

Appendix A: Costing Breakdown

Vending Agency costing model

Vending Agents will be required to provide costing models according to the model below.

Please add pricing of your solution according to this model.

Revenue per annum	Commission	Units
Commission is paid on cents per kWh of turnover	Cents	kWh

Variable Costs and Maintenance Costs (per annum)	Cost (R'000)
Printers	
Inking system cartridge costs per unit	
Paper roll costs per roll	
Magnetic Tokens per box	
Annual hardware maintenance costs per unit	
Magnetic Card Reader	
Replacement hardware cost	
Magnetic Card Writers	
Replacement hardware cost	
Screen	
Replacement hardware cost	
CPU/main processing unit including memory hard drives and casing	
Replacement hardware cost	
Removable Security token	
Replacement hardware cost	
Operational Costs	
Cost of a technician callout	
Variable Costs per annum	

Please note the following Eskom Vending Commission Principles:

- Compensation is based on volumes sold translated into a cents per kWh (c/kWh),
- Commission is on a sliding scale starting from a standard base plus value adds,
- Compensate for dispensing magnetic card tokens (fixed fee per transaction),
- Compensate for rural outlet deployment (fixed incentive rate added to the revised base),
- Compensate for the energy component of FBE dispensing (Fixed fee per transaction),
- Compensate for cash handling risk and bank charges (included in the cost base),
- Compensate for 'conventional' arrear debt collection (based on a fixed % rate),
- Commission rate based on sales volumes in cents per kilowatts hour (c/kWh).

Appendix B: Receipt / Token Printing

At the completion of the following transactions a receipt or token shall be printed, if the transaction occurs on a Vending Client.

- Purchase credit token
- Issue Free Basic Electricity (FBE)
- Reprints
- Account payment
- Debt payment

The receipt shall be in accordance with the **Online Vending Receipt Formats** document.

This document also contains formats for electronic based receipts for terminals such as ATMs, SMS, USSD*, Internet*.

Appendix C: Deposit Mechanisms

Ensure that deposits into Eskom's bank account contain the correct bank account numbers and other details on the deposit slip.

The deposit slip is an optional use case that the vending agent can implement to print deposit slips containing all the correct information.

Additionally, there is a Vendor Statement Use Case that will show the vending agent the deposits in real time as well as the remaining credit.

Appendix D: Functional Application Demonstration Evaluation Criteria

1. Aim of the test

The aim of these tests is to check the extent to which client (NVA) functional application has implemented and complied with the full XMLVend specification.

2. Test Entry Criteria and Test Exit Criteria

a. Test Entry Criteria

This testing is depended upon the development done by the NVA in accordance with Eskom's requirements, the availability of the required hardware.

b. Test Exit Criteria

The following project stages must be signed off:-

- i. Test Cycle passed and accepted into contract negotiation stage and must be signed off by the Test Manager.
- ii. Test Cycle not passed and not accepted into contract negotiation stage and must be signed off by the Test Manager.

3. Suspension and Resumption Criteria

This will only take place when show-stopping defects are encountered for example:-

- Should the client server to be tested not be available by the test date
- XMLVend connection fails.
- The server is down.

4. Test Requirements

a. Hardware (Reference Client)

- i. Printer
- ii. Client terminal (PC / laptop / POS)
- iii. Client Server (PC)

b. Hardware (Reference Server)

- i. Reference Server (PC / Laptop)
- ii. Message Interceptor (PC / Laptop)

5. Use Case Test Scenarios

No	Use Case
	Confirm Customer Details
	Make Meter Card (Confirm Meter Details)
	Purchase Credit Token (11 & 13 digit MSNO)
	Purchase Credit Token (with over recovery)
	Purchase Credit Token (with fixed charges)
	Purchase Credit Token (with automatic FBE)
	Purchase Credit Token (with debt recovery and automatic FBE)
	Purchase Credit Token (with FBE, debt recovery and fixed charges)
	Purchase Credit Token (currency)
	FBE Token
	Meter Specific Engineering (engineering KCT)
	Pay Account (debt)
	Reprint Transactions
	Update Meter Key
	Meter Card Encoding
	Issue (Last Response)
	Customer Fault Report (Meter Device Faults)
	Customer Fault Report (Meter Faults)
	Customer Fault Report (Network Fault)

6. Security

XMLVend make use of SSL which is a secure socket layer that provides point-to-point security between a client and a server, connected over an insecure network. The security services offered by SSL include authentication of servers (always) and clients (optional) and message confidentiality and integrity (always).

7. Environment

The platform to be used is UAT environment, the connection for a client (NVA) and the server (OVS) is mandatory for the interceptor to listen to messages and logs the results. XMLVend make use of the interceptor to validate the messages from the client to the server. The testing is done in accordance to XMLVend which is a bridge between the client and the server.

8. Test Data (Customer data & Meter data)

Appendix E: Error messages

Guideline for recommended Client generated messages

The following error messages contain three parts. The first part is a general fault description. The second part is the actual message displayed to the vendor (explaining the actions they should perform to try and correct the issue). The third part is a further explanation of the scenario that causes the error.

This list is not complete but is only intended as a guideline to show typical error messages and what corrective measures must be indicated to the vendor.

Message Source	Fault Description	Message to Vendor	What it means
XML Vend Client	Timeout request timed out	Timeout - Retry when the service is available	The client application cannot reach the web services. The timeout might not be long enough especially the connection is slow
XML Vend Client	N/A	Please enter a meter serial number	Meter serial number required for operation
XML Vend Client	Invalid STS meter number check digit (This check is mandatory for all meter numbers that are entered manually)	Meter serial number invalid	The vendor has mis-typed, or otherwise entered and invalid STS meter serial number. The check digit does not match the calculated number check
XML Vend Client	Token technology not supported. (This check is mandatory for token creation) (Does not cancel any tokens that have been created already by the server)	This token type is not supported. Token can be re-printed if required, or encoded from the printed numbers on a separate encoder	The Client cannot produce this token type. The numeric token will still be available on the client and it can be used to produce a token on another device that support the token type. Normal credit tokens can also be re-printed on another device via XMLVend
XML Vend Client	invalid/ corrupt meter card used	Meter card data invalid	The meter card has an invalid tariff index, supply group, key revision, token tech, algorithm tech, BIN number etc.
XML Vend Client	N/A	Please swipe a blank magnetic token to write the transaction information <cancel>	The vendor is vending to a magnetic token (not EBSST). This message informs the user that he must swipe the magnetic token (no confirmation buttons must be required to clear the message - only swipe the card to confirm)
	<cancel>	The token can be re-printed if required, or encoded from the printed numbers on a separate encoder	
XML Vend Client	N/A	Please swipe a blank magnetic token to write the token information <cancel>	The vendor is producing a magnetic support, engineering or EBSST token. This message informs the user that he must swipe the magnetic token (no confirmation buttons must be required to clear the message - only swipe the card to confirm)

	<cancel>	The token must be requested again when required, or encoded from the printed numbers on a separate encoder	
XML Vend Client	Token request timed out	Timeout - Retry when the service is available	The client application cannot reach the web services. The timeout might not be long enough especially the connection is slow
XML Vend Client	A connection to the server could not be established	Please try again when the connection has been re-established	There is no internet connection available to the client application
XML Vend Client	The printer was not configured properly or is not connected.	The specified printer: X was not found Check cable connections and power	The client has not been configured with a printer or the printer has been disconnected.
XML Vend Client	The magnetic card encoder (or another external device) was not configured properly or is not connected.	The specified magnetic encoder was not found. Check cable connections (and power)	The client has not been configured with an encoder or the device has been disconnected.
XML Vend Protocol	The data supplied does not pass the XML Vend defined data validation	XXX is not valid for YYY	The XML Vend definition validation done at the client when a message is assembled, failed. There are several of these validations defined in the XML Vend specification. If they are not validated, the Server may produce unexpected results. The intention is therefore that the Client must perform these validations when an XML Vend message is assembled, and provide relevant error responses.
SSL	Could not establish an SSL Session with the server	The request failed with HTTP status 403: Forbidden.	(1) The smart card has been removed from the machine (2) The client's certificate could not located in the application directory (3) The client's certificate has not been installed properly on the machine (4) The client's certificate has been installed into the incorrect certificate store in Windows
SSL	The SSL handshake could not take place between the client and server	The underlying connection was closed: Could not establish secure channel for SSL/TLS	(1) The smart card rejected the pin entered by the user (2) The user pressed cancel when prompted for the smart pin (3) The certificate located on the client's machine is not a trusted certificate issued by the certificate authority

Appendix F: Technical Submission Evaluation Criteria

Number	RFP Section	Question
1	15.1.1	Which vending agency model to be tendered for?
2	15.2.1	Do you have an existing footprint
3	15.2.2	Quantity of terminals / POS currently in the field
4	15.2.5	What is the percentage of Rural terminals/POS (not in Cities or Metros) VS total terminals / POS
5	15.2.4	What are the Channels offered
		1. POS
		2. GPRS Web use
		3. http/ TCP/IP
		4. USSD
		5. ATM
		6. WAP
6	15.2.8.3	Is a second communication channel (ie POTS/GPRS) provided and installed to clients terminals / POS
7	15.2.7	Is credit token requested directly by customer via Cellphone at cost to customer
		- Pull SMS
		- USSD
8	15.2.7	What Settling or switching method are offered at POS
		- Airtime swop
		- Loyalty programs debit functionality
9	15.2.7	Will there be costs attributable to or recovered from customers on credit token vend
		- SMS or transaction costs maximum
		- Cash deposit fee
		- Credit card commission or switching %
10	15.2.7	What will be the costs attributable to or recovered from sub vendors at POS level on credit vend
		- SMS or transaction costs maximum
		- Cash deposit fee
		- Credit card commission or switching %

11	15.2.6	What are the initial Equipment setup costs per POS (average per Channel)
		- POS
		- GPRS Web use
		- http/ TCP/IP
		- Push SMS
		- Pull SMS
		- USSD
		- ATM
		- WAP
12	15.2.8.1	What are the minimum availability hours per day guaranteed per Channel
		- POS
		- GPRS Web use
		- http/ TCP/IP
		- Push SMS
		- Pull SMS
		- USSD
		- ATM
		- WAP
13	15.4.1	Can your system make use of the XMLVend as a communication protocol to handle XMLVEND requests and responses
14	15.2.8.2	Will you be able to provide a credit facility for Eskom Sales to a value of at least equal to 25% on previous month sales to all terminal / POS
15	15.3.2	Can you submit a vend request to XMLVEND Server using the identification method as Swipe card.
16	15.5.1	Can your system provide "agent out of credit" report
		- Can you provide a provincial report to indicate only the total Number of vendors able to vend with credit and the maximum simultaneous number of vendors out of credit in the time period. Eskom needs this for NRS 0047 reports
		- Can you provide the above report summarised for all localities. It is not required to include Metros and Cities in this report. (The town of the address fields used by your system would be acceptable)
17	15.5.3 & 15.5.4	Availability
		What contingency plans do you have to ensure vending services in a specific area are always available and what is the minimum level assured to Eskom?
		What penalty is imposed to merchants as a percentage if the actual vending performance is at the less than expected indicator % levels

18	16.3	Are additional support/facilities provided to the customer to contact the Eskom Contact centre at the terminal/client interface? Via:
		Telephone contact to Eskom Contact Centre at no cost to customer
		- Internet / E-mail at no cost to customer
		- SMS at no cost to customer
19	15.3.1	OVS use cases supported
		- Vend
		- Free Basic Electricity
		- Verify token
		- Pay Debt
		- Pay Account
		- Reprint transactions
20	15.3.1	Customer lookup on % of active terminals / POS using:
		- MSNO only
		- meter card track 2
		-
21	15.3.1	Meter Lookup on % of active terminals/ POS using:
		- MSNO
		- meter card track 2
		- All details
22	15.3.1	Engineering Tokens
		- Update Meter Key
		- Engineering Key Change
		- Amp limit
23	15.3.1	Trial Vend
24	15.3.1	Functionality Provided for credit vend request
		- Enter MSNO only (on database)
		- Enter all data (blind vend)
		- Swipe Card (blind vend)
		- Magnetic token support
		- Convert Numeric to mag token
		- Encode Meter Card
25	15.4.5	Can your system vend requests to XMLVEND Server for magnetic and numeric type of meters
26	15.4.2	Gzip Compression enabled for server to/from OVS (terminal can be on proprietary protocol)
27	15.6.2	Does your system support a secure socket layer communication channel

28	15.3.6	Ability to handle Customer Fault Report on clients/terminals
		Meter Device Problems
		- Serious Box damage
		- Fire / water damage
		- Meter dead
		- Keeps tripping
		- No trip
		- Display, lights, buttons
		- Tokens not working
		Meter data problems
		- New Installation
		- Meter Change Out
		- Converted from conventional

Tenderer's CIDB registration number:

Compiled by Martin Masoleng,

Signed: _____; Date: _____

Verified by: Brian Mokgele, National Value Chain Manager (Prepayment Operations)

Signed: _____; Date: _____

Approved by: Portia Papu, Senior Customers Service Manager (Prepayment Segment)

Signed: _____; Date: _____