attempts the current is still above the limit, the unit will wait 30 minutes before repeating the procedure.

**4. FITTINGS:**

The GEM meter shall be fitted with Credit Status Display (CSD), 3 Level Credit Display – (LCD), Keypad for Credit Transfer Number Entry, Low Credit Warning Level, Credit Transfer Number Accept/Reject Indication, Tamper Indication, Lightning protection and a bi-stable latch located within the meter and is not accessible from outside to prevent tempering of the meter circuit breaker. Anti-tamper switch is mounted inside the meter box.

**5. CONNECTION:**

The connection to the meter shall be of symmetrical type and the terminals be marked as active, neutral, neutral and active (ANNA).

**6. MARKING:**

It shall have a printed name as "Property of PNG Power Ltd.," and engraved or stamped with and "PPL" Number supplied by the Manufacturer on the Official Order.

**7. DIMENSIONS:**

The meter shall have the dimensions of height, length and width as 197mm x 137mm x 72mm respectively.

**8. REJECTION:**

PNG Power reserves the right to reject the whole consignment should 5% or more of any one consignment of found defective.

**9. SAMPLE:**

Samples of the meter shall be made available to the organization for inspection prior to the Tender closing date.