

## **Syntell Receiver Agreement**

entered into by and between –

**Syntell (Proprietary) Limited**  
(hereinafter referred to as "Syntell")

and

**Cape Agulhas Municipality**  
(hereinafter referred to as the "Receiver")

### **INTRODUCTION**

The Receiver supplies various utilities and other services to customers and wishes to engage the services of Syntell to assist the Receiver in its desired objective of expanding its distribution network of point of sale outlets to:-

- dispense and sell prepaid electricity to customers

(hereinafter referred to as "Receiver Services").

To achieve these objectives Syntell shall perform the Receiver Services through Collector(s) appointed by Syntell and through internet websites, utilizing the Syntell Vending Gateway.

**NOW THEREFORE THE PARTIES AGREE AS FOLLOWS —**

### **PART 1 -GENERAL TERMS**

#### **1 DEFINITIONS**

The following words and expressions shall have the meanings hereunder assigned them and cognate words and expressions will have their corresponding meanings, unless the context indicates to the contrary —

- 1.1 "ACB" means the Automated Clearing Bureau, being the South African Banks' representative institution, which accepts input magnetic tape transactions for settlement between various account drawers and beneficiary payees;

- 1.2 "Collector(s)" mean the various legal entities appointed by Syntell to perform the Receiver Services on behalf of Syntell;
- 1.3 "Confidential Information" means in addition to the definition set out in the latest edition of the Oxford English Dictionary, and without prejudice to the generality of the expression, all information of any nature whatsoever disclosed by the parties hereto to each other, their legal counsel, agents, associates or representatives and relating to Syntell and the Receiver, whether orally, in writing or in software format, in relation to:
- 1.3.1 the business of Syntell and the Receiver;
- 1.3.2 all information relating to the Website, the software, trademarks, logos and all intellectual property rights relating thereto.
- 1.4 "Day" means one 24 hour day, excluding public holidays, Saturdays and Sundays.
- 1.5 "Gross Sales" means the daily gross rand value of electricity sales including VAT thereon by the Collectors (including any debt component), and recorded on the Syntell Vending Gateway;
- 1.6 "Parties" means the Receiver and Syntell.
- 1.7 "Payment(s)" means any payments, made using the Syntell Vending Gateway in respect of Receiver Services.
- 1.8 "Receiver" means the Cape Agulhas Municipality, a local municipality, established in terms of the Local Government: Municipal Structures Act, 1998.
- 1.9 "Receiver Agreement" means this Agreement entered into by and between the Receiver and Syntell.
- 1.10 "Receiver Nominated Bank Account" means —

BANK: ABSA  
BANK ACCOUNT NO.: 405 883 2586  
BRANCH: Tyger valley  
ACCOUNT HOLDER: Cape Agulhas Municipality  
REFERENCE: Syntell 01

- 1.11 "Receiver Services" means the following service:
- 1.11.1 to dispense and sell prepaid electricity to customers;
- 1.12 "Server" means the server/s on which all transactions envisaged in terms of this Agreement are recorded and stored and which is —
- 1.12.1 to be housed at the premises of the Receiver;
- 1.12.2 required to interact with and be integrated to the Syntell Vending Gateway.
- 1.13 "Syntell" means Syntell (Proprietary) Limited (Registration No. 2003/022275/07) a company duly registered in accordance with the laws of South Africa.
- 1.14 "Syntell Vending Gateway" means the Syntell revenue switch, through which the Collector's POS network routes all transaction requests to the Server;
- 1.15 "Syntell Vending Gateway Reports" means the Gross Sales reports automatically generated and emailed to the Receivers on a daily basis;
- 1.16 "Syntell Vending Web Services Specification" means the communication protocol, implementation guidelines and test site specifications, and the business logic required to interact with the Syntell Vending Gateway;
- 1.17 "Transaction Data" means the data as is held in the transaction data base records stored on the Server.
- 1.18 "Variance Report" means the report generated by Syntell, indicating the variances between the Receiver's aggregated daily sales report versus the Syntell Vending Gateway Report;
- 1.19 "Website" means the websites which shall be utilised from time to time to enable customers to make Payments.
- 1.20 Words importing the singular shall include the plural and vice versa, words importing any gender shall include the other genders and words importing persons shall include partnerships and bodies corporate.

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- 1.21 The head notes to the paragraphs to this Agreement are inserted for reference purposes only and shall not affect the interpretation of any of the provisions to which they relate.
- 1.22 The clause headings in this Agreement have been inserted for convenience only and shall not be taken into account in its interpretation.
- 1.23 If any provision in a definition is a substantive provision conferring rights imposing obligations on any Party, effect shall be given to it as if it were a substantive clause in the body of the Agreement, notwithstanding that it is only contained in the interpretation clause.
- 1.24 The provision of the tender specification document shall form an integral part of this agreement and is attached hereto Annexure B.

## **2 OBLIGATIONS AND DUTIES OF THE RECEIVER**

The Receiver hereby agrees and undertakes:-

- 2.1 to exclusively use Syntell to collect Payments for the duration of this agreement;
- 2.2 to reverse any Payment made where an error has arisen due to a technical problem or a duplication of Transaction Data resulting in the Receiver receiving a payment to which it is not entitled, or where a Payment is reversed for any reason whatsoever. Syntell shall as soon as it becomes aware of such an erroneous Payment or reversal, notify the Receiver, in writing, who undertakes to forthwith investigate the Payment concerned. If the Receiver is satisfied that an error or reversal has occurred, it undertakes to immediately refund Syntell for the amount of the erroneous payment or reversal;
- 2.3 to reimburse Syntell in respect of Payments made to Syntell or a Collector by a customer using a credit or debit card, the fees charged to Syntell/ Collector by the supplier of the credit or debit card. These fees are reflected in Schedule 1 and may be changed from time to time;
- 2.4 to reimburse Syntell, at Syntell's instance, in respect of cash payments made to a Collector any cash handling fees charges by the Collector's bank;

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- 2.5 to use its reasonable endeavours to ensure that the Server remains on line on a 24 hour a day basis;
- 2.6 where reasonably possible to give Syntell prior written notice of any down times as may be necessary to maintain and support the Server;
- 2.7 provide Syntell with the Receiver's aggregated daily sales report on a daily basis.

### 3 OBLIGATIONS AND DUTIES OF SYNTELL

Syntell hereby agrees and undertakes —

- 3.1 to use its best endeavours to ensure that the Syntell Vending Gateway remains on line on a 24 hour a day basis;
- 3.2 to approach any prospective Collector as well as those recommended in writing by the Receiver with a view to signing them up as a Collector;
- 3.3 to ensure that all Collectors sign a Point of Sale Collector Agreement as approved by the Receiver and in so doing adhere to certain risk and management criteria and standards set by Syntell;
- 3.4 to notify the Receiver of all existing Collectors prior to signature hereof, if applicable;
- 3.5 to furnish the Receiver by no later than close of business on the 15th day of each month, with a consolidated report of all transactions that occurred in the preceding month, setting out the details of payments to the Receiver transmitted via ACB from Syntell to the Receiver's Nominated Bank Account.
- 3.6 to ensure that all Payments reflected in the Syntell Vending Gateway Reports shall be transferred to the Receiver within 2 Days;

### 4 METHOD OF PAYMENTS

- 4.1 The consolidated total of all Payments reflected in the Syntell Vending Gateway Reports must be transferred within 2 Days, by Syntell to the Receiver via ACB by crediting the Receiver's Nominated Bank Account.

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4.2 The Receiver hereby agrees and undertakes to allow Syntell restricted access to the Receiver's Nominated Bank Account via ACB in order to only pass a credit of the consolidated total referred to in paragraph 4.1 above.

4.3 In the event that the Receiver's aggregated daily sales report varies from the Syntell Vending Gateway Report in the Variance Report, Syntell will pay based on the Syntell Vending Gateway Report described in paragraph 1.15.

## 5 COLLECTION FEE AND OTHER CHARGES

5.1 The Receiver shall pay to Syntell a collection fee for each collected Payment reflected in the Syntell Vending Gateway Reports and at the rate specified in Schedule 1 annexed hereto.

5.2 The fee for each collected Payment shall be consolidated and the charges due in terms of paragraph 5.1 above shall be consolidated and shall be paid to Syntell within 30 (thirty) days of receipt by the Receiver of a detailed invoice.

5.3 The collection fee referred to in paragraph 5.1 above shall be reviewed annually on the anniversary of the signing of this Agreement, and if necessary the collection fee shall then be adjusted by mutual written agreement between the parties, and a fresh Schedule 1 signed.

## 6 MARKETING

The parties may not use the others logo's without the other's written consent.

## 7 CONFIDENTIALITY

7.1 The Parties acknowledge that all Confidential Information disclosed by them, their legal counsel, their associates or representatives during negotiations and discussions between the parties is private and confidential and as such the parties hereby undertake to accord such Confidential Information subject to the provisions of the Constitution of the Republic of South Africa Act 108 of 1996.

7.2 The parties shall at all times, unless otherwise agreed to in writing between the parties, hold the Confidential Information disclosed to them in strict confidence and shall use such Confidential Information only for such



purpose and to the extent that it may be necessary for the parties to comply with their obligations in terms hereof.

7.3 Syntell agrees that it shall treat as confidential all Transaction Data and information of whatever nature acquired or received by it from the Receiver and furthermore agrees that such Transaction Data and information shall only be divulged and disclosed any other third party with the Receiver's prior written consent.

7.4 Intellectual Property Rights

7.4.1 All intellectual property rights (including, without limitation, any copyright, patents, design rights, trade marks or service marks) in the Website and any improvements or modifications thereto from time to time, whether carried out by Syntell or the Receiver shall remain the sole and exclusive property of Syntell.

7.4.2 As used here, "intellectual property rights" mean, without limitation, any technology, content, data, hyperlinks, graphic and any icons on the Website, all related patent rights, copyrights, inventions, designs, including software and hardware, layouts, trademark rights and other intellectual property rights therein and thereto, including all moral rights. In particular, it is recorded that Syntell does not dispose of the ownership of or its rights under license to use any intellectual property on its Site.

7.5 This clause 7 shall survive the termination of this Agreement.

**8 DURATION**

This Agreement shall commence on the date of the last signature and shall continue for a period of three (3) years.

**9 NON-PAYMENT / LATE PAYMENTS**

9.1 In the event, that for any reason whatsoever, Syntell is unable to deposit payments via ACB in terms of the provisions of this Agreement timeously or at all, Syntell shall be liable to the Receiver for such deposit together with interest on the said deposit calculated at the prime bank overdraft rate charged by the Standard Bank Ltd. from time to time plus 1% reckoned from the Day the deposit should have been made until the Day on which it

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is made. Any such interest owing shall be calculated by the Receiver and deducted from the collection fee due by the Receiver to Syntell in terms of paragraph 5 above.

9.2 In the event that Syntell is unable to deposit Payments timeously, or at all, Syntell shall immediately upon becoming aware of this fact, notify the Receiver in writing thereof, together with a written explanation therefore. It is specifically recorded and acknowledged by Syntell that this notification is essential as the Receiver might otherwise disconnect or discontinue services to Syntell.

## 10 NON-LIABILITY

10.1 Subject to the provisions of paragraph 9 above, Syntell shall not be held liable to the Receiver whatsoever for any damages suffered, claims instituted or loss sustained by reason of Syntell's failure to make the deposits in terms of clause 4 timeously or at all, provided that such failure does not arise from the negligence or fraud of Syntell.

10.2 Syntell shall not be held liable to the Receiver in any way whatsoever, for any damages suffered, claims instituted or loss sustained, howsoever arising, by reason of any Collector's omission or failure to perform, provided such Collector has signed a Point of Sale Collector Agreement and Syntell has diligently exercised in rights in terms thereof.

10.3 Syntell does not warrant that the service will operate uninterrupted and error free, and shall not be liable for any damages suffered, claims instituted or loss sustained by any such interruption. Syntell shall endeavor to ensure the uninterrupted and error free operation of the services provided.

10.4 Neither party shall be liable for consequential damages, indirect damages, loss of goodwill, loss of revenue or loss of profit. The provision of this clause shall not apply to loss occasioned by a breach of Clause 7 above.

## 11 BREACH

11.1 Should either Party hereto breach or fail to comply with any term or condition of this Agreement, then the party aggrieved thereby shall give the defaulting Party written notice to rectify such a breach.

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- 11.2 In the event of the defaulting party failing to rectify such a breach within fourteen (14) days of the dispatch of such notice, the aggrieved party shall be entitled to give written notice of termination of this Agreement to the other party. Such termination shall take effect upon dispatch of such notice to the other party.
- 11.3 Should either Party repeatedly breach any of the terms and conditions of this Agreement in such a manner as to justify the aggrieved party in holding that the defaulting party's conduct is inconsistent with the defaulting party's intention to carry out the terms and conditions of this Agreement, then and in such event the aggrieved party shall without prejudice to its legal rights and remedies, be entitled to terminate this Agreement.
- 11.4 On terminating this Agreement, the aggrieved party will be entitled to claim and recover such damages as the aggrieved party may be able to prove that it has sustained.

## 12 TERMINATION

This Agreement shall terminate with immediate effect upon the happening of any of the following events:

- 12.1 If either party fails to rectify a breach of this Agreement as provided for in terms of Clause 11;
- 12.2 If Syntell commits any act of insolvency or is placed under final or provisional liquidation.
- 12.3 The end of the contract period as provided for in clause 8.

## 13 CESSION

The Parties shall not cede, assign, transfer or make over any of their rights, nor delegate any of their obligations, in terms of this Agreement to any third party without the prior written consent of the other Party which consent shall not unreasonably be withheld.

## 14 DOMICILIUM CITANDI ET EXECUTANDI

- 14.1 Each of the parties chooses *domicilium citandi et executandi* for the purposes of the giving of any notice, the serving of any legal process and

for any purposes arising from this Agreement at their respective addresses set forth hereunder:

**Receiver:** Cape Agulhas Municipality  
1 Dirkie Uys Street  
Bredasdorp  
7280

**Syntell:** Syntell (Proprietary) Limited  
4 - 74 White Road  
Retreat  
7945

14.2 Any notice to any party shall be addressed to it at its *domicilium* aforesaid and be sent either by pre-paid registered post or be delivered by hand. In the case of any notice —

- (a) Sent by pre-paid registered post, it shall be deemed to have been received, unless the contrary is proved, on the seventh day after posting; and
- (b) Delivered by hand, it shall be deemed to have been received, unless the contrary is proved, on the date of delivery, provided such date is a business day or otherwise on the next following business day.
- (c) Any party shall be entitled by notice in writing to the other, to change its *domicilium* to any other address within the Republic of South Africa, provided that the change shall become effective only fourteen (14) days after the service of the notice in question.
- (d) Any notice addressed to the Receiver shall be required to be addressed to the Municipal Manager: Cape Agulhas Municipality to be deemed to have been effectively delivered or served.
- (e) Any notice addressed to Syntell shall be required to be addressed to Syntell (Proprietary) Limited, 64 - 74 White Road, Retreat, 7945 to be deemed to have been effectively delivered or served.

## 15 VIS MAJOR

15.1 Neither party shall be liable to the other for any prevention, suspension or postponement of its performance in terms of this Agreement where such

prevention, suspension or postponement is due to any event of *vis major* (including but not limited to any act of God, flood, fire, earthquake, terrestrial or extraterrestrial interference, satellite malfunction, war, riot, insurrection, strike or act of any civil or military authority, or other cause of similar nature beyond the reasonable control of a party hereto).

- 15.2 If any such event *vis major* shall continue for a period of sixty consecutive days, or ninety consecutive days, in the aggregate in any one-year contract period during the terms of this Agreement, either party shall have the option thereupon to terminate this Agreement upon no less than ten days written notice to the other party.
- 15.3 In the event of such termination, neither party hereto shall have any further obligations hereunder to the other party, except for payment of any fees, other sums or other consideration past due hereunder and obligations of indemnification expressly contained herein.

## 16 DISPUTE RESOLUTION

Any dispute between the Parties arising from or in connection with this Agreement shall be determined in accordance with the rules of the Arbitration Foundation of South Africa by an arbitrator or arbitrators nominated by it, save that either Party may have recourse to a court of competent jurisdiction where urgent relief is sought. Such arbitration shall take place in the Western Cape.

## 17 GENERAL CONDITIONS

- 17.1 No alteration, cancellation, variation of or addition to this Agreement shall be of any force or effect unless reduced to writing and signed by Syntell and the Receiver or their duly authorised representatives.
- 17.2 This Agreement constitutes the entire Agreement between the parties hereto and neither of the parties shall be bound by any undertakings, representations, warranties, promises or the like not recorded herein.
- 17.3 No extension of time or other indulgence granted by either party to the other in respect of either of the parties obligations will constitute a waiver of either of the parties right to enforce compliance with the terms of this Agreement. Neither shall it constitute a novation of this Agreement

**18 GOVERNING LAW**

The construction, validity, performance and interpretation and implementation of this agreement will be governed by the laws of the Republic of South Africa.

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## **PART 2 – PREPAID ELECTRICITY PAYMENTS**

These further terms and conditions listed in this Part 2 are applicable in respect of the collection of prepaid electricity payments.

### **1 DEFINITIONS**

The following words and expressions shall have the meanings hereunder assigned them and cognate words and expressions will have their corresponding meanings, unless the context indicates to the contrary —

1.1 “Coupon” means a computer generated meter specific coupon whereon is recorded an encoded number by means of which a customer can activate and control his Energy Dispenser;

1.2 “Energy Dispenser” means the metering device utilised to measure and control electrical energy consumed at a consumer’s premises;

### **2 OBLIGATIONS AND DUTIES OF THE RECEIVER**

The Receiver hereby agrees and undertakes:-

2.1 to allow the Syntell Vending Gateway to interface with the Server for the sale of  
Coupons;

2.2 to deal with Receiver consumer queries relating to the transactions.

### **3 OBLIGATIONS AND DUTIES OF SYNTELL**

Syntell hereby agrees and undertakes:-

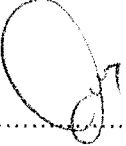
3.1 to ensure that the Syntell Vending Gateway is able to communicate and interact with the Server for the Sale of Coupons;

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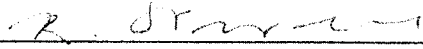
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SIGNED AT Bredasdorp THIS 12 DAY OF March 2012

AS WITNESSES:

1  .....

2  .....





DULY AUTHORISED TO SIGN  
ON BEHALF OF THE  
RECEIVER

SIGNED AT Town THIS 13 DAY OF MARCH 2012


AS WITNESSES:

1  Ethlene Thomas

2  Nick Miller



DULY AUTHORISED TO SIGN  
ON BEHALF OF SYNTELL



## SCHEDULE 1

### FEES PAYABLE BY RECEIVER:-

1. **Prepaid electricity payments:**

Commission of 5% on the Rand value of a Prepaid electricity sales recorded by Syntell and the Collectors, the total commission payable to be capped as follows:-

- o no more than R1 million for the 1<sup>st</sup> calendar year;
- o R1 million plus escalation equal to the percentage increase of council's electricity tariffs for the second calendar year ;
- o the 3rd Calendar year escalation capped at 2<sup>nd</sup> year amount plus escalation equal to the percentage increase of council's electricity tariffs for the year.

**ALL FEES ARE QUOTED EXCLUSIVE OF VAT**

### BANK COSTS RECOVERABLE FROM RECEIVER:-

Fees will vary depending on the Collector involved and/or the Card type used:-

Cash Handling Commissions : up to 1.00%

Debit Card Commissions : up to 1.00%

Credit Card Commissions : up to 2.50%

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## **ANNEXURE B – TENDER SPECIFICATION DOCUMENT**

### **SPECIFICATIONS**

#### **FOR SC 613/2009**

#### **ELECTRICITY PREPAYMENT VENDING SYSTEM AND ADMINISTRATION**

##### **1. SCOPE OF SPECIFICATION**

The specification provides for a summary of Overstrand Municipality's critical requirements for the supply of a STS compliant prepayment electricity vending system complete with customer and operations management structures.

##### **2. APPLICABLE STANDARDS**

The following standards and specifications contain provisions which, through reference in this text, constitute provisions of this Specification. At the time of publication, the editions indicated were valid. All standards and specifications are subject to revision, and Tenderers are encouraged to apply the most recent editions of the document listed below:

- STS Part 1, 2 and 3: Standard Transfer Specifications

##### **3. GENERAL**

###### **3.1 Requirements**

No tender will be considered unless accompanied by a full description and technical details of the solution offered. Any special features shall be detailed. The successful Tenderer shall provide full system documentation (including schematics of the full Vending System network to the Municipality. The minimum hardware and software requirements on which to run the Vending System shall be specified.

###### **3.2 Compliance with Specification**

Tenderers shall submit with their tender a schedule listing clause-by-clause, specific details indicating compliance or non-compliance with the requirements of the Specifications.

###### **3.3 Compliance List**

The Tenderer shall indicate compliance and whether the offer deviates from each paragraph. Alternatives shall be separately listed.

###### **3.4 Demonstration of System Offered**

Only Tenderers who can offer a fully functional Vending System that can be demonstrated will be considered. Tenderers shall specify the number of technical staff engaged in development and testing of the vending software as well as the support staff available after hand-over and whether a call centre is available.

###### **3.5 Guaranteed System Performance**

- 3.5.1. The successful Tenderer shall have the new system commissioned within three (3) months of the contract being awarded.





- 3.5.2. The Tenderer shall guarantee the systems' functional performance and any upgrades required to correct any system mal-operation, shall be for the Tenderer's account.
- 3.5.3. In the event of any latent defect (programming "bug") becoming evident after the guarantee period of 12 (twelve) months referred to in the "Form of Tender", the Tenderer shall be responsible for the immediate rectification of such defects at their own cost.

#### **4. VENDING SYSTEM COSTS**

- 4.1 The Municipality's preferred method of payment for the Vending System is a once off purchase fee for the software and an annual fee to cover the cost of license fees or any future upgrades, if any.
- 4.2 The Tenderer may, however, offer an alternative method of payment for the Vending System.
- 4.3 The Tenderer shall specify his support costs per hour after final commissioning and handover. Service level agreement must be included.
- 4.4 The Tenderer shall separately identify the individual functional modules included in the total cost, such as:
  - 4.4.1. Vending System Software
  - 4.4.2. Upgrade / replacement of existing on-line vending machines
  - 4.4.3. Database, operating system, workstation and POS license (if applicable)
  - 4.4.4. Additional Hard requirements (if applicable)
  - 4.4.5. DB4 interface Data migration
  - 4.4.6. Complete system and interface testing
  - 4.4.7. Training costs
  - 4.4.8. As well as additional options, to enable a fair comparison of tenders offered to be made.

#### **5. EXISTING VENDING INFRASTRUCTURE**

- 5.1 The active Vending System shall be hosted in Hermanus Administration Offices.
- 5.2 The back-up Vending System shall be hosted off site, preferably at supplier.
- 5.3 The Tenderer shall familiarise himself with the operation of the existing Vending Systems (hardware, software and data) currently serving the prepayment meter customers in the Municipal area and take this infrastructure into account in the proposed vending solution offered.
- 5.4 The existing on-line vendors (approximately 25) which are managed by the Municipality connect to the existing Vending Systems via X25 networks using GPRS and the internet, shall remain operational during the installation and commissioning of the new Vending System.
- 5.5 The Vending System must be able to vend to all meters installed in the Municipality service area including the following meters:
  - 5.5.1. All STS meters
  - 5.5.2. Plessey propriety – both secure number and PTS types
- 5.6 The Municipality shall be indemnified against any patent infringements including any damages awarded, attorneys' costs and the cost of replacing the Vending Systems

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should patent infringements be awarded against the Municipality due to the successful Tenderer's Vending System.

## 6. INTEGRATION

- 6.1 The Municipality uses the SAMRAS DB4 Financial System. The Vending System offered must be made to interface with applicable DB4 modules, *inter alia* customer database, billing system, etc. (See ANNEXURE "C")
- 6.2 The Vending System shall have an Application Programme Interface (API) to allow third parties to access the system securely for integration purposes.
- 6.3 It is envisaged that a Geographical Information System will be linked/incorporated into the Vending system in the future. The proposal should describe how the solution would cater for such GIS integration.

## 7. TECHNOLOGY AND PLATFORM

### 7.1 Database

- 7.1.1. The system must operate on secure enterprise relational database technology.
- 7.1.2. The relational database management system and the system related application must operate on any platform to ensure future enterprise scalability, security and flexibility.
- 7.1.3. The design of the database shall be such that it conforms to the following Relational Database Management System (RDBMS) rules:
  - 7.1.3.1. All information shall be represented only in tables.
  - 7.1.3.2. Each atomic value must only be accessible by combination of table name, primary key and column name.
  - 7.1.3.3. All Nulls must be systematic treated within the RDBMS.
  - 7.1.3.4. An on-line data catalogue must be maintained by the RDBMS.
  - 7.1.3.5. A comprehensive data sub-language must exist, supplementing standard SQL.
  - 7.1.3.6. High-level *Insert, Update and Delete* functionality must exist within the RDBMS.
  - 7.1.3.7. Both physical and logical data independence must be maintained by the RDBMS
  - 7.1.3.8. A low-level language shall not subvert or bypass the RDBMS high-level language.
- 7.1.4 The database shall allow concurrent users to access data on a central database from various online terminals.
- 7.1.5 To ensure data integrity, audit-ability and data completeness the RDBMS shall allow for automated triggers to be set on any database field, prompting for a function to be executed.
- 7.1.6 The database shall allow for multi-version consistency. The requirement is that "readers do not block writers and writers do not block readers".
- 7.1.7 The database shall not allow the escalation of row locks to page level locks when too many rows on a page are locked.
- 7.1.8 The database shall allow the following:
  - 7.1.8.1 Control of sorting.
  - 7.1.8.2 Control over SQL caching.

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7.1.8.3 Control over storage/space

7.1.8.4 Range partitioning

7.1.9 The database shall support a JAVA database engine, enabling future application integration.

7.1.10 To negate any significant system overhead, especially in consideration of the diverging business rules for prepayment and associated debt collection Stored Procedures must be precompiled before executed.

7.1.11 The database shall allow the reading of, and writing to, external files via Stored Procedures, ensuring ease of system integration.

7.1.12 Tenders shall supply independent, documented proof to substantiate conformance to these aspects.

## 7.2 Reports

7.2.1 The database shall be accessible via standard SQL-based report writing tools such as *Cognos Impromptu* or *Crystal Reports*.

7.2.2 Item 8.5 list examples of standard reports shall be available on the Vending system.

7.2.3 It shall be possible to search the audit log under various parameters to easily locate details of changes written to the system databases.

7.2.4 The databases shall **not** be encrypted as the design of customized reports is essential. A layout of the table structures shall be provided.

## 7.3 Operating System

7.3.1 The application middle-tier and back-end must be certified to run on any one of the following platforms Windows or Linux.

7.3.2 The database must be certified to run on any one of the following platforms Windows® or Linux.

7.3.3 All system functions shall be accessed via a user-friendly Graphical User Interface.

## 7.4 Hardware

7.4.1 The Tenderer shall familiarise himself with the existing Vending Systems hardware utilised and take this infrastructure into account in the proposed vending solution offered. Annexure "E" lists the equipment specifications of the existing Vending System.

7.4.2 The vending system shall operate on a standard, readily available, PC-based machine with no special modifications required to any parts.

7.4.3 The Tenderer shall supply a standard STS security module solution operating with a 16-bit PCI-based PC motherboard.

## 7.5 Data Model

7.5.1 The data model shall be capable of the following :

7.5.1.1 A *Point-of-Connection* shall be supported which is independent from a *Location*, *Meter*, *Erf* and/or *Consumer*.

7.5.1.2 The tariff shall not be connected to a *Meter* or a *Consumer*, but shall rest with the *Point-of-Connection*.

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- 7.5.1.3 Multiple different Meter Types may be connected to the same *Point-of-Connection*.
- 7.5.1.4 The data model shall allow for the definition of hierarchical *Nodes* in order to simulate a distribution network.
- 7.5.1.5 The data model shall allow for WGS-84 GPS coordinate definition with all locations. These include the location of the meter, point of supply, pole and/or transformer location.
- 7.5.1.6 The data model shall allow for the recording of individual Consumer agreements, with multiple agreements per Consumer per resource.
- 7.5.1.7 The data model shall accommodate, for enhanced management purposes, possible additional resources like water and/or gas.

## 7.6 Thin client GUI

- 7.6.1 The system shall allow for the use of thin client technology for the following business logic :
  - Customer Management
  - Meter Management
  - Reporting
- 7.6.2 The business logic must in particular include, often used functionality that will allow end-users to view, update and query the system on-line without placing an excessive burden on bandwidth.

## 7.7 Security

- 7.7.1 Database security governing low- and high-level database access shall be via a proven technology and applied at both database and application level.
- 7.7.2 The system shall allow for the addition of an unlimited number of named operators.
- 7.7.3 Security shall be adjustable to allow for individualized access to any field within the database.
- 7.7.4 The system shall allow for smart card based SSL security to be implemented for on-line PoS.

## 7.8 Communication

- 7.8.1 Network communication shall include but not limited to the following:
  - Corporate LAN / WAN
  - Dial up modems
  - GPRS
  - Internet
  - Intranet
  - ISDN
  - Radio modems
  - Satellite
  - SMS (cell phone short message system)

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- Telephone
- X25 networks

- 7.8.2 In the event of the communication failing to both the main and the disaster recovery sites it shall be possible to vend to all meter types in an off-line mode from a selected number of off-line/on-line vending outlets. The system shall alert the vendor that the system is in the off-line mode. When this occurs the vendor must contact a systems administrator in order to obtain a unique code to allow the vendor to vend in an off-line mode. There shall be in-built security to report to the vending system when off-line vending has taken place, and these off-line sales shall be automatically uploaded on restoration of the on-line communications. In the event of a power failure while vending in the off-line mode and the transaction is incomplete it must be deleted from the transaction database and the shift database must **not** be updated.
- 7.8.3 All replication files shall have adequate data security and shall not be accessible via any unauthorized tools or ODBC links.
- 7.8.4 The complete database shall be automatically mirrored to the disaster recovery machine at intervals that is user configurable.
- 7.8.5 The system shall replicate *only changed information* in both directions with the ability to resend if required.
- 7.8.6 The replication engine shall be adjustable to allow for the replication of any information contained in the database, including transaction information, meter management information and security information.
- 7.8.7 The replication engine shall enable the replication of the complete database to a remote point for full system mirroring.

### 7.9 Online Vending

- 7.9.1 The system shall have the ability to work online via a scaleable message queuing mechanism.
- 7.9.2 All messages shall be via the self-defining, open document format (Archiving Rules) Vend specification protocol.
- 7.9.3 The online transaction processing infrastructure shall have unlimited scalability with hot-swappable redundancy.

### 7.10 Profile Engine

The system shall have an independent profiling application operating at central level that will allow the Municipality to dynamically (as the master database is updated) profile the database according to an unlimited number of views.

### 7.11 Transaction Switching

- 7.11.1 The system shall include as an additional option the capability to direct transaction requests from vending clients to different services databases.
- 7.11.2 The transaction switch shall include a billing system where different commissions for different services as well as vendors could be calculated.
- 7.11.3 The transaction switch shall include vendor credit management tool allowing upfront vendor to be managed.
- 7.11.4 The transactions switch shall either include, as an option, or be able to integrate to an electronic fund transfer (EFT) switch to facilitate credit card payments.

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- 7.11.5 The EFT option shall include a secure web site for selling services.
- 7.11.6 The transaction switch shall allow for various suppliers of mobile technology to integrate seamlessly to the transaction switch.
- 7.11.7 The transaction switch shall allow a SMS (GSM) based message to transact with the switch.

## 7.12 Power and module failures

The system shall be able to auto-restart after a power failure and shall report on individual component failures especially encryption cards and security modules. An alert shall be automatically sent to the support staff in the event of such failures via SMS and e-mail messaging.

## 8. OPERATION

### 8.1 Critical Performance Parameters

**Note:** All Tenderers will be required to demonstrate the following capability on demand:

- 8.1.1 The software and database shall be able to accommodate, with no special changes other than hardware scaling, more than 30 000 customers through 50 vendors generating a minimum of 50 000 transactions per month with no upper limit restrictions.
- 8.1.2 The software and database shall have **no limitation** on the number of named users and workstations it can accommodate.
- 8.1.3 The online system shall be scaleable to transact **30 requests per second**.
- 8.1.4 A standard vending operation shall be less than **20 seconds** from request to completion token printing or programming.
- 8.1.5 Thin client architecture shall require **less than 32kb/sec** to be functional over WAN.
- 8.1.6 The system shall be operational on a 24 x 7 x 365 basis

### 8.2 Languages & Currency

- 8.2.1 Standard language available on the system shall be English.
- 8.2.2 Standard currency available on the system shall be South African Rand/cents. The system shall allow for the configuration and adjustment of multipliers and decimal points.

### 8.3 Electricity Prepayment Vending

#### 8.3.1 Transactions

- 8.3.1.1 All transactions shall be atomic to such a nature that taxes, levies, standing charges, arrears and services are all created through individual rows in the database.
- 8.3.1.2 Any rounding errors of kWh beyond the first decimal shall be recorded in the database as separate transaction rows to ensure effective reconciliation.
- 8.3.1.3 Transaction reversals shall:
- be effected with full trace-ability of the reversal;
  - shall allow for a reason to be supplied;
  - shall be traceable to an operator; and

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- d. shall reverse an entire transaction batch consisting of taxes, levies, auxiliaries and resource amounts.

### 8.3.2. Vending Operations

- 8.3.2.1 The system shall be capable of vending on-line and offline to all prepayment meters (proprietary and STS) in the Municipality's area of electricity supply.
- 8.3.2.2 The system shall be capable of vending on-line and offline engineering tokens.
- 8.3.2.3 The system shall be capable of vending free electricity grants.
- 8.3.2.4 The system shall be capable of collecting arrears.
- 8.3.2.5 The system shall be certified by the STS association as being *Vending, Engineering and Key Change Management* compliant.
- 8.3.2.7 The system shall be capable of allowing transaction viewing, re-prints and reversals, without compromising the integrity of transactions and subject to appropriate security.
- 8.3.2.8 The system shall have ability to look up the localized:
  - a. transaction history,
  - b. free units,
  - c. replacement tokens,
  - d. engineering tokens, and
  - e. arrear payments of a relevant consumer subject to appropriate security.
- 8.3.2.9 The system shall have the ability to calculate and display cash change to the vendor.

### 8.3.3. Vending Management

- 8.3.3.1 The system shall allow for the definition of independent banking batches, sales batches and shift batches to accommodate various levels of operators.
- 8.3.3.2 The system shall allow for the automated or manual sign-off of banking batches from a central point. Sign-off shall be registered on the system with any over- or under-banking achieved.
- 8.3.3.3 The system shall allow for both upfront and deposit-based credit management mechanisms. In the case of upfront vending, vendors shall have pre-defined, replenishable credit limits limiting the exposure at certain outlets. The option shall exist to update credit limits automatically or manually.
- 8.3.3.4 Tokens and receipts shall be contained in customizable templates that shall be customized at will by the Municipality. The default templates shall also be kept on the system.
- 8.3.3.5 See Annexure "F" for an example detailing information to be reflected on the printed token.
- 8.3.3.6 It shall be possible to print a message on the token of at least 400 characters, which can be customer specific, or a general message to all customers.
- 8.3.3.7 It shall be possible to automatically print a message on the token advising the customer of any problems, (e.g. an RD cheque, outstanding or insufficient funds tendered).

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#### **8.3.4. Arrears**

- 8.3.4.1. The system shall have the ability to collect multiple categories of arrears from the consumer by leveraging the prepayment transaction according to a unique formula for each consumer.
- 8.3.4.2. A consumer's unique collection profile shall be automatically updated by the system based on historic payments made.
- 8.3.4.3. All credit control shall be carried out in DB4, however the vending system must be capable of overwriting the amount.
- 8.3.4.4. DB4 sends the following details to the Vending System:
- a. The amount to be recovered.
  - b. A variable percentage recovery.
  - c. The DB4 prepaid contract account number.
  - d. The prepayment meter number
- 8.3.4.5. The Vending System sends the following details to DB4:
- a. All arrear payments received from the customers: variable percentage.
  - b. DB4 prepaid contract account number
  - c. The prepayment meter number.

#### **8.3.5. Tariffs**

- 8.3.5.1 The system shall accommodate step tariffs, with an unlimited number of kWh-based steps.
- 8.3.5.2 Unique tax and fixed charges profiles shall be definable for each tariff block.
- 8.3.5.3 Tax and fixed charge blocks independent from step tariff blocks shall be definable according to monthly monetary value transacted, or kWh bought.
- 8.3.5.4 The Vending system shall have automated activation dates for tariff changes.
- 8.3.5.5 The Vending system shall allow the Municipality to change their reconciliation and tariff rules, irrespective of the system's functionality and operation the transactions shall be reconciled by an independent reconciliation application operating at central level.

#### **8.3.6. Payment System**

- 8.3.6.1 The vending system shall be capable of supporting the following:
- a. vending clients:
    - Windows PC
    - Hand held device
    - Cell phone vending
    - Web based vending
  - b. Engineering clients
    - Windows PC
    - Web based
    - PDA

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- c. In addition to conventional payment methods, the system should support a voucher payment mechanism in the on-line mode of operation.
- The system should be able to either generate or import voucher numbers.
  - Where the system generates its own vouchers, customizable vouchers should be printed with unique voucher numbers.
  - The system should be able to reserve and expire vouchers as and when it is redeemed for resources.

8.3.6.2 The type of transaction at the vending outlet shall be recorded as follows:

- a. Cash/cheque - shall be captured manually by keystroke.
- b. Credit/debit card – shall be recorded by either swiping the credit /debit card through the vending system card reader, flagging the transaction as both a credit/debit card sale and record the banking institution or capture details manually.

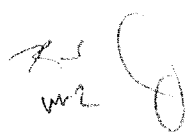
#### 8.4. Vendor Management

8.4.1 The tenderer shall be responsible for the following:

- 8.4.1.1 Setting up guidelines for appointing and contracting the vendors and compiling an agreement / contract pricing. The guidelines and agreement to be approved by the municipality.
- 8.4.1.2 Advertising and information meetings with prospective vendors.
- 8.4.1.3 Appointment of vendors and signing of contracts. The Municipality will determine the quantity of vendors per location as required.
- 8.4.1.4 Providing all the necessary hardware, software and communications equipment needed for the vendor to operate.
- 8.4.1.5 Providing training as and when necessary for the vendor or his appointed operators in order to operate the equipment and relevant software.
- 8.4.1.6 Providing the necessary consumables, e.g. paper, printer cartridges, etc.
- 8.4.1.7 Providing the routing, preventative and necessary maintenance, repair and servicing as is required to maintain the equipment.
- 8.4.1.8 Collection of all revenue from the vendors if required.
- 8.4.1.9 Insurance against revenue loss.
- 8.4.1.10 Providing the necessary security measures for collecting the revenue if required.
- 8.4.1.11 To reconcile the revenue received from the vendors on a daily basis and provide the necessary credit to the vendor to continue vending.
- 8.4.1.12 Payment of any vendor commissions owed.
- 8.4.1.13 Payment of revenue received (Prepaid & Auxiliary separately) directly in municipality's account at predetermined times together with a reconciliation of said revenue.
- 8.4.1.14 Providing daily, weekly and monthly reports as required by the municipality.
- 8.4.1.15 Provide audit reports if required.

8.4.2 Support Services

8.4.2.1 The tenderer shall be responsible for the following:



- 8.4.2.1.1 Provide the office space to house the staff.
- 8.4.2.1.2 Provide a 24 x 7 x 365 support service for vendors.

## 8.5 Meter Management

- 8.5.1 To assist with meter management, the system shall have the ability to record, in a free-form field, a meter status.
- 8.5.2 All meter management processes shall be performed via a user-friendly, iconic graphical user interface depicting a certain task. The minimum number of pre-defined meter management tasks shall be:
  - a. Receive a meter from a supplier
  - b. Send a meter to a supplier for repair
  - c. Scrap a meter
  - d. Install a meter
  - e. Remove a meter
  - f. Change a meters status
  - g. Update a meters status
  - h. Create a location
  - i. Update a locations details
  - j. Link a consumer with a location / meter
- 8.5.3 Meter management processes shall automatically change the modes of operations associated with a meter.
- 8.5.4 Changes to an active meter linked to a location shall not be possible without selecting a pre-defined task and performing the steps indicated.
- 8.5.5 The system shall be customizable in real time and in such a way that processes could be adapted to the utility's unique process flows and needs.
- 8.5.6 The system shall allow the definition of an unlimited number of meter locations that could be associated with the real-time customizable meter management processes.

## 8.6 Reporting and Information

Provision shall be made for a report generating system for reporting, viewing and printing on *inter alia*:

- Energy sales per meter
- Energy sales per POC (point of connection)
- Energy sales per customer
- Electricity purchased by cash, cheque, credit card, debit card, electronic fund transfer
- Financial statistics relating to individual transactions
- Total sales per vendor (point-of-sale) in a date range
- All transactions for a shift per vendor (point-of-sale)

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- Shift details per vendor (point-of-sale) in a date range
- Refunds given
- Free units issued
- Energy sales as per POC (point of connection )
- Number of customers purchasing less than a selectable number of kWh per month
- Value of service charges per tariff
- Recovery of arrears
- Debt statistics:
  - Outstanding debt balance
  - Loaded debt
  - Collected debt total/vendor
  - Manually cleared debt
  - Debt loadings report
  - Block meters with outstanding debt
- Emergency off-line sales report
- Number of active customers per town
- History of all customers per POC (point of connection)
- History of all meters at a POC (point of connection)
- Movement history per meter
- Movement history per customer
- Track low purchase history
- Meter changes
- Electricity purchased per Suburb
- Total meters installed per Suburb
- List of customers selected by street name or a portion of the address
- List of disconnected meters by disconnected reasons in a date range
- List of disconnected meters by town
- List of disconnected meters by POC (point of connection)
- Blocked meters on system
- Statistics of installed meters filtered by date range, connected type, district, etc.
- Available sequence number report
- Engineering tokens report
- Point of sale credit updates
- User audit trace
- Deleted transaction reports.
- Vendors per district

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The databases shall **not** be encrypted as the design of customized reports is essential.

### **8.7 Workflow Management**

- 8.7.1 The system shall allow for configurable processes in order to map the working environment of the Municipality.
- 8.7.2 It shall be possible to configure processes in all aspects of the system, including tariff configuration, transaction, arrear and revenue management, meter management, customer management.

### **9. DB4 AND VENDING SYSTEM INTERFACES (Refer to Annexure "A")**

- 9.1 It shall be the responsibility of the successful Tenderer to liaise with the suppliers of the DB4 system to ensure system compatibility and to finalise the detailed design of the interfaces after the contract has been awarded. (See Annexure "D").
- 9.2 The following are the minimum interfaces that will be required to provide functionality between DB4 and the Vending System:
  - 9.2.1 An arrears balance / credits outbound file from DB4 to the Vending System. Before downloading balances to the Vending System, all balances must be zeroed on Vending System.
  - 9.2.2 An arrears payments / refunds inbound file from Vending System to DB4 for arrears collected and refunds given.
  - 9.2.3 An outbound file from DB4 to the Vending System for customer data for all new connections and retrofits (credit meters replaced with prepayment meters).
  - 9.2.4 An outbound file from DB4 to the Vending System for customer data changes of all customer movements.
  - 9.2.5 An inbound file from the Vending System to DB4 for all meter changes carried out.
  - 9.2.6 An outbound file from DB4 to the Vending System for all prepayment meters movements.
  - 9.2.7 An inbound file from the Vending System to DB4 for all Vendor sales.
  - 9.2.8 An inbound file from the Vending System to DB4 for all Super Vendor sales where the "Super" vendor's sales have been consolidated in the Vending System.
  - 9.2.9 An inbound file from the Vending System to DB4 detailing all credit card sales per vendor and "Super" vendor.
  - 9.2.10 An inbound file from the Vending System to DB4 for sales transactions that has been deleted.
  - 9.2.11 In the interfaces listed above only the data that has changed must be transferred between the Vending System from DB4.

### **10. SYSTEM TESTING**

- 10.1 The test procedure to be followed during the testing of the Vending System must be submitted with the tender
- 10.2 The system including interfaces with DB4 and the "Super" vendors shall be tested thoroughly together with the successful Tenderer and the personnel from the Municipality before final handover.

## **11. MIGRATION OF DATA AND COMMISSIONING OF NEW SYSTEM**

- 11.1** The successful Tenderer shall be responsible for migrating all existing data from the existing Vending Systems operating in the Municipality to the new Vending System.
- 11.2** A project plan showing the proposed stages for the commissioning of the new Vending System shall be provided as part of the tender documents.
- 11.3** The Tenderer shall specify his full commissioning schedule from the setting up to the final handover of the Vending System.
- 11.4** It is accepted that the new DB4 interfaces will have been fully tested and approved before the commissioning.

## **12. TRAINING**

- 12.1** The scope and cost of the training for the staff of the Municipality shall form part of the tender.
- 12.2** A full training schedule indicating what type and level of training shall be provided.
- 12.3** The Municipality's staff must be fully trained and proficient before the system is finally handed-over.
- 12.4** The training shall include, but not limited to:
- Full system administration
  - Database administration
  - Report writing tools
  - Data mining tools

## **13. BRIEFING SESSION**

Due to the nature of the work involved, it is compulsory that all prospective Tenderers attend the Briefing Session which will be held on 9 April 2009 at the Harmony House Magnolia street, Overstrand Municipality, Hermanus

## **14. ALTERNATIVE VENDING OPTIONS**

- 14.1.** The system should as a minimum, cater for:
- 14.1.1. Voucher-based vending using pre-printed vouchers and SMS and call centre validation (including call centre redemption software).
- 14.1.2. Mobile PoS vending via handheld vending devices operation on GPRS / GSM.
- 14.1.3. Cell phone vending for mobile vending agents using standard cell phones to sell electricity.
- 14.1.4. Internet Web Site vending. This includes the design and application for an Overstrand Municipality branded website for Internet vending. Payment mechanism on the web sit must cater for: credit/debit cards and vouchers.
- 14.1.5. Connection interface for third-party vendors and services compliant to ISO 8583. This should be a separate, dedicated switching application.

## **15. MOBILE ENGINEERING CLIENT**

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15.1. The system shall support and interface for 3 online, GPRS-based mobile meter engineering applications (Hermanus, Kleinmond & Gansbaai). The application will be as a minimum be used to perform key change tokens, clear tamper tokens, clear credit tokens and replacement credit. Access to the mobile management client application shall be user access controlled via the central management server. All tokens shall be generated centrally on the server, only for meter existing on the server.

**16. MANAGEMENT OF VENDORS BY SUPPLIER**

- 16.1. Stipulate criteria to determine placement of Vendors.
- 16.2. Stipulate commission to be paid to Vendors.
- 16.3. Method of payment, credit or up front.
- 16.4. Criteria for appointment of Vendors.
- 16.5. The commercial arrangement will be as follows:
  - 16.5.1. % on turnover through each vendor terminal managed by supplier.
  - 16.5.2. Turnover through web.
  - 16.5.3. Credit card cost.
  - 16.5.4. Contract extension for a minimum of 3 years.
  - 16.5.5. Other costs.

**17. SYSTEM OVERVIEW**

**17.1. INTRODUCTION**

- 17.1.1. This Project Specification outlines the requirements for the supply and commissioning of a pre-paid electricity system for the Overstrand Municipality.
- 17.1.2. This revenue management will consist of the following subsections:
  - a. Existing Pre-payment Vending System:
    - i. Single phase meters;
    - ii. Three phase meters.
  - b. Using Credit Vending System:
    - i. Single phase meters;
    - ii. Three phase meters;
    - iii. Three phase meters (energy and maximum demand);
    - iv. Existing Time of Use Meters.

**17.2. EXISTING OVERSTRAND SYSTEM**

**17.2.1. SAMRAS SYSTEM**

The Samras System consists *inter alia* of the following sub-systems:

SAMRAS	
INCOME	EXPENDITURE

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Consolidated billing Receipting Debtors	General ledger Cash Book Stores Creditors
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#### 17.2.1.1. SAMRAS Debtors

The SAMRAS Debtors system is designed to control all Debtors relating to Government, both Local, and Regional, Development Corporations and certain specialised industries.

The Debtors system contains many types of Debtors along with the related charge structures as follows:

- Municipal Rates and Service Charges
- Water & Electricity metered Charges
- Sundry Charges
- Rentals
- Loans (including subsidisation)

Each Debtor call have any combination of the above, separated by different user defined balance types. Up to 9 different types are catered for enabling one Debtor to have for example, water, electricity, rates, loan, sundry debits and service charges all separated within the debtor, providing a consolidated account.

Debtors can also be categorised to provide outstanding balances and statistical information in breakdowns of tariffs, departments (or branches) consumer types and zoning.

A full transaction history of all transactions is attached to each Debtor and available to the user via enquiry screens and Reports.

Loans are stored separately to outstanding arrears, allowing the user to see complete interest and redemption on a Debtor's loan, and separately, to see a full age analysis of outstanding instalments. This separation allows the user to charge a separate penalty interest on arrears instalments, if interest is not charged on the interest on the loan.

Interfaces between Consolidated Billing and other SAMRAS modules include:

- o General Ledger Interface:  
All financial transactions that occur in the Consolidated Billing module can be transferred to the relevant General Ledger accounts.

#### 17.2.1.2. SAMRAS General Ledger

The General Ledger is the core of the SAMRAS Accounting System. All Sub Ledgers tie into the General Ledger in some way or other.

The General Ledger is a combination of both Income and Expenditure and the Balance Sheet. Every posting done to the Ledger has to be done to a Ledger account.

These accounts are generally set-up at the beginning but more accounts can be added at a later stage when required. It is however, dangerous to either delete an existing account or change the characteristics of an account once postings to that account have taken place as this could cause the Ledger to go out of balance.

The General Ledger is a balanced Ledger and at all times the total Credits will equal the total Debits, requiring each posting to have a contra posting.

Each Ledger Account will store the balances for each month within each financial year. Throughout the Ledger, every balance is associated with a Financial Period. This is always in the format YYYYMM. The financial period, for instance, for February 1998 will be 199802. Each balance will have attached to it a full history of all transactions making up that balance. This enables the user to break down the Ledger into 3 different types of balances, namely:

- Account balances for the year
- Account balances for each month
- Individual Financial Transactions per Account/period.

The Ledger operates using the abovementioned Financial Periods, giving the user the option to determine the range of financial periods to which postings are allowed. SAMRAS uses the terms PERIOD CLOSE and PERIOD END. These determine the range between which posting can be done. Once a PERIOD is CLOSED, no postings can be done to that PERIOD or prior to that period. This then protects Ledger data that has already been audited and approved. PERIOD END determines which was the last month ended. This opens up a new month to which postings can be done. PERIOD END is usually done on the last day of each month. This allows postings to be done to the next FINANCIAL PERIOD. Journals can still be posted to a period that has been ended. Enquiries and reports however, can be done on ANY financial period whether CLOSED or not.

The Ledger Account number itself is a structure of the Ledger and the determining of the Account structure is vital before any Ledger Accounts are created. Each account is assigned to a VOTE (Department), a SUB VOTE (Sub Department) and an ITEM. Consequently, an account that will fall into Vote 1, Sub Vote 2, will begin with 1-02. The item for the account is the last digits, and all item numbers should be the same throughout different votes. If we need an account for Salaries in Vote 1, Sub Vote 2, the Ledger Account will be of the format 1 02 00 1. If a new account is needed for Salaries Vote 2, Sub Vote 2, then the account should be of the format 2 02 00 1. The item therefore, will remain constant throughout the Ledger irrespective of Vote and Sub Vote under which it falls.

Ledger Accounts can be broken down further with the use of CATEGORIES and SUB CATEGORIES. These will provide extra detailed totals on reports such as Budget Comparison Report and Balance Sheet.

Once the Ledger Accounts have been set up, budgets can be allocated to the individual accounts. This will then give accurate Budget Comparisons for the accounts, votes and sub votes.

The majority of the postings to the Ledger will come from the various Sub Ledgers in use by the organisation such as Debtors, Cash Book, Loan Register, Creditors, etc. Corrections do sometimes need to be made and these can be done within the Ledger, especially for the purpose of Take-on balances.

#### 17.2.1.3. SAMRAS Stores Module

The SAMRAS Stores Module provides the user with up-to-date information on the position of their stores. It provides the user with details on the actual stockholding and value of each store.

Interfaces to other modules.

Stores – General Ledger Interface:

If the Stores – General Ledger Interface option is set to "Yes" in the Company file, the Store system will create batches to be updated on the GL. These batches are then outputted to the GL via the "isc042.p" program.





This interface also controls the updating of the Vehicle Costing and Creditors Modules where necessary.

**17.2.2. NETWORK SERVER (FINANCIAL SERVER)**

The program on the network server is LINUX Red Hat or Fedora latest Core

**17.2.3. MINIMUM SPEC FOR VENDING SERVER – OVERSTRAND MUNICIPALITY**

DELL RACKMOUNT U2 / U4

QUAD CORE PROCESSOR LATEST

8 / 16 GB MEMORY

RAID 5 CONTROLLER

3 / 4 450 GB SCSI DRIVES

2 X REDUNDANT POWER SUPPLIES

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ANNEXURE F

### SAMPLE OF A PREPAID VENDOR TOKEN

#### OVERSTRAND MUNICIPALITY

Token Number : XXXXXX  
VAT Invoice : POS ID/Meter Number/XXXXXX  
VAT Reg No: 4180101877

Name: SOAP J.  
Meter: XXXXXXXXXXXX  
SGC: 000610 KRN: X TI : XX

DOMESTIC XXXX CONSUMPTION  
Date: DD/MM/YYYY Time: HH:MM:SS

Cost of Electricity per unit excl. VAT	XXXXX
Daily Service Charge excl. VAT	XXXXX
No. of units purchased	XXXXX units
No. of days since the last purchase	XXXXX days

Cost of electricity excl. VAT	XXXXX
Daily Service Charge excl. VAT	<u>XXXXX</u>
Sub-Total	XXXXX
VAT	<u>XXXXX</u>
Total	XXXXX

Arrears Recovered	XXXXX
Grand Total	<u>XXXXX</u>
Less Rounding	XXXXX
Amount to pay	<u>XXXXX</u>
Amount Tendered	<u>XXXXX</u>
Change	<u>XXXXX</u>

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XXXX      XXXX

.....400 CHARACTER MESSAGE.....

#### DIRECTOR: ELECTRICITY SERVICES

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Seawalk  
Sandbaai  
HERMANUS  
7200