TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER DEPARTMENT: PUBLIC WORKS

DATE: SEPTEMBER 23, 2002 CMR:387:02

SUBJECT: APPROVAL OF A CLOSED END MOTOR VEHICLE LEASE AGREEMENT IN THE AMOUNT OF $126,311 WITH SAN FRANCISCO TOYOTA FOR THE LEASE OF FIVE TOYOTA RAV-4 ELECTRIC VEHICLES

RECOMMENDATION
Staff recommends that Council:

1. Approve the attached Closed End Motor Vehicle Lease Agreement for the lease of five Toyota RAV-4 EV electric vehicles; and

2. Authorize its execution by the City Manager or his designee.

DISCUSSION
Equipment Management has identified five existing gasoline-fueled vehicles that could be replaced with electric vehicles (EVs). Four of these vehicles are assigned to Utilities Customer Service; one is assigned to Public Works Operations. All of the vehicles to be replaced are 10-12 year old compact pickup trucks. After discussions with Equipment Management staff and demonstrations of the City’s existing EV’s, staff determined that the Toyota RAV-4 EV would best meet the City’s needs.

Currently, the RAV-4 EV is only available through Toyota Motor Sales via authorized Toyota dealers. The authorized dealer closest to Palo Alto is San Francisco Toyota. Equipment Management staff recommend that the City lease, rather than purchase these vehicles, due to the volatility of the battery-EV market, the exorbitant cost of replacement battery packs, and concerns about future availability of battery-EV’s,. The cost of a 36-month, “one-pay” lease is $25,262 per vehicle. “One-pay” means that the total cost of the lease is paid upon delivery of the vehicle. The leases can also be paid through monthly or annual installment payments; however, the total cost will be higher, due to interest charges. The lease price is set by Toyota Motor Sales, and is not negotiable through a bid process. The California Air Resources Board (CARB) offers a Zero Emission Vehicle Implementation Program (ZIP) rebate of $9,000 per vehicle, making the net cost of the lease $16,262 per vehicle. If, at the end of the lease term, it is decided to keep the vehicles, they may be purchased for an additional $26,815 per vehicle.
RESOURCE IMPACT
The decision to acquire EV’s is not based on economic factors. Other issues that must be considered include: decreasing the City’s dependency on non-domestic fuel sources, opportunities for reducing vehicle exhaust emissions, public perception, and compliance with Federal AFV acquisition requirements.

The total cost of the lease agreement, $126,311, is the sum of the cost of five individual leases ($25,262.28 x 5 = $126,311). This is the amount that will be paid to San Francisco Toyota. After the vehicles are delivered, Equipment Management staff will apply for a CARB ZIP rebate in the amount of $45,000. After the rebate, the net cost to the City for leasing the five vehicles for three years will be $81,311.

Even with the rebate, the total ownership cost of the RAV-4 EV is substantially higher than that of a comparable gasoline-fueled vehicle (regardless of whether the City purchases the vehicles or returns them at the end of the lease). Table 1 compares the cost of the RAV-4 to that of a Ford Ranger compact pickup truck over the life of the lease:

Table 1 – Cost comparison over the life of the lease (three years)

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Toyota RAV-4 EV</th>
<th>Ford Ranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase/lease cost</td>
<td>16,262</td>
<td>4,800,1</td>
</tr>
<tr>
<td>Fuel cost 2</td>
<td>630</td>
<td>1,350</td>
</tr>
<tr>
<td>Maintenance cost 3</td>
<td>1,725</td>
<td>1,860</td>
</tr>
<tr>
<td>Total cost for three years</td>
<td>$18,617</td>
<td>$8,010</td>
</tr>
</tbody>
</table>

1 Pro-rated; based on $18,000 purchase cost, $2,000 residual value, typical ten-year life
2 Based on 5,000 miles of annual usage
3 Includes two preventive maintenance inspections per year, and a $250 annual allowance for minor repairs and transportation.

If the City decides to purchase the RAV-4’s at the end of the lease period, the cost of ownership (compared to the gasoline vehicle) increases dramatically (see Table 2):

Table 2 – Cost comparison over a typical ten-year life

<table>
<thead>
<tr>
<th>Vehicle</th>
<th>Toyota RAV-4 EV</th>
<th>Ford Ranger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase cost 1</td>
<td>41,077</td>
<td>16,000</td>
</tr>
<tr>
<td>Fuel cost 2</td>
<td>2,100</td>
<td>4,500</td>
</tr>
<tr>
<td>Maintenance cost 3</td>
<td>6,900</td>
<td>8,100</td>
</tr>
<tr>
<td>Total cost for ten years</td>
<td>$50,077</td>
<td>$28,600</td>
</tr>
</tbody>
</table>

1 Purchase cost less $2,000 residual value
2 Based on 5,000 miles of annual usage
Includes two preventive maintenance inspections per year, one set of tires, one complete brake reline, and a $250 annual allowance for minor repairs and transportation. Does not include battery replacement for RAV-4 EV (may or may not be required during the life of the vehicle; estimated at $15,000 - $20,000).

EV fuel costs average $0.042 per mile (42 kilowatt-hours of electricity per charge @ $0.05 per kilowatt-hour, divided by 50 miles per charge). The average fuel cost for a gasoline vehicle in the same application is $0.09 per mile. EV’s still require regular preventive maintenance, as well as tire replacements and brake service. However, the cost for engine-related service, such as oil changes, will be eliminated.

The Utilities Department provided initial funding to demonstrate EV's in the City's fleet through its Electric Public Benefits Program, supplemented with grants from the Bay Area Air Quality Management District and the Congestion Management Authority. In FY 2000-01, the Public Benefits Program ceased funding the acquisition of EV’s for the City fleet. This was a result of the successful completion of the demonstrations, and the City's desire to continue increasing the number of alternatively fueled vehicles in the fleet.

Public Benefit resources were re-directed to provide expert consulting support to the Transportation Division (through a $50,000 contract with EPRI-Solutions) for evaluation of electric and hybrid options for the shuttle service and general support of public alternative-fuel applications. The Public Benefits program will also fund the design and construction of EV charging stations in the two new public garages.

Given this shift of resources, Equipment Management has agreed to fund and manage all future EV acquisitions. Sufficient funding is available in the 2002-03 Vehicle Replacement budget allocation to cover the cost of the leases.

**POLICY IMPLICATIONS**

This recommendation is consistent with existing City policies, including the Council-adopted policy on sustainability.

The City’s Comprehensive Plan, and Policy and Procedures Section 4-1 require that Equipment Management purchase low-emissions and alternatively-fueled vehicles (AFV’s) whenever possible.

This recommendation also supports Comprehensive Plan Policy N-26 (Federal Energy Policy Act of 1992) and Program N-40.

**ENVIRONMENTAL REVIEW**

This project is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15308 (Action by Regulatory Agencies for Protection of the Environment) of the CEQA guidelines.
ATTACHMENT
Attachment A: Toyota Financial Services Closed End Motor Vehicle Lease Agreement

PREPARED BY: Keith La Haie, Fleet Manager, Public Works

DEPARTMENT HEAD:______________________________
GLENN S. ROBERTS
Director of Public Works

CITY MANAGER APPROVAL:______________________________
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