

**CITY OF LOS ANGELES  
INTER-DEPARTMENTAL CORRESPONDENCE**

DATE: February 20, 2007

TO: Honorable Members of the City Council  
c/o City Clerk, Room 395 City Hall  
Attention: Honorable Wendy Greuel, Transportation Committee

FROM: Gloria J. Jeff, General Manager  
Department of Transportation



SUBJECT: **PARKING METER COLLECTIONS AND CONTRACTING PROCEDURES  
(CF 04-2280-S1)**

The Los Angeles Department of Transportation (LADOT) is providing this report to address Council directives and recommendations relating to parking meter collections and contracting procedures.

**RECOMMENDATION**

That the City Council DIRECT the Department of Transportation to issue a Request for Proposals (RFP) for the collection of revenue from parking meters, incorporating the findings of the Smart Meter Pilot Program and the Request for Information issued for revenue-increasing parking meter technology.

**BACKGROUND**

On October 11, 2005, the Council adopted the following actions concerning LADOT:

1. Authorized LADOT to execute a contract with Serco to provide parking meter revenue collection services for the term of October 1, 2005 through September 30, 2006 with four one-year renewal options.
2. Directed LADOT to report back to the Transportation Committee with:
  - a. Recommendations in regard to instituting a formal contracting appeals process for unsuccessful proposers.
  - b. Recommendations in regard to contracting procedures to include creation of an LADOT contracting manual.
  - c. Status on implementation of the City's Smart Parking Meter Pilot Program.
3. Directed LADOT to develop and issue a Request for Information (RFI) within 90 days to solicit information on the variety of new parking meter technology available that will increase the City's collection of parking meter revenue.
4. Directed and authorized LADOT to issue a Request for Proposals (RFP) giving the City an alternative to the second year option should there be a responsive and acceptable bid, once

the results of the Smart Meter Pilot Program have been evaluated and reported to the Transportation Committee prior to the release of the RFP.

On December 15, 2006 the Council adopted the following actions concerning LADOT:

1. Directed LADOT to report to the Transportation Committee in January 2007 with:
  - a. A summary and evaluation of the information gathered from the responses to the Request for Information (RFI) received by the LADOT on August 11, 2006 in connection with parking meter technologies that can increase the City's collection of parking meter revenue.
  - b. A summary and evaluation of the results of the November 2005 through March 2006 Smart Meter Pilot Program on 14 off-street parking lots.
  - c. A Request for Proposals (RFP) for the collection of revenue from parking meters.
2. Directed LADOT to revise the LADOT's RFP approval and protest/appeal process to include the Board of Transportation Commissioners as part of the decision-making process.

## **SUMMARY**

The Los Angeles Department of Transportation (LADOT) has been reviewing the latest parking meter technology advancements applicable to the City in order to best manage both off-street and on-street parking. The potential installation of automated multi-space meters, or paystations, and other "smart meter" equipment directly affects the contractual process for meter collections. Recommendations are included in this report based on the Department's recent technology assessment. Any potential changes in equipment relates directly to the need to provide an updated collection contract.

Over the last year, LADOT conducted field trials of the latest models of multi-space parking meters to evaluate their potential to improve the operation and revenue generation of the parking meter system. LADOT contacted and visited other cities that have employed such technology on a permanent or trial basis in order to gain further operational insight.

The off-street Smart Meter Pilot Program was conducted from November 2005 through March 2006 using equipment provided at no cost to the City. LADOT placed the automated paystations at 14 off-street parking lots throughout the City, utilizing seven different vendors and 11 different paystation models. These machines were evaluated for their performance, ease of use, revenue enhancement, and public acceptance. Paystations were evaluated in both "pay-by-space" and "pay-and-display" configurations.

The off-street Smart Meter Pilot Program provided valuable information that is summarized in this report. The technology afforded by the use of multi-space meters may provide operational benefits to the City, particularly in very active commercial areas that experience high parking demand levels. Their overall use may create more revenue, enforcement capability, and performance satisfaction to customers. Overall cost factors and available warranty features will also play an important part in the potential purchase recommendations.

A Request for Information (RFI) was also issued in order to gain further insight on parking meter technology that has the potential to increase revenues and improve customer convenience. The responses to this RFI from 26 companies have revealed several technologies that require accommodations in a new parking meter collections contract. The responses have also provided LADOT with an extensive knowledge base from which to draw in the development of a comprehensive parking technology program for the City.

A new RFP for parking meter collections has incorporated provisions to address the lessons learned from both the Smart Meter Pilot and the RFI. The RFP will be ready for release in March, which will provide adequate time to obtain alternative proposals to the third year option of the current collections contract should there be a responsive and acceptable bid.

LADOT's current procedures include the Board of Transportation Commissioners in the RFP approval and protest/appeal process to the greatest extent possible by law. Ordinance Number 176824 restricts commissioners from being involved in the "decision-making" activities of a contract award, but allows commissioners to review staff recommendations during the contracting process. In an effort to further ensure the active participation of the Board of Transportation Commissioners in the RFP protest/appeal process, the Board established a standing committee to review all protests received by LADOT regarding an RFP selection process, and specified disclosure requirements to prevent any conflict of interest.

## **FISCAL IMPACT STATEMENT**

The recommended action would have no impact on the General Fund because any meter revenue collected is deposited in the Special Parking Revenue Fund (SPRF) and any fees associated with meter revenue collection are paid from the SPRF. The acceptance of any proposal resulting from this RFP would most likely result in a *reduction* in meter revenue collection fees based upon the anticipated deployment of parking technology.

## **DISCUSSION**

### **Background**

The Smart Meter Pilot Program reviewed the potential advantages and disadvantages in utilizing multi-space meters, or paystations, for revenue collection, enforcement, and customer service. While off-street parking lots were selected for the pilot program and evaluation, some multi-space meter technology is also applicable for on-street applications, replacing the current single-space parking meters. Issues of concern in the evaluation included revenue collection, system security, enforcement capability, service performance, technological advances, overall purchase cost, and, of course, customer satisfaction.

### **Smart Meter Pilot Program**

The Los Angeles Department of Transportation (LADOT) conducted a Smart Meter Pilot Program to test the application of multi-space meters, or paystations, in off-street parking lots from November 2005 through March 2006. Both "pay-by-space" and "pay-and-display" types of meters were installed as part of the program. Pay-by-space meters require patrons to remember and then enter their car's assigned space number to pay for parking, allowing them

to proceed to their destination without further delay. Pay-and-display machines, by contrast, dispense a parking ticket for a specific amount of time paid that must be returned to the customer's vehicle and "displayed," typically on the vehicle's dashboard or affixed to one of the front windows.

Multi-space "smart" meter technology typically offers the following benefits:

- *Increased Monitoring and Better Street Aesthetics.* Paystations are able to monitor several on-street spaces or as much as an entire parking lot. This reduces the number of individual parking meters that must be maintained, removes the potential "sea of meters," and improves streetscape aesthetics.
- *Reduced Collection Costs.* One collection process covers multiple vehicle spaces, which can lead to lower collection costs, especially in large off-street lots.
- *Enhanced Revenue Control.* Revenue reconciliation functions are built into the paystations for greatly improved accountability. Collection receipts were generally provided by the paystation at time of collection and transaction data was available "on-line" for Department review.
- *Ease of Collection.* Revenue collection is generally straightforward, although some collection processes can be complex and/or cumbersome.
- *Enhanced Security.* Security is improved through the use of extra physical system guards, on-line system updates, and alarm notifications.
- *Reduced Meter Downtime.* Operability and system management is maintained by use of on-line notification of system problems, normal maintenance requirements, collections needed and security breaches.
- *Choice of Payment.* Paystations offer the convenience of multiple payment choices to the public, which may include coin, bill, credit card, smart card, and/or cell phone. Since most systems allow payment at multiple machines, customers should no longer encounter the problem of a broken meter preventing them from paying for their parking.
- *System Power Options.* Many paystations are environmentally friendly, powered by solar panels (with battery backup) or pollution-free "green cell" batteries. When feasible, this technology leads to lower operating costs for the system.
- *Programming Flexibility.* System configuration changes are either downloaded through a web-site or may be pre-programmed into a chip or other communication device for faster on-site programming changes.
- *Multi-lingual Capability.* Systems can be programmed to offer displays and instructions in more than one language to improve customer comprehension.
- *Better Data Collection.* Transaction logs and parking usage statistics are available for many of the machines.

During the pilot program, paystations were installed in 14 off-street lots throughout the City encompassing the communities of Echo Park, Boyle Heights, Highland Park, Eagle Rock, Sawtelle, Sherman Oaks, North Hollywood, Miracle Mile, Hancock Park, and West Los Angeles. The number of vehicle spaces monitored by each paystation varied from 18 to 71. The average number of spaces monitored per paystation was 35. When multi-space meters are installed for on-street parking, they generally replace from six to ten single-space parking meters. Twelve of the 14 lots were operated using traditional single-space parking meters both before and after the project. Two of the lots were already operated by paystations, but were retrofitted with upgraded equipment.

Eleven paystation models were provided free-of-charge from seven different vendors. Meter manufacturers participating in the pilot program included Cale Parking Systems, Cubic Transportation Systems, Digital Payment Technologies, Duncan Solutions, MacKay Meters, Parkeon, and the City's existing vendor, Ventek International. Most of the multi-space meters provided could be configured for either pay-by-space or pay-and-display operation. Each vendor, except for Ventek, provided one paystation of each kind. Ventek implemented upgraded equipment in the two existing paystation lots that both operated as pay-by-space.

At the conclusion of the paystation pilot project, the paystations were returned to a training room above the Parking Meter Shop, where, over the next several weeks, additional evaluation was performed and each vendor provided a comprehensive presentation to staff.

The Smart Meter Pilot Program and subsequent vendor presentations have provided significant and applicable information enabling LADOT to begin the development of a comprehensive program to deploy this technology in the near future. The Department's extensive evaluation of the pilot program yielded the following key findings, which are summarized below:

- **Paystation Operation and Enforcement:** Pay-and-display operation requires that a paystation be equipped with a printer to issue a printed receipt, which then needs to be displayed in the vehicle. Patrons must purchase the full amount of parking time needed at once, since there is no ability to pay for additional time once a receipt has been printed without repurchasing paid time. Pay-and-display operation also requires enforcement personnel to visually review the printed receipt displayed in every vehicle in order to determine if time has expired. The enforcement process, which must be conducted by foot or bicycle beat, can take as much as three times longer than enforcing the equivalent number of single-space meters by vehicle. Pay-and-display's advantages include simpler paystation operation (no need to enter a space number), the ability to purchase time at any machine and "take your time with you" to another block within the same parking zone, and the opportunity for increased revenue from the elimination of "inherited time" left behind by a space's previous occupant. In on-street applications, pay-and-display operation eliminates the need to paint and maintain space markings and, as a result, can accommodate more parked vehicles on a block face.

Pay-by-space metering, by contrast, can be accomplished without a printed ticket, but requires that the paystation be equipped with a keypad for entering the customer's space number. Several models have the capability to communicate paid space information with neighboring paystations, allowing patrons to pay for their space at any number of machines. A pay-by-space system requires clearly defined parking spaces with well-maintained space numbers, but allows for metering adjacent spaces with different uses, hours of operation, time limits, and/or rate structures. When combined with space occupancy detection, this operational method can prevent meter feeding, aid

enforcement, and provide a more detailed picture of parking demand to aid in the proper regulation of spaces. Many paystation models can be programmed to eliminate inherited time, while also allowing customers to purchase additional parking time for a space. Some models can even notify patrons on their cell phone that their time is about to expire and allow them to purchase additional time remotely. Instead of needing to review each vehicle's pay-and-display ticket, enforcement officers are "told" by the paystation which vehicles are currently paid either through a printed report or via wireless data transmitted directly to the officer's handheld ticket-writing computer. One model even includes a high-visibility display for on-street enforcement, enabling officers to easily identify paid spaces by interpreting a series of colored disks on the street-side of the meter.

- **Operability** is the percentage of time that the paystation is fully-functioning. Most of the machines tested had operability levels between 90% and 100%. A few machines encountered programming problems that were ultimately rectified during the pilot program test period, while a few others had repeated non-operation periods requiring extensive maintenance and manufacturer involvement.
- **Software Capability and Support:** On-line system information must be available to the Department including automatic notifications via email and phone message paging for trouble reports. Data and programming must be accessible through a central management system providing paystation status, transaction analysis, revenue generation and collection scheduling/reconciliation. All vendors provided such a central management system, with 5 of 7 being web-based systems capable of being accessed from any computer with an Internet connection, rather than requiring the installation of a software application. The systems, however, varied significantly in ease of use, with key factors being the ability to graph and export data, report quality and detail, and the ability to view paystation usage and performance history.
- **Appearance:** In general, multi-space meters improve the streetscape appearance by eliminating the need to install individual single-space parking meters for every vehicle parking space. Some of the paystations tested were less obtrusive than others, and therefore more visually attractive. The height of each paystation must allow for customers to easily read all instructions, make selections, and pay through the method of their choice. If the paystation is solar powered, there is an additional solar panel placed at or above the top of the paystation. The basic size of the paystation, along with maintenance requirements, tends to increase with the amount of technology added. Choices regarding paper receipts, payment types, or change-making capability greatly affect the machine's size, purchase cost, maintenance requirements, and collection fees.

Each of the basic body styles of the paystations tested as part of the Smart Meter Pilot Program varied with the amount of equipment and payment technology included. Of the 11 models tested, eight included some type of solar power panel. Four of the models tested included the solar panel as part of the top piece of the paystation, while the other four models required the solar panel to be mounted to the paystation with extra brackets. While the overall size and position of a paystation and its solar panel used in an off-street parking lot might not be significant, this may not be the case for any on-street applications.

- **Maintenance Issues:** LADOT meter technicians were an integral part of the pilot program. Technicians were assigned to inspect and maintain the paystations during the

pilot, while vendors provided them technical support over the telephone. No major problems were noted in the overall build of the units. Two models, however, did have moisture problems during the program, and one model was considered to have “flimsy” paper release levers. Another unit was considered to have “part-congestion” that could make troubleshooting cumbersome. By contrast, another model was designed with all its components mounted on the front door, allowing for easy access to parts and, if necessary, the quick exchange of all electronics by replacing the door.

- **Design and Construction Issues:** Inspection of the various construction techniques used in the paystation models provided different “as built” conditions which may play an important role in the specification of units. The following design variations must be reviewed as part of the specification requirements for meters: the plating used for cable and controller connectors, the ease of use for various connector types, insulation materials, thermal and moisture protection, methods of securing equipment within the cabinet, battery support and insulation, solar panel mounting, coatings used on circuit boards, cable lengths and placement, and overall accessibility to individual parts.
- **Payment Options:** Coins were accepted in all 14 paystations, and bill payment was also accepted at eight of the machines. While credit card payment was offered in all units, that payment option was unavailable at two of the machines due to merchant account compatibility problems. During the project period, coin revenue made up more than 70% of total revenue received and approximately 89% of the number of transactions processed. In six out of eight machines configured to allow payment by paper bills, an average of 45% of the revenue received was in this type of currency (two of these machines had coin acceptor problems and were therefore not considered in the totals).

Credit card payment ranged from 1.3% to 20.2% of the total revenue received from each paystation, with an average value of 7.9% of the total revenue and more than 5% of the total transactions. Since the pilot project, the credit card revenue of LADOT’s two permanent paystations with that capability has grown to as much as 28% and 44% each. Other cities have experienced increased credit card usage of between 35% and 70% of paystation revenue for permanent installations.

The ability to pay with smart card technology and cellular phone are also future considerations. It was observed that credit card usage tends to increase with lot rates. The use of dollar bill acceptors as payment must be evaluated on a case-by-case basis as these bill acceptors can have a significant effect on maintenance requirements and collection costs.

- **Credit Card Payment Options:** Vendors used both “batch” and real-time credit card approval processing. In a batch process, credit card payments are grouped and typically transmitted electronically once per day in a “batch” for processing. While this results in faster transaction times at the meter, it does present a higher risk of accepting invalid cards. The system reduces this liability through the regular download of a “bad card” list, against which each presented card is evaluated; but if an invalid card is not yet on the current list, that is not revealed until the next batch process—too late to take any action. In addition to the lost revenue, batch credit card processing can carry higher processing fees as a result of the inherent risk involved. That said, in the paystation pilot program, there was a very low percentage of denied credit card transactions.

The use of real-time credit card purchases authenticated the card at the time of parking payment. This method generally took a longer time to process (and slightly more system power). If the system could not verify the credit card in a timely manner, then it would normally use "batch" processing as a back-up mode. Twelve of the 14 paystation machines accepted credit cards. Seven of these 12 machines used real-time credit card processing, while those providing batch processing stated that real-time processing was also available. Real-time wireless credit card processing provides for the most accurate payment system, but the data transfer speed must be sufficiently high such that the customer is not unreasonably delayed and lines do not form.

- **Revenue:** The revenue collected as part of the paystation pilot program was compared to the revenue normally collected from individual meters in the various off-street lots. On average, there was an approximate three percent (3%) increase in revenue collection. Some paystations were below the previous revenue targets (maximum 12% decrease), and some were above (maximum 20% increase). Staff believes that revenue generation would have been higher if it were not due to customer unfamiliarity with the new paystations (some did not pay), and enforcement discretion used during the pilot program. In order to gain maximum revenue, the customer must be able to easily use the equipment, it must be maintained in working order (operability) at all times, and enforcement staff must have an efficient method of enforcing parking regulations.
- **Collection Considerations:** Each off-street lot, similar to on-street meters, currently has a specific collection frequency. A collection contractor retrieves the money and audits the meters. When a multi-space paystation is used in lieu of single-space meters, the collection frequency will likely change. The cost to collect a single-space meter is also just a fraction of the current contractual cost for a paystation. It should also be noted that the current paystation collection cost might be high due to the small number of paystations included in the contract, and based on the time needed to collect from the current paystation (coins, bills, change maker and an extensive entry system).

The size of coin bag and bill acceptor used in an individual paystation will ultimately lead to the collection scheduling requirement for the paystation. Although 1000 bills was a standard capacity for bill acceptors, coin capacities varied considerably between vendors. In a thorough volumetric analysis by meter security staff, it was found that, using a standard coin mix, coin capacities ranged from 7.5 to 16.4 times that of a tall meter can and 10.1 to 22.1 times the capacity of a small meter can. The paystation programming system must also be able to send alert notices via wireless communication to the City should a paystation require a "special" collection due to higher than normal usage. In this manner, a combination of scheduled and special collections may be used for paystations to reduce overall collection contract costs.

As part of the pilot program, it was determined that all but two of the off-street paystation collection frequencies could have been lengthened to provide for a lesser number of required collections per month. The previous average number of collections per month was 3.9, and could have been reduced to 2.6 based on coin and bill collector capacities used in the pilot program. The previous monthly cost of collection for all 14 off-street lots was \$961. At current contract costs and revised collection schedules, the paystation monthly collections charges would have been approximately \$1,080 per month. If more paystations are purchased for the City in the future, it is anticipated that a lower collection cost would be contracted, and therefore result in a potential savings to the City.

- **Ease of Collection:** LADOT Transportation Investigators were also an integral part of the paystation pilot program, providing the majority of the paystation collections. Vendors generally provided secure coin and cash pouches or boxes that were relatively easy to collect. Five out of the 11 models tested were very easy to collect from with receipts printed automatically. Five machines took slightly longer to collect due to special entry provisions, codes to be entered, coin bag location or coin receptacle docking requirements. And, one model was very time consuming to collect, requiring the individual to lie on the ground while reaching inside the machine to gain access to the coin bag.
- **Vandalism:** Paystations are generally more secure than traditional single-space meters, but, because of the much larger sum of money that they often contain, can have a higher target value to thieves. One vendor's paystation was vandalized twice during the pilot program, and in one case, the coin box was stolen. As with the single-space meters, the paystations are subject to graffiti, and this was experienced in some locations during the pilot program. The machines are generally designed for easy clean-up, but it can be tedious to replace plastic display screen covers, into which graffiti has been scratched.

Another important benefit of paystations is that they greatly reduce the motivation for meter vandalism by eliminating the one-to-one correspondence of meters to spaces. Since most systems allow payment at multiple machines, breaking a parking meter would no longer result in free parking. Supported by real-time maintenance alerts, paystations would facilitate the elimination of the long-standing policy of permitting free parking at broken meters.

- **Customer Satisfaction and Ease of Use:** Parking Enforcement Officers were a tremendous force in the success of the pilot program. They acted as "ambassadors" during the initiation of the project, assisting patrons in using the newly installed paystations. As the program continued, Parking Enforcement Supervisors solicited customer feedback by distributing and then immediately collecting multiple-choice survey forms. Out of this effort, nearly 500 responses were received, and the results were generally very positive and in support of the technology. In areas where the machines did not perform well, some of the customers were not satisfied. Based on these service reviews, the following statements may be made:
  - 73% of respondents reported that the paystation instructions were clear
  - Of those that had a preference, nearly two-thirds (64%) of the respondents preferred paystations to single-space meters (nearly two to one).
  - Paystations were preferred in 10 out of 13 lots
  - Nearly all (92%) respondents felt that the distance from their vehicle to the paystation was either convenient or acceptable.

As long as the instructions were clear and simple, patrons normally found the paystations acceptable. Based on further conversations with customers, staff found that most of those that did not prefer paystations felt so because of their objection to a particular feature of the operation, rather than the entire concept.

Built upon the extensive knowledge gained from the Smart Meter Pilot Program, as well as the RFI responses (addressed below), LADOT is currently developing a comprehensive program for the implementation of parking meter technology Citywide. This program seeks to improve customer convenience, increase and secure meter revenue, and improve the Department's ability to effectively manage parking throughout the City. The Department very much appreciates the loan of equipment, and the significant time and effort invested by the following companies that made this pilot program possible and so successful: Cale Parking Systems, Cubic Transportation Systems, Digital Payment Technologies, Duncan Solutions, MacKay Meters, Parkeon, and Ventek International with their distributor Pacific Parking Systems.

### **Request For Information (RFI)**

On April 28, 2006, LADOT issued an RFI to obtain further insight on parking meter technologies that can increase the City's collection of parking meter revenue. The RFI included a disclosure that respondents were not to construe the process as a commitment by the City to award a contract or contracts at this time, nor was the City liable for any cost incurred by any party for the preparation and submission of responses.

In response to the nearly 100 questions received regarding the RFI, a response document was prepared and made available to all interested parties. Due to the wealth of information provided in this document, the RFI deadline was extended to August 11, 2006 to provide respondents the opportunity to incorporate the additional information into their responses.

Interested parties were invited to submit a response describing their parking meter technology products, services, and related pricing including the following information:

- (a) Outline of the specific products, services, or technologies *in production and available today* that may meet the goals outlined above.
- (b) Brochures and specifications describing in detail the specific features of products or services that will result in increased revenue.
- (c) Cumulative net revenue increases, above the additional costs in collections, maintenance, and enforcement, that are expected from the implementation of the products and services offered, expressed as a percentage increase over current revenues. Revenue increases associated with any pricing, operation, or enforcement policy changes should be clearly identified within the cumulative benefits.
- (d) Data and results from previous implementations, assumptions, and calculations that support the purported benefits of the proposed technology.

LADOT received detailed responses from a total of 26 companies providing information on a broad range of revenue-increasing parking technology, including single- and multi-space parking meters, personal in-vehicle parking meters, electronic meter locks, electronic payment technology, parking stall vehicle sensors, wireless meter communication systems, and photo violation technology. Table 1 below provides an overview of the products and services either provided by each company (denoted by a "P") or provided by others but integrated with that company's offering (denoted by an "I"). The responding companies have been grouped into the following four categories: providers of parking meters, providers that add value to parking meters, those that offer alternatives to traditional metered parking, and companies that primarily

integrate the products and services of other companies. Several companies submitted joint responses to the RFI, and, where appropriate, are listed separately with their partner(s) in parentheses.

Category	Company (Partner)	Parking Technology								
		Single-Space Meters	Multi-Space Meters	In-Vehicle Meter	Electronic Locks	Meter Communication	Smart Card Payment	Cell Phone Payment	Stall Detection	Photo Violations
Parking Meter Provider	Cale (w/ 8D)		P			I	I			
	Cubic		P			I	P			
	Digital Payment Technologies		P			I	I	I		
	Parkeon		P		I	I	I			
	TCS (WSA Electronics)		P		I	I	I			
	Ventek		P			I	I			
	Worldwide Parking (Seimens)		P		I	I	I			
	Photo Violation Technologies	P	P2		I	I	I		P	P
	Duncan	P	P			I	I	P	I	
	MacKay (w/ Serco)	P	P		I	I	I			
	POM (w/ IPS, Parcsmart)	P	P4		P	I	I		I	
IntelliPark	P					I		P		
Parking Meter Added Value Provider	InnovaPark	I							P	
	Integrated Parking Solutions (w/ POM)	I				P		P	P	
	Streetline Networks	I	I			P		I	P	
	Vehicle Monitoring Systems	I*	I*						P	
	Medeco	I	I		P					
	Parcsmart	I	I				P			
Alternative Metered Parking	Muni-Pay			P			P	P		
	Cell-O-Park							P		
	Verrus							P		
	Claviger (w/ Eximsoft)							P		
	Spark Parking							P	I	
	Disability Devices								P	P
Systems Integrator	ACS	I	I			I	I	I	I	
	Serco (w/ MacKay, Medeco)	I	I		I	I	I			

Legend
P: Provider of equipment/services
Px: Meters only up to x spaces
I: Integrator of equipment/services
I*: Potential integration with meters

**Table 1. Summary of Responses to Parking Technology RFI**

In addition to the parking technology products and services identified in the summary table, several companies offered related services, including financing, procurement, installation, maintenance, revenue collection and counting, and parking consulting services. Other unique services offered include digital parking permits and a broken meter reporting system from Verrus, and Photo Violation Technologies' ability to accept payment for parking citations right at their parking meter.

The RFI requested that respondents provide the "cumulative net revenue increases, above the additional costs in collections, maintenance, and enforcement, that are expected from the implementation of the products and services offered, expressed as a percentage increase over current revenues." Just 15 of the 26 companies included revenue increase estimates in their responses. Some went to great lengths to estimate these values as accurately as possible, while others made very general estimates. Although the RFI was careful to request information about technology that would increase parking *meter* revenue, as opposed to *enforcement* revenue, several companies provided benefits to enforcement revenue as well. These benefits were not considered in the analysis, but predicted increases in meter revenue based upon new efficiency in enforcement were included.

Several companies assumed that the City would implement parking meter rate increases at the time their technology was deployed, which greatly boosted their predicted increase in revenue. In order to normalize the revenue estimates, increases due to rate increases were excluded from the analysis, since the City could generally gain those benefits without the need to deploy new parking technology. It should be noted, however, that several technologies could aid in the implementation of a rate increase, either by providing supporting usage data or by providing customers alternative payment options. In addition, many new single- and multi-space meters are capable of special event rates, progressive rates that discourage long-term parking, and variable rates that vary by time-of-day to better manage peak demand periods.

Excluding rate increases and enforcement revenue, the products and services offered in the RFI responses were predicted to increase the revenue from metered parking from between 6% and 150% with an average increase of 42% across all technologies. Just eight of the respondents included data on the cost of implementing their proposed products and services. For those that did, after accounting for the cost of implementation, the net change in meter revenue was calculated from the information provided to be between an increase of 11% and a reduction of 16% with an average of a 3% increase. It is important to keep in mind, when considering this analysis, that some companies predicted increases to enforcement revenue or offered valuable benefits to customers and/or the City that could partially or fully offset any decreases in parking meter revenue.

There were several technologies offered by responding companies that could directly impact the collection of parking meter revenue. The most obvious is the installation of multi-space parking meters, which replace many single-space parking meters, and would thus reduce the total number of meters collected daily. Additionally, there are significant collection cost implications that accompany the conversion to multi-space meters, as they are more time consuming and difficult to collect due to the security they employ. Our current collections contract charges approximately 60 times the cost of a single-space meter collection to collect a multi-space meter, although an on-street multi-space meter would likely replace an average of just six to eight traditional meters. This disparity is likely due to the increased complexity of collecting paystations and due to the relatively small number of multi-space meters that the Department currently operates. Pricing for a higher collection frequency would likely be more favorable.

Electronic payment for metered parking would reduce the need to physically collect cash from the meters, but would likely increase total meter revenue due to the convenience of these payment methods. Some vendors report that when paying electronically, many customers opt to pay for more time than they otherwise would with cash, in part to reduce the risk of running late and getting a parking citation. Utilizing a multi-space meter, an in-vehicle personal parking meter, or their cellular phone, parking patrons could pay for their parking using their credit or debit card or a "smart" card, a special parking card with a microchip that stores pre-paid value. Two companies offered smart cards that could also be used to make purchases at local merchants, and another company indicated that they could integrate the MTA's Transit Access Pass (TAP) smart card into their multi-space meter for parking payments. When paying by cell phone, some vendors offer the capability to send a reminder message to the patron when the end of their paid time is approaching, allowing them to purchase additional time if they are running a little late. Another technology option is the in-vehicle parking meter, which is a small electronic device that a customer can buy or lease and keep with them in their car. When parking in a metered zone, the customer can then activate their meter using a smart card or cell phone and display the device in their window.

Eliminating "inherited time," the time left on a meter by a previous customer, would enhance meter revenue and require increased collection frequency in areas so equipped. Nearly all multi-space meters can be programmed for this functionality, and several vendors offer this capability for single-space meters by equipping them with vehicle detection using various technologies. Vehicle detection placed in parking spaces and integrated with either single- or multi-space meters also offers other advantages: the ability to provide a grace period of free parking upon arrival before payment is required, the ability to restrict parkers from continuing to purchase time beyond the time limit ("meter feeding"), the opportunity to identify potential parking violations, and the availability of detailed parking demand data to better establish parking regulations. Vehicle detection can also allow for providing real-time information on parking space availability to the public via cell phone, the Internet, variable message signs, and, in the future, in-vehicle navigation systems.

Wireless meter communication is now standard for multi-space meters, but two vendors offer this capability for single-space meters. Wireless communication for parking meters allows meter status and audit data to be transmitted automatically, rather than requiring the manual collection of this data at the meter using a handheld computer. This capability affords single-space meters some of the management capabilities that have traditionally been exclusive to multi-space meters. Another vendor offers an electronic lock that is integrated with a single-space meter, such that the meter's audit data is retrieved automatically when a collector accesses the meter with an electronic key connected to a handheld computer. Substantial time savings may be appreciated through the elimination of a separate auditing task during collection. In addition, the reporting capabilities of electronic locks could provide an alternative method for quantifying the number of meter collections for contractor compensation.

Although not specifically related to meter collections, two other categories of responses were notable. Two companies offered systems to issue automated photo parking violations by integrating a camera with vehicle detection. Two other companies offered to serve as systems integrators, assisting LADOT with the implementation and integration of several technologies into a comprehensive system to manage parking.

The responses to this Request for Information have provided LADOT with an extensive knowledge base from which to draw in the development of a comprehensive parking technology program for the City. In addition to the program's goals of increasing meter reliability,

accountability, and improving customer convenience, this program also takes into account the potential for increases in parking meter revenue as a result implementing parking technology. The time that companies have invested in presenting their product information, projected revenue benefits, financial analyses, and discussion is much appreciated by LADOT and continues to be an invaluable resource as we move forward.

### **New RFP for Parking Meter Collection**

The Council Motion (Parks-Smith, CF 04-2280) directing LADOT to issue a new RFP for parking meter collection services as an alternative to the second year option of the Serco contract was amended by a Verbal Motion (Greuel-Parks, CF 04-2280) that required LADOT to evaluate the results of the Smart Meter Pilot Program and report to the Transportation Committee prior to the release of the new RFP. The Smart Meter Pilot Program was not completed until April 2006, and hence LADOT was required to exercise the second year option of the Serco contract. Therefore, on June 9, 2006, LADOT issued a letter to Serco extending the contract term for one additional year.

With the presentation of this report to the Transportation Committee, LADOT has completed the evaluation of both the Smart Meter Pilot Program and the RFI responses and is now prepared to issue an RFP for parking meter collection services. The new RFP incorporates several new elements to prepare for the implementation of new parking technology. It now covers the collection of *three* types of parking meters: traditional single-space meters, multi-space meters, and "pay-on-foot" machines. Pay-on-foot machines, for the purpose of this RFP, are defined as high-volume paystations capable of accepting both coin and paper currency, which may or may not issue an exit ticket for use in gated facilities; they are typically located in larger off-street facilities. The Department currently operates two such machines in off-street lots. The multi-space meters referred to in the contract are lower-volume paystations that accept coin or credit card payments, and are collected by the relatively simple exchange of a coin box through a separate collections compartment. By contrast, the collection of a pay-on-foot meter is more complex, requiring the exchange of both a coin box or bag and a bill cassette, which typically must be accessed by opening the paystation's main door. LADOT anticipates the additional installation of both types of paystations over the term of the collections contract, but with much more frequent collection of the simpler multi-space meters.

For each type of meter, the new RFP requests pricing for three tiers of collection quantity over each of the five years of the contract. As new parking technology is deployed in the City, it is anticipated that these tiers will facilitate lower overall meter collection costs, since the average number of meter collections for each type of meter will likely change over the contract term. These variations are anticipated to be primarily due to changes in the quantity of each type of parking meter and the frequency with which each requires collection. Factors affecting collection frequency include coin capacity, bill acceptance, electronic payment availability, rate changes, and operational policy changes. To be consistent with these pricing tiers, the RFP includes the ability to adjust over the contract term the number of daily collectors and vehicles that the contractor provides to be proportionally consistent with the number of daily collections and the resulting workload.

Due to the availability of new technology that provides alternative means for obtaining single-space meter audit data, the RFP requests pricing for single-space meter collections both with and without a separate meter audit. Because collecting audit information with a handheld computer can be time consuming and cumbersome, it is anticipated that LADOT will receive

lower prices for collections that do not require a separate audit. If this technology is deployed, it is anticipated that compensation would be based on the reporting from electronic keys rather than by tallying meter audits, and so electronic key audits have been specifically included in the RFP as a compensation method.

To provide for the deployment of on-street multi-space meters, the new RFP also allows more flexibility for both the collection procedures and the type of vehicles that will be utilized for multi-space meter collections. Multi-space meter cash boxes hold between 7.5 and 22 times the capacity of the coin cans currently in use in the City's single-space meters, and, while more efficient, they present the need to develop new collection, storage, transportation, and security procedures. By contrast, the RFP is *more* specific with respect to single-space meter collections, incorporating the latest requirements to ensure high standards for security, accountability, and safe working conditions.

A disclaimer is included in the RFP to clarify that LADOT has three existing one-year contract options for the three-year period covering October 1, 2007 through September 30, 2010, and that this RFP will only result in a contract being awarded if the evaluation committee determines that one or more of the proposals is superior to the existing contract options in at least two of the three years. For reference, the existing contract will be included as an appendix to the RFP. To ensure the fairness and efficiency of the evaluation process, the RFP includes a notice that proposals for services or products outside the scope of work described will not be considered. This new RFP for parking meter collections will be ready for release in March, which will provide adequate time to obtain alternative proposals to the third year option of the current collections contract should there be a responsive and acceptable bid.

### **Revisions to RFP Approval and Protest/Appeal Process**

The City Council has directed LADOT to revise its Request for Proposals (RFP) approval and protest/appeal procedures to include the Board of Transportation Commissioners as part of the decision-making process. LADOT consulted with the City Attorney regarding this directive and found that Ordinance Number 176824 set limits on the participation of commissioners in the contracting process. The Ordinance restricts commissioners from being involved in the "decision-making" activities of a contract award, but allows commissioners to review staff recommendations during the contracting process. This Ordinance became effective on August 27, 2005 and can be found as Attachment A to this report.

In March 2006, LADOT refined its RFP protest procedure to involve the Board of Transportation Commissioners. The procedure allows vendors to file a written protest on the content of an RFP and/or the RFP selection process. If a protest is filed based on the selection process, the protest is reviewed by a panel that consists of at least two members of LADOT senior management staff not otherwise involved with the proposal evaluation and a Transportation Board Commissioner. The findings of the review panel are then presented at a scheduled public meeting of the Transportation Commission. If the contract award requires Council approval, the Commission's findings or recommendations concerning the protest review are forwarded to the Council's Transportation Committee for consideration.

In an effort to further ensure the active participation of the Board of Transportation Commissioners in the RFP protest/appeal process, LADOT submitted a formal recommendation to the Commission to establish a standing committee to review all protests received by LADOT regarding an RFP selection process. At a public meeting on December 14, 2006, the Board

appointed Commissioners George Moss and Angela Reddock to serve on the standing protest committee and Commissioner D. Malcolm Carson to serve as an alternate committee member. In addition, the Board agreed that Commissioners who sit on the protest committee must disclose all ex parte communications with any RFP responder and to recuse themselves accordingly. All protest review committee meetings will take place at public-noticed meetings.

**Attachment A**

The following is Los Angeles Municipal Code, Section 49.5.17 – Commissioner Participation in Contracting Process:

*A. Except as provided below, no member of a Board or Commission shall participate in or otherwise be involved in the development, review, evaluation, negotiation and recommendation process of bids, proposals or any other submittals or requests for the award of a contract, contract amendment, or change order involving that Board, Commission, Office or Department.*

*B. This Section does not preclude a Board or Commission, acting as a body, from reviewing staff recommendations when considering award of a contract, contract amendment or change order; providing direction to the general manager on contract requirements and negotiations; or considering proposals or other requests submitted for the award of a contract, contract amendment or change order. Nor does this Section preclude the efforts of individual members in reviewing documents and other information provided by or available from staff when preparing for the meetings of the full Board or Commission or committee at which the matter will be considered.*

*Additionally, if the Board or Commission so approves, a committee of at least two members of the body may participate in the review of staff recommendations regarding the award of a contract, contract amendment, or change order; consider proposals or other requests submitted for the award of a contract, contract amendment or change order; and/or conduct subsequent negotiations on terms or conditions of a contract within the criteria established by that Commission or Board. All participation by committees shall take place only in publicly-noticed meetings pursuant to the Ralph M. Brown Act.*