



管理公司名稱 : 啟勝管理服務有限公司

投標者公司商號 : _____

公司註冊地址 : _____

電話號碼 : _____ 公司負責人姓名 : _____

傳真機號碼 : _____ 日期 : _____

招標邀請書

物業名稱 : 愛琴海岸

物業地址 : 屯門青山公路掃管笏段管青路 2 號

聯絡人仕 : 譚進東先生 / 楊阿平先生

電話號碼 : 2949 5111 / 2949 5333 傳真機號碼 : 2949 5222

工程內容 : Renting of Smart Bins for Food Waste Collection for Aegean Coast from 1/4/2024 to 30/9/2027 (both days are inclusive)

本公司乃上述物業之業主代表 / 經理人 / 管理代理人, 現誠意邀請 貴公司對上述工程進行投標。台端必須根據以下指示完成及交回此份標書。

甲部 - 投標條款

- 投標者須依照如下指示:
 - 填報『工程內容及指定規格』和『標書表格』內所有單價和總數、填報或核對其相關的尺寸 / 數量及填報 / 提供其他列明的資料 / 數據等, 另須遵守『投標條款』、『合約條款』、『普通規格』及『不合謀投標確認書』內之有關條款。
 - 所有標書之有關文件 / 圖則等須於 2024 年 1 月 22 日*上午 / 下午 5 時前交回。
 - 交回之標書及有關文件 / 圖則等須密封於函件內, 而函件外則須註明以下工程標題:
Renting of Smart Bins for Food Waste Collection for Aegean Coast from 1/4/2024 to 30/9/2027 (both days are inclusive)
 - 請將標書交回並置於 愛琴海岸 辦事處之「標書回收箱」內。
- 投標者有責任於落標前到施工現場進行探察及覆核標書和圖則所顯示之尺寸 / 數量 / 工作範圍等, 任何特殊的施工情況、限制及 / 或差異將被視為已被考慮及包括在所報的標價裡。
- 投標者需自行斟酌其報價已蓋括因附頁之『合約條款』、『普通規格』及人工 / 材料等所牽涉之價格調整。
- 除一般單價年約工程「Term Unit Rate Contract」外, 如未有填報價錢之項目將被視為已包括在其他已填報價錢之項目及 / 或總價目上。所有符合要求之標書, 最低價者將被接納。
- 投標者不得對此份標書進行任何更改, 否則該份標書有可能被拒絕採納。
- 如投標者放棄投標, 必須交回此標書或用書面回覆通知。
- 除另行指明外, 投標者承諾此份標書的報價在投標日期後 180 天內均屬有效 (包括但不限於投標者拒絕參與或並沒有參與有關的議標流程)。

此致投標公司負責人

公司代表 (吳貴芳)
物業管理人 (第一級) 牌照號碼: P1-500171



* 請將不適用者刪除

Renting of Smart Bins for Food Waste Collection from Residents in Housing Estates

[Specification of Smart Bins]

The smart bins provided by suppliers should at least meet the following requirements:

Essential Requirements of the Smart Bin(s)

1. Collection capacity

Each smart bin should have an enclosed compartment sufficient to accommodate a 120 L mobile waste container (“purple bin”) with dimensions specified as 550mm (L) × 480mm (W) × 940mm (H), conforming to European Standards (EN) 840-1:2012 or equivalent, accessible for disposal of food waste through a top opening lid. The purple bin should be secured yet easy to retrieve and replace.

2. Weight sensor

The smart bin should be able to detect the current weight of the purple bin with a resolution no coarser than 0.1 kg, with the minimum detection limit of 0.1kg.

3. Weight record of each instance of food waste disposal

The smart bin system should record the weight of each individual disposal of food waste, with additional identification such as user ID, time and location.

4. Fill-level sensor

The smart bin should be able to detect how much capacity remains in the purple bin, in order to provide early warning to the administrators and users. The full bin alert should be sent via SMS, mobile messaging applications, email or any other applications that provide instant messaging function. With this information, administrators can arrange for timely replacement of the purple bin, and users can know ahead of time which smart bins still have capacity.

5. Disinfection device / odour abatement system

To minimise nuisance and promote hygiene the smart bin should take active measures for odour abatement and disinfection.

6. Technology for user identification

The smart bin must support the GREEN\$ card and GREEN\$ Mobile App for user identification. The system should also be able to distinguish between GREEN\$ members of the participating residents and those of other users, thereby making it possible to limit access to the smart bin by residents only.

7. Electronic locking system

A top opening lid must be in place at all times to secure the purple bin to prevent unauthorised access and unchecked odour propagation, to be unlocked only after proper user identification (i.e. through GREEN\$ card or GREEN\$ Mobile App only).

8. Telecommunication

Usage data and control data (e.g. various machine status) should be transmitted through a data network (e.g. 3G/4G/5G mobile network and/or Wi-Fi and/or cable broadband) to the backend system for centralised storage and control.

9. Top opening infeed door

The infeed door or lid should open from the top, and there should be enough space for easy disposal of food waste. The top opening should be designed at a suitable height in order to be easily accessible.

10. Leakage proof design

The body of the smart bin should be water resistant or repellent, and should be designed to prevent leakage from overspilled food waste.

11. Enclosed design

The smart bin should provide full enclosure for the 120L purple bin. The purple bin should be replaced through an access door secured for authorised access only. The outer covering outlook design of smart bin should be designed, adopted, printed or wrapped with stickers based on "Recycling Fund RSB Project Design Specification"(Document could be downloaded from Recycling Fund website).

12. Fault sensing and notification

The smart bin system should be able to detect system faults and problems, for which instant notifications should be sent to the system administrators for proper handling.

13. Safety detection

Measures should be in place to ensure safe operation by the users (e.g. In-feed door should be equipped with anti-pinching function to prevent accidents).

14. Display panel

The smart bin should have some kind of display unit for dynamic information and user interaction. The information displayed should pertain to proper food waste recycling or to the operation of the smart bin; this should include the weight of the food waste just disposed of, points awarded this time, the remaining time until automatic closing of the lid (i.e. the time-out period), etc. Other essential information such as operating hours, service hotline, contact for technical support should also be included, if not already printed on the smart bin. No promotional messages should be displayed, unless with the consent of the Recycling Fund. The design of the user interface shall be designed and adopted based on "Recycling Fund RSB Project Design Specification"(Document could be downloaded from Recycling Fund website). The operation flow of the user interface should be provided.

15. Multi-language system

The smart bin must provide multi-language instructions, including traditional Chinese and English.

16. Data storage

The smart bin system should provide data storage for the records of the collected amount from individual users. Data in the storage should be kept for access by authorised personnel for up to 180 days.

17. Real-time communication

The smart bin system should be able to transmit quantity information, control information (e.g. availability, location and status) and alert signals with minimal delays to the backend system, for instant checking by the users or administrators. It shall be free from data/ information missing arising from any reasons such as network failure or disconnection.

18. Output channel

All transactions arising from the smart bin system shall be transferred to the common communication platform of GREEN\$ with record. The smart bin system should have the ability to connect to the common communication platform of GREEN\$ and transfer data/ information through a standard API system. The contractor shall demonstrate a successful 2-way data communication from the smart bin system to the common communication platform of GREEN\$. Necessary certified supporting documents to substantiate its claim on their capability to connect with the common communication platform of GREEN\$ should be provided. The contractor shall ensure a reliable, accurate, complete and successful data/ information communication of GREEN\$ and transfer between the smart bin system and the common communication platform of GREEN\$. For details on the API tests, please contact Mr. Andrew Mou at 2788 5550 or andrewmou@hkpc.org.

19. Power saving model

The system should be able to turn into “sleeping” mode automatically after a certain period of time idling; e.g. 15 minutes or 30 minutes, mid-night, etc.

Requirements of the Contractor

1. The contractor shall supply, deliver, install and uninstall the smart bin(s) at the premises chosen by the housing estate.
2. The contractor shall provide all necessary insurance covering for works related to the delivery, installation and uninstallation of the smart bin system.
3. The Contractor shall complete a successful connection to the common communication platform of GREEN\$ and pass the full interface test by the contractor’s own cost within three (3) months after confirming the selected contractor, the grantee reserves the right to terminate the Contract if the contractor fails to comply with the requirement.
4. The contractor shall perform functional and safety tests for the installed smart bin(s). The functional tests shall include at least the basic operation procedures and the regular maintenance procedures, such as access through GREEN\$ card or GREEN\$ Mobile App, smart sensors to measure weight, levels for alert signal, connection to the common communication platform of GREEN\$, bin full alerts and bin replacement, as well as various error states; the safety tests shall include at least the safety detection testing as set out in the essential requirement item 13.
5. The contractor shall rent the smart bin(s) to the housing estate for food waste collection for a period of 18 - 45 months¹. The commencement date of rental contract should be fixed on the day when all the functional and safety tests of the installed smart bin(s) are successfully completed.
6. The contractor shall provide user operation, administration and maintenance manuals with drawings within one week from delivery of the smart bin(s) to the premises chosen by the housing estate.
7. The contractor shall provide training to operational staff and workers designated by the housing estate covering the administration, operation, checking and maintenance aspects relating to the smart bin(s) within two weeks from the delivery of the smart bin(s).
8. During the rental period of the smart bin(s), the contractor shall carry out regular checking and maintenance and also provide consumables and spare parts necessary for the proper operation of the smart bin(s). The contractor shall also provide advice and guides to resolve any operational or maintenance problems of the smart bin(s) within 1-working day response time.
9. Upon completion of the rental period, the contractor shall decommission and remove the smart bin(s) away from the premises if no arrangement has been made with the housing estate for continuing the service beyond the rental period.
10. The contractor shall provide a layout design in the quotation to show the space required for installation and operation of the smart bin(s), including:
 - installation dimensions of the smart bin
 - lid opening/closing during operation
 - minimum dimensions of the operation buffer zone for retrieval and replacement of the purple bin, etc.
11. The contractor shall submit the following documents to the front-line customer service of the housing estate before supply, delivery and installation of the smart bin(s) to the housing estate. The contractor shall make every effort to provide assistance to the housing estate in operating and maintaining the smart bin(s).

¹ The range “18 – 45 months” is for reference only. Please specify a rental period of definite length when issuing the tender invitation. For example, if the housing estate is implementing a 48-month Recycling Fund project in which food waste will be collected from the 7th month to the 48th month, please state “food waste collection for a period of 42 months”.

12. Specifications of the delivered system would be cross-checked and verified with the specifications submitted with the quotation. Proper record should be kept. Specifications include:
 - Dimensions of the smart bin
 - Space requirement for retrieval of the purple bin
 - Electrical power requirement
13. Operation and maintenance manual shall include the following items:
 - a. Safety precautions
 - b. Installation location, electricity or other requirements
 - c. Recyclable and non-recyclable materials for the system
 - d. Operation of the system, including but not limited to, start-up, shut-down, normal operation, etc.
 - e. Consumables (e.g. for the disinfection device and odour abatement system) required
 - f. System information:
 - i. Description of the operating system (e.g. Microsoft Windows, Android, etc.), sensors, disinfection device, odour abatement system
 - ii. Description of the display unit, indicators and alarm signals
 - iii. Power requirements
 - iv. Guidelines of accessing and administrating the backend data system
 - g. Maintenance and warranty guides
 - h. Troubleshooting guide
 - i. Recommendations for operation (e.g. frequency of collection, replacement of purple bin, hygiene, etc.)
14. System testing and commissioning (T&C) should be conducted after the system has been delivered and installed, T&C records should be properly kept and it should include:
 - a. Functional and safety test to ensure the system functions properly, as stated in (4) above.
 - b. Power test to ensure the proper installation and safety of power supply
15. The contractor shall submit the documents and records, as stated in (12), (13) and (14) above, to the housing estate within 1 month after installation.
16. The contractor should ensure total out-of-service hours of any smart bin commission in a given month shall be no more than 24 hours. When the requirements could not be met, the contractor should engage the housing estate to remedy the issues as soon as possible. All down-times of the machine and the relevant remedial actions should properly be recorded by the contractor where such record may be requested by the housing estate. Should the smart bin go out of service or require emergency maintenance for any length of time, the contractor should provide an incident report within 5 working days.

Notes on Quotation Submission for Renting Smart Bins for Food Waste Collection at a Housing Estate

The quotation shall include the following submissions:

1. Completed technical schedule (Attachment 1) of the proposed smart bin matching all the requirements listed above, together with any information showing the design, appearance and additional features of the smart bins. Site visit may be performed before / after the selection of supplier to verify the specifications and functions of the smart bin stated in the documents.
2. Completed schedule of rental price for a *-month rental period² (Attachment 2). The quoted rental price shall be deemed to have included all necessary costs for the supply, delivery, installation, testing, training, renting, maintenance, decommissioning and removal of the smart bin(s), as well as for the backend system maintenance and support.
3. Catalogues and drawings of the proposed smart bin containing technical specification data and information, and operation flow of user interface in display panel.
4. Continuation service fees upon completion of the stated rental period, which shall include a buyout clause or buyout option stating how much more (if any) it would cost to acquire ownership of the smart bins after completion of the rental period, and the monthly service fee for continuing the maintenance of the smart bin(s) and the backend system, as well as for the decommissioning and removal of the smart bin(s) upon eventual termination of service. The monthly service fee is expected to be much lower than the monthly rental fee, as the hardware and development costs for the smart bin(s) will have been covered by the rental period.

² The housing estate should specify a rental period of definite length, according to the actual project schedule. However, the actual rental period may be shorter due to the unforeseen circumstances (e.g. preparation time)

Attachment 1

Technical Schedule of Proposed Smart Bin (To be filled by smart bin supplier and submit with the quotation)

A Bidder will not be considered further if he/she does not provide sufficient information below to demonstrate its compliance with the Essential Requirements of the Smart Bin(s) as specified in the Sample Specification.

1. Smart Bin Information	
1.1. Name of supplier	
1.2. Model and type	
1.3. Stock Availability	<input type="checkbox"/> In stock <input type="checkbox"/> Pre-order, production time: _____
1.4. Delivery time (e.g. 10 days)	
1.5. Installation time (e.g. 2 days)	
1.6. On-site testing (e.g. 2 days)	
2. Essential Technical Requirements	
Please fill in “Yes” or “No” for item 2.1 – 2.19 to indicate if the smart bin could fulfill the specification stated in “Essential Requirements of the Smart Bin(s)”:	
2.1. Collection capacity	
2.2. Weight sensor	
2.3. Weight record of each instance of food waste disposal	
2.4. Fill-level sensor	
2.5. Disinfection device / odour abatement system	
2.6. Technology for User Identification (access via GREEN\$ card or mobile app)	
2.7. Electronic locking system	
2.8. Telecommunication	
2.9. Top opening infeed door	
2.10. Leakage proof	
2.11. Enclosed design	
2.12. Fault sensing and notification	

2.13. Safety Detection	
2.14. Display panel	
2.15. Multi-language system	
2.16. Data Storage	
2.17. Real-time communication	
2.18. Output channel (Supporting document such as certified test report to substantiate its claim)	
2.19. Power saving	
3. Layout design of Smart Bin	
3.1. Installation dimensions of the smart bin (Length x Width x Height)	
3.2. Recommended clearance for servicing the smart bin and for replacing the purple bins (Length x Width)	
4. Others (please “✓” in the box)	
<input type="checkbox"/> We confirmed we will fulfill all requirements stated in “Requirements of the Contractor” if being selected as the supplier.	
<input type="checkbox"/> We confirmed the catalogues and drawings of the proposed smart bin attached are fully demonstrated its compliance with the Essential Requirements of the Smart Bin(s) as specified in the Sample Specification.	
<input type="checkbox"/> We understand site visit may be performed before / after the selection of supplier to verify the specifications and functions of the smart bin stated in the documents. Suppliers may be removed from the selection list if any of the above requirements are not fulfilled.	

Checklist of documents for quotation submission:

<input type="checkbox"/> Attachment 1 - Technical Schedule of Proposed Smart Bin (P.6 - 7)	<input type="checkbox"/> Attachment 2 - Schedule of Rental Price (P.8)
<input type="checkbox"/> Catalogues and drawings of the proposed smart bin	<input type="checkbox"/> Signed and certified API test report
<input type="checkbox"/> Operation flow of the user interface	

Schedule of Rental Price for Renting of Smart Bin(s) at

Service item ¹	Unit price (HK\$) (A)	Quantity (B)	Number of Rental Months (C) ²	Total Amount (HK\$) (A x B x C)
Food waste collection smart bins rental fee (included all hardware and software functions, specifications, maintenance fee etc listed out in this document)		3	42	
Machine delivery, installation and removal				
Other service items (please insert more lines if necessary):				
(1) Smart bin stickers / wrappings		3	NA	
(2)				
Subtotal:				
Continuation service fee ³				
Subtotal:				

² The actual number of rental months may subject to change in relation to the time of preparation, delivery, installation etc. The commencement date of rental contract should be fixed on the day when all the functional and safety tests of the installed smart bin(s) are successfully completed. The change of rental months should not affect the quoted unit price.

Name of Supplier:

Company Chop:

Name and post of the Person Authorized to Sign the Quotation (in Block Letters):

Signature of the Person Authorized to Sign
the Quotation:

Contact No. and Email

Date: