**Shepway District Council**

Specification for the supply and maintenance of on-street parking ticket machines

**General**

Shepway District Council (“The Council”) wishes to purchase new on-street ticket machines required to enable the introduction of paid for parking within the proposed Central Folkestone Controlled Parking Zones.

The supplier must confirm that machines of type defined by this specification are capable of being supplied.

The Council requires that new machines have a working life of at least 10 years.

Current machines offer payment by coin only and the Council wishes to consider introducing machines that offer contactless payment.

The Council is keen that any new machines installed are designed with ease of use of the customer in mind. This should include DDA compliance as well as best practice in clarity of information and operation for all. Machines should also be capable of printing tickets in a clear and concise manner which is TMA 2004 compliant.

The Council also wishes to ensure that machines are safe, reliable and capable of being efficiently and economically serviced and maintained by the Council’s staff or appointed contractors.

Security of machines is always an issue and the Council is keen that machines demonstrate a high quality of security, especially with regard to access to cash stored and especially with regard to cashless payment details.

The contractor should be able to demonstrate that machines are capable of operating within typical environmental conditions likely to be encountered in the district particularly those associated with coastal saline etc. In addition the Council is especially keen to ensure that machines are sealed against water, dirt, dust or other material ingress. The Council must be re-assured that typical cold, wet, warm or humid weather will not give rise to machine malfunction.

The supplier is encouraged to demonstrate where the Pay and Display machines comply with British and/or European Standards on Pay and Display car park ticket machines. The issues that any standards cover must be set out in clear and understandable terms.

The Council is always keen to be referred to examples of the supplier’s machine installations in operation elsewhere, both of current specification and similar specification but in operation for some time.

Throughout this specification there are ‘essential’ and ‘desirable’ criteria listed. The supplier must demonstrate that the essential criteria can be me whereas desirable criteria may be met.

## 

## Type of machine - overview

***The machines to be supplied and installed must be capable of satisfying the following essential criteria:***

* Operating 24 hours a day, 7 days a week regardless of chargeable hours
* Receiving payment by:  
  A coins only

B coins + contactless card

* Having different tariffs for different days
* Having linear or fixed rate tariffs
* Having simple or multiple-rates of tariff throughout the day
* Printing and issuing a valid TMA 2004 compliant ticket for parking period purchased at the tariff paid
* Being mechanically and electronically reliable in all normal environmental and usage conditions
* Processing coin and cashless transactions without permitting fraud
* Customer friendly layout with regard to coin and cashless operation, as well as display of tariffs and information on how to use.
* DDA compliant in terms of customer access and operation
* Power supply via mains electric and/or solar powered battery.
* External cabinet and internal cashbox and operational components security to the highest possible standard to avoid physical attack/damage as well as fraud.
* Ability to store and communicate transactional information via hardcopy or wireless connectivity
* Ability to communicate faults or unauthorised use/access that is compromising the machine’s normal operation via visual display, audible sound or wireless connectivity
* Ease of access by approved persons to allow general maintenance and ability to remove cash, replenish tickets and programme tariffs or other parameters.

***The machines to be supplied and installed may be capable of satisfying the following desirable criteria:***

None stated

## Machine structure & mounting

***The following essential criteria must be met.***

The machine shall be either

* a single cabinet metal structure being anchored directly onto a ground anchoring kit
* a single cabinet metal structure mounted onto a ground embedded metal pedestal

The machine structure must be made of reinforced or stainless steel and should be of a minimum 2.5mm thickness. Suppliers must set out details of machine structure.

Preference shall be given to machines that occupy a minimum footprint. Supplier must provide footprint, height, width and depth dimensions but machines should not exceed height, width and depth dimensions (with solar panel) of 1800mm, 400mm and 300mm respectively.

The machine anchorage will be designed to resist horizontal impacts that could be caused by a motor vehicle colliding with the anchorage at 10 mph at a height range of 30-50cm. Any standards met should be specified.

The anchorage fixings with the ground will not be apparent or directly accessible so as to avoid illicit dismantling

* The machine & pedestal must be capable of being installed on a sloped surface up to 25°, i.e. 45% gradient, whilst maintaining DDA height guidelines.

The supplier must identify any clearances needed around the machines, for example, to enable maintenance or cashbox emptying.

The external finish of machines must be capable of withstanding normal daily usage for the operational life of the machines (i.e. 10 years).

As a minimum, the machines should be finished in a polyester powder coat paint finish. Black or charcoal paint finish must be available as standard and this should be included in prices quoted.

***The following desirable criteria must be met.***

Suppliers may suggest alternatives to polyester powder coat paint finish but must demonstrate how this performs as well and where it is in use elsewhere in similar circumstances.

The supplier should identify where other finishes are available to address specific issues (i.e. anti-graffiti paint). The supplier must clarify additional prices per finish per machine.

## Installation and commissioning

***The following essential criteria must be met.***

The supplier must provide detailed guidance on machine installation process. Care should be taken to ensure guidance covers level and gradient installation, height management, and process to make surface layer good. The supplier must provide full details of ground anchoring and fixing.

Machines must be delivered to the Council free of charge in line with an agreed delivery programme.

***The following desirable criteria may be met.***

None stated

## Internal composition of machines

***The following essential criteria must be met.***

To ensure maximum operational availability of the machines and to simplify maintenance operations, the machine must be constructed so that sub-assemblies consist of modules or components and are easily removable and can be changed without the requirement for major dismantling. The supplier should set out the details of internal machine composition using simple, clear overview diagrams of modules or components.

Dismantling and installation operations of interchangeable parts of the modules must be achieved using a minimum and non-specific set of tools.

Electrical connections between these parts/modules will always be via connectors. All first line serviceable parts (printer, coin acceptor etc), must be retained using clips and not screws.

***The following desirable criteria may be met.***

Parts and components of these modules or components must be fully interchangeable between machines for a given model of that machine.

## Machine Life expectancy and reliability

***The following essential criteria must be met.***

Machines (housings, supports and mechanisms) will be designed to have a minimum life of ten years of normal use without degradation of security or operating performance (for solar or mains powered machines).

The supplier must confirm that machines are supplied with a minimum of a 1 year warranty to cover parts and labour for normal use.

The supplier should specify typical minimum breakdown rates expressed in “number of breakdowns per machine per year” and under the following usage conditions:

* 200 transactions per day, 7 days a week
* Acceptance of payment in coins and by contactless card.
* Temperature and environmental conditions corresponding to the machine’s tested specifications.
* Use of approved consumables.
* Maintenance as recommended by the machine manufacturer.

The failure rate should be an average rate calculated over the entire customer installed base of machines, assuming a minimum number of 17 machines. The supplier should identify whether failure rates are based on operational experience or factory testing.

***The following desirable criteria may be met.***

The Council invites a warranty period of more than 1 year and suppliers are invited to demonstrate alternative warranty options.

## Environmental conditions

***The following essential criteria must be met.***

The Council expects the supplier to have tested the external and internal operation of machines against various extremes of environmental conditions. Details of environmental conditions machines have been tested against must be supplied by the supplier, including where British or European standards have been met or exceeded.

In summary the Council will expect all machines to be:

* water, dirt and dust proof with high quality and robust seals around openings.
* operational and resistant to external cold to temperatures at least -20 degrees Celsius
* operational and resistant to external heat to temperatures at least +50 degrees Celsius
* operational and resistant to 95% humidity at non condensing temperature of +50 degrees Celsius

Suppliers should identify standards of corrosion machines structures and finishes have been tested against. Typical corrosive elements must be assumed i.e. rain/snow, road/footway salt spray, dog urine. The supplier must state what anti corrosion protection is provided for the pedestal and ground fixings and state the life expectancy against corrosion.

***The following desirable criteria must be met.***

The supplier is invited to demonstrate additional environmental conditions machines have been tested against that ensure the continual operation of machines.

## Power supply

***The following essential criteria must be met.***

The power source option for machines should be solar supplied battery power

Suppliers must confirm whether this power type is possible using all potential payment and back office connectivity options by setting out typical transactions possible per machine per day as follows:

Typical transactions achievable per machine, per day

|  |  |  |
| --- | --- | --- |
| **Solar supplied battery power** | **No connectivity**  Actual or tested? | **With connectivity**  Actual or tested? |
| Coin only |  |  |
| Coin and contactless |  |  |

The supplier should provide the technical power source and operational need requirements of all machine configurations and must confirm that machines will be capable of processing transactions in line with the figures stated above as well as communicating alerts or servicing information both at the machine and to a back office system, where connectivity is provided.

The battery will be waterproof and will require no maintenance. The process of removal and replacement should meet health and safety guidelines.

### Solar supplied battery power

The supplier must clearly identify where site specific circumstances may affect the performance of solar powered machines (e.g. multi storey car parks, under tree cover).

The supplier must clearly identify whether there will be a need to manage solar powered machines between winter and summer months. Where a battery change is likely to be needed, the supplier must identify how often and how many spare batteries and chargers the Council will need to support up to 17 solar powered machines.

The supplier should confirm the anticipated life span of solar panels and solar powering equipment if they vary from the required 10 year life span of the machines in total. The Council expects solar panels to be robust and tested to the same standards as mains powered machines.

The supplier should confirm that solar panels are capable of being easily replaced and that they are readily available from the supplier and or sub-contractor.

## Electrical safety of machines

***The following essential criteria must be met.***

The supplier must demonstrate that all metallic sub-assemblies, which are accessible to the user, and all cabling is made, connected and operates to the highest possible British or European safety and quality standards.

The supplier must confirm that machines, in all respects, protect customers and operatives from contact with any harmful electric discharge.

The supplier should demonstrate that machines will not be adversely affected or put customers or operatives at risk from any other products of electric supply (e.g. electromagnetic discharge).

Where cashless transaction and wireless connectivity is operational, suppliers must demonstrate that neither safety nor security of either will be compromised by abnormal or loss of power supply issues.

***The following desirable criteria may be met.***

None stated

**Machine Operation**

**Customer interface**

***The following essential criteria must be met.***

The Council requires machines to have the highest quality of design of customer interface.

The machine shall meet the DDA and highest current standards for disabled access requirements/compliance. Suppliers must include their DDA compliance statements, or supporting information.

Customers must be able to clearly understand how to use machines by looking at a permanent information area on the machine containing instructions to understand:

* What tariffs are payable
* How to pay for tariffs by cash and contactless card option
* How to cancel payment
* How to receive a ticket purchased from the machines

The supplier must ensure that instructions for use and operation should be displayed on the machines.

The Council requires the display of instructions for use via permanent sticker/label.

Instructions on how to use the machine displayed on a sticker/label must be separate to information on tariff displayed on a sticker/label in order that any sticker/label changes on tariffs do not require a complete replacement of all instructions for use information.

Sticker/labels showing tariffs shall be easily replaced in the event of tariff changes. Any screen used to protect labels should be resistant to UV light.

Pictures, symbols, signs, pictograms, etc. are to be utilised so that the information to be conveyed is easily comprehensible, notably by non English speaking persons. The list of coins accepted by the machine for payment will be detailed.

All buttons used must be clearly labeled. Use of colour coding is considered helpful provided the colouring can comply with the intended life span of machines.

Buttons must be robust to withstand normal daily use and conditions. Buttons should be designed so as to minimize the opportunity for or effect of mis-use or physical abuse.

Under no circumstances should any single button be capable of being pressed that may result in the machine issuing tickets or returning coins that are not part of a completed or cancelled transaction.

The supplier should provide a diagrammatic representation of user interface for all available configurations. The supplier should demonstrate that machines comply with these configurations as standard.

Machines shall be supplied so as to provide the following interface elements for the customer:

* Slots for coins
* Contactless card reader
* Ticket exit and command buttons
* Coin return area for cancelled cash transactions
* A legible, visible clock for day and night indicating the time, 24 hours a day.
* An alphanumeric display to show payments and the time of parking expiry
* Instructions labels (showing operation of machine, coins accepted, ticket retrieval, cancellation of transaction)
* A red cancel button
* A green validate button.
* A button for instructions
* A button for incremental payments

The supplier is required to provide details of the size of any variable display screen and the size of characters it can display.

The Council will favour designs that provide the easiest to use customer interface and provide the most robust vandal resistant materials and operation.

In addition to the above, suppliers are invited to identify where other customer interface options are available and may be appropriate for use in Folkestone. Examples may be ‘max’ payment buttons or the ability to access alternative languages via an Information button.

***The following desirable criteria may be met.***

The supplier may provide machines that display information on machine use and tariffs available via variable display screen.

Where contacless payment is provided the supplier should ensure that information on how to use this payment method is provided and accords with the essential criteria set out above.

The supplier is invited to identify other customer interface proposals. The Council supports innovative approaches but the supplier must demonstrate where alternative methods of providing a customer interface adds clear value to the issues set out as essential requirements.

## Coin payment

***The following essential criteria must be met.***

The machine must accept Sterling coinage and no foreign coins should be acceptable in the machine.

The machine will be equipped with only one slot for coin entry protected by an integrated electronically operated shutter.

The electronically operated shutter will be designed so as to prevent the introduction of metallic objects of a different form to that of a coin (paper clip, wire, etc.) and of all non metallic object (matches, papers, plastic etc) into the coin slot.

All accepted coins must be capable of being stored in the machine in such a way as needing validation or cancellation of the transaction by the user before coins are accepted into the machine as payment. This process must allow coins to be returned if the transaction is cancelled.

The supplier must demonstrate the mechanical process for taking and receiving coins into the machine. The supplier is required to confirm the speed of coin validation and rejection.

The coin entry mechanism must permit:

* Entry of valid coins
* validation/cancellation of payment.
* Rejection of non-Sterling and/or Euros.
* Resistance attempts against fraud and blockage (deliberate or otherwise).
* Rejected coins and cancelled coin transactions via separate chute to the coin entry system.
* Simplified removal of jammed coins

The coin entry must allow the removal of other objects introduced in an attempt to render the machine inoperative.

In case of vandalism, the cleaning and the replacement of the coin entry must be easily achieved on site by the Council or its appointed contractor. The area to be cleaned shall be accessible by opening of the upper door of the machine. No tools should be required but where it is necessary to use tools the supplier must clearly state what tools are required and whether they are supplied with the machines.

Machines must be capable of being programmed to accept over-payment or rejection of coins where maximum time permissible is exceeded by coin payment. In addition coin payment should be capable of paying to extend into or be pre-paid for the following chargeable day if paid outside chargeable hours.

***The following desirable criteria may be met.***

The supplier is expected to keep under review non-Sterling or Euro coinage that may require amendments to the coin acceptance of machines. Confirmation of the system of review the supplier uses should be provided, including how the supplier would change machines to prevent use of unauthorized coins.

## Cashless payment

***The following essential criteria must be met.***

The machine shall be capable of accepting all standard UK valid contactless payment cards.

The supplier shall describe in detail how the contactless payment operates (i.e. selection of tariff then payment or other options). This must include how the machine acknowledges intention to pay by contactless card as well as validation or cancellation of payment.

The machine will be equipped with only one contactless card reader.

Contactless card readers must be easy to access and must not require customers to make contact with the machine with payment card.

Contactless payment process must permit:

* use of valid contactless card
* selection and validation/cancellation of required tariff
* cancellation of transaction without charging the customer
* automatic cancellation of tariffs selected for cashless payment but neither validated nor cancelled within a reasonable period of time.
* payment via cashless transaction in full and not part cash, part cashless.
* prevention of payment by cards other that those programmed to be accepted by the machine
* wireless connectivity to achieve bank card transaction payment.

The contactless card payment system shall meet in full the highest payment protection security standards. The supplier must clearly identify the card payment standards the machine complies with including evidence of current operation.

The supplier should specify the number of communication SIM cards that are required by the machine to support the connectivity for contactless card payment **and** for back office connectivity. Preference will be given to a machine that requires 1 SIM card to handle both functionalities.

***The following desirable criteria may be met.***

The supplier is invited to demonstrate added benefits of the use of smartcards or pre-payment cards and what standard of card would be compatible with machines and card readers supplied.

## Tariffs

***The following essential criteria must be met.***

Tariffs and other machine information and parameters should be capable of being programmed as follows:

* Manually at individual machines via physical connection to the machine or physical interface with an internal component
* Remotely via network or back office connectivity.
* Remotely via the supplier

The Supplier should clarify whether tariff programming is possible via the Council’s officers or via the supplier. If tariff programming is possible via the supplier, the cost per tariff change must be specified.

The machine must be capable of handling a minimum of 5 different tariff categories (e.g. short stay, long stay, resident, staff, other.)

The machine must be capable of handling different tariffs for different days of the week and different times of the day.

The machine must be capable of handling tariffs for 7 standard days with up to 24 hours chargeable time per day for 365 days.

The machine must be able to take into account Sundays, Bank Holidays and Special Periods during which different tariffs may be charged. e.g. seasonal or special event charging.

It must be possible to program Sunday, Bank Holiday and Special Periods using the same method as standard tariff programming in addition to periods already programmed during configuration.

It must be possible to program machines so that tariffs are set as zero and payment is not accepted by machines in any format.

Where tariff changes are likely to have to be carried out by the supplier, the likely cost and timescale for undertaking this work should be specified.

The supplier should specify whether a change of clock is required or is programmed into machines and, if required, how this is achieved. The Council’s preference is for individual machine change where no back office system is operational or via remotely via network if a back office system is operational.

***The following desirable criteria may be met.***

The machine should provide the capability to issue a free ticket for selected users or time periods.

Payment by contactless card option shall be capable of offering a ‘preferential’ rate. The card must act as the identifier and the payment method giving automatic access. It should be possible to program machines to accept a ‘preferential rate’ tariff.

The ‘preferential rate’ function will also allow the management of card validity date. A ‘back office’ system must be available, as an option, for the programming and issue of cards.

## Tickets

***The following essential criteria must be met.***

The machine will print tickets so as to display information that is Traffic Management Act 2004 compliant.

Machines shall be equipped with a thermal printer. The technology for printing must be demonstrated to be a proven method of printing, which will be distinct, legible and without smudge.

The following information is required on the ticket as a minimum:

* Purchase time, date and tariff paid
* Expiry date and time
* Unique reference number of individual transaction

Suppliers must identify the size range of characters that can be printed on tickets. Examples of printed tickets should be submitted by the supplier with tender responses. There should be no ambiguity in appearance of printed characters. Character sizes should be a minimum of 3mm (for uppercase lettering) and a maximum of 20mm.

The machine should be capable of printing dual or perforated stub tickets for a single transaction (i.e. to support payment rebate schemes).

The supplier should clearly state ticket dimensions capable of being printed and confirm that they are widely available for purchase from ticket suppliers. Ticket sizes should be within the range 50mm width to 130mm length.

Machines should be capable of holding a minimum of 3,000 tickets at any one time. The printer shall count the tickets in order to allow the Council to audit and plan for ticket supplies.

The machine shall have the capability to read special optical marks that show the end of the roll and the number of tickets left. This information indicates that the ticket stock needs to be replenished. Ticket replenishment indication shall be a programmable parameter.

The printer, as an integral part of the machine, should be capable of operating in the same normal and extreme environmental circumstances as those the machine is usually installed in and tested against.

***The following desirable criteria may be met.***

The printed ticket must remain legible after a permanent exposure to sunlight behind a windscreen for a minimum of 1 month.

It must be possible, if required, to obtain a receipt ticket by pressing a button prior to the transaction unless tickets themselves are able of containing sufficient information to be used as a receipt (i.e. VAT registration number).

**Security**

## Manual locks

***The following essential criteria must be met.***

Access to machines must only be possible for Council approved operative or contractor via a mechanical locking system.

Separate external access must be provided for access to the:

- Maintenance/operational compartment

- Cash collection compartment

**Mechanical locks**

As a minimum standard the supplier should offer manual locking systems for the machine. Each of the above accesses must be locked with a minimum of one lock.

Locks will be designed so that they prevent any inappropriate use of objects or any substances that could prevent the normal use of the lock. Covert protection covers with a hidden release shall protect the lock mechanism. Suppliers must detail the design of locking mechanisms to both compartments.

For the cash collection compartment the lock for access will have the following characteristics:

- High levels of security protection, which must be specified by the supplier.

- Anti-picking devices and anti-feeling, as well as resistance to the lock barrel being   
 drilled.

- The key will be cut from a profile not commercially available.

Different keys shall be used to access the technical parts of the machine and cash storage areas. The supplier should provide details of keys to be provided including spares.

***The following desirable criteria may be met.***

The supplier is invited to set out alternative machine locking mechanisms that clearly satisfy the essential criteria and add additional qualitative features.

## Cash storage

***The following essential criteria must be met.***

The accepted cash must be stored in a cash collection area which is separate to the main operational compartment of the machine.

Accepted cash must be stored within the cash collection area in a removable cash box, whose capacity should be clearly stated by the supplier. The capacity should be no less than 4.0 litres or 2,500 coins whichever is the smaller.

The machine must be capable of communicating that the cash storage area is approaching capacity and full. This communication must be capable of taking place via visual display facility on the actual machine or electronically via wireless connectivity.

The cash box alert threshold must have the capability of being modified on site or remotely via back office connectivity.

***The following desirable criteria may be met.***

The supplier must specify what action the machine takes when its cash box is full. The Council wishes to see machines that are able to display other payment options via variable display screen when the cash box is full.

## Cash collection

***The following essential criteria must be met.***

Two types of cash collection system can be proposed:

* Exchangeable cash box
* Cash transfer collection system

For exchangeable cash box systems, it shall be desirable to select a collection system that addresses nationally recognised manual handling procedures and health and safety concerns. Consideration should be given to the ergonomic design, given the optimum lifting position for a collection agent and the weight of cashbox being lifted during removal and replacement.

The supplier must identify what security design measures have been built into each coin collection method to avoid the loss or theft of coins during collection.

Each machine shall be provided with 2 cash boxes or 1 transfer canister

***The following desirable criteria may be met.***

The supplier may specify any alternative cash collection system that is capable of operating with the types of machines defined by this specification.

## Resistance to attacks - the mechanism

***The following essential criteria must be met.***

The mechanism will be designed in such a way that there is no access to the cash retained in the machine during maintenance or collection operations.

The ticket exit will be designed to resist blockage by foreign objects or substances.

Any keypad should be designed to resist damage to key operation by physical attack or use of substances. The variable display area shall be protected by toughened materials. The supplier should specify which materials have been used, tested standards achieved and examples of their effective use.

The supplier should state whether card readers can still operate despite being covered by a variety of commonly found materials or substances (e.g. stickers, chewing gum, paint, fluids)

The surface finish of the housing will allow removal of graffiti and other markings with approved cleaning products (without degradation of the surface, its colour or operation).

The machine housing should be capable of a level of resistance attack by power tools or other methods (e.g. oxy-acetylene torch). The supplier should demonstrate what tests have been undertaken to resist extreme attacks and what resistance times have been achieved.

***The following desirable criteria may be met.***

None stated

## Resistance to attacks - the cashbox

***The following essential criteria must be met.***

The cashbox will protect the cash, when attacked using readily available hand tools (hammers, chisels, screwdriver, pliers, etc.).

The resistance to attack under these circumstances and protection for access to the money has to be at least 20 minutes.

***The following desirable criteria may be met.***

It shall be desirable for the supplier to offer a machine with enhanced protection of cashbox vault areas (as an option). Protection being in the form of specially hardened materials, which are highly resistant to drilling attacks.

### Resistance to fraud

***The following essential criteria must be met.***

It must not be possible to trap or block the passage of coins from the coin entry or to divert cash at any time during coin entry, validation and transaction completion and the cash storage area.

This terminal will detect and have the potential to communicate all malfunctions of the coin entry, validation and acceptance process.

The supplier should set out the cashless and/or payment card industry security accreditation machines comply with.

It must not be possible to accept non-accredited contactless cards.

It must not be possible to identify individual cardholder’s bank or security details by way of any information displayed or printed other than any summary information printed on a requested receipt.

It must not be possible to divert any bank card payment details away from the normal process for contactless payment.

***The following desirable criteria may be met.***

None stated.

## Machine communication

***The following essential criteria must be met.***

The Council wishes to install machines with the highest level of communication. The supplier should demonstrate that the following issues can be detected and communicated by the machine:

* Machine out of order, including reason(s)
* Tickets low and depleted
* Battery low and exhausted
* Cash box nearly full and full
* Authorised entry of machines (e.g. cash collection, maintenance)
* Unauthorised entry of machine (to operation/maintenance compartment or cash vault or both)

The supplier should demonstrate how each of the above faults or issues are capable of being communicated via:

* Alert light or display on machine
* Audible alarm
* Via connectivity to back office

Where faults or issues are communicated via alert lights or display on the machine the supplier should clearly specify what form this takes and how visible lights or display are under dark and light conditions.

Suppliers should clearly identify types and colours of warning lights used and whether continuous or flashing lights are used for different errors or issues.

The machine will be supplied with a memory recording the coins collected and contactless transactions along with the number of tickets issued, without resetting to zero.

A backup battery must ensure the retention of this data for a minimum 10 days in case of a main power source supply failure.

The printing of collection details must be possible on request via a specific command without the incrementing of the collection serial number.

The machine should be capable of providing financial transaction details by way of connectivity with the back office. The supplier should provide costs for machines to be provided with equipment that allows the capture of and transmission of accounting, statistical and maintenance data via wireless network.

The collection of this data will be achieved by means of a modem connected to a centralisation system and without the need to open or require attendance at the machine.

***The following desirable criteria may be met.***

None stated.

## Back Office Connectivity

***The following essential criteria must be met.***

It shall be possible to network machines wirelessly to a central location in the Council’s back office. The supplier should confirm that this is the case.

The Council’s preference is for back office connectivity via GPRS in order to manage the machines and that this connectivity should be compatible with the Council’s existing car park management system.

The Council requires the ability to access financial data from machines via secure internet browser method. Information should be presented in easily understandable report format and should be capable of being configured to report ticket sales/revenue in respective tariff bands per machine.

The Council also requires wireless communication of machine alerts or issues as detailed elsewhere in this specification.

The supplier should clearly set out the costs associated with back office centralization to cover:

1. Hardware or equipment needed inside machines e.g. modem, SIM card(s)
2. Software or access to web based reporting (per machine per month or in total per annum)
3. Connectivity or networking fees (per machine per month or in total per annum)
4. Training and support to Council staff (one off cost)

Installation and system costs will be important criteria for the choice of a Back Office system.

***The following desirable criteria may be met.***

The supplier may identify alternative wireless connectivity options that do not use GPRS, having specific regard to compatibility with the Council’s existing back office system, ease of operation and quality of service.

**Maintenance**

***The following essential criteria must be met.***

The supplier must specify the length of warranty period for the machines supplied. The warranty period must be a minimum of 12 months (1 year) from date of installation or ‘go live’ whichever is the latter.

In addition the supplier should identify maintenance contract options for subsequent years of the 10 year life span after the warranty. Maintenance charges should be expressed as a cost per machine per annum or as a total annual charge.

The supplier must specify varying levels of service for responsive as well as routine maintenance.

The supplier must specify how maintenance agreements will address labour and parts.

***The following desirable criteria may be met.***

TBC

**Purchase of machines**

The supplier is invited to provide a purchase price for the machines required (see Appendix 1).

**Summary requirements**

|  |
| --- |
| **1. Common to all Machines ESSENTIAL** |
| * High security of external cabinet, cash box and cash/cashless transaction systems * Strong cabinet and fixing * Machine designed to withstand wide range of environmental and man made circumstances * Functional design to meet customer and maintenance needs * Coloured as required * Small, clear display * Accept payment by cash and contactless payment card (EMV Level 1 and Level 2 and PCI PED compliancy required for card payments) * Compatible with Mobile Telephone payment * Issue tickets * Provide a variety of operational alerts * DDA Compliant * Wireless connectivity offered (eg GPRS / 3G) * Solar Powered   Safety assured with regard to all power and operational requirements |
|  |
| **2. Potential extras DESIRABLE** |
| * Additional contactless payment options: * Smartcards (possibly based on a stored value format) * Enhanced connectivity options * Electronic Tariff Management * Central Management Suite * Advertising text or intelligent displays * Dual ticket issuing * Electronic locks * Enhanced security * Adhesive ticket stock * Audible alarm |
|  |

**Costs summary**

The supplier is invited to provide costs to supply, install and commission to ‘go live’ pay and display parking ticket machines to meet all of the essential criteria set out in this specification and as set out below:

|  |  |  |
| --- | --- | --- |
| **Table 1a**  **Machines (purchase)** | 17 machines  (per machine) | Spare battery (per battery to serve 17 machines) |
| Solar powered  Cash only  Back office connectivity |  |  |
| Solar powered  Cash and contactless  Back office connectivity |  |  |

The supplier is invited to provide annual maintenance costs for it’s ‘basic’ option per annum as well as up to two ‘enhanced’ options with summary details of all types of maintenance set out in the final column of table 2:

|  |  |  |
| --- | --- | --- |
| **Table 2**  **Maintenance** | 17 machines  (per annum) | Details of coverage |
| Annual maintenance cost (basic) |  |  |
| Annual maintenance cost (enhanced 1) |  |  |
| Annual maintenance cost (enhanced 2) |  |  |

The supplier is invited to provide annual connectivity costs to provide and maintain back office connectivity software and operations in Table 3 below to basic and up to 2 enhanced options. In addition the supplier is invited to itemise the cost of a one full tariff change download per annum:

|  |  |  |
| --- | --- | --- |
| **Table 3**  **Connectivity** | 17 machines  (per annum) | Details of coverage |
| Annual connectivity cost (basic) |  |  |
| As above but with annual tariff download |  |  |
| Annual connectivity cost (enhanced 1) |  |  |
| As above but with annual tariff download |  |  |
| Annual connectivity cost (enhanced 2) |  |  |
| As above but with annual tariff download |  |  |