Demonstration and Evaluation of U.S. Postal Service Electric Carrier Route Vehicles

Quarterly Report, June 2001

AQMD CONTRACT #00192

Project Number: TC-00-0101
Report Number: TC-00-0101-TR04

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL℠ Company

Electric Vehicle Technical Center
An ISO 9001 Certified Facility

Prepared by:

Michel Wehrey
Juan C. Argueta
Julie M. Phung

Electric Vehicle Technical Center • 265 N. East End Avenue, Pomona, California 91767 • USA
Phone: 909-469-0315 • FAX: 909-469-0319 • Juan.Argueta@sce.com

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITIES

This report was prepared by the Electric Transportation Division of Southern California Edison, a subsidiary of Edison International.

Neither the Electric Transportation Division of Southern California Edison, Southern California Edison, Edison International, nor any person working for or on behalf of any of them makes any warranty or representation, express or implied, (i) with respect to the use of any information, product, process or procedure discussed in this report, including merchantability and fitness for a particular purpose, or (ii) that such use does not infringe upon or interfere with rights of others, including another's intellectual property, or (iii) that this report is suitable to any particular user's circumstance.

Neither the Electric Transportation Division of Southern California Edison, Southern California Edison, Edison International, nor any person working on behalf of any of them assumes responsibility for any damages or other liability whatsoever resulting from your selection or use of this report or any information, product, process or procedure disclosed in this report.

This report was prepared as a result of work sponsored, paid for, in whole or in part, by the South Coast Air Quality Management AQMD (AQMD). The opinions, findings, conclusions, and recommendations are those of the author and do not necessarily represent the views of AQMD. AQMD, its officers, employees, contractors, and subcontractors make no warranty, expressed or implied, and assume no legal liability for the information in this report. AQMD has not approved or disapproved this report, nor has AQMD passed upon the accuracy or adequacy of the information contained herein.

TABLE OF CONTENTS

I. INTRODUCTION 1
II. ACCELERATED RELIABILITY TEST RESULTS TO DATE 2
2.1 Vehicle Mileage and Energy Usage Since Inception 2
2.2 Operating Cost Analysis 3
2.3 Vehicle Range 5
2.4 Vehicle Incidents and Downtimes Since Inception 5
2.5 Vehicle Availability 7
APPENDIX A: DRIVER'S LOG SHEETS 8
APPENDIX B: SCHEDULE TOU-EV-4 ELECTRICITY TARIFF 41
APPENDIX C: POMONA LOOP MAP 48
APPENDIX D: RANGE TEST DATA SHEETS 49

I. INTRODUCTION

In December 1998 the Delivery and Customer Services Equipment Engineering division of the United States Postal Service (USPS) issued Specification USPS-E-PURC for the procurement of six Pilot Model Electric Carrier Route Vehicles (ECRVs) "for examination and testing within the time frame specified by the Contraction Officer (CO), to prove that the production methods will produce methods will produce vehicles that meet the requirements specified herein".

On December 22, 1999 the USPS announced that Ford Motor Company had been selected to build the first 500 EVs of the demonstration program.

In April 2000, the USPS and South Coast Air Quality Management District (AQMD) recognized Southern California Edison's technical leadership position in the electric vehicle (EV) field and recommended that Baseline Performance and Accelerated Reliability Tests be performed at SCE's Electric Vehicle Technical Center (EVTC) in Pomona, California, with oversight of the Department of Energy (DOE) Field Operations Program.

Under the terms of AQMD contract No. 00192, awarded on July 28, 2000, SCE was to perform the following tasks:

- Task 1 – Baseline Performance Test Procedures Evaluation and Modification
- Task 2 – Accelerated Reliability Test Procedures Evaluation and Modification
- Task 3 – Conduct Baseline Performance Tests on two ECRVs
- Task 4 – Conduct Accelerated Reliability Tests on two ECRVs

Tasks number 1 and 2 were completed on August 10, 2000 when revision 0 of the Baseline Performance and Accelerated Reliability test Procedures were issued and forwarded to the USPS.

Tasks number 3 and 4 started in late August when SCE received USPS approval to operate the four vehicles delivered to the EVTC on July 5, 2000.

Task 3 was completed on November 15, 2000 and vehicle Nos. 1240003 and 1240004 were returned to Ford Motor Co.

This quarterly report presents the progress to date on Task 4, the Reliability Tests, as of June 15, 2001.

II. ACCELERATED RELIABILITY TEST RESULTS TO DATE

2.1 Vehicle Mileage and Energy Usage Since Inception

Postal vehicles 1240001 and 1240002 (also referred to as Vehicles #1 and #2) have been on an accelerated mileage regimen in which they are expected to achieve over 20,000 miles in a one-year period. During testing, all mileage, ambient temperature and energy usage is collected for each drive on log sheets (Appendix A, page 8). Energy is also recorded by a kilowatt-hour measuring device, which is downloaded periodically. Table 2.1-1, below, summarizes the cumulative mileage and energy usage recorded at the end of the second quarter 2001.

Table 2.1-1 – Vehicle Mileage and Energy Usage – As of June 15, 2001

	Vehicle #1	Vehicle #2
Start Odometer	153	143
Current Odometer	13,676	14,400
Total Miles Driven	13,523	14,257
Total ACkWh Used	8,790*	9,171
AC kWh/mile	0.65	0.64

*Extrapolated due to two weeks of data missing.

Please refer to Figure 2.1-1. It shows the growth of recorded miles since the beginning of the tests.

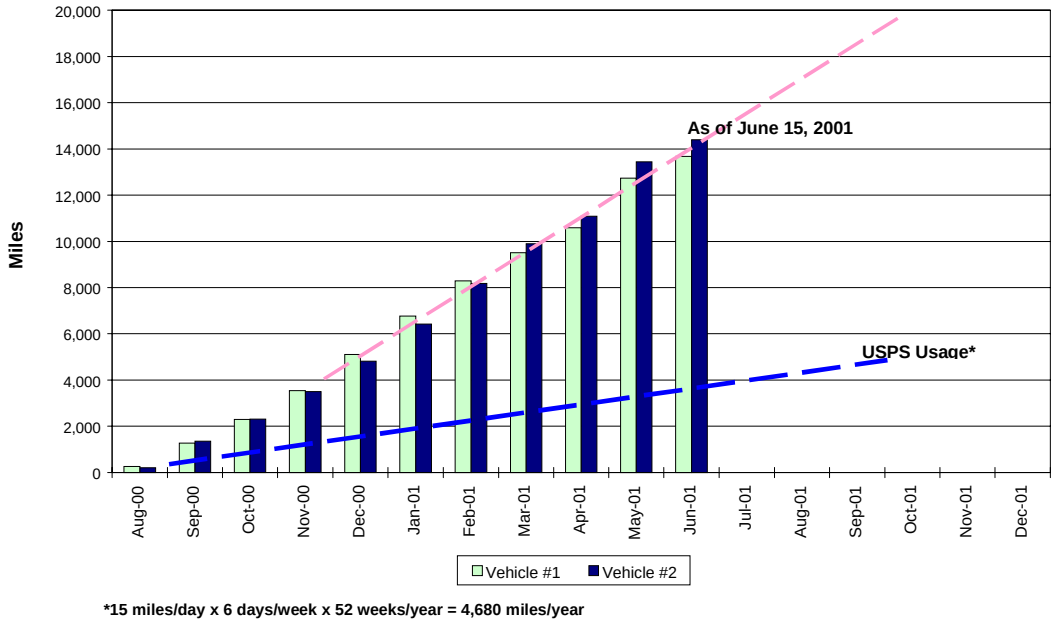


Figure 2.1-1 Cumulative Distance Driven by Vehicles No. 1 and No. 2

2.2 Operating Cost Analysis

Energy costs have been calculated on the basis of a Schedule TOU-EV-4 electricity tariff, "Electric Vehicle Charging – Demand Metered" (see Appendix B, page 41), with no additional demand charges.

Table 2.2-1 below is based on the $0.09581/kWh winter off-peak cost of TOU-EV-4, effective June 3, 2001 for the energy usage shown on Table 2.1-1.

Table 2.2-1 – Energy Cost

	Vehicle #1	Vehicle #2
Total AC kWh Cost	$ 842.16	$ 878.67
Electricity Cost per Mile	$ 0.0622	$ 0.0616

To get "real world" electricity usage (miles per kWhr) and cost (cents per mile) data, the odometers of all the ECRVs at the Fountain Valley USPS facilities were read on June 1, 2001, before the vehicles were leaving for their daily route (Figure 2.2-1 and Table 2.2-1).

The odometers will be read again on July 2, 2001 and the ABB (recording) kWhr meter, which serves all the charging stations, will be downloaded (Figure 2.2-2).

The average energy efficiency for that fleet and its actual monthly "fuel" cost will be calculated by using the TOU-EV-4 rate schedule applicable to the USPS.

To document individual ECRV charging patterns and energy use, an ABB meter will be inserted between a few randomly picked vehicles and their charging station. The ABB meter will document the start time, end time, off-peak energy, on-peak energy, and power profile.

These data will be provided in the third quarter 2001 report.

Steps are being taken to obtain maintenance cost data from Ford Motor Co. and subsequent quarterly reports will attempt to document these costs.

Table 2.2-1 – Fountain Valley ECRV Mileage

Vehicle #	Mileage as of June 1st	Mileage as of July 1st
1240028	1090	*
1240023	996	*
1240027	1261	*
1240024	1226	*
1240019	1173	*
1240033	515	*
1240034	943	*
1240029	1195	*
1240020	969	*
1240016	827	*
1240018	1132	*
1240017	1658	*
1240031	630	*
1240015	1044	*
1240009	1107	*
1240013	1192	*
1240012	1486	*
1240011	1525	*
1240010	837	*
1240032	921	*
1240008	991	*
1240007	1127	*
1240021	977	*
1240026	966	*
1240022	1062	*
1240025	1266	*
1240014	1215	*
TOTAL MILES:	29331	*

*Data will be provided in the 3rd quarter 2001 report.

Figure 2.2-1 ECRVs on Charge at Fountain Valley

Figure 2.2-2 ABB Meter

2.3 Vehicle Range

Range tests are being performed periodically with the accelerated reliability vehicles on the Pomona Urban Loop (See Pomona Loop Map in Appendix C, page 48). All tests are performed at maximum payload (1250lbs) with no auxiliary loads (UR3).

The vehicles are driven until they reach the stop condition, which is when the battery light begins to flash. The vehicles can be safely driven further past the stop condition for a few more miles until the Power Limit light comes on solid. When the Power Limit light begins to flash the vehicle's top speed will be reduced to 25 mph (to protect the battery pack).

Table 2.3-1, below, shows the range results obtained as of June 15, 2001. As can be seen on the table, the vehicles generally complete in excess of 40 miles on the Pomona Loop. The most recent range test data sheets are included in Appendix D, page 49.

Table 2.3-1 – Accelerated Reliability Vehicle Range Results

	Date Tested	Average Ambient Temp ^{o}F	Odometer Start	Odometer End	Range at Stop Condition	Battery Pack Installed On
Vehicle No. 124001	08-30-00	74.0	215	261	45.3	Original
	10-12-00	70.4	1,410	1,452	41.9	Original
	12-06-00	70.7	3,774	3,811	41.1	Original
	03-28-01	66.0	9,458	9,503	44.8	03-13-01
	06-18-01	88.5	13,764	13,811	47.8	04-06-01
Vehicle No. 124002	08-31-00	78.6	164	210	46.0	Original
	10-12-00	70.4	1,545	1,584	38.5	Original
	12-06-00	70.7	3,791	3,833	41.4	Original
	03-27-01	68.2	9,849	9,899	48.6	Original
	06-15-01	84.0	14,326	14,375	49.4	Original

2.4 Vehicle Incidents and Downtimes Since Inception

Tables 2.4-1 and 2.4-2, below, show the incidents that have been recorded with the accelerated reliability vehicles since the beginning of the tests.

Table 2.4-1 – Vehicle Incidents and Downtimes for Vehicle No. 124001

Odometer (Miles)	Date	Description	Downtime - Days
294	09-08-00	Vehicle charger noticed to be charging abnormally, approximately 10 hours to charge. Charging profile showed that charger repeatedly charged for three minutes then turned off for seven minutes until the charge was complete. Ford Motor Co. is aware of the situation.	0
403	09-11-00	Charger not functioning. Repaired 9-13-00. New charger installed. Charger cooling fan failed.	2
4,044	12-10-00	Vehicle showing power limit lamp flashing after only 28.7 miles. Weekend driver. Sunday drive.	0
6,693	02-05-01	At beginning of second drive of the day, the vehicle lost power and service and power limit lights came on. A faulty DC/DC converter was replaced.	1
8,818	03-10-01	After about one mile away from the EVTC, the vehicle lost power and main contactor clicking sounds could be heard. The battery pack was replaced by a reconditioned one.	4
8,938	03-14-01	At the end of the first drive of the day, the vehicle lost power and the service light came on. The Battery Control Module (BCM) was replaced.	4
10,069	04-06-01	Service light came on. Weak battery module. A reconditioned pack was installed.	3
11,238	04-30-01	Service light came on. New battery module installed to replace faulty one.	1

Table 2.4-2 – Vehicle Incidents and Downtimes for Vehicle No. 124002

Odometer (Miles)	Date	Description	Downtime - Days
298	09-07-00	Vehicles need loading straps for payload, payload shifted abruptly without loading straps on vehicle 1240002. Loading straps obtained on 9-8-00.	0
415	09-11-00	When vehicle was driven to power limit mode the power steering on the vehicle became hard. High voltage fuse may be the problem. Repaired 9-12-00. High voltage fuse and power steering replaced.	1
1,503	10-07-00	Power Limit light on at 27.8 miles. Drive ended at 34 miles.	0
1,605	10-13-00	Power steering upgraded. Requested by Ford Motor Co.	NA
3,643	12-03-00	Vehicle showing power limit after only 27.4 miles, had to be towed back to EVTC. Previous day, vehicle was discharged completely. Weekend driver. Sunday driver.	0
4,139	12-12-00	Electric Vehicle Supply Equipment (EVSE) “Service Required” light came on. EVSE fuse box was cycled off then on. Charging now functioning normally.	0
11,886	05-01-01	Vehicle lost power after 26.5 miles. Had to be towed back to EVTC.*	0
12,562	05-14-01	Vehicle lost power after 28.9 miles. Was towed back to EVTC.*	0.5
13,282	05-29-01	Vehicle lost power after 28.3 miles. Had to be towed back to EVTC.*	0.5

*Under investigation for the possibility of incomplete charging.

2.5 Vehicle Availability

Please refer to Figure 2.5-1 for records of the monthly availability of vehicles No. 1 and 2 since the test started.

Note that the formula shown on Figure 2.5-1 does not qualify the Downtime Days, i.e. downtime during weekends has the same impact as downtime during working days since the ECRVs deliver mail on Saturdays and should be available on Sundays.

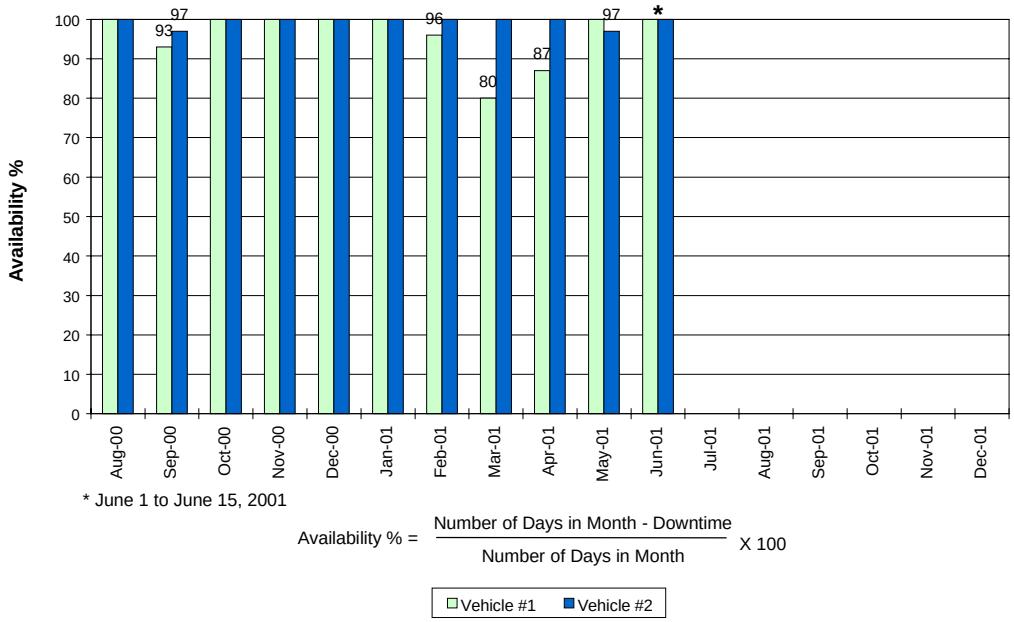


Figure 2.5-1 Monthly Vehicle Availability – Accelerated Reliability Testing

Considering the demanding driving conditions of the reliability tests, overall availability has been good. Vehicle No. 1 has a 95.3% recorded availability from August 2000 to June 15, 2001. Vehicle No. 2 has a 99.4% recorded availability for the same period.

APPENDIX A: DRIVER'S LOG SHEETS

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
8/28/00	Sanchez	3:35	85.3	100%	153	33	4:23	84.4	51.0%	170		16.8	01139878	10261/10273
8/29/00	solares	9:00		100%	170	33	9:27		100.0%	171	35	1.9	01139878	10273/10274
8/29/00	Sanchez	2:10	71.8	100%	171	33	3:52	71.6	0.0%	215	0	43.5	01139878	10274/10345
8/30/00	Sanchez	9:42	70	100%	215	38	11:30	77.9	0.0%	261	0	45.3	01139878	/
9/7/00													01139878	/
9/9/00	Barbour	7:15	59.7	100%	261	40	8:45	74.8	10.0%	294	6	32.9	01139878	10345/10370
9/10/00	Barbour	6:30	59.9	100%	294	39	8:20	65.7	0.0%	335	2	40.6	01139878	10370/10378
9/10/00	Barbour	11:40	80.6	40%	335	18	12:20	82.4	0.0%	350	3	15.6	01139878	10378/110407
9/11/00	Sanchez	3:10	98.1	100%	351	40	6:30	98.1	0.0%	403	0	52.6	01139878	10407/10450
9/13/00	Sanchez	2:10	93.1	100%	403	43	4:41	97.1	0.0%	453	0	50.2	01139878	10450/10486
9/14/00	Sanchez	9:50	81.3	100%	453	43	12:00	91.5	0.0%	493	0	40.8	01139878	10486/10518
9/15/00	Sanchez	10:20	87.1	100%	494	40	11:54	93.5	0.0%	535	0	40.7	01139878	10518/10561
9/15/00	Diaz	3:05		60%	535		4:00			557		22.4	01139878	/
9/16/00	Barbour	9:30	83.4	100%	557	40	11:15	89.8	0.0%	595	0	37.6	01139878	10561/10587
9/17/00	Barbour	8:20	76.2	100%	595	39	10:05	81.7	0.0%	634	0	39.0	01139878	10587/10615
9/18/00	Sanchez	9:00	81	100%	634	39	10:30	91.8	0.0%	674	0	40.7	01223620	1998/2016
9/18/00	Sanchez	2:35	99	97%	675	38	4:00	95	0.0%	708	0	33.5	01139878	10615/10641
9/19/00	Sanchez	8:50	73.2	100%	708	42	10:22	84.9	0.0%	744	0	40.8	01139878	10641/
9/19/00	Sanchez	2:40	87.1	80%	749	33	4:12	93	0.0%	786	0	37.0	01139878	10661/10690
9/20/00	Sanchez	8:30	68.5	100%	786	40	10:15	75.2	0.0%	828	0	41.7	01139878	10690/10710
9/20/00	Sanchez	2:10	85.6	90%	82.8	29	3:50	84.8	0.0%	866	0	38.3	01139878	10710/10740
9/21/00	Sanchez	8:50	77	100%	866	40	10:30		0.0%	904	0	38.4	01139878	10740/10760
9/21/00	Sanchez	2:36	70.8	100%	904	40	5:11	71.4	0.0%	945	0	40.8	01139878	10760/10793
9/23/00	Barbour	7:05	62.1	100%	945	44	8:35	63.3	0.0%	984	0	38.5	01139878	10793/10822
9/24/00	Barbour	11:06	82.4	100%	984	42	12:38	85.5	0.0%	1020	0	36.8	01139878	10822/10846

comments (dated) 9/12/00 vehicle only charged to 3/4 in the morning
9/18/00 11:30am stopped charge for 10min.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
9/25/00	Sanchez	9:00	72.7	100%	1020	42	11:10	89.4	0.0%	1061	0	40.8	01139878	10846/10866
9/25/00	Sanchez	3:15	100	90%	1061	39	4:35	95	0.0%	1093	3	32.1	01139878	10866/
9/26/00	Diaz	9:30	83.7	100%	1093	41	11:00	87.3	0.0%	1129	4	35.8	01139878	/10916
9/27/00	Sanchez	8:40	67	100%	1129	40	10:23	68	0.0%	1170	0	40.7	01139878	10916/10938
9/27/00	Sanchez	2:40	79.2	97%	1170	35	4:15	79.9	0.0%	1204	3	34.3	01139878	10938/10965
9/28/00	Sanchez	1:15	81.9	100%	1204	39	3:24	84	0.0%	1244	2	39.5	01139878	110965/10994
9/30/00	Barbour	10:05	68.4	100%	1244	40	11:30	72	0.0%	1276	3	32.0	01139878	10994/11021
													01139878	11021/11025
10/4/00	Sanchez	11:00	68.5	100%	1276	39	12:00	71	27.0%	1295	11	19.5	01139878	11025/11043
10/7/00	Barbour	9:10	66.9	100%	1295	39	10:46	72.3	0.0%	1327	2	32.2	01139878	11043/11069
10/10/00	Sanchez	8:20	60	100%	1327	37	9:35	70.1	2.0%	1342	20	20.0	01139878	11069/11082
10/10/00	Sanchez	4:30	66	100%	1347	36	5:15	65.1	2.0%	1366	20	18.9	01139878	11082/
10/11/00	Ruiz	1:40		100%	1366	38	3:30			1410	0	43.2	01139878	11098/11122
10/12/00	Sanchez	9:40	61.2	100%	1410	40	10:18		0.0%	1452	0	41.9	01139878	11122/11152
10/13/00	Sanchez	8:00	54.1	100%	1452	40	9:50	70	0.0%	1490	0	38.7	01139878	11152/11192
10/16/00	Sanchez	9:55	74		1490	40	11:27		3.0%	1525	3	34.8	01139878	11192/11216
10/17/00	Sanchez	9:20	6.15	100%	w1525	40	9:45	80	2.0%	1564	2	38.5	01139878	11216/
10/17/00	Ruiz	2:00		100%	1564	40	4:00		0.0%	1607	0	43.0	01139878	11237/11267
10/18/00	Sanchez	9:15	68.9	100%	16076	40	10:50	69.4	2.0%	1641	4	33.7	01139878	11267/11286
10/18/00	Sanchez	3:55	74.1	100%	1641	40	4:00	74.1	99.0%	1644	39	33.0	01139878	11286/11294
10/19/00	Sanchez	9:30	62.1	100%	1644	40	10:50	72	0.0%	1678	2	34.5	01139878	11294/11312
10/19/00	Sanchez	2:30	83.5	98%	1678	33	4:00	85	0.0%	1715	1	36.2	01139878	11312/11339
10/20/00	Sanchez	8:15	58.6	100%	1715	38	9:54	72.5	0.0%	1754	0	39.7	01139878	11339/11357
10/20/00	Sanchez	1:40	78.8	74%	1745	34	3:04	7.8	0.0%	1785	0	30.8	01139878	11357/11391
10/22/00	Barbour	8:25	60.4	100%	1785	40	10:07	67.3	0.0%	1824	0	38.9	01139878	11391/11415

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
10/23/00	Sanchez	9:35	65.8	100%	1824	38	11:00	77.4	0.0%	1865	0	40.9	01139878	11415/11444
10/24/00	Sanchez	8:30	61.7	100%	1865	38	10:30	76	0.0%	1906	0	41.2	01139878	11444/11461
10/24/00	Sanchez	1:30	78.1	60%	1906	23	2:00	78.4	0.0%	1931	0	24.9	01139878	11461/11487
10/25/00	Sanchez	8:20	61	100%	1931	38	9:00	62	72.0%	1940	38	8.9	01139878	11487/11488
10/25/00	Sanchez	9:00	63.9	75%	1940	27	1:00	73	0.0%	1966	4	25.9	01139878	11488/11508
10/25/00	Sanchez	2:00	80.2	100%	1966	38	3:30	81	15.0%	1997	9	31.6	01139878	11508/11530
10/26/00	Sanchez	8:10	54	100%	1997	38	9:56	60	0.0%	2034	0	36.4	01139878	11530/11550
10/26/00	Sanchez	1:45	65	100%	2034	36	3:22	66.2	0.0%	2073	0	39.4	01139878	11550/11578
10/27/00	Sanchez	8:55	56.1	100%	2073	36	10:45	61	0.0%	2109	0	36.2	01139878	11578/11598
10/27/00	Sanchez	2:45	80	100%	2109	36	4:07	70	0.0%	2146	0	36.8	01139878	11598/11640
10/30/00	Sanchez	8:45	62.4	100%	2146	38	10:29	68.9	0.0%	2177	0	30.9	01139878	11640/11660
10/30/00	Sanchez	2:35	71	80%	2177	31	4:40	64.6	0.0%	2216	0	38.6	01139878	11660/11687
10/31/00	Sanchez	8:06	53.1	100%	2216	38	9:40	68.9	0.0%	2252	0	36.4	01139878	11687/11710
10/31/00	Sanchez	2:50	72.1	100%	2252	38	4:23	69.1	0.0%	2292	1	39.6	01139878	11710/11736
11/1/00	Sanchez	8:30	59.5	100%	2292	38	9:55	65	0.0%	2325	0	33.9	01139878	11736/11756
*11/1/00	Sanchez	1:30	75.2	100%	2325	34	3:11	78.4	0.0%	2367	0	41.9	01139878	11756/11784
11/2/00	Sanchez	8:30	61.3	100%	2367	38	10:37	70	0.0%	2407	0	39.8	01139878	11784/11799
11/2/00	Sanchez	1:30	80	80%	2407	32	2:40	79	0.0%	2442	2	34.5	01139878	11799/11826
11/3/00	Sanchez	8:30	68	100%	2442	40	10:08	73	0.0%	2483	1	40.3	01139878	11826/11839
11/3/00	Sanchez	12:40	82.4	60%	2483	29	2:05	79.1	0.0%	2511	2	28.1	01139878	11839/11849
11/3/00	Sanchez	4:00	77	50%	2511	21	4:19	75	30.0%	2517	19	6.6	01139878	11849/11879
11/5/00	Barbour	7:20	48.8	100%	2517	40	9:00	59.9	0.0%	2558	0	40.6	01139878	11879/11902
11/6/00	Sanchez	8:20	57	100%	2558	40	10:30	61	0.0%	2590	0	40.4	01139878	11902/11924
11/6/00	Sanchez	2:40	71	100%	2598	40	3:49	67	0.0%	2637	0	38.5	01139878	11924/11954
11/7/00	Sanchez	9:50	69	100%	2637	39	10:27	72	70.0%	2049	26	12.7	01139878	11954/11961

Comments (Dated): *11/1/00 payload moved to veh#3

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
11/7/00	Sanchez	2:00	73.6	100%	2649	38	3:23	72.1	0.0%	2687	5	37.2	0113978	11961/11987
11/8/00	Sanchez	8:25	56	100%	2687	39	1:00	61	0.0%	2723	0	35.7	0113978	11987/11996
11/8/00	Sanchez	11:45	77	50%	2723	16	12:57	79	0.0%	2743	0	20.0	0113978	1996/12005
11/8/00	Sanchez	2:35	77	49%	2743	19	2:40	77	49.0%	2743	20	0.1	0171202	258/262
*11/09/00	Sanchez	11:10	64	100%	2743	38	12:27	62.3	0.0%	2783	2	40.0	01308606	2422/2434
11/9/00	Sanchez	3:10	60	65%	2783	30	4:12	57	0.0%	2811	0	28.4	0113978	12005/2508
11/13/00	Sanchez	10:15	68	100%	2811	41	11:54	78	0.0%	2851	4	39.9	01308606	2508/2511
11/13/00	Sanchez	2:45	80.1	95%	2851	37	4:00	66.3	0.0%	2887	3	35.4	01308606	2511/12100
11/14/00	Sanchez	9:10	61	100%	2887	42	11:10	65.4	0.0%	2927	0	40.1	01308606	12100/12132
11/16/00	Sanchez	9:30	58	100%	2927	41	10:50	60	0.0%	2954	0	27.7	01308606	12132/12148
11/16/00	Sanchez	1:30	64.2	100%	2954	38	3:00	62	0.0%	2994	0	40.1	01308606	12148/12175
11/17/00	Sanchez	9:20	58	100%	2994	38	10:50	65.2	0.0%	3030	0	33.2	01308606	12175/12195
11/17/00	Sanchez	3:20	65	100%	3030	35	4:35	64.7	0.0%	3068	0	38.4	01308606	12195/12222
11/18/00	Barbour	9:50	57.3	100%	3068	38	11:36	63.6	0.0%	3110	0	41.8	01308606	12222/12258
11/20/00	Sanchez	11:00	71	100%	3110	38	12:00	72.3	0.0%	3146	0	35.9	01308606	12258/12276
11/20/00	Sanchez	3:30	76	90%	3146	31	4:30	74	0.0%	3185	0	38.8	01308606	12276/12305
11/21/00	Sanchez	9:30	68	100%	3185	39	11:00	71	0.0%	3223	0	38.6	01308606	12305/12319
11/21/00	Sanchez	1:30	76	60%	3223	22	2:15	72	0.0%	3250	0	27.2	01308606	12319/12327
11/21/00	Sanchez	3:30	70	35%	3250	15	4:15	68	0.0%	3266	0	15.6	01308606	12327/12356
11/22/00	Sanchez	10:40	64	100%	3266	39	12:00	67	0.0%	3300	0	34.4	01308606	12356/
														/
														/
														/
														/
														/

Comments (Dated): *note on 11/9/00 postal van#1 was charged on 01308606

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC		DTE			
11/27/00	Neil	3:15	83	100%	3301	39	4:15	77	33.0%	3323	10	21.9	01139878	/12437
11/28/00	Sanchez	7:50	59.6	100%	3327	39	9:14	65.9	0.0%	3358	0	34.6	01139878	12437/12457
11/28/00	Sanchez	1:05	76	100%	3358	31	2:35	75.5	0.0%	3398	0	40.1	01139878	12457/12483
11/29/00	Sanchez	9:20	59.3	100%	3398	32	10:35	60.4	0.0%	3432	0	34.5	01139878	12483/12501
11/29/00	Sanchez	2:00	67	75%	3432	30	3:30	66.3	0.0%	3472	0	39.7	01139878	12501/12531
11/30//00	Sanchez	9:30	60	100%	3472	32	10:30	62	0.0%	3505	0	33.0	01139878	12531/12550
11/30/00	Sanchez	2:06	69.4	97%	3505	29	3:40	68.5	0.0%	3545	0	39.8	01139878	12550/12580
12/1/00	Sanchez	8:50	59.9	100%	3545	32	10:00	62.2	0.0%	3584	0	39.2	01139878	12580/12603
12/1/00	Sanchez	3:00	59	100%	3616	10	4:25	57	0.0%	3616	0	32.2	01139878	12603/12642
12/4/00	Sanchez	9:25	61	100%	3616	38	11:10	73	0.0%	3652	0	35.6	01139878	12642/12659
12/4/00	Sanchez	12:30	70	80%	3652	29	2:30	74.6	0.0%	3692	0	40.0	01139878	12659/12688
12/5/00	Sanchez	9:15	69.8	100%	3692	29	10:30	73.4	0.0%	3732	0	39.9	01139878	12688/12706
12/5/00	Sanchez	1:45	78.4	75%	3732	22	3:00	80.1	0.0%	3772	0	40.0	01139878	12706/12736
12/6/00	Sanchez	8:30	68	100%	3772	35	8:50	98	37.0%	3773	0	0.1	01139878	12736/12736
*12/6/00	Sanchez	1:05	71.4	100%	3773	32	2:45	70	0.0%	3814	0	41.1	01139878	12736/12764
12/7/00	Sanchez	10:30	68	100%	3814	39	11:30	71	30.0%	3836	15	22.0	01139878	12764/12776
12/7/00	Sanchez	1:45	67	100%	3836	31	3:30	72.5	0.0%	3880	0	44.0	01139878	12776/12807
12/8/00	Sanchez	8:15	62.7	100%	3880	31	10:03	61.6	0.0%	3921	0	40.7	01139878	12807/12829
12/8/00	Sanchez	2:05	61.9	100%	3921	32	4:26	62.1	0.0%	3967	0	45.9	01139878	12829/12861
12/9/00	Barbour	8:30	54.7	100%	3967	34	10:04	57.4	2.0%	4007	4	39.6	01139878	12861/12889
12/10/00	Barbour	10:15	56.8	100%	4007	36	11:48	58.8	0.0%	4044	0	37.3	01139878	12889/12918
12/11/00	Sanchez	8:15	57	100%	4044	31	10:23	60.9	0.0%	4086	0	42.2	01139878	12918/12927
12/12/00	Sanchez	11:00	60	25%	4086	9	11:50	59.9	0.0%	4106	0	20.3	01139878	12927/12971
12/12/00	Sanchez	2:10	63	52%	4106	20	3:15	61.4	0.0%	4130	0	24.0	01139878	12940/12971
12/13/00	Sanchez	8:15	60	100%	4130	35	10:10	60	0.0%	4173	0	42.6	01139878	12971/12990

Comments (Dated): *driven with no weight / 12/10/00 power limit light flashing@28.7 miles

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
12/13/00	Sanchez	13:30	65.5	75%	4173	28	15:05	64.6	0.0%	4212	0	39.1	01139878	12990/13021
12/14/00	Sanchez	8:10	61	100%	4212	35	10:00	63.3	0.0%	4252	0	40.2	01139879	13021/13042
12/14/00	Sanchez	14:00	62	100%	4252	38	16:20	58.1	0.0%	4293	0	40.9	01139880	13042/13069
12/15/00	Sanchez	8:00	61	100%	4293	38	9:45	62	0.0%	4334	0	41.1	01139881	13069/130087
12/15/00	Sanchez	13:10	64	72%	4334	28	14:42	652	0.0%	4372	0	38.4	01139882	13087/13138
12/18/00	Sanchez	10:30	66	100%	4372	38	12:20	73.6	0.0%	4415	0	42.9	01139883	13138/13157
12/18/00	Barbour	15:50	73.2	85%	4415	31	17:16	65.7	0.0%	4453	0	37.3	01139884	13157/13184
12/19/00	Sanchez	7:50	62	100%	4453	39	9:55	62.9	50.0%	4474	20	21.3	01139885	13184/ 13197
12/19/00	Sanchez	11:25	71.5	100%	4474	39	3:35	75.1	0.0%	4523	0	49.2	01139886	13197/13227
12/20/00	Sanchez	8:10	64.1	100%	4523	39	10:00	63.8	0.0%	4564	0	41.5	01139887	13227/13249
12/20/00	Sanchez	2:00	70.3	100%	4564	39	3:44	70.1	0.0%	4606	0	41.1	01139888	13249/13279
12/21/00	Sanchez	8:10	59.6	100%	4606	40	9:48	65	0.0%	4647	0	41.1	01139889	13279/13301
12/21/00	Sanchez	1:50	72	100%	4647	39	3:40	70.9	0.0%	4688	0	41.0	01139890	13301/
12/22/00	Sanchez	8:40	52	100%	4688	40	10:20	61.2	0.0%	4731	0	43.2	01139891	/13354
12/22/00	Sanchez	2:30	67.6	90%	4731	30	5:00	64.2	0.0%	4777	0	48.2	01139892	13354/13389
12/23/00	Barbour	8:25	56.1	100%	4777	40	9:57	60	2.0%	4815	7	37.4	01139893	13389/13434
12/26/00	Sanchez	8:00	60	100%	4815	40	10:00	62	0.0%	4856	0	41.8	01139894	13434/13456
12/26/00	Sanchez	7:00	68.5	100%	4856	31	3:58	67.8	0.0%	4896	0	40.0	01139895	13456/13484
12/27/00	Sanchez	9:05	60	100%	4896	39	10:51	64	0.0%	4938	0	41.3	01139896	13484/13507
12/27/00	Sanchez	3:10	71	100%	4938	39	4:57	69.2	2.0%	4979	3	41.0	01139897	13507/13535
12/28/00	Sanchez	8:10	61.7	100%	4979	40	9:47	67	0.0%	5020	3	41.1	01139898	13535/13564
12/28/00	Sanchez	1:15	7.25	97%	5020	32	2:52	72.1	0.0%	5061	0	41.0	01139899	13564/13584
12/29/00	Sanchez	8:50	60	100%	5061	40	10:34	69	0.0%	5102	0	41.9	01139900	13584/13634
1/2/01	Sanchez	8:08	62	100%	5102	40	9:37	64	0.0%	5137	0	34.9	01139901	13634/13655
1/2/01	Sanchez	4:07	74.4	100%	5137	39	4:25	74.3	98.0%	5141	33	45.0	01139902	13655/13663

Comments (Dated): 12/15/00 van taken down below power limit.,and drained. With AC all lights &fan on. Put back on charge at 4:30.
12/22/00 van driven down all lights lefy on AC&fan put back on charge at 5:30. 12/23-heateron ter on .
01/2/01 note van reached power limit at 27 miles the wrench tool on dash board came on.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
1/3/01	Sanchez	8:35	64.1	100%	5141	39	10:21	70.1	0.0%	5181	0	39.7	01139178	13663/13681
*1/3/01	Sanchez	1:45	74.8	80%	5181	29	3:27	76.8	0.0%	5220	0	39.3	01139178	13681/13712
1/4/01	Sanchez	8:10	59.5	100%	5220	36	3:27	68.5	0.0%	5263	0	42.5	01139178	13712/13734
1/4/01	Sanchez	2:10	79	100%	5263	31	10:05	76	0.0%	5306	0	43.2	01139178	13734/13764
1/5/01	Sanchez	8:00	65	100%	5306	37	4:00	67	0.0%	5348	0	42.0	01139178	13764/13784
1/5/01	Sanchez	2:05	68.5	95%	5348	30	10:10	69.2	0.0%	5387	0	49.0	01139178	13784/13813
1/6/01	Barbour	8:18	56	100%	5387	38	4:10	58	0.0%	5425	0	38.7	01139178	13813/13826
1/6/01	Barbour	12:08	67	70%	5425	25	10:02	71	0.0%	5450	0	24.7	01139178	13826/13861
1/8/01	Sanchez	8:10	64	100%	5450	38	1:16	53	0.0%	5480	0	29.8	01139178	13861/13880
1/8/01	Sanchez	1:45	54	100%	5480	32	9:34	59.7	0.0%	5519	0	39.0	01139178	13880/13907
1/9/01	Sanchez	7:40	55	100%	5519	30	3:45	64.3	0.0%	5552	0	33.3	01139178	13907/13927
1/9/01	Sanchez	12:45	68.5	100%	5552	29	9:13	63.8	0.0%	5592	0	40.3	01139178	13927/13955
1/10/01	Sanchez	8:25	60	100%	5292	30	2:26	62.7	0.0%	5630	0	37.5	01139178	13955/13979
1/10/01	Sanchez	1:35	60.1	100%	5630	30	10:00	57	27.0%	5658	19	28.5	01139178	13979/14008
1/12/01	Sanchez	7:45		100%	5658	31	2:45		26.0%	5681	19	23.0	01139178	14008/
1/12/01	Sanchez	2:10	52	100%	5681	31	9:10	50	0.0%	5721	0	40.1	01139178	/14051
1/13/01	Barbour	11:00	53	100%	5721	32	4:05	56	0.0%	5754	0	33.0	01139178	1405/14072
1/14/01	Sanchez	8:30	40	100%	5754	31	12:24	42	0.0%	5786	0	31.9	01139178	14072/14087
1/14/01	Sanchez	12:30	60	76%	5786	27	9:50	64	0.0%	5825	0	38.4	01139178	14087/14115
1/15/01	Sanchez	8:12	377	100%	5825	31	1:50		0.0%	5859	0	34.0	01139178	14115/14135
1/15/01	Sanchez	1:24	57	100%	5859	30	9:48	57	0.0%	5898	0	39.3	01139178	14135/14163
1/16/01	Sanchez	7:50	40	100%	5898	31	2:55	58	0.0%	5938	0	40.0	01139178	14163/14182
1/16/01	Sanchez	1:15		100%	5938	0	9:45		0.0%	5979	0	41.7	01139178	14182/14212
1/17/01	Sanchez	8:36	44	100%	5979	32	3:12	57	0.0%	5022	0	42.4	01139178	14212/14228
1/17/01	Sanchez	12:45		75%	6022	27	3:37	54	0.0%	6056	0	33.9	01139178	14228/14257

Comments (Dated): *01/03/01 discharged at 3:27 to 4:50

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
1/18/01	Sanchez	7:45	54	100%	6058	38	8:26	58	0.0%	6093	0	37.5	01139178	14257/14267
1/18/01	Sanchez	10:15	59	42%	6093	12		65	0.0%	6113	0	20.1	01139178	14267/14275
1/18/01	Sanchez	1:50	64	49%	6113	13	1:50	64	0.0%	6133	0	20.0	01139178	14275/14307
1/19/01	Sanchez	10:55	59	100%	6133	39	5:00	54	0.0%	6177	0	44.0	01139178	14307/14947
1/21/01	Babour	11:20	63	100%	6177	38	12:47	67	0.0%	6214	0	37.4	01139178	14947/14973
1/22/01	Sanchez	7:45	65	100%	6215	39	9:35	69	0.0%	6256	0	41.7	01139178	14973/14389
1/22/01	Sanchez	12:20	70	70%	6256	23	1:42	71	0.0%	6290	0	34.1	01139178	14389/14399
1/22/01	Sanchez	3:40	59	13%	6290	11	3:55	59	30.0%	6295	15	4.9	01139178	14399/14423
1/23/01	Sanchez	8:40	49	100%	6295	39	10:30	70	0.0%	6335	0	40.0	01139178	14423/14440
1/23/01	Sanchez	1:45	71	80%	6335	32	3:15	69	0.0%	6373	0	38..2	01139178	14440/14470
1/24/01	Sanchez	9:05	40	100%	6373	24	10:45	46	0.0%	6414	0	40.2	01139178	14470/14485
1/24/01	Sanchez	1:25		70%	6414	21	3:05		0.0%	6450	0	36.8	01139178	14485/14517
1/25/01	Sanchez	10:10		100%	6450	39	11:45		0.0%	6488	0	37.9	01139178	14517/14544
*1/26/01	Sanchez	1:37	48	100%	6488	37	3:10	48	0.0%	6525	0	37.3	01139178	14544/14580
1/28/01	Babour	6:20	46	100%	6525	37	7:38	47	0.0%	6555	0	29.5	01139178	14580/14595
1/28/01	Babour	10:10	51	75%	6555	23	11:19	56	0.0%	6583	0	28.5	01139178	14595/14622
1/29/01	Sanchez	12:30	56	100%	6583	37	2:10	56	0.0%	6621	0	37.7	01139178	14622/14647
1/30/01	Sanchez	8:45	46	100%	6621	31	1:05	50	0.0%	6665	0	43.8	01139178	14647/14661
1/30/01	Sanchez	1:45	60	60%	6665	21	2:32	61	0.0%	6689	0	24.2	01139178	14661/14670
1/30/01	Sanchez	4:07	61	27%	6684	10	5:00	58	0.0%	6708	0	18.8	01139178	14670/14699
1/31/01	Sanchez	1:00	51	100%	6708	33	11:45	51	0.0%	6746	0	38.0	01139178	14699/14711
1/31/01	Sanchez	1:55	60	51%	6746	19	3:05	61	20.0%	6764	17	16.9	01139178	14711/
														/
														/
														/

Comments (Dated): 1/19/01&1/26/01 van driven down, 1/28-heater&lights on(6:20).

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
2/1/01	Sanchez	11:00	61	100%	6764	37	12:36	63	0.0%	6804	0	40.0	01139878	14736/14748
2/1/01	Sanchez	2:56	65	60%	6804	20	16:05	66	0.0%	6836	0	31.9	01139878	14748/14776
2/2/01	Sanchez	9:50	56	100%	6836	38	11:32	62	0.0%	6876	0	40.0	01139878	14776/14798
2/2/01	Sanchez	3:47	69	100%	6876	39	5:00	67	0.0%	6911	0	35.1	01139878	14798/14832
2/4/01	Barbour	10:01	68	100%	6911	39	11:56	77	0.0%	6952	0	41.2	01139878	14832/14856
2/5/01	Sanchez	8:10	59	100%	6952	38	9:55	68	0.0%	6992	0	40.0	01139878	14856/14875
2/5/01	Sanchez	1:27	79	100%	6992	38			0.0%		0		01139878	14875/14876
2/6/01	Sanchez	2:45	63	99%	6993	27	4:17	60	0.0%	7032	0	38.8	01139878	14876/14901
2/7/01	Sanchez	8:00	49	100%	7032	38	9:22	49	0.0%	7071	0	38.8	01139878	14901/14920
2/7/01	Sanchez	1;10	56	100%	7070	36	2:25	57	0.0%	7111	0	40.1	01139878	14920/14946
2/8/01	Sanchez	8:00	40	100%	7111	37	9:35	47	0.0%	7151	0	40.5	01139878	14946/14963
2/8/01	Sanchez	1:05	55	80%	7151	30	2:00	55	49.0%	7171	18	19.6	01139878	14963/14964
2/8/01	Sanchez	2:15	55	55%	7171	18	3:00	56	0.0%	7189	0	18.6	01139878	14964/14990
2/9/01	Sanchez	9:47	48	100%	7189	38		52	0.0%	7229	0	40.1	01139878	14990/15022
2/10/01	Sanchez	12:00	50	100%	7229	38	2:00	52	0.0%	7269	0	40.0	01139878	15022/15046
2/11/01	Barbour	9:08	47	100%	7269	40	10:32	50	0.0%	7306	0	36.4	01139878	15046/15072
2/12/01	Sanchez	10:15	48	100%	7306	38	12:15	49	0.0%	7348	0	41.8	01139878	15072/15090
2/12/01	Sanchez	3:27	49	100%	7348	29	4:40	48	0.0%	7368	0	20.0	01139878	15090/15112
2/13/01	Sanchez	9:52	49	100%	7368	34	11:25	49	0.0%	7400	0	32.3	01139878	155112/15131
2/13/01	Sanchez	3:07	48	100%	7400	31	4:35	48	0.0%	7440	0	40.0	01139878	15131/15158
2/14/01	Sanchez	10:05	49	100%	7440	32	12:02	53	0.0%	7481	0	41.1	01139878	15158/15172
2/14/01	Sanchez	3:07	57	100%	7481	24	4:40	54	0.0%	7521	0	40.0	01139878	15172/15202
2/15/01	Sanchez	10:15	50	100%	7521	39	11:50	52	0.0%	7561	0	40.4	01139878	15202/15222
2/15/01	Sanchez	3:32	57	100%	7561	39	5:10	53	0.0%	7609	0	47.3	01139878	15222/15250
2/16/01	Sanchez	10:00	54	100%	7609	40	11:47	61	0.0%	7650	0	41.5	01139878	15250/15272

Comments: 2/5/01 van malfunction . 2-8-01 stopped drive to attend safty meeting 2:00pm.
2/9/01 van driven down &dis charged ,put back on charge at 5:00pm temp was 52. 2/11/01- heater on for 1st 20 miles.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
2/16/01	Sanchez	3:55	64	100%	7650	40	5:12	60	25.0%	4690	10	40.2	01139878	12572/15296
2/17/01	Barbour	7:15	47	100%	7690	40	8:31	51	0.0%	7724	0	33.5	01139878	15296/15321
2/18/01	Barbour	8:35	56	100%	7724	39	9:57	58	0.0%	7754	0	30.5	01139878	15321/15349
2/20/01	Sanchez	10:00	57	100%	7754	38	11:53	61	0.0%	7797	0	42.9	01139878	15349/15366
2/20/01	Sanchez	3:12	62	75%	7797	24	4:37	59	0.0%	7837	0	40.0	01139878	15366/15395
2/21/01	Sanchez	10:10	51	100%	7837	37	11:32	60	0.0%	7878	0	40.5	01139878	15395/15421
2/22/01	Sanchez	10:15	61	100%	7878	39	11:37	64	0.0%	7918	0	40.1	01139878	15421/15439
2/22/01	Sanchez	3:10	61	75%	7918	29	4:37	60	0.0%	7958	0	40.1	01139878	15439/15469
2/23/01	Sanchez	10:15	46	100%	7958	39	12:30	47	0.0%	8000	0	42.0	01139878	15469/15506
2/24/01	Sanchez	3:00	48	100%	8000	38	4:30	48	0.0%	8040	0	40.0	01139878	15506/15538
2/26/01	Sanchez	9:50	60	100%	8080	37	11:12	62	0.0%	8080	0	40.3	01139878	15538/15554
2/26/01	Sanchez	2:30	64	75%	8040	25	4:26	61	0.0%	8120	0	40.0	01139878	15554/15584
2/27/01	Sanchez	10:30	58	100%	8120	39	12:05	54	0.0%	8160	0	40.3	01139878	15584/15607
2/27/01	Sanchez	4:25	43	100%	8160	40	5:45	48	0.0%	8200	0	40.0	01139878	15607/15635
2/28/01	Sanchez	10:45	55	100%	8200	38	12:20	54	0.0%	8240	0	40.0	01139878	15635/15654
2/28/01	Sanchez	3:50	54	100%	8240	30	5:15	51	0.0%	8281	0	40.6	01139878	15654/15683
3/1/01	Jr Ruiz	11:30	55	100%	8281	40	1:15		0.0%	8322	0	41.0	01139878	15683/15710
3/2/01	Sanchez	10:55	55	100%	8322	38	11:51	64	49.0%	8346	38	23.7	01139878	15710/15724
3/2/01	Sanchez	3:30	60	100%	8346	38	5:10	58	0.0%	8386	0	40.6	01139878	15724/15749
3/3/01	Barbour	7:03	50	100%	8386	39	8:19	53	0.0%	8417	0	31.3	01139878	15749/15774
3/4/01	Barbour	8:22	55	100%	8417	38	9:49	57	0.0%	8455	0	37.6	01139878	15774/15799
3/5/01	Sanchez	1:00	65	100%	8455	33	11:30	69	0.0%	8493	0	38.0	01139878	15799/15817
3/5/01	Sanchez	3:00	64	94%	8493	30	4:30	62	0.0%	8535	0	42.2	01139878	15817/15845
3/6/01	Sanchez	10:10	61	100%	8535	39	12:30	64	0.0%	8574	0	39.4	01139878	15845/15865
3/6/01	Sanchez	4:15	61	100%	8574	38	5:45	58	0.0%	8614	0	40.4	01139878	15865/15893

Comments (Dated): 2/17 -heater on,2/18-heater on 2/23/01 driven down and left on with AC,Hlights,heater a,nd put back on charge at 4:30
3/2/01 incomplete drive due to ISO meeting, 3/3/01 heater on. 3/4/01- intermittent heater use.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
3/7/01	Sanchez	9:45	56	100%	8614	39		58	0.0%	8654	2	40.0	011308606	15893/15910
3/7/01	Sanchez	3;05	63	95%	8654	35	4:40	61	0.0%	8695	0	40.3	011308606	15910/15940
3/8/01	Sanchez	10:20	66	100%	8695	40	11:45	67	0.0%	8735	0	40.4	011308606	15940/15959
3/8/01	Sanchez	3:30	68	901%	8735	32	4:50	66	0.0%	8775	0	40.0	011308606	15959/15988
3/9/01	Sanchez	10:20	61	100%	8795	40	12:10	63	0.0%	8837	3	42.3	011308606	15988/16019
3/10/01	Barbour	7:08	47	100%	8817	40	7:14	47	99.0%	8818	39	0.9	011308606	16019/16048
3/14/01	Sanchez	10:00	60	100%	8858	39	11:30	64	0.0%	8898	0	40.1	011308606	16048/16084
3/15/01	Sanchez	11:30	63	100%	8898	43	12:48	62	0.0%	8938	0	40.0	011308606	16084/16084
3/15/01	Sanchez	1:30	84	75%	9056	38	3:20	85	0.0%	9100	0	43.9	01712141	/483
3/20/01	Sanchez	11:40	80	100%	9100	44	1:10	82	0.0%	9140	0	40.2	01712141	483/486
3/20/01	Sanchez	3:45	81	70%	9140	23	5:00	79	0.0%	9171	0	30.5	01712141	486/490
3/21/01	Sanchez	9:50	64	100%	9171	40	11:55	73	0.0%	9211	0	40.0	01712141	490/493
3/21/01	Sanchez	3:00	75	75%	9211	25	9:25	72	0.0%	9251	0	40.1	01712141	493/498
3/22/01	Sanchez	10:00	58	100%	9251	0	12:20	58	0.0%	9291	0	40.2	01712141	498/501
3/23/01	Sanchez	10:00	66	70%	9291	29	11:21	66	0.0%	9326	0	34.5	01712141	501/507
2/24/01	Barbour	9:00	61	100%	9326	40	10:33	65	0.0%	9368	0	42.0	01712141	507/513
3/26/01	Barbour	9:10	65	100%	9368	39	11:02	69	0.0%	9415	0	47.1	01712141	513/516
3/26/01	Barbour	2:12	71	100%	9415	40	4:30	68	0.0%	9458	0	43.5	01712141	516/522
3/27/01	Barbour	2:35	75	100%	9458	45	4:18	73	0.0%	9503	0	44.8	01712141	522/526
3/28/01	Sanchez	10:15	64	100%	9503	42	12:15	68	0.0%	9546	0	42.7	01712141	526/529
3/28/01	Sanchez	3:15	73	70%	9546	30	4:35	71	0.0%	9586	0	40.3	01712141	529/534
3/29/01	Sanchez	10:15	67	100%	9586	41	12:11	72	0.0%	9626	0	40.1	01712141	534/536
3/29/01	Sanchez	3:00	73	75%	9626	30	4:53	70	0.0%	9666	0	40.1	01712141	536/542

Comments (Dated): 3/9/01 discharged with AC,Hlights left on. 3/10-heater on 3/10-vehicle lost power @.6 miles (returned to evtech center)

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
3/30/01	Sanchez	10:10	67	100%	9666	40	11:30	74	0.0%	9707	0	41.3	01715141	542/545
3/30/01	Sanchez	2:49	80	76%	9707	30	4:20	79	0.0%	9747	0	40.0	01715141	545/551
4/1/01	Sanchez	12;40	67	100%	9747	39	2:13	69	0.0%	9789	0	42.0	01715141	551/555
4/2/01	Sanchez	9:52	61	100%	9789	40	11:30	68	0.0%	9830	0	40.2	01715141	555/557
4/2/01	Sanchez	2:37	68	75%	9830	30	4:00	66	0.0%	9869	0	40.0	01715141	557/563
4/3/01	Sanchez	9:50	57	100%	9869	40	11:30	62	0.0%	9910	0	40.4	01715141	563/566
4/3/01	Sanchez	3:00	62	80%	9910	32	4:30		0.0%	9950	0	40.1	01715141	566/571
4/4/01	Sanchez	10:30	63	100%	9950	40	11:50	64	0.0%	9990	0	403.2	01715141	571/574
4/4/01	Sanchez	3:00	63	75%	9990	30	4:30	63	0.0%	10031	0	41.4	01715141	574/581
4/6/01	Sanchez	2:15	65	100%	10031	38	3:40	62	0.0%	10071	0	40.1	01715141	581/
4/10/01	Sanchez	10:00	55	100%	10144	43	11:55	57	0.0%	10184	0	40.0	01715141	/595
4/10/01	Sanchez	3:15	64	75%	10184	30	5:10	63	0.0%	10224	0	40.0	01715141	595/601
4/11/01	Sanchez	11:30	55	100%	10224	42	1:30	60	0.0%	10269	0	44.2	01715141	601/603
4/11/01	Sanchez	4:15	54	60%	10269	30	5:15	54	0.0%	10309	0	40.0	01715141	603/609
4/12/01	Sanchez	10:40	62	100%	10309	44	11:40	68	0.0%	10349	0	40.3	01715141	609/612
4/12/01	Sanchez	3:15	68	73%	10349	30	4:40	68	0.0%	10387	0	37.8	01715141	612/617
4/13/01	Sanchez	10:00	62	100%	10387	42	11:25	67	0.0%	10427	0	40.1	01715141	617/621
4/13/01	Sanchez	4:00	74	100%	10427	42	5:15	73	0.0%	10467	0	40.4	01715141	621/626
4/15/01	Sanchez	6:05	50	100%	10467	42	7:30	52	0.0%	10504	0	37.4	01715141	626/630
4/16/01	Sanchez	11:15	74	100%	10504	40	2:00	71	0.0%	10554	0	49.9	01715141	630/636
4/17/01	Sanchez	10:00	63	100%	10554	41	12:20	74	0.0%	10595	0	40.9	01715141	636/639
4/17/01	Sanchez	5:15	87	100%	10595	42	12:00	78	0.0%	10638	0	43.1	01715141	639/644
4/18/01	Sanchez	10:30	73	100%	10638	42	12:40	77	0.0%	10679	0	40.4	01715141	644/646
4/18/01	Sanchez	3:00	76	74%	10679	31	4:40	73	0.0%	10719	0	40.0	01715141	646

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
4/19/01	Sanchez	12:56	69	100%	10719	43		71	60.0%	10735	30	16.0	01712141	/651
4/19/01	Sanchez	3:05	71	75%	10735	39	5:00	71	0.0%	10775	0	40.0	01712141	651/652
4/20/01	Sanchez	10:05	63	100%	10775	42	11:45	64	0.0%	10815	0	40.0	01712141	652/657
4/20/01	Sanchez	3:30	63	100%	10815	40	4:50	60	0.0%	10855	0	40.0	01712141	657/667
4/22/01	Barbour	5:50	45	100%	10855	40	7:08	51	0.0%	10886	0	31.6	01712141	667/671
4/23/01	Sanchez	10:30	70	100%	10886	42	1:00	78	0.0%	10929	0	42.4	01712141	671/676
4/24/01	Sanchez	11;00	80	100%	10929	40	12:30	85	0.0%	10969	0	41.0	01712141	676/679
4/24/01	Sanchez	3:40	90	70%	10969	26	5:10	90	0.0%	11009	0	40.0	01712141	679/684
4/25/01	Sanchez	9:40	76	100%	11009	41	12:10	86	0.0%	11056	0	47.7	01712141	684/691
4/25/01	Sanchez	2:30	89	60%	11056	26	4:30	88	0.0%	11089	0	33.3	01712141	691/693
4/26/01	Sanchez	11:30	70	100%	11089	41	1:30	72	0.0%	11156	0	50.4	01712141	693/698
4/26/01	Sanchez	3:45	80	49%	11140	20	4:30	78	0.0%	11156	0	16.2	01712141	698/706
4/27/01	Sanchez	10:00	65	100%	11156	42	5:41	75	0.0%	11197	0	41.4	01712141	706/712
4/30/01	Sanchez	8:20	64	100%	11197	40	9:50	70	0.0%	11238	0	40.2	01712141	712/713
5/2/01	Sanchez	12:15	65	90%	11323	31	1:54	70	0.0%	11363	0	40.0	01712141	716/715
5/2/01	Sanchez	4:10	71	70%	11363	29	5:30	70	0.0%	11965	0	38.1	01712141	715/720
5/3/01	Sanchez	10:10	70	100%	11401	41	12:15	75	0.0%	11442	0	40.7	01712141	720/724
5/3/01	Sanchez	4:00	80	75%	11442	32	5:10	80	0.0%	11481	0	40.0	01712141	724/729
5/4/01	Sanchez	10:34	70	100%	11481	41	12:45	77	0.0%	11522	0	40.6	01712141	729/731
5/4/01	Sanchez	3:00	81	60%	11522	30	4:30	80	0.0%	11562	0	40.0	01712141	731/737
5/7/01	Sanchez	10:40	80	100%	11562	42	12:15	85	0.0%	11603	0	41.5	01712141	737/740
5/7/01	Sanchez	3:15	90	29%	11603	30	4:36	90	0.0%	11638	0	34.5	01712141	740/744
5/8/01	Sanchez	10:15	83	100%	11638	40	11:45	89	0.0%	11678	0	40.5	01712141	744/
5/9/01	Sanchez	11:30	83	100%	11679	40	1:00	86	0.0%	11719	0	40.2	01712141	/753
5/10/01	Ruiz	9:45	77	100%	11719	39	11:25	82	0.0%	11762	0	43	01712141	753/

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
5/11/01	Sanchez	10:15	71	100%	11762	40	11:45		0.0%	11802	0	40.6	01712141	/758
5/11/01	Sanchez	3:40	83	97%	11802	39	5:50	81	0.0%	11842	0	40.0	01712141	758/761
5/14/01	Sanchez	2:30	78	100%	11842	40	4:10	80	0.0%	11884	0	41.5	01712141	761/771
5/15/01	Sanchez	1:20		100%	11884	41	3:00	81	0.0%	11928	0	44.1	01712141	771/776
5/16/01	Sanchez	10:20	72	100%	11928	41	11:55	76	0.0%	11969	0	4.6	01712141	776/778
5/16/01	Sanchez	2:43	80	75%	11969	30	4:30	77	0.0%	12009	0	39.9	01712141	778/738
5/17/01	Sanchez	10:45	75	100%	12009	40	12:30	78	0.0%	12049	0	39.8	01712141	738/787
5/17/01	Sanchez	3:50	83	75%	12049	37	5:15	80	0.0%	12088	0	37.7	01712141	787/791
5/18/01	Sanchez	12:00	77	100%	12088	40	1:30	75	0.0%	12128	0	40.0	01712141	791/796
5/20/01	Barbour	7:50	63	100%	12128	40	9:18	66	0.0%	12170	0	41.3	01712141	796/800
5/21/01	Barbour	9:10	64	100%	12170	40	10:57	71	0.0%	12210	0	40.0	01712141	800/803
5/21/01	Barbour	2:24	80	90%	12210	35	3:45	81	0.0%	12232	0	22.6	01712141	803/
5/22/01	Neil	11:05	81	100%	12232	41	12:03	85	50.0%	12254	21	22.1	01712141	
5/23/01	Sanchez	11:10	87	100%	12254	40	12:30	92	0.0%	12294	0	39.8	01712141	/818
5/23/01	Sanchez	4;30	94	100%	12294	40	6:21	98	0.0%	12334	0	40.0	01712141	818/
5/24/01	Barbour	10:40	73	100%	12334	40	12:33	79	0.0%	12376	0	42.1	01712141	
5/24/01	Sanchez	4:40	82	100%	12376	40	6:10	81	0.0%	12415	0	39.3	01712141	/821
5/25/01	Sanchez	8:45	75	100%	12415	40	11:32	80	0.0%	12456	0	40.3	01712141	821/826
5/25/01	Sanchez	3:00	85	100%	12456	31	4:40	84	0.0%	12495	0	39.8	01712141	826/834
5/26/01	Barbour	8:04	67	100%	12495	39	9:48	70	0.0%	12536	0	40.6	01712141	834/838
5/29/01	Sanchez	12:30	80	100%	12536	40	3:30	86	0.0%	12577	0	41.4	01712141	838/843
5/30/01	Sanchez	10:15	78	100%	12577	38	11:30	83	0.0%	12617	0	40.0	01712141	843/850
5/30/01	Sanchez	3:20	86	90%	12617	32	4:43	85	0.0%	12657	0	40.1	01712141	850/
5/31/01	Sanchez	10:25	80	100%	12657	40	11:45	86	0.0%	12697	0	48.0	01712141	/854
5/31/01	Sanchez	3:30	90	95%	12697	30	4:45	90	0.0%	12737	0	39.7	01712141	854/858

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
6/1/01	Sanchez	11:00	73	100%	13483	36	12:20	76	0.0%	12777	0	40.5	01712141	858/861
6/1/01	Sanchez	3:55	80	80%	12777	30	5:30	88	0.0%	12818	0	40.1	01712141	861/866
6/2/01	Barbour	7:50	65	100%	12818	35	9:20	68	0.0%	12858	0	40.0	01712141	866/869
6/3/01	Barbour	9:05	66	100%	12858	38	10:35	69	0.0%	12895	0	37.8	01712141	869/
6/4/01	Sanchez	9:00	68	100%	12895	32	10:20	73	0.0%	12934	0	39.0	01712141	/877
6/4/01	Sanchez	2:40	75	100%	12934	32	4:10	78	0.0%	12974	0	39.6	01712141	877/881
6/5/01	Sanchez	11:00	73	100%	12974	36	12:33	73	0.0%	13019	0	40.0	01712141	881/
6/6/01	Sanchez	10:30	72	100%	13014	36	11:50	78	0.0%	13054	0	40.5	01712141	/894
6/6/01	Sanchez	3:05	85	75%	13054	27	4:30	84	0.0%	13092	0	37.7	01712141	894/898
6/7/01	Sanchez	10:21	78	100%	13092	38	11:37	82	0.0%	13130	0	38.3	01712141	898/902
6/7/01	Sanchez	4:45	87	100%	13130	36	6:15	87	0.0%	13170	0	39.9	01712141	902/
6/8/01	Sanchez	10:55	81	100%	13170	40	4:30	81	0.0%	13223	0	53.4	01712141	/908
6/9/01	Barbour	9:00	75	100%	13223	40	10:34	80	0.0%	13266	0	42.1	01712141	908/912
6/10/01	Barbour	9:05	76	100%	13266	41	10:56	81	0.0%	13311	0	45.3	01712141	912/916
6/11/01	Sanchez	11:20	78	100%	13311	41	12:30	80	0.0%	13350	0	39.7	01712141	916/919
6/11/01	Sanchez	4:00	85	100%	13350	41	5:30	93	0.0%	13391	0	40.2	01712141	919/924
6/12/01	Sanchez	9:30	70	100%	13391	42	11:20	68	0.0%	13430	0	39.3	01712141	924/927
6/12/01	Sanchez	2:40	73	756%	13430	35	4:30	70	0.0%	13469	0	39.4	01712141	927/932
6/13/01	Sanchez	9:50	62	100%	13469	41	11:35	71	0.0%	13509	0	39.9	01712141	932/935
6/13/01	Sanchez	3:00	80	75%	13509	34	4:30	80	0.0%	13549	0	40.1	01712141	935/940
6/14/01	Sanchez	11:00	83	100%	13549	41	12:20	87	0.0%	13590	0	41.0	01712141	940/942
6/14/01	Sanchez	3:30	94	75%	13590	32	4:50	91	0.0%	13629	0	38.2	01712141	942/

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	1

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
6/15/01	Sanchez	11:30	89	100%	13629	42	12:00	90	75.0%	13640	33	11.2	01712141	/947
6/15/01	Sanchez	1:30	93	100%	13640	42	3:10	95	0.0%	13676	0	39.6	01712141	947/954
6/16/01	Barbour	8:05	78	100%	13679	42	9:46	82	0.0%	13721	0	42.1	01712141	954/959
6/17/01	Barbour	8:03	77	100%	13721	42	9:47	80	0.0%	13763	0	42.1	01712141	959/961
6/18/01	Sanchez	11:10	86	100%	13764	42	1:10	91	0.0%	13811	0	47.8	01712141	961/

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
8/30/00	Sanchez	1:25	78.1	100%	143	42	221	82.8	25.0%	164	15	21.1	01712275	722/725
8/31/00	Sanchez	1:20	77.4	100%	164	42	3:05	79.7	0.0%	210	0	46.0	01712275	725/730
9/1/00	Sanchez	9:05	68.1	100%	210	42	10:42	70.7	0.0%	254	0	43.9	01712275	730/739
9/5/00	Sanchez	1:05	85.1	100%	254	42	0:00	89.6	0.0%	298	0	44.1	01712275	739/753
9/6/00	Sanchez	9:30	77.2	100%	298	40	1:20				32.6			/
9/9/00	Barbour	9:10	74.8	100%	331	44	11:00	85.8	0.0%	372	7	41.4	01308606	753/781
9/10/00	Barbour	8:35	65.8	100%	372	44	10:20	73.4	0.0%	415	6	42.7	01308606	781/889
9/14/00	Sanchez	1:50	93.7	100%	518	43	3:30	96.4	0.0%	559	0	40.8	01308606	889/918
9/15/00	Sanchez	9:30	74.9	100%	559	43	10:10	86.4	0.0%	601	0	42.2	01308606	918/936
9/15/00	Sanchez	1:50	98	90%	601	31	3:10	96	0.0%	634	0	33.5	01308606	936/965
9/16/00	Barbour	6:50	72.7	100%	634	43	8:40	78.9	2.0%	675	6	40.8	01308606	965/993
9/17/00	Barbour	6:15	72.8	100%	675	44	8:06	75.8	0.0%	720	0	45.0	01308606	993/1010
9/17/00	Barbour	11:20	85.6	75%	720	32	12:25	94.3	0.0%	748	2	27.9	01308606	1010/
9/18/00	Diaz	8:50	87	100%	748	43	10:26	89		78.9	7	40.7	01308606	/
9/18/00	Diaz	2:00	9:10	100%	78.9	41	4:08	92.3	0.0%	830	1	40.6	01308606	/
9/19/00	Diaz	9:00	85.4	100%	830	43	10:26	87.3	0.0%	868	3	38.4	01308606	/
9/19/00	Diaz	2:40	92.1	100%	868	41	4:17	91	2.0%	906	7	37.8	01308606	/
9/20/00	Diaz	8:31	80	100%	906	43	10:15	82.6	2.0%	944	7	38.4	01308606	/
9/20/00	Diaz	2:00	85.4	100%	9:44	40	3:50	84.8	2.0%	982	7	38.4	01308606	/
9/21/00	Diaz	8:40	77	100%	982	43	10:30	82.3	0.0%	1020	6	38.6	01308606	/1204
9/21/00	Diaz	2:40	71	100%	1020	42	5:15	71.4	8.0%	1061	8	40.8	01308606	1204/1238
9/23/00	Barbour	11:30	75.9	100%	1061	44	1;25	77.1	0.0%	1105	0	43.8	01308606	1238/1265
9/24/00	Barbour	6:55	56.1	100%	1105	45	8:28	63.7	0.0%	1146	0	40.6	01308606	1265/
													01308606	/
														/

Comments (Dated): 9-11-00 steering wheel became hard when car went into power limit. Car was charged. 9-12-00 steering was still hard,no power steering ,power sterring pump replaced and high voltage fuse for same replaced. 9-24-00 vehicle range depleted rapidly after D T E REACHED 10. VEHICLE WENT INTO POWER LIMIT MODE.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
9/25/00	Sanchez	1:00	86.5	100%	1146	43	2:59	100	0.0%	1187	5	41.3	01308606	1295/
9/26/00	Diaz	2:00	87.9	100%	187	43	3:45		9.0%	1223	8	35.8	01308606	/1347
9/27/00	Sanchez	10:40	73.3	100%	1223	43	1:12	72.9	0.0%	1263	0	40.6	01308606	1347 /1378
9/28/00	Sanchez	3:37	84	100%	1263	60	4:14	72	25.0%	1277	25	13.5	01308606	1378 /1391
9/28/00	Sanchez	8:20	68	100%	1277	40	10:20	72.1	0.0%	1318	0	41.6	01308606	1391/1421
9/30/00	Barbour	8:00	63.1	100%	1318	40	9:48	64.6	0.0%	1358	2	40.0	01308606	1421/1450
10/1/00	Barbour	10:00	71.6	100%	1358	41	11:28	75.7	0.0%	1399	0	40.6	01308606	1450/1478
10/2/00	Sanchez	1:30	82.4	100%	1399	42	4:20	87.8	0.0%	1434	0	35.5	01308606	1478/1515
10/5/00	Ruiz	11:00	22.5	100%	1434	42	12:00	77.7	49.0%	1455	20	21.0	01308606	1515/
10/5/00	Ruiz	1:30	81	49%	1455	19	2:00	82.7	0.0%	1469	1	34.9	01308606	1514/1538
10/7/00	Barbour	7:30	64.3	100%	1469	40	9:05	66.9	0.0%	1503	0	34.0	01308606	1538/
10/10/00	Ruiz	3:35		100%	1503	38	4:35		48.0%	1524	18	21.1	01308606	1580/
10/11/00	Ruiz	4:00		100%	1524	38	4:55		47.0%	1545	18	21.1	01308606	1599/1545
10/12/00	Barbour	8:40	61.2	100%	1545	37	10:15	63.3	0.0%	1584	0	38.5	01308606	1545/1642
10/13/00	Sanchez	2:00	82.3	100%	1584	37	2:47	84.3	45.0%	1605	15	21.3	01308606	1642/1657
10/15/00	Barbour	8:40	61.7	100%	1605	37	10:39	66.9	0.0%	1652	0	47.3	01308606	1657/1686
10/16/00	Sanchez	8:20	60.4	100%	1652	40	9:47	73	0.0%	1686	0	33.6	01308606	1686/1701
10/16/00	Sanchez	12:35	92.1	75%	1686	30	1:45	89.1	1.0%	1717	2	31.1	01308606	1701/1728
10/17/00	Sanchez	10:25	87.4	100%	1717	40	11:40	88.2	0.0%	1717	2	34.8	01308606	1728/1755
10/18/00	Sanchez	12:40	71.6	100%	1752	37	2:15	73.8	1.0%	1786	4	34.3	01308606	1755/1780
10/19/00	Sanchez	11:10	68	100%	1786	37	14:15	81	0.0%	1823	0	36.8	01308606	1780/1798
10/19/00	Sanchez	4:20	85	80%	1823	38	5:21	78	48.0%	1841	17	18.0	01308606	1798/1816
10/20/00	Sanchez	10:15	84.7	100%	1841	37	11:40	77.9	0.0%	1876	0	34.7	01308606	1816/1835
10/20/00	Sanchez	3:10	84.7	100%	1876	31	4:08	80	15.0%	1897	0	21.6	01308606	1835/1855
10/21/00	Barbour	9:48	65.3	100%	1897	35	11:31	70.9	0.0%	1938	0	40.6	01308606	1855/1891

Comments (Dated): POWER LIMIT ON @27.8(1017)

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
10/23/00	Sanchez	12:00	82.4	100%	1938	38	1:30	75.7	0.0%	1969	2	31.2	01308606	1891/1896
10/23/00	Sanchez	2:00	81	25%	1969	10	2:45	77	0.0%	1985	3	15.8	01308606	1896/1921
10/24/00	Sanchez	10:35	69.4	100%	1985	38	11:45	76.3	2.0%	2017	2	32.1	01308606	1921/1938
10/24/00	Sanchez	2:50	83.8	98%	2017	32	4:10	77.4	0.0%	2040	4	32.5	01308606	1938/1963
10/25/00	Sanchez	10:30	81.5	100%	2049	36	12:00	78	0.0%	2085	0	35.5	01308606	1963/1998
10/26/00	Sanchez	10:15	62	100%	2085	36	11:32	64	0.0%	2118	0	32.9	01308606	1998/2009
10/26/00	Sanchez	3:32	57	100%	2118	32	4:16	67	50.0%	2137	17	19.6	01308606	2009/2028
10/27/00	Sanchez	11:00	60	100%	2137	32	12:35	69.3	0.0%	2174	0	36.7	01308606	2028/2047
10/27/00	Sanchez	4:15	70.7	100%	2174	30	5:45	67	1.0%	2208	1	33.5	01308606	2047/2088
10/30/00	Sanchez	10:45	68.9	100%	2208	31	12:12	73	0.0%	2411	0	33.7	01308606	2088/2106
10/30/00	Sanchez	4:50	64	100%	2241	32	5:30	60.6	53.0%	2250	18	16.4	01308606	2106/2120
10/31/00	Sanchez	9:52	69.1	100%	2258	32	11:25	72.3	0.0%	2293	0	35.5	01308606	2120/2129
10/31/00	Sanchez	12:57	84.4	30%	2293	12	1:45	75.2	0.0%	2314	0	20.9	01308606	2129/2157
11/1/00	Sanchez	10:00	64	100%	2314	34	11:37	79	0.0%	2353	0	39.9	01308606	2157/2183
11/2/00	Sanchez	10:50	82	100%	2354	38	12:30	79.3	8.0%	2391	9	37.5	01308606	2183/2196
11/2/00	Sanchez	2:52	80	75%	2391	26	4:19	76	0.0%	2432	0	40.3	01308606	2196/2228
11/3/00	Sanchez	10:35	73	100%	2432	38	12:16	79.5	0.0%	2471	0	39.5	01308606	2228/2240
11/3/00	Sanchez	2:40	81.7	60%	2471	21	3:46	77	0.0%	2500	0	28.3	01308606	2240/2268
11/4/00	Barbour	7:20	53.2	100%	2500	37	9:16	62.5	0.0%	2551	0	51.6	01308606	2268/2300
11/5/00	Barbour	10:30	67.3	100%	2551	39	12:12	73.8	0.0%	2595	0	44.1	01308606	2300/2328
11/6/00	Sanchez	10:40	60.3	100%	2595	40	12:20	68.2	48.0%	2619	20	23.6	01308606	2328/2332
11/6/00	Sanchez	1:10	71	70%	2619	23	2:30	72	0.0%	2643	0	23.8	01308606	2332/2340
11/6/00	Sanchez	3:57	64.4	50%	2643	20	4:34	66.4	0.0%	2661	0	18.7	01308606	2340/2371
11/7/00	Sanchez	3:37	69	100%	2661	39	4:00	79	38.0%	2667	36	5.5	01308606	2371/2375
11/8/00	Sanchez	10:10	72	100%	2667	38	11:15	82	0.0%	2699	0	37.5	01308606	2375/2386

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
11/8/00	Sanchez	1:15	80	55%	2699	19	2:28	78	0.0%	2729	1	30.0	01308606	2386/2393
11/8/00	Sanchez	3:50	65	50%	2729	15	4:22	62	23.0%	2741	5	11.8	01308606	2393/2419
11/9/00	Sanchez	8:20	54	100%	2741	39	10:10		0.0%	2781	0	40.2	01712102	2419/2422
11/9/00	Sanchez	11:04	68	100%	2781	8	11:05			2781		0.0	01308606	2434/2482
11/9/00	Sanchez	1:30	66	75%	2781	23	3:00	64	0.0%	2813	1	31.8	01308606	2482/2509
11/21/00	Barbour	10:00	57.4	100%	2813	35	11:47	63.7	0.0%	2856	0	43.1	01308606	2509/2530
11/13/00	Sanchez	1:00	78	100%	2856	34	2:19	80.2	0.0%	2892	0	36.1	01308606	2530/2530
11/14/00	Sanchez	11:20	65	100%	2892	32	12:30	67.3	75.0%	2908	18	16.0	01308606	2553/2569
11/16/00	Sanchez	10:50	64	100%	2908	36	12:10	71	0.0%	2944	2	35.9	01308606	2569/2592
11/16/00	Sanchez	3:20	63	90%	2944	29	4:30	60	0.0%	2977	0	33.4	01308606	2592/2619
11/17/00	Sanchez	11:00	65	100%	2977	31	12:20	67.5	0.0%	3015	0	37.4	01308606	2619/2644
11/17/00	Sanchez	4:45	64	100%	3015	32	6:00	58	50.0%	3038	19	22.9	01308606	2644/2679
11/18/00	Barbour	8:50	66.2	100%	3038	32	10:22	74.8	0.0%	3079	0	41.8	01308606	2679/2706
11/20/00	Sanchez	12:30	75	100%	3080	38	3:00	76	0.0%	3123	2	43.4	01308606	2706/2718
11/21/00	Sanchez	11:00	71	100%	3123	38	12:05	75.2	0.0%	3161	0	38.8	01308606	2718/2750
11/21/00	Sanchez	2:30	72	50%	3161	20	3:30	70	0.0%	3191	0	29.8	01308606	2750/2770
11/22/00	Sanchez	9:30	60	100%	3191	39	10:30	63	0.0%	3230	0	39.0	01308606	2770/2821
11/22/00	Sanchez	2:15	62	100%	3230	32	4:15	60	0.0%	3275	0	44.8	01308606	2821
11/25/00	Barbour	8:55	59.2	100%	3275	35	10:16	68.8	0.0%	3312	0	37.5	01308606	/
														/
														/
														/
														/
														/
														/

Comments (Dated): 11-13-00 weights

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
11/27/00	neil	4:25	76	100%	3312	39	5:30	60	35.0%	3335	17	22.4	01308606	/2877
11/28/00	Sanchez	9:30	65.9	100%	3335	32	11:21	72.7	0.0%	3375	0	40.7	01308606	2877/2896
11/28/00	Sanchez	2:55	74.4	75%	3375	29	4:21	70.5	0.0%	3416	0	40.2	01308606	2896/2927
11/29/00	Sanchez	10:40	60.4	100%	3416	39	12:00	64.7	0.0%	3456	0	39.0	01308606	2927/2947
11/29/00	Sanchez	3:35	67	100%	3455	32	5:04	64	0.0%	3495	0	40.1	01308606	2947/2977
11/30/00	Sanchez	10:45	64	100%	3495	34	11:45	66	0.0%	3531	0	35.7	01308606	2977/2998
11/30/00	Sanchez	3:55	68.5	100%	3531	31	5:10	65.1	0.0%	3510	0	40.0	01308606	2998/3026
12/1/00	Sanchez	10:45	63.3	100%	3570	32	12:28	66.9	0.0%	3613	0	42.9	01308606	3026/3068
12/3/00	Barbour	8:25	58.7	100%	3613	37	9:46	62.2	7.0%	3643	0	29.3	01308606	3068/3093
12/4/00	Sanchez	11:30	73	100%	3643	32	1:30	75.7	0.0%	3683	0	40.1	01308606	3093/3105
12/4/00	Sanchez	3:40	75.1	60%	3683	20	4:30	71	0.0%	3710	0	27.0	01308606	3105/3134
12/5/00	Sanchez	10:35	73	100%	3710	30	12:05	75.5	0.0%	3751	0	41.1	01308606	3134/3152
12/5/00	Sanchez	3:30	77.6	75%	3751	27	4:45	73.5	0.0%	3791	0	40.3	01308606	3152/3182
12/6/00	Sanchez	8:45		100%	3791	31	10:50	69.3	0.0%	3833	0	41.4	01308606	3182/3203
12/6/00	Sanchez	3:00	70.2	100%	3833	30	4:05	69.6	0.0%	3873	0	40.0	01308606	3203/3231
12/7/00	Sanchez	8:15	63.8	100%	3873	30	9:47	67.3	0.0%	3914	0	40.9	01308606	3231/3254
12/7/00	Sanchez	3:45		100%	3912	31	4:40	70.9	50.0%	3935	0	21.9	01308606	3254/3272
12/8/00	Sanchez	10:05	62	100%	3935	30	11:48	62.1	0.0%	3578	0	42.6	01308606	3272/3274
12/8/00	Sanchez	12:00	62.6	0%	3978	0	4:25	61.2	0.0%	3984	0	5.4	01308606	3274/3312
12/9/00	Barbour	10:10	57.5	100%	3984	32	11:37	58.1	0.0%	4021	4	37.3	01308606	3312/3339
12/10/00	Barbour	8:35	53.6	100%	4021	38	10:04	55.9	0.0%	4058	0	37.4	01308606	3339/3369
12/11/00	Sanchez	10:35	60	100%	4058	32	11:00	60	77.0%	4067	30	8.9	01308606	3369/3369
12/12/00	Sanchez	9:30	62.2	73%	4067	29	10:40	59.1	0.0%	4094	0	27.2	01308606	3369/3379
12/12/00	Sanchez	12:58	69	50%	4094	17	2:00	63.2	0.0%	4124	0	29.9	01308606	3379/3388
12/12/00	Sanchez	3:40	61	30%	4124	15	4:22	61.1	0.0%	4139	0	15.5	01308606	3388/3420

Comments (Dated): *12-12-00 took the van down and left on 12/3 power limit on at 27.6 miles-vehicle towed to E V T C .
ON 12-12-00 charger "service required": light came on J R,RUIZ RESET THE FUSE BOX BY TURNING IT OFF@ON charger is now
charger is now working normal F.Sanchez.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
12/13/00	Sanchez	10:20	63.2	100%	4139	39	12:00	59.6	0.0%	4180	0	40.0	01308606	3420/3438
12/13/00	Sanchez	3:10	64	77%	4180	30	4:15	62	47.0%	4204	18	23.7	01308606	3438/3459
12/14/00	Sanchez	10:10	61	100%	4204	38	12:00	61.2	0.0%	4248	0	44.5	01308606	3490/3494
12/15/00	Sanchez	9:50	62	100%	4248	38	1:35	72	0.0%	4290	0	41.6	01308606	3494/3538
12/18/00	Sanchez	2:20	74	100%	4290	38	4:20	70	0.0%	4335	0	45.3	01308606	3538/3565
12/18/00	Sanchez	3:40	71.5	100%	4335	40	4:15	71.9	0.0%	4345	0	10.4	01308606	3565/3576
12/19/00	Sanchez	10:00	63.8	100%	4345	39	11:40	67.5	0.0%	4387	0	41.2	01308606	3576/3598
12/19/00	Sanchez	3:50	70.1	100%	4387	37	5:37	67.5	15.0%	4427	8	40.6	01308606	3598/3631
12/20/00	Sanchez	9:50	65	100%	4427	39	4:40	70.1	0.0%	4468	3	41.2	01308606	3631/3654
12/20/00	Sanchez	4:50		100%	4468	38	5:37	69	1.0%	4509	8	41.2	01308606	3654/3684
12/21/00	Sanchez	10:25	6.12	100%	4509	38	11:58	65.7	0.0%	4551	5	41.1	01308606	3684/3713
12/23/00	Barbour	6:40	49.6	100%	4551	38	8:04	54.6	0.0%	4583	0	32.4	01308606	3713/3725
12/23/00	Barbour	10:22	61.4	65%	4583	22	11:18	63.3	0.0%	4610	0	26.6	01308606	3725/3770
12/26/00	Sanchez	10:10	62	100%	4610	39	12:00	65.8	0.0%	4648	0	38.8	01308606	3770/3791
12/26/00	Sanchez	4:15	67.8	100%	4648	36	5:00	66.9	60.0%	4665	25	17.1	01308606	3791/3485
12/27/00	Sanchez	11:00	64	100%	4665	38	12:39	69.5	0.0%	4707	0	41.7	01308606	3485/3836
12/27/00	Sanchez	3:08			4707		3:08						01308606	3836/3836
12/28/00	Sanchez	9:55	66.5	100%	4704	39	11:25	67.9	0.0%	4748	0	41.0	01308606	3836/3855
12/28/00	Sanchez	3:00	63	99%	4748	31	4:38	69	0.0%	4789	0	41.0	01308606	3855/3885
12/29/00	Sanchez	10;45	69.1	100%	4789	39	12:00	82		4815		26.2	01308606	3855/3925
1/2/01	Sanchez	9:40	64	100%	4815	39	11:45	74.4	0.0%	4854	0	38.4	01308606	3925/3957
1/3/01	Sanchez	10:35	72	100%	4854	39	12:10	74.1	0.0%	4895	3	41.1	01308606	3957/3973
1/3/01	Sanchez	3:35	76.8	75%	4895	23	4:50	72.4	23.0%	4923	9	28.1	01308606	3973/4001
1/4/01	Sanchez	10:12	68.5	100%	4923	37	11:13	72.6	48.0%	4945	18	22.2	01308606	4001/4010
1/4/01	Sanchez	12:52	73.8	80%	4945	30	2:00	74.9	48.0%	4966	17	21.5	01308606	4010/4032

12-15-00 van driven down to power limit then left on with H,LIGHTS, FAN LEFT ON.PUT BACK ON CHARGE AT 4:30

12-23-00 HEATER ON DISCHARGED ON 12-26-00. (1-2-01 DISCHARED AT 11:45 TO 4:15)

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
1/501	Sanchez	10:31	65	100%	4956	35	12:11	67	0.0%	5006	0	39.8	01308606	4032/4066
1/6/01	Barbour	6:05	51	100%	5006	40	7:37	55	0.0%	5048	0	42.0	01308606	4066/4081
1/6/01	Barbour	10:25	61	60%	5048	22	11:46	66	0.0%	5076	0	27.4	01308606	4081/4121
1/8/01	Sanchez	9:25	43	100%	5076	39			0.0%	5111	0	35.5	01308606	4121/
1/9/01	Sanchez	9:20	64	100%	5111	39	10:53		0.0%	5148	0	37.3	01308606	4148/4168
1/9/01	Sanchez	2:35	63.8	100%	5148	30	4:10	62	0.0%	5179	0	30.4	01308606	4168/4192
1/10/01	Sanchez	10:20	50	100%	5179	33	11:47	52	0.0%	5215	0	36.0	01308606	4192/4230
1/12/01	Sanchez	9:15	47	100%	5215	37	11:45	48	0.0%	5249	0	34.1	01308606	4230/4267
1/13/01	Sanchez	8:10	51	100%	5249	36	9:55	53	0.0%	5292	0	42.3	01308606	4267/4297
1/14/01	Barbour	5:45	44	100%	5292	36	6:54	50	0.0%	5323	0	31.8	01308606	4297/4311
1/14/01	Barbour	10:20	45	60%	5323	20	12:12	64	0.0%	5363	0	40.0	01308606	4311/4326
1/14/01	Sanchez	3:00	63	63%	5363	23	4:00	60	0.0%	5397	0	33.3	01308606	4326/4362
1/15/01	Sanchez	9:55		100%	5397	39	11:33	57	2.0%	5438	3	41.2	01308606	4362/4381
1/15/01	Sanchez	3:09	57	100%	5438	36	4:30	50	3.0%	5478	3	40.0	01308606	4381/4412
1/16/01	Sanchez	9:57	53	100%	5478	40	11:36	58	0.0%	5519	3	41.0	01308606	4412/4432
1/16/01	Sanchez	3:20	52	100%	5519	36	4:15	50	53.0%	5538	21	19.3	01308606	4432/4451
1/17/01	Sanchez	9:45	71	100%	5538	38	11:37	76	0.0%	5579	0	41.2	01308606	4451/4466
1/17/01	Sanchez	2:30	68	75%	5579	28	4:03	65	0.0%	5620	0	40.6	01308606	4466/45/00
1/18/01	Sanchez	8:30	43	100%	5620	40	10:00	59	0.0%	5662	0	42.1	01308606	4500/4508
1/18/01	Sanchez	11:35	63	90%	5662	15	12:41	64	0.0%	5689	0	27.0	01308606	4508/4514
1/18/01	Sanchez	1:55	64	25%	5689	13	2:30	63	0.0%	5702	0	12.5	01308606	4514/4548
1/19/01	Sanchez	8:10	56	100%	5702	40	10:50	59	9.0%	5743	0	41.4	01308606	4548/4571
1/19/01	Sanchez	3:15	56	100%	5743	40	5:20	55	0.0%	5774	0	30.9	01308606	4571/4601
1/21/01	Barbour	9:45	59	100%	5774	40	11:17	63	0.0%	5813	0	39.7	01308606	4601/4629
1/22/01	Sanchez	9:45	65	100%	5813	40	11:30	66	0.0%	5852	0	39.0	01308606	4629/4642

Comments (Dated): 1-5-01 DISCHARGED FROM 12:11 TO 4:15. 1-12-01 DISCHARGED AT 11:45 TO 4:10.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
1/21/01	Sanchez	2:00	59	60%	5852	21	3:35	57	0.0%	5894	0	41.4	01308606	4642/4678
1/23/01	Sanchez	10:37	61	100%	5894	39	12:15		0.0%	5937	0	43.2	01308606	4678/4692
1/23/01	Sanchez	3:23	71	72%	5937	24	4:45	65	0.0%	5977	0	40.5	01308606	4692/4729
1/24/01	Sanchez	10:55	46	100%	5677	39	12:20	40	0.0%	6017	2	40.0	01308606	4729/4744
1/24/01	Sanchez	3:10	61	75%	6017	37	4:55	61	0.0%	6061	0	44.0	01308606	4744/4780
1/25/01	Sanchez	8:40	52	100%	6061	38	1:00	60	0.0%	6101	0	40.0	01308606	4780/4796
1/25/01	Sanchez	1:15	65	70%	6101	24	3:05	56	0.0%	6141	0	40.0	01308606	4796/4832
1/26/01	Sanchez	9:30	45	100%	6141	39	11:32	49	0.0%	6179	0	38.0	01308606	4832/4853
1/26/01	Sanchez	3:25	47	90%	6179	30	4:53	46	0.0%	6225	0	45.4	01308606	4853/4898
1/28/01	Barbour	7:45	47	100%	6225	39	9:17	49	0.0%	6262	0	37.4	01308606	4898/4912
1/28/01	Barbour	11:48	56	55%	6262	20	12:59	57	0.0%	6288	0	25.8	01308606	4912/4941
1/29/01	Sanchez	2:23	56	100%	6288	36	4:13	54	0.0%	6328	0	40.2	01308606	4941/4970
1/30/01	Sanchez	1:L20	50	100%	6328	36	1:15	59	0.0%	6366	0	38.0	01308606	4970/4978
1/30/01	Sanchez	2:50	25	6%	6366	10	3:50		0.0%	6389	0	22.7	01308606	4978/5012
1/31/01	Sanchez	12:00	51	100%	6389	38	1:35	60	0.0%	6427	0	38.4	01308606	5012

Comments (Dated): 1/28-HEATER ON.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
2/1/01	Sanchez	9:14	54	100%	6427	38	10:47	64	2.0%	6467	2	40.3	01308606	5042/5056
2/1/01	Sanchez	1:25	64	75%	6646	24	2:45	66	0.0%	6507	0	40.0	01308606	5056/5063
2/1/01	Sanchez	4:05	66	48%	6507	20	4:26	66	0.0%	6515	0	7.9	01308606	5063/5091
2/2/01	Sanchez	8:00	46	100%	6515	40	9:37	56	0.0%	6556	0	41.2	01308606	5091/5114
2/2/01	Sanchez	2:00	68	100%	6556	40	3:40	69	0.0%	6601	0	44.4	01308606	5114/5152
2/4/01	Barbour	7:18	54	100%	6601	40	9:14	57	0.0%	6647	0	46.2	01308606	5152/5182
2/5/01	Sanchez	2:45	28	75%	6687	32	4:15	76	0.0%	6727	8	40.2	01308606	5198/5228
2/6/01	Sanchez	8:00	56	100%	6727	41	9:15	60	0.0%	6767	4	40.0	01308606	5228/5257
2/7/01	Sanchez	9:35	47	100%	6767	40	11:05	50	0.0%	6810	0	42.4	01308606	5257/5277
2/7/01	Sanchez	3:47	56	100%	6810	38	4:15	46	0.0%	6850	3	40.7	01308606	5277/5307
2/8/01	Sanchez	9:47	47	100%	6850	40	11:17	52	2.0%	6891	8	40.4	01308606	5307/5328
2/8/01	Sanchez	3:10	56	100%	6891	40	4:33	55	3.0%	6933	9	42.1	01308606	5328/5356
2/9/01	Sanchez	7:55	43	100%	6933	40	9:40	48	3.0%	6973	8	40.0	01308606	5356/5378
2/9/01	Sanchez	2:15	56	100%	6973	40	3:50	57	3.0%	7013	8	40.0	01308606	5378/5408
2/10/01	Sanchez	2:00	51	100%	7013	39	3:40	48	0.0%	7054	0	40.5	01308606	5408/5435
2/11/01	Barbour	7:43	44	100%	7054	40	9:04	46	0.0%	7085	0	31.8	01308606	5435/5462
2/12/01	Sanchez	8:10	47	100%	7085	38	10:05	49	0.0%	7119	0	33.8	01308606	5462/5480
2/12/01	Sanchez	1:32	48	100%	7119	30	3:20	49	0.0%	7159	0	40.0	01308606	5480/5511
2/13/01	Sanchez	8:07	48	100%	7159	31	10:00	49	0.0%	7193	0	33.9	01308606	5511/5532
2/13/01	Sanchez	1:35	48	100%	7193	28	3:00	48	0.0%	7234	0	40.6	01308606	5532/5564
2/14/01	Sanchez	8:10	42	100%	7234	31	10:00	48	0.0%	7274	0	40.2	01308606	5564/5591
2/15/01	Sanchez	8:10	42	100%	7274	37	1:00	50	0.0%	7314	0	40.2	01308606	5591/5610
2/15/01	Sanchez	1:35	52	100%	7314	32	3:17	57	0.0%	7364	0	50.4	01308606	5610/5641
2/16/01	Sanchez	8:10	45	100%	7364	41	9:51	54	0.0%	7406	10	42.0	01308606	5641/5662

Comments (Dated): 2-11-01 HEATER ON, 2-12-01 RAIN HEAVY FLOADING &TRAFFIC.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
2/16/01	Sanchez	1:49	64	100%	7406	42	3:40	64	0.0%	7458	8	51.8	01308606	5662/5691
2/17/01	Barbour	8:33	52	100%	7458	42	10:08	57	0.0%	7501	0	43.3	01308606	5691/5719
2/18/01	Barbour	7:12	51	100%	7501	42	8:31	56	0.0%	7536	0	34.2	01308606	5719/5750
2/20/01	Sanchez	8:07	51	100%	7536	41	9:55	57	0.0%	7576	5	40.2	01308606	5750/5769
2/20/01	Sanchez	1:30	64	100%	7576	39	3:02	61	0.0%	7621	2	45.6	01308606	5769/5797
2/21/01	Sanchez	8:30	54	100%	7621	40	10:00	56	0.0%	7662	4	40.6	01308606	5797/5816
2/21/01	Sanchez	1:32	68	100%	7662	39	2:10	68	60.0%	7680	30	18.2	01308606	5816/5833
2/22/01	Sanchez	8:45	55	100%	7680	42	10:10	61	0.0%	7721	0	40.0	01308606	5833/5851
2/22/01	Sanchez	1:30	63	90%	7721	32	3:00	61	0.0%	7760	0	39.6	01308606	5851/5879
2/23/01	Sanchez	8:40	49	100%	7760	41	10:00	46	0.0%	7800	0	40.2	01308606	5879/5898
2/23/01	Sanchez	1:45	52	75%	7800	30	4:01	54	0.0%	7854	0	54.1	01308606	5898/5938
2/24/01	Barbour	6:57	45	100%	7854	40	8:20	49	0.0%	7894	0	39.4	01308606	5938/5963
2/24/01	Sanchez	1:15	51	100%	7894	40	3:00	48	0.0%	7954	0	40.0	01308606	5963/5998
2/26/01	Sanchez	8:20	53	100%	7934	40	3:35	58	0.0%	7974	0	40.1	01308606	5998/6016
2/26/01	Sanchez	1:00	64	90%	7974	32	2:30	65	0.0%	8014	0	40.0	01308606	6016/6043
2/27/01	Sanchez	9:55	54	100%	8014	41	10:15	56	0.0%	8054	0	40.0	01308606	6043/6065
2/27/01	Sanchez	12:20	47	100%	8054	42	3:47	43	0.0%	8094	0	40.5	01308606	6065/6092
2/28/01	Sanchez	8:40	50	75%	8094	41	10:30	52	0.0%	8140	0	46.0	01308606	6092/6109
2/28/01	Sanchez	1:48	51	75%	8140	30	3:17	54	0.0%	8181	0	40.5	01308606	6109/6142
3/1/01	J.Ruiz	2:25	62	100%	8181	40	3:25	63	43.0%	8203	20	22.1	01308606	6142/6159
3/2/01	Sanchez	8:30	51	100%	8203	40	10:00	55	0.0%	8234	0	30.7	01308606	6159/6178
3/2/01	Sanchez	1:45	62	100%	8234	32	3:10		0.0%	8278	0	44.8	01308606	6178/6209
3/4/01	Barbour	6:35	51	100%	8278	38	7:48	53	0.0%	8310	0	31.8	01308606	6209/6225
3/4/01	Barbour	10:56	55	95%	8310	35	12:27	56	0.0%	8348	0	38.1	01308606	6225/6250
3/5/01	Sanchez	8:20	60	100%	8348	40	9:52	65	0.0%	8309	0	40.6	01308606	6250/6266

Comments (Dated): 17-Feb

heater 0n 1st 5 mles, 2/18 heater on. 3/4/01-heater on

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
3/5/01	Sanchez	1:30	65	75%	8389	37	2:55	64	0.0%	8430	0	40.0	01308606	6266/6296
3/6/01	Sanchez	8:10	58	100%	8535	42	10:00	61	0.0%	8470	0	40.0	01308606	6296/6316
3/6/01	Sanchez	1:30	61	100%	8470	42	4:00	63	0.0%	8510	0	40.4	01308606	6316/6345
3/7/01	Sanchez	8:10	55	100%	8510	41	9:40	56	0.0%	8551	0	40.3	01308606	6345/6366
3/7/01	Sanchez	1:30	65	100%	8551	41	2:55	64	0.0%	8591	0	40.1	01308606	6366/6391
3/8/01	Sanchez	8:40	60	100%	8591	42	10:18	66	0.0%	8631	0	40.7	01308606	6391/6409
3/8/01	Sanchez	1:30	67	90%	8631	36	3:20	68	0.0%	8672	0	41.1	01308606	6409/6437
3/9/01	Sanchez	8:20	55	100%	8672	42	10:00	57	0.0%	8713	0	40.8	01308606	6437/6460
3/9/01	Sanchez	2:30	64	100%	8713	41	4:45	52	0.0%	8756	0	43.3	01308606	6460/6490
3/10/01	Barbour	8:10	51	100%	8756	41	9:52	57	0.0%	8799	0	42.3	01308606	6490/6516
3/11/01	Barbour	8:06	54	100%	8799	40	9:43	59	0.0%	8841	0	42.0	01308606	6516/6542
3/12/01	Sanchez	8:15	53	100%	8841	40	10:05	58	0.0%	8883	0	42.8	01308606	6542/6559
3/12/01	Sanchez	1:30	67	77%	8883	32	3:13	72	0.0%	8924	0	40.2	01308606	6559/6587
3/13/01	Sanchez	8:10	54	100%	8924	41	9:50	60	0.0%	8964	0	40.0	01308606	6587/6607
3/13/01	Sanchez	1:30	70	90%	8964	40	3:12	70	0.0%	9007	0	43.0	01308606	6607/6635
3/14/01	Sanchez	8:30	54	100%	9007	41	10:00	60	0.0%	9047	0	40.0	01308606	6635/6658
3/14/01	Sanchez	3:45	67	100%	9047	41	4:30	67	60.0%	9065	29	18.7	01308606	6658/6672
3/15/01	Sanchez	9:30	62	100%	9065	41	11:10	63	0.0%	9106	0	40.5	01308606	6672/6689
3/15/01	Sanchez	2:40	63	75%	9106	30	4:12	67	0.0%	9148	0	42.2	01308606	6689/6722
3/16/01	Sanchez	8:15	57	100%	9148	40	10:15	63	0.0%	9189	0	41.4	01308606	6722/6738
3/16/01	Sanchez	1:30	75	65%	9189	35	3:00	66	0.0%	9232	0	42.3	01308606	6738/6770
3/17/01	Barbour	8:16	56	100%	9232	43	9:58	63	0.0%	9274	0	42.0	01308606	6770/6795
3/18/01	Barbour	4:50	51	100%	9274	43	6:07	55	0.0%	9311	0	37.4	01308606	6795/6812
3/18/01	Barbour	9:05	65	75%	9311	30	10:17	71	20.0%	9341	15	29.9	01308606	0/6838
														/

Comments (Dated):

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
3/19/01	Sanchez	9:45	71	100%	9341	41	11:19	77	0.0%	9382	4	40.6	01308606	6838/6858
3/19/01	Sanchez	3:25	85	100%	9382	41	4:53	83	10.0%	9422	10	40.0	01308606	6858/6882
3/20/01	Sanchez	9:00	75	100%	9422	42	8:10	78	0.0%	9464	0	42.8	01378516	6882/3554
3/20/01	Sanchez	2:00	83	95%	9464	31	3:40	81	0.0%	9510	0	45.4	01378516	3554/3586
3/21/01	Sanchez	8:00	59	100%	9510	43	9:45	64	0.0%	9550	0	40.1	01378516	3586/3602
3/21/01	Sanchez	12:50	75	95%	9550	38	2:37	75	0.0%	9592	0	41.7	01378516	3602/3633
3/22/01	Sanchez	8:05	57	100%	9592	42	10:00	58	0.0%	9633	0	41.2	01378516	3633/3651
3/22/01	Sanchez	1:30		95%	9633	38	3:00		0.0%	9673	0	40.3	01378516	3651/3681
3/23/01	Sanchez	8:10		100%	9673	42	11:50	69	0.0%	9711	0	37.8	01378516	3681/3704
3/23/01	Sanchez	1:55	69	100%	9711	40	4:40	79	0.0%	9751	0	40.5	01378516	3704/3735
3/25/01	Barbour	11:15	70	100%	9751	42	1:19	77	0.0%	9790	0	38.6	01378516	3735/3760
3/26/01	Barbour	11:30	70	100%	9790	40	1:42	71	0.0%	9829	0	39.0	01378516	3760/3775
3/26/01	Barbour	4:30	68	95%	9829	39	5:41	65	50.0%	9849	28	20.3	01378516	3775/3793
3/27/01	Ruiz	9:45	64.5	100%	9849	42	12:15	72	0.0%	9899	0	49.3	01378516	3793/3822
3/28/01	Sanchez	8:15	61	100%	9899	42	10:00	63	0.0%	9939	0	40.1	01378516	3822/3840
3/28/01	Sanchez	1:30	72	80%	9939	38	3:00	73	0.0%	9979	0	40.9	01378516	3840/3868
3/29/01	Sanchez	8:15	59	100%	9979	42	10:05	67	0.0%	10020	0	40.4	01378516	3868/3887
3/29/01	Sanchez	1:30	71	95%	10020	38	2:50	73	0.0%	10060	0	40.4	01378516	3887/3916
3/30/01	Sanchez	8:10	65	100%	10060	42	9:48	67	0.0%	10100	4	40.1	01378516	3916/3935
3/30/01	Sanchez	1:20	79	80%	10100	38	2:35	80	0.0%	10140	0	40.0	01378516	3935/3966
4/1/01	Barbour	9:15	60	100%	10140	42	10:49	62	0.0%	10179	0	38.2	01378516	3966/3991
4/2/01	Sanchez	8:12	67	100%	10179	40	9:40	59	0.0%	10218	0	40.0	01378516	3991/4006
4/2/01	Sanchez	12:40	66	72%	10218	29	2:10	68	0.0%	10259	0	40.1	01378516	4006/4036
4/3/01	Sanchez	8:30	58	100%	10259	42	9:45	57	0.0%	10249	0	40.2	01378516	4036/

Comments (Dated): 3/19/01 Fan on 3/25/01 Powe limit on @ 29.4 miles
fan on low 3/20/01

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
4/3/01	Sanchez	1:20	66	100%	10299	40	2:45	63	3.0%	10339	10	40.4	01378516	/4056
4/4/01	Sanchez	8:00	54	100%	10339	40	10:30	63	0.0%	10379	0	40.0	01378516	4056/4085
4/4/01	Sanchez	1:30	59	75%	10379	32	2:50	63	0.0%	10419	0	40.1	01378516	4085/4102
4/6/01	Sanchez	8:00	53	100%	10419	41	11:40	64	0.0%	10452	0	32.0	01378516	4102/4136
4/6/01	Sanchez	4:10	62	100%	10452	38	6:10	62	0.0%	10491	0	39.0	01378516	4136/4187
4/8/01	Sanchez	10:20	54	100%	10491	40	11:58	59	0.0%	10531	0	39.8	01378516	4187/4200
4/8/01	Barbour	2:20	61	75%	10531	30	3:42	65	0.0%	10562	0	31.5	01378516	4200/4227
4/9/01	Sanchez	8:25	49	100%	10562	42	10:05	56	0.0%	10602	0	40.2	01378516	4227/4242
4/9/01	Sanchez	1:00	63	75%	10602	30	2:25	51	0.0%	10643	0	40.5	01378516	4242/4273
4/10/01	Sanchez	8:25	47	100%	10643	42	9:55	55	0.0%	10683	0	40.0	01378516	4273/4289
4/10/01	Sanchez	1:00	64	75%	10683	30	3:05	65	0.0%	10723	0	40.3	01378516	4289/4319
4/11/01	Sanchez	9:00	60	100%	10723	42	11:30	56	0.0%	10764	0	40.8	01378516	4319/4336
4/11/01	Sanchez	2:30	51	80%	10764	38	4:15	54	0.0%	10804	0	40.1	01378516	4336/4366
4/12/01	Sanchez	8:30	54	100%	10804	42	10:30	62	0.0%	10845	0	40.7	01378516	4366/4384
4/12/01	Sanchez	1:45	68	77%	10845	32	3:05	68	0.0%	10885	0	40.3	01378516	4384/4413
4/13/01	Sanchez	8:30	56	100%	10885	42	9:45	62	0.0%	10925	0	40.0	01378516	4413/4435
4/13/01	Sanchez	2:00	74	100%	10925	42	3:30	73	0.0%	10965	0	40.1	01378516	4435/4466
4/15/01	Sanchez	9:10	60	100%	10965	42	10:52	66	0.0%	1108	0	43.5	01378516	4466/4493
4/16/01	Sanchez	10:00	68	100%	11009	40	12:05	74	0.0%	11051	0	43.0	01378516	4493/4519
4/17/01	Sanchez	8:20	60	100%	11051	40	9:50	66	0.0%	11091	0	40.0	01378516	4519/4541
4/17/01	Sanchez	2:30	80	100%	11091	42	5:05	82	0.0%	11139	0	47.7	01378516	4541/4568
4/18/01	Sanchez	8:30	62	100%	11139	42	10:20	74	0.0%	11179	0	40.0	01378516	4568/4585
4/18/01	Sanchez	1:20	78	80%	11179	39	3:00	77	0.0%	11220	0	41.2	01378516	4585/4615
4/19/01	Sanchez	10:45	65	100%	11220	43	12:30	69	0.0%	11270	0	50.0	01378516	4615/4644
4/20/01	Sanchez	8:15	55	100%	11270	42	10:00	60	0.0%	11312	0	41.8	01378516	4644/

Comments (Dated): * Malfunction, power limit reached at 28.mlies ,towed by Haddicks

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
4/20/01	Sanchez	1:45	69	100%	11312	40	3:05	65	0.0%	11353	0	40.4	01378516	4663/4696
4/22/01	Barbour	8:10	51	100%	11352	42	9:52	56	0.0%	11395	0	42.8	01378516	4696/4721
4/23/01	Sanchez	8:15	60	100%	11395	42	9:05	70	0.0%	11436	0	41.0	01378516	4721/4737
4/23/01	Sanchez	1:36	79	75%	11436	30	2:50	83	0.0%	11479	0	42.3	01378516	4737/4768
4/24/01	Sanchez	9:00	69	100%	11479	42	11:00	810	0.0%	11513	0	40.0	01378516	4768/4784
4/24/01	Sanchez	1:50	87	75%	11520	30	3:40	90	0.0%	11560	0	40.6	01378516	4784/4818
4/25/01	Sanchez	8:10	63	100%	11560	40	9:35	76	0.0%	11600	0	40.3	01378516	4818/4828
4/25/01	Sanchez	12:50	86	50%	11600	30	2:30	87	0.0%	11640	0	40.0	01378516	4828//4861
4/26/01	Sanchez	8:25	62	100%	11640	50	10:20	70	0.0%	11690	0	50.0	01378516	4861/4881
4/26/01	Sanchez	2:00	72	70%	11690	30	3:30	80	0.0%	11734	0	44.0	01378516	4881/4915
4/27/01	Sanchez	8:40	61	100%	11734	42	10:00	65	0.0%	11776	0	40.8	01378516	4915/4938
4/27/01	Sanchez	4:15	77	100%	11776	42	5:41	75	0.0%	11816	0	40.0	01378516	4938/4946
4/28/01	Barbour	7:30	59	100%	11816	42	9:21	63	0.0%	11856	0	40.5	01378516	4946/4994
5/1/01	Sanchez	8:30	61	100%	11856	40	12:00	75	0.0%	11886	0	29.6	01378516	4994/5015
5/2/01	Sanchez	8:45	57	100%	11886	40	10:20	59	0.0%	11924	0	38.7	01378516	5015/5033
5/2/01	Sanchez	2:10	70	95%	11924	39	3:30		0.0%	11965	0	40.4	01378516	5033/5059
5/3/01	Sanchez	8:30	62	100%	11965	41	10:00	70	0.0%	12005	0	40.2	01378516	5059/5081
5/3/01	Sanchez	2:00	78	100%	12005	40	3:30	80	0.0%	12045	0	40.2	01378516	5081/5106
5/4/01	Sanchez	8:30	65	100%	12045	41	10:20	70	0.0%	12085	0	40.3	01378516	5106/
5/4/01	Sanchez	1:30	80	75%	12085	37	3:20	81	0.0%	12125	0	42.0	01378516	/5156
5/6/01	Barbour	10:10	73	100%	12125	44	11:54	82	0.0%	12167	0	40.5	01378516	5156/5180
5/7/01	Sanchez	8:30	71	100%	12167	42	10:30	80	0.0%	12208	0	40.0	01378516	5180/5195
5/7/01	Sanchez	1:15	87	75%	12208	35	2:30	92	0.0%	12248	0	40.0	01378516	5195/5227
5/8/01	Sanchez	9:50	76	100%	12248	40	10:05	82	0.0%	12288	0	40.0	01378516	5227/5253
5/9/01	Sanchez	8:15	72	100%	12288	40	10:15	80	0.0%	12328	0	40.1	01378516	5253
Comments (Dated):		*5/1/01 at 26.5 miles (9:00am) van's power decreased suddenly ,Haddicks towed,release# z307 used.												

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
5/9/01	Sanchez	2:00	88	100%	12328	40	4:25	84	0.0%	12380	0	52.7	01378516	/5273
5/10/01	Neil	9:46	75	100%	12380	42	11:01	80	20.0%	12413	18	32.9	01378516	5273/5325
5/10/01	Barbour	4:15	84	100%	12413	42	5:42	82	25.0%	12453	18	39.8	01378516	5325/5349
5/11/01	Sanchez	8:45	66	100%	12453	40	10:10	72	0.0%	12493	0	40.1	01378516	5349/5368
5/14/01	Sanchez	1:30	95	100%	12493	39	3:36	83	0.0%	12533	0	40.0	01378516	5368/5400
5/14/01	Sanchez	9:00	66	100%	12533	43	10:10		0.0%	12562	0	28.9	01378516	5400/5421
5/15/01	Sanchez	10:20	74	100%	12562	40	11:10	73	0.0%	12600	0	37.4	01378516	5421/5444
5/16/01	Sanchez	8:40	68	100%	12600	40	10:05	72	0.0%	12640	0	40.0	01378516	5444/5460
5/16/01	Sanchez	1:05	79	90%	12640	31	2:30	80	0.0%	12680	0	40.4	01378516	5460/5489
5/17/01	Sanchez	9:05	72	100%	12680	42	10:30	73	0.0%	12721	0	41.4	01378516	5489/5507
5/17/01	Sanchez	1:30	80	80%	12721	38	3:40	84	0.0%	12762	0	40.9	01378516	5507/5534
5/18/01	Sanchez	9:00	70	100%	12762	43	11:30	72	0.0%	12822	0	40.0	01378516	5534/5550
5/18/01	Sanchez	2:30	78	80%	12822	37	5:50	70	0.0%	12850	0	48.2	01378516	5550/5587
5/19/01	Barbour	6:25	63	100%	12850	43	7:54	67	0.0%	12892	0	42.0	01378516	5587/5618
5/21/01	Barbour	11:30	75	100%	12892	43	1:34	80	0.0%	12934	0	41.2	01378516	5618/
5/21/01	Barbour												01378516	
5/22/01	Ruiz	11:30	85	100%	12934	40	2:00	88	0.0%	12970	0	36.2	01378516	5643/5668
5/23/01	Sanchez	9:00	73	100%	12970	42	10:53	87	0.0%	13011	0	41.2	01378516	5668/5688
5/23/01	Sanchez	2:30	95	100%	13011	42	4:17	94	0.0%	13053	0	41.6	01378516	5688/
5/24/01	Ruiz	10:45	73	100%	13053	44	12:25	77	0.0%	13094	0	41.2	01378516	5713/5726
5/24/01	Sanchez	3:00	81	60%	13094	30	4:21	82	0.0%	13133	0	39.6	01378516	5726/5758
5/24/01	Sanchez	8:15	71	100%	13133	42	9:30	75	0.0%	13172	0	38.8	01378516	5758/5778
5/25/01	Sanchez	11:20	85	100%	13172	41	2:40	83	0.0%	13214	0	41.4	01378516	5778/5807
5/27/01	Barbour	10:30	66	100%	13214	44	12:06	69	0.0%	13254	0	40.3	01378516	5807/5835
5/29/01	Sanchez	9:00	69	100%	13254	42	12:30	80	0.0%	13282	0	28.3	01378516	5835/

Comments (Dated): 5/11/01, van's fuel drops fast at 27.miles to zero and at 28miles service wrench lit up. 5/18/01 driven down.
5/29/01 van's fuel drops fast at 27. Miles van stops at 28.3miles.

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
5/30/01	Sanchez	8:30	73	100%	12382	40	9:49	77	0.0%	13323	0	40.3	01378516	/5856
5/30/01	Sanchez	12:50	83	80%	13323	38	2:04	89	0.0%	13363	0	40.3	01378516	5856/5871
5/31/01	Sanchez	9:00	74	100%	13363	43	10:10	79	0.0%	13403	0	40.3	01378516	5871/5902
5/31/01	Sanchez	1:30	91	100%	13403	42	3:00	91	0.0%	13443	0	39.8	01378516	5902/5920
6/1/01	Sanchez	9:10	76	100%	13442	43	10:40	74	0.0%	13483	0	39.9	01378516	5920/5945
6/1/01	Sanchez	2:00	83	100%	13483	40	3:36	82	0.0%	13524	0	41.3	01378516	5945/5992
6/2/01	Barbour	9:35	68	100%	13524	45	11:16	69	0.0%	13567	0	43.1	01378516	5992/6019
6/3/01	Barbour	10:38	69	100%	13567	45	12:12	71	0.0%	13610	0	43.1	01378516	6019/6050
6/4/01	Sanchez	1:10	75	100%	13610	40	2:28	75	0.0%	13650	0	40	01378516	6050/
6/4/01	Sanchez	5:20	87	90%	13650	39	6:35	85	0.0%	13690	0	39.6	01378516	/6083
6/5/01	Sanchez	9:15	71	100%	13690	43	10:34	71	0.0%	13730	0	40.4	01378516	6083/6101
6/5/01	Sanchez	1:45	78	95%	13730	40	3:40	83	0.0%	13771	0	40.2	01378516	6101/6128
6/6/01	Sanchez	9:00	73	100%	13771	42	10:25	74	0.0%	13810	0	39.6	01378516	6128/6146
6/6/01	Sanchez	1:38	83	97%	13810	37	3:00	85	0.0%	13849	0	38.8	01378516	6146/6173
6/7/01	Sanchez	9:00	73	100%	13849	42	10:08	77	0.0%	13889	0	39.6	01378516	6173/6195
6/7/01	Sanchez	2:00	86	100%	13889	40	3:20	88	0.0%	13929	0	40.1	01378516	6195/6219
6/8/01	Sanchez	9:15	75	100%	13929	42	10:45	82	0.0%	13971	0	42.2	01378516	6219/6241
6/8/01	Sanchez	3:00	90	100%	13971	42	4:30	98	0.0%	14010	0	39.5	01378516	6241/6270
6/11/01	Sanchez	9:10	75	100%	14010	42	11:05	77	0.0%	14048	0	38.2	01378516	6270/6282
6/11/01	Sanchez	1:30	83	70%	14048	30	3:30	84	0.0%	14088	0	37.9	01378516	6282/6311
6/12/01	Sanchez	8;00	75	100%	14088	41	9:15	70	0.0%	14125	0	37.1	01378516	6311/6330
6/12/01	Sanchez	1:00	70	100%	14125	40	2:20	72	0.0%	14165	0	40.4	01378516	6330/6356
6/13/01	Sanchez	8:15	66	100%	14165	40	9:40	62	0.0%	14206	0	40.8	01378516	6356/6376
6/13/01	Sanchez	1:15	78	100%	14206	41	2:45	80	0.0%	14246	0	40.4	01378516	6376/6401
6/14/01	Sanchez	8:10	75	100%	14246	42	10:35	81	0.0%	14286	0	40.2	01378516	6401/6418

USPS DELIVERY VEHICLE TESTING

Vehicle Number	2

Date	Driver	Start					End					Trip Dist.	AC meter#	AC kWh Start/End
		Time	Amb Temp	SOC	Odo	DTE	Time	Amb Temp	SOC	Odo	DTE			
6/14/01	Sanchez	1:40	91	100%	14286	40	3:06	92	0.0%	0.0%	0	39.6	01378516	6418/6444
6/15/01	Sanchez	8:50	80	100%	14326	43	11:00	88	0.0%	14375	0	49.4	01378516	6444/6476
6/15/01	Sanchez	3:20	95	51%	14375	20	4:40	95	0.0%	14400	0	24.5	01378516	6476/
6/16/01	Barbour	6:06	65	100%	14400	42	7:52	82	0.0%	14444	0	44.2	01378516	/6506
6/18/01	Sanchez	8:20	88	100%	14444	42	10:30	85	0.0%	14482	0	38	01378516	6506/

APPENDIX B: SCHEDULE TOU-EV-4 ELECTRICITY TARIFF

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison — Revised Cal. PUC Sheet No. 29248-E
Rosemead, California — Cancelling Revised Cal. PUC Sheet No. 23859-E

Schedule TOU-EV-4 — Sheet 1

GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED

APPLICABILITY

Applicable solely for the charging of electric vehicles owned by customers including those who may be served under a demand metered General Service schedule and desire a separate Utility meter to serve their electric vehicle (EV) charging facilities. However, a customer whose monthly maximum demand, in the opinion of the Utility, is expected to exceed 500 kW or has exceeded 500kW for any three months during the preceding 12 months is ineligible for service under this schedule. Effective with the date of such ineligibility of any customer served under this schedule, the customer's account shall be transferred to Schedule TOU-8. Service under this schedule is subject to meter availability.

TERRITORY

Within the entire territory served.

RATES

	Per Meter Per Month Summer	Per Meter Per Month Winter
Customer Charge	$ 79.25	$ 79.25
Demand Charge (to be added to Customer Charge):		
Facilities Related Component:		
All kW of billing Demand, except that the Billing Demand shall not be less than the levels set forth in Special Condition No. 4 below, per kW	$ 5.40	$ 5.40
Time Related Component (to be added to Facilities Related Component):		
All kW of On-Peak Billing Demand, per kW	$ 16.40	N/A
Energy Charge (to be added to Demand Charge):		
All On-Peak kWh, per kWh	$0.16586	$0.15689
All Off-Peak kWh, per kWh	$0.09241	$0.09581

The above charges used for customer billing are determined using the components shown in the Rate Components Section following the Special Conditions Section.

(Continued)

(To be inserted by utility)
Advice 1545-E
Decision 01-05-064
1C11

Issued by
John R. Fielder
Senior Vice President

(To be inserted by Cal. PUC)
Date Filed May 22, 2001
Effective Jun 3, 2001
Resolution

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison
Rosemead, California

Revised	Cal. PUC Sheet No.	23860-E
Cancelling Original	Cal. PUC Sheet No.	21884-E

Schedule TOU-EV-4 Sheet 2
GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED
(Continued)

SPECIAL CONDITIONS

1. Voltage: Service under this schedule will be supplied at one standard voltage.

2. Time periods are defined as follows:
   On-Peak: 12:00 noon to 9:00 p.m. all year, every day
   Off-Peak: All other hours - all year, everyday

   The summer season shall commence at 12:00 a.m. on the first Sunday in June and continue until 12:00 a.m. of the first Sunday in October each year. The winter season shall commence at 12:00 a.m. on the first Sunday in October of each year and continue until 12:00 a.m. of the first Sunday in June the following year.

3. Metering: Only EV charging facilities and related equipment shall be separately metered and served under this schedule. Where the Utility determines that the operation of the EV charging facilities may interfere with service to that customer or other customers, the Utility will install a load management device at customer's expense to control when EV charging will occur. For purposes of monitoring customer load, the Utility may install at its expense, load research metering. The customer shall provide, at no expense to the Utility, a suitable location for meters and associated equipment.

4. Billing Demand: The Billing Demand shall be the kilowatts of Maximum Demand, determined to the nearest kW. The Demand Charge shall include the following billing components. The Time Related Component shall be for the kilowatts of Maximum Demand recorded during (or established for) the monthly billing period for the On-Peak time period. The Facilities Related Component shall be for the greater of the kilowatts of Maximum Demand recorded during (or established for) the monthly billing period or 50 percent of the highest Maximum Demand established in the preceding eleven months (Ratcheted Demand). However, when the Utility determines the customer's meters will record little or no energy use for extended periods of time or when the customer's meter has not recorded a Maximum Demand in the preceding eleven months, the Facilities Related Component of the Demand Charge may be established at 50 percent of the customer's connected load.

   If an additional service is provided under this schedule (EV account) in conjunction with the customer's regular General Service rate schedule, in each billing period, the Facilities Related Demand Charge for the EV account will be determined using the demand, if any, which exceeds the Facilities Related Demand for such General Service account. If the Facilities Related Demand for the EV account does not exceed the Facilities Related Demand for the General Service account, there will be no Facilities Related Demand Charge for the EV account.

(Continued)

(To be inserted by utility)		Issued by	(To be inserted by Cal. PUC)	
Advice	1245-E-B	John R. Fielder	Date Filed	Dec 23, 1997
Decision	97-08-056	Senior Vice President	Effective	Jan 1, 1998
2C1			Resolution	E-3510

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison
Rosemead, California

Revised	Cal. PUC Sheet No.	23861-E
Cancelling Original	Cal. PUC Sheet No.	21885-E

Schedule TOU-EV-4 Sheet 3
GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED
(Continued)

SPECIAL CONDITIONS (Continued)

5. Maximum Demand: A Maximum demand shall be established for the billing period and the On-Peak time period. For each period, it shall be the measured maximum average kilowatt indicated or recorded by instruments to be supplied by the Utility, during any 15-minute metered interval.

6. Excess Transformer Capacity: Excess Transformer Capacity is the amount of transformer capacity requested by a customer, or required by the Utility, in excess of that which the Utility would normally install to serve the customer's Maximum Demand. Excess Transformer Capacity shall be billed at $1.00 per kVA per month.

7. Voltage Discount: The monthly Facilities Related Demand Charge will be reduced by 23.3% for service delivered and metered at voltages of 2 kV through 50 kV and by 71.1% for service delivered and metered at voltages over 50 kV. The discount applied to Energy Charges is calculated by taking both Distribution Charges and Generation Charges (minus the Averaged Power Exchange Energy Charges) and multiplied by 4.6% for service delivered and metered at voltages of 2kV through 50kV and by 20.8% for service delivered and metered at voltages over 50kV. (The Distribution Rate and Generation Rate per kilowatthour used for this calculation is shown in the Rate Components Section.)

8. Power Factor Adjustment: When the Maximum Demand has exceeded 200 kW for three consecutive months, kilovar metering will be installed as soon as practical, and, thereafter, until the Maximum Demand has been less than 150 kW for twelve consecutive months, the billing will be adjusted each month for power factor.

   a. Adjustment Rate:

      (1) For service delivered and metered at voltages greater than 50 kV, including Cogeneration and Small Power Production customers, the billing will be increased by $0.18 per kilovar of maximum reactive demand imposed on the Utility.

      (2) For service delivered and metered at voltages of 50 kV or less, including Cogeneration and Small Power Production customers, the billing will be increased by $0.23 per kilovar of maximum reactive demand imposed on the Utility.

(Continued)

(To be inserted by utility)		Issued by	(To be inserted by Cal. PUC)	
Advice	1245-E-D	John R. Fielder	Date Filed	Jul 1, 1998
Decision	97-08-056	Senior Vice President	Effective	Jan 1, 1998
3C1			Resolution	E-3510

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison
Rosemead, California

Revised	Cal. PUC Sheet No.	27106-E
Cancelling Revised	Cal. PUC Sheet No.	23862-E

Schedule TOU-EV-4 Sheet 4
GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED
(Continued)

SPECIAL CONDITIONS (Continued)

8. Power Factor Adjustment: (Continued)

b. Determining the Reactive Demand:

(1) Service delivered and metered at voltages of 4 kV or greater and for all Cogeneration and Small Power Production customers:

The maximum reactive demand shall be the highest measured maximum average kilovar demand indicated or recorded by metering during any 15-minute metered interval in the month. The kilovars shall be determined to the nearest unit. A device will be installed on each kilovar meter to prevent reverse operation of the meter.

(2) Service delivered and metered at voltages Less than 4 kV:

(a) For customers with metering used for billing that measures reactive demand.

The maximum reactive demand shall be the highest measured maximum average kilovar demand indicated or recorded by metering during any 15-minute metered interval in the month. The kilovars shall be determined to the nearest unit. A device will be installed on each kilovar meter to prevent reverse operation of the meter.

(b) For customers with metering used for billing that measures kilovar-hours instead of reactive demand.

The kilovars of reactive demand shall be calculated by multiplying the kilowatts of measured maximum demand by the ratio of the kilovar-hours to the kilowatthours. Demands in kilowatts and kilovars shall be determined to the nearest unit. A ratchet device will be installed on the kilovar-hour meter to prevent its reverse operation on leading power factors.

9. Interconnection: Customers taking service under this schedule shall have no electrical interconnection beyond the Utility's Point of Delivery between electrical loads eligible for service under this schedule and any other electrical loads.

10. Failure of Meter: Should the meter fail causing the On-Peak and Off-Peak energy consumption to be incorrectly registered, the customer will be billed under an otherwise applicable rate schedule for the as registered consumption.

(Continued)

(To be inserted by utility)	Issued by	(To be inserted by Cal. PUC)
Advice 1439-E	John R. Fielder	Date Filed Mar 13, 2000
Decision	Senior Vice President	Effective Apr 22, 2000
4C1		Resolution

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison
Rosemead, California

	Revised	Cal. PUC Sheet No.	23863-E
Cancelling	Original	Cal. PUC Sheet No.	21887-E

Schedule TOU-EV-4 Sheet 5
GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED
(Continued)

SPECIAL CONDITIONS (Continued)

11. Terms of Service: A customer receiving service under this schedule may elect to change to another applicable rate schedule but only after receiving service on this schedule for at least 12 consecutive months. If a customer elects to discontinue service on this schedule, the customer will not be permitted to return to this schedule for a period of one year.

When service under this schedule (EV account) is provided through an additional service to the customer's General Service account, the customer cannot elect to change from this schedule to other than an electric vehicle charging rate schedule. If service is provided in this manner and the customer elects to discontinue service, the additional service will be removed at the customer's expense.

(Continued)

(To be inserted by utility)		Issued by	(To be inserted by Cal. PUC)	
Advice	1245-E-B	John R. Fielder	Date Filed	Dec 23, 1997
Decision	97-08-056	Senior Vice President	Effective	Jan 1, 1998
5C1			Resolution	E-3510

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison
Rosemead, California

	Revised	Cal. PUC Sheet No.	26266-E
Cancelling	Original	Cal. PUC Sheet No.	23864-E

Schedule TOU-EV-4 Sheet 6
GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED
(Continued)

SPECIAL CONDITIONS (Continued)

12. Billing: A Customer's bill is first calculated according to the total rates and conditions above. The following adjustments are made depending on the option applicable to the customer.

    a. Bundled Service Customers receive supply and delivery services solely from Edison. The Customer's bill is based on the total rates set forth above. The Power Exchange (supply) component is equal to the Averaged Power Exchange (PX) Energy Charge as set forth in Schedule PX.

    b. Direct Access Customers purchase energy from an Energy Service Provider and continue receiving delivery services from Edison. The Averaged PX Energy Charge is determined as specified for a Bundled Service Customer. The customer's bill will be calculated as for a Bundled Service Customer, but the Customer will receive a credit for the Averaged PX Energy Charge.

    c. Hourly PX Pricing Option Customers receive supply and delivery services solely from Edison. A Customer taking Hourly PX Pricing Option service must have an interval meter installed at its premise to record hourly usage, since PX Energy Costs change hourly. If such metering is not currently installed, it shall be installed at the customer's expense before Hourly PX Pricing can be provided. Edison's charges for such metering are determined as set forth in Rule 2. The bill for a Hourly PX Pricing Option Customer is determined by calculating the bill as if it were for a Bundled Service Customer, then crediting the bill by the amount of the Averaged PX Energy Charge, as determined for Bundled Service and Direct Access Customers, then adding the hourly PX Energy Cost amount which is determined by multiplying the hourly energy used in the billing period by the hourly PX Energy Cost determined as set forth in Section 1 of Schedule PX, and the appropriate hourly Line Loss Adjustment Factors as set forth in Section 3 of Schedule PX, and the Uncollectibles expense factor of 1.00313.

13. Generation Charge: The generation charge is calculated based on the total rate less the sum of: Distribution, Transmission, Public Purpose Programs, Nuclear Decommissioning, and Fixed Transition Amount (where applicable) charges, the Transmission Revenue Balancing Account Adjustment (TRBAA), and the Public Utilities Commission Reimbursement Fee. The Competition Transition Charge (CTC) is calculated residually by subtracting the Averaged PX Energy Charge calculated as set forth in Schedule PX from the generation charge (See Rate Components Table).

14. Negotiating of CTC Payment Method: Nothing in this rate schedule prohibits a marketer or broker from negotiating with Customers the method by which their Customer will pay the CTC.

(Continued)

(To be inserted by utility)		Issued by	(To be inserted by Cal. PUC)	
Advice	1403-E	John R. Fielder	Date Filed	Sep 15, 1999
Decision	99-06-058	Senior Vice President	Effective	Jun 10, 1999
6C1			Resolution	

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

Southern California Edison
Rosemead, California

Revised Cal. PUC Sheet No. 29249-E
Cancelling Revised Cal. PUC Sheet No. 28902-E*

Schedule TOU-EV-4 Sheet 7
GENERAL SERVICE TIME-OF-USE
ELECTRIC VEHICLE CHARGING - - DEMAND METERED
(Continued)

RATE COMPONENTS

Rate Components Table

Rate Schedule Summary	Trans[1]	Distrbtn[2]	Gen[3,4]	NDC[5]	PPPC[6]	TRBAA[7]	PUCRF[8]	Total
Energy Charge - $/kWh								
Summer Season								
On-Peak	0.00000	0.00317	0.16069	0.00052	0.00292	(0.00156)	0.00012	0.16586
Off-Peak	0.00000	0.00317	0.08724	0.00052	0.00292	(0.00156)	0.00012	0.09241
Winter Season								
On-Peak	0.00000	0.00317	0.15172	0.00052	0.00292	(0.00156)	0.00012	0.15689
Off-Peak	0.00000	0.00317	0.09064	0.00052	0.00292	(0.00156)	0.00012	0.09581
Customer Charge - $/meter/month	0.00	48.06	31.19					79.25
Facilities Related								
Demand Charge - $/kW	0.10	3.06	2.24					5.40
Time Related								
Demand Charge - $/kW	2.24	10.06	4.10					16.40
Excess Transformer								
Capacity - $/kVA/month	0.00	1.00	0.00					1.00
Voltage Discount, Demand - %								
From 2 kV to 50 kV		100.00						100.00*
Above 50 kV		100.00						100.00*
Voltage Discount, Energy - %								
From 2 kV to 50 kV	0.00	20.00	80.00					100.00*
Above 50 kV	0.00	20.00	80.00					100.00*
Power Factor Adjustment - $/kVA								
Greater than 50 kV	0.00	0.18	0.00					0.18
50 kV or less	0.00	0.23	0.00					0.23
Dept. of Water Resources (DWR)								
Procurement Charge-$/kWh			0.12182					0.12182

*The "total" shown above represents 100% of the discount percentage as set forth in the specific rate schedule.

[1] Trans = Transmission

[2] Distrbtn = Distribution

[3] Gen = Generation

[4] Competition Transition Charge (CTC) = Total Generation charge minus Averaged Procured Energy (PE) Charge as set forth in Schedule PE.

[5] NDC = Nuclear Decommissioning Charge

[6] PPPC = Public Purpose Programs Charge (includes California Alternate Rates for Energy Surcharge where applicable.)

[7] TRBAA = Transmission Revenue Balancing Account Adjustment (FERC approved).

[8] PUCRF = The PUC Reimbursement Fee is described in Schedule RF-E.

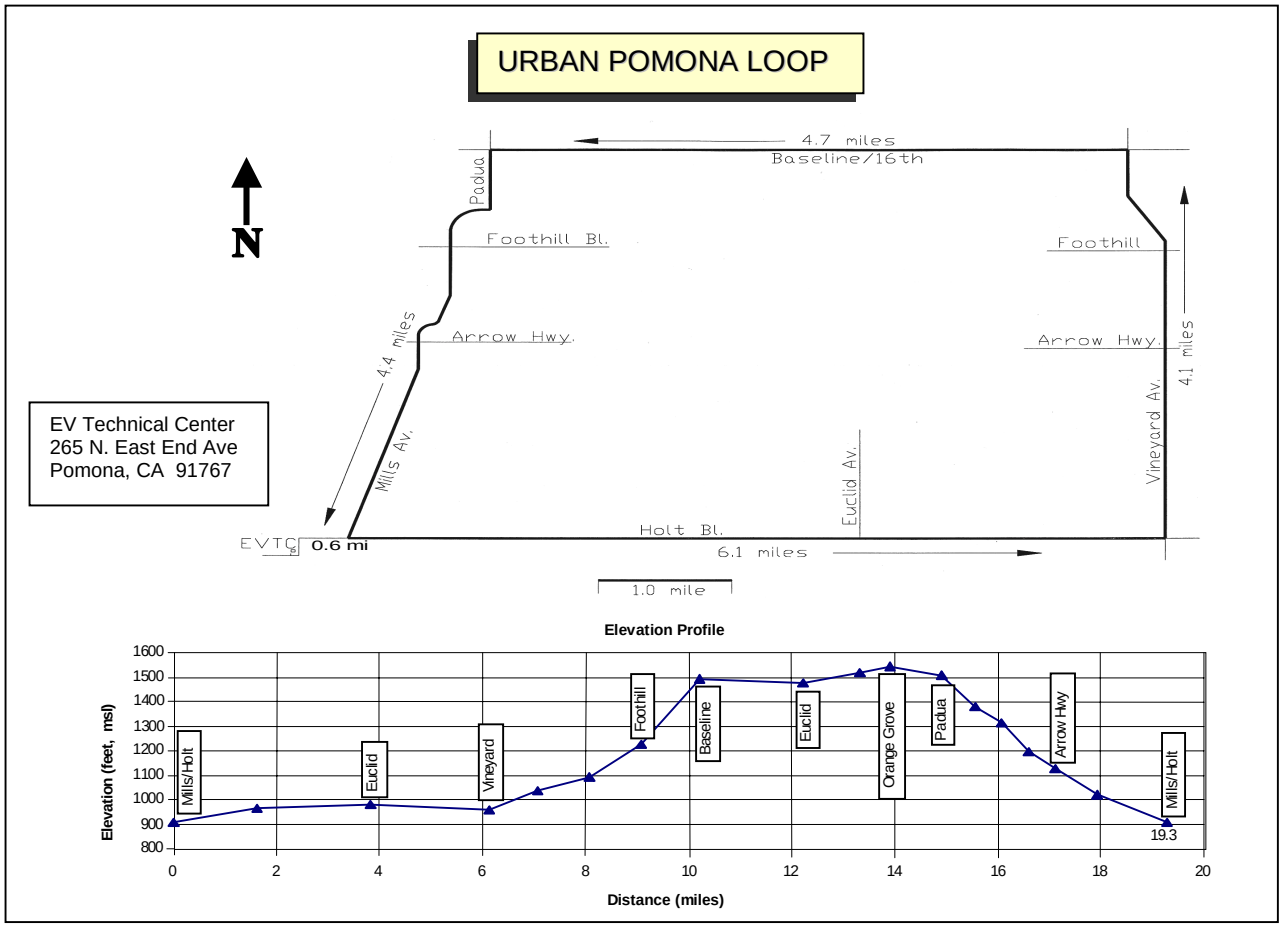
(Continued)

(To be inserted by utility)
Advice 1545-E
Decision 01-05-064
7C12

Issued by
John R. Fielder
Senior Vice President

(To be inserted by Cal. PUC)
Date Filed May 22, 2001
Effective Jun 3, 2001
Resolution

APPENDIX C: POMONA LOOP MAP



APPENDIX D: RANGE TEST DATA SHEETS

Date	Vehicle	VIN last 6	Test	Driver	Data File/Project		Volts
06/18/2001	124001		Range	F.Sanchez		Start	
Road Cond	Tire Press	Payload				Stop	
dry	35	1260				Net	

DRIVING	Time	Odom	% SOC	DC Ah	DC kWh	Amb temp	A/C temp	A/C>10 min
Start	11:00	13764	100.00%			86. F		
Stop	1:10	13811	0.00%			91. F		Min. A/C
Net								

Distance	State of Charge		Notes / Deviations / Traffic / Weather / Performance
Miles	Veh meter	Range meter	
0	100.0	42	
5	90.0	40	
10	76.0	35	
15	65.0	29	
20	60.0	28	
25	51.0	23	
30	35.0	19	
35	24.0	10	
40	15.0	9	
45	9.0	3	Light on @45 miles
			Light flashing @47.3 miles
			Total miles 49.4

Accessories used: None

Drive / Regen setting: Econ mode

Handling/Braking: normal

Other comments:

Charger	Serial No.	AC meter#	BMI #

CHARGING	Date	Time	AC kWh in	BMI kWh in	DC kWh in	DC Ah in	Amb temp	Volts
Start								
Stop								
Net								

Comments:

Date	Vehicle	VIN last 6	Test	Driver	Data File/Project		Volts
06/15/2001	124002		Range	F.Sanchez		Start	
Road Cond	Tire Press	Payload				Stop	
dry	35	1260				Net	

DRIVING	Time	Odom	% SOC	DC Ah	DC kWh	Amb temp	A/C temp	A/C>10 min
Start	8:50	14326	100.00%			80. F		
Stop	11:00	14375	0.00%			88. F		Min. A/C
Net								

Distance	State of Charge		Notes / Deviations / Traffic / Weather / Performance
Miles	Veh meter	Range meter	
0	100.0	43	
5	98.0	40	
10	74.0	34	
15	52.0	24	
20	52.0	24	
25	48.0	21	
30	27.0	15	
35	3.0	9	
40	1.0	9	
45	0.0	3	Light on @45.1 miles
			Light flashing @49.2 miles
			Total miles 49.4

Accessories used: None

Drive / Regen setting: Econ mode

Handling/Braking: normal

Other comments:

Charger	Serial No.	AC meter#	BMI #

CHARGING	Date	Time	AC kWh in	BMI kWh in	DC kWh in	DC Ah in	Amb temp	Volts
Start								
Stop								
Net								

Comments: