Rulemaking: R.11-02-019
(U 39 G)
Exhibit No.:
Date: November 4, 2011
Witness: Todd R. Hogenson

PACIFIC GAS AND ELECTRIC COMPANY

PIPELINE SAFETY ENHANCEMENT PLAN
(IMPLEMENTATION PLAN)

UPDATED WORKPAPER PAGES SUPPORTING

CHAPTER 3
GAS TRANSMISSION PIPELINE MODERNIZATION PROGRAM

PACIFIC GAS AND ELECTRIC COMPANY
IMPLEMENTATION PLAN

CHAPTER 3
GAS TRANSMISSION PIPELINE MODERNIZATION PROGRAM

Table of Contents

Updated Workpaper Pages Supporting Chapter 3

CHAPTER 3
GAS TRANSMISSION PIPELINE MODERNIZATION PROGRAM

Table of Contents
(Continued)

Updated Workpaper Pages Supporting Chapter 3

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

UPDATED 11/04/11

Table 2
Capital Expenditures by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
1	97000512	24254	SP-3 REPL 0.04mi MP 167.28-198.48 PH1	44A	7/1/2012	-	235,000	-	-	**235,000**	WP 3-7	WP 3-579
2	97000661	24909	SP4Z REPL 0.07mi MP 8.21-8.29 PH1	44A	7/1/2012	-	374,000	-	-	**374,000**	WP 3-11	WP 3-580
3			**Total MAT 44A - StanPac Capital**			**-**	**609,000**	**-**	**-**	**609,000**		
4												
5	30842206	23796	L-021C REPL 0.75MI MP 31.84-35.05 PH1	2H1	12/1/2014	-	-	496,000	4,464,000	**4,960,000**	WP 3-14	WP 3-581
6	30843897	24052	L-021D REPL 2.26MI MP 18.96-24.49 PH1	2H1	12/1/2013	-	1,453,000	13,076,000	-	**14,529,000**	WP 3-17	WP 3-582
7	30842239	23727	L-021F REPL 4.24MI MP 0.00-21.16 PH1	2H1	12/1/2013	1,755	2,043,245	18,366,000	-	**20,411,000**	WP 3-20	WP 3-583
8	30843899	24055	L-021H REPL 0.61MI MP 0.00-6.42 PH1	2H1	12/1/2014	-	-	239,000	2,148,000	**2,387,000**	WP 3-24	WP 3-584
9	30842207	23790	L-050A REPL 0.24MI MP 16.81-17.03 PH1	2H1	12/1/2014	-	-	139,000	1,255,000	**1,394,000**	WP 3-28	WP 3-585
10	30842247	23758	L-050A-1 REPL 0.09MI MP 0.66-2.32 PH1	2H1	7/1/2012	-	603,000	-	-	**603,000**	WP 3-31	WP 3-586
11	30843924	24059	L-057A REPL 7.60MI MP 8.97-16.68 PH1	2H1	12/1/2013	150,000	2,511,000	25,444,000	-	**28,105,000**	WP 3-34	WP 3-587
12	30843925	24060	L-057A-MT REPL 0.03MI MP 0.56-0.58 PH1	2H1	7/1/2014	-	-	-	203,000	**203,000**	WP 3-37	WP 3-588
13	30842170	23799	L-057B REPL 0.01MI MP 10.32-10.32 PH1	2H1	7/1/2012	-	1	-	-	**1**	WP 3-40	WP 3-589
14	30842171	23818	L-101 REPL 0.02MI MP 9.28-9.30 PH1	2H1	7/1/2012	-	1	-	-	**1**	WP 3-43	WP 3-590
15	30842130	23728	L-103 REPL 7.75MI MP 5.68-23.56 PH1	2H1	12/1/2014	150,000	2,649,000	-	26,008,000	**28,807,000**	WP 3-46	WP 3-591
16	30865387	24897	L-105A-1 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2012	-	162,000	-	-	**162,000**	WP 3-49	WP 3-592
17	30865388	24898	L-105N-3 REPL 0.03MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	185,000	-	**185,000**	WP 3-52	WP 3-593
18	30865389	24899	L-105N-5 REPL 0.10MI MP 36.39-36.47 PH1	2H1	7/1/2012	-	507,000	-	-	**507,000**	WP 3-55	WP 3-594
19	30843913	24077	L-108_1 REPL 1.06MI MP 37.14-38.17 PH1	2H1	12/1/2014	25,000	-	328,000	3,181,000	**3,534,000**	WP 3-58	WP 3-595
20	30842211	23815	L-108_2 REPL 2.58MI MP 48.18-50.69 PH1	2H1	12/1/2014	25,000	-	1,016,000	9,116,000	**10,157,000**	WP 3-61	WP 3-596
21	30865390	24900	L-108_3 REPL 3.06MI MP 63.50-73.58 PH1	2H1	12/1/2013	25,000	1,273,000	11,434,000	-	**12,732,000**	WP 3-64	WP 3-597
22	P.03741	23365	L-109_1 REPL 3.70MI MP 3.41-9.89 PH1	2H1	12/1/2012	5,300,000	27,315,000	-	-	**32,615,000**	WP 3-67	WP 3-598
23	30842248	23724	L-109_2 REPL 4.65MI MP 0.49-16.93 PH1	2H1	12/1/2013	150,000	3,156,000	34,070,000	-	**37,376,000**	WP 3-70	WP 3-599
24	30842212	23704	L-109_3 REPL 6.06MI MP 16.93-24.00 PH1	2H1	12/1/2014	150,000	350,000	4,431,000	43,470,000	**48,401,000**	WP 3-74	WP 3-600
25	30842214	23692	L-109_4 REPL 6.84MI MP 24.84-33.26 PH1	2H1	12/1/2014	150,000	350,000	3,459,000	35,626,000	**39,585,000**	WP 3-78	WP 3-601
26	30842224	23795	L-109_5 REPL 0.13MI MP 34.39-45.84 PH1	2H1	12/1/2012	132,000	1,190,000	-	-	**1,322,000**	WP 3-81	WP 3-602
27	30842215	23832	L-111A REPL 6.61MI MP 19.30-27.53 PH1	2H1	12/1/2012	1,887,000	28,532,000	-	-	**30,419,000**	WP 3-84	WP 3-603
28	30843920	24084	L-114_1 REPL 0.06MI MP 16.51-16.57 PH1	2H1	7/1/2012	-	285,000	-	-	**285,000**	WP 3-87	WP 3-604
29	30841472	23688	L-114_2 REPL 7.50MI MP 9.03-28.98 PH1	2H1	12/1/2012	616,000	35,431,000	-	-	**36,047,000**	WP 3-90	WP 3-605
30	30842216	23888	L-116 REPL 0.04MI MP 0.00-0.03 PH1	2H1	7/1/2013	-	-	112,000	-	**112,000**	WP 3-95	WP 3-606
31	30865391	24901	L-118-1 REPL 0.02MI MP 0.01-0.03 PH1	2H1	7/1/2013	-	-	236,000	-	**236,000**	WP 3-98	WP 3-607
32	30842245	23743	L-118A REPL 6.87MI MP 5.62-12.55 PH1	2H1	12/1/2013	150,000	1,895,000	18,296,000	-	**20,341,000**	WP 3-101	WP 3-608
33	30842164	23791	L-119B REPL 0.29MI MP 8.96-9.22 PH1	2H1	12/1/2013	-	104,000	939,000	-	**1,043,000**	WP 3-104	WP 3-609
34	30865392	24902	L-119B-1 REPL 0.03MI MP 0.00-0.03 PH1	2H1	7/1/2012	-	129,000	-	-	**129,000**	WP 3-107	WP 3-610
35	30842218	23822	L-123 REPL 4.16MI MP 0.00-7.51 PH1	2H1	12/1/2014	25,000	-	1,005,000	9,023,000	**10,053,000**	WP 3-110	WP 3-611
36	30843915	24079	L-124A REPL 4.32MI MP 20.63-26.27 PH1	2H1	12/1/2013	-	1,698,000	15,280,000	-	**16,978,000**	WP 3-113	WP 3-612
37	30842219	23793	L-125 REPL 1.31MI MP 0.00-0.00 PH1	2H1	12/1/2014	277	-	451,723	4,065,000	**4,517,000**	WP 3-116	WP 3-613
38	30841610	23677	L-130 REPL 0.48MI MP 0.00-0.50 PH1	2H1	12/1/2013	-	385,000	3,463,000	-	**3,848,000**	WP 3-119	WP 3-614
39	30841473	23694	L-131_1 REPL 1.69MI MP 32.38-35.87 PH1	2H1	12/1/2012	1,198,000	10,485,000	-	-	**11,683,000**	WP 3-122	WP 3-615
40	30841475	23746	L-131_2 REPL 0.29MI MP 8.15-8.44 PH1	2H1	12/1/2012	135,000	1,212,000	-	-	**1,347,000**	WP 3-126	WP 3-616

Table 2
Capital Expenditures by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
41	30865393	24903	L-131Y REPL 0.01MI MP 0.02-0.54 PH1	2H1	7/1/2012	-	79,000	-	-	**79,000**	WP 3-129	WP 3-617
42	30865394	24904	L-132B REPL 0.01MI MP 0.01-0.01 PH1	2H1	7/1/2013	-	-	70,000	-	**70,000**	WP 3-132	WP 3-618
43	30843909	24072	L-134A REPL 0.18MI MP 31.17-31.34 PH1	2H1	12/1/2014	-	-	-	641,000	**641,000**	WP 3-135	WP 3-619
44	30842161	23765	L-136 REPL 0.01MI MP 9.69-9.70 PH1	2H1	7/1/2014	-	-	-	61,000	**61,000**	WP 3-138	WP 3-620
45	30842223	23825	L-138 REPL 6.51MI MP 38.58-45.09 PH1	2H1	12/1/2012	1,650,000	29,838,000	-	-	**31,488,000**	WP 3-141	WP 3-621
46	30843888	24041	L-138C REPL 0.01MI MP 43.58-43.59 PH1	2H1	7/1/2012	-	134,000	-	-	**134,000**	WP 3-145	WP 3-622
47	30843889	24042	L-138D REPL 0.01MI MP 45.10-45.10 PH1	2H1	7/1/2014	-	-	-	54,000	**54,000**	WP 3-148	WP 3-623
48	30841613	23816	L-142S REPL 1.06MI MP 0.0027-6.35 PH1	2H1	12/1/2012	373,000	3,354,000	-	-	**3,727,000**	WP 3-151	WP 3-624
49	30842131	23735	L-151-1 REPL 0.02MI MP 10.44-10.45 PH1	2H1	7/1/2014	-	-	-	100,000	**100,000**	WP 3-154	WP 3-625
50	30865395	24905	L-153-6 REPL 0.03MI MP 0.00-0.03 PH1	2H1	7/1/2012	-	181,000	-	-	**181,000**	WP 3-157	WP 3-626
51	30842225	23731	L-162A REPL 1.12MI MP 6.62-7.72 PH1	2H1	12/1/2014	-	-	541,000	4,873,000	**5,414,000**	WP 3-160	WP 3-627
52	30842227	23845	L-167 REPL 10.72MI MP 22.56-34.52 PH1	2H1	12/1/2013	22,967	2,660,033	23,898,000	-	**26,581,000**	WP 3-163	WP 3-628
53	30842228	23797	L-167-1 REPL 2.09MI MP 4.46-6.55 PH1	2H1	12/1/2012	615,000	5,539,000	-	-	**6,154,000**	WP 3-166	WP 3-629
54	30842229	23926	L-172A REPL 0.04MI MP 69.79-79.13 PH1	2H1	7/1/2012	-	162,000	-	-	**162,000**	WP 3-169	WP 3-630
55	30865396	24906	L-172A-1 REPL 0.19MI MP 78.53-78.72 PH1	2H1	12/1/2013	-	-	702,000	-	**702,000**	WP 3-172	WP 3-631
56	30842236	23800	L-172A-17-3 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	26,000	-	**26,000**	WP 3-175	WP 3-632
57	30842230	23824	L-173 REPL 0.01MI MP 5.51-5.51 PH1	2H1	7/1/2013	-	-	91,000	-	**91,000**	WP 3-179	WP 3-633
58	30842232	23789	L-177A REPL 3.27MI MP 25.46-173.89 PH1	2H1	12/1/2014	-	-	777,000	6,997,000	**7,774,000**	WP 3-182	WP 3-634
59	30843916	24080	L-177E REPL 1.04MI MP 0.19-1.23 PH1	2H1	12/1/2014	-	-	189,000	1,696,000	**1,885,000**	WP 3-185	WP 3-635
60	30842234	23772	L-181A REPL 1.73MI MP 15.31-16.81 PH1	2H1	12/1/2012	456,000	4,105,000	-	-	**4,561,000**	WP 3-188	WP 3-636
61	30842233	23782	L-181A-10 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	65,000	**65,000**	WP 3-191	WP 3-637
62	30842235	23773	L-181B REPL 0.36MI MP 2.17-10.32 PH1	2H1	12/1/2012	140,000	1,256,000	-	-	**1,396,000**	WP 3-194	WP 3-638
63	30843906	24067	L-185 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	53,000	**53,000**	WP 3-197	WP 3-639
64	30841618	23748	L-191 REPL 1.97MI MP 0.07-6.47 PH1	2H1	12/1/2013	25,000	2,049,000	18,171,000	-	**20,245,000**	WP 3-200	WP 3-640
65	30865397	24907	L-191B REPL 0.01MI MP 1.63-1.64 PH1	2H1	7/1/2014	-	-	-	68,000	**68,000**	WP 3-203	WP 3-641
66	30841612	23702	L-196A REPL 1.52MI MP 11.93-13.45 PH1	2H1	12/1/2013	-	263,000	2,362,000	-	**2,625,000**	WP 3-206	WP 3-642
67	30843898	24053	L-200A-2 REPL 0.51MI MP 0.48-1.00 PH1	2H1	12/1/2013	-	112,000	1,003,000	-	**1,115,000**	WP 3-209	WP 3-643
68	30842237	23698	L-210A REPL 2.10MI MP 19.69-25.62 PH1	2H1	12/1/2012	778,000	6,998,000	-	-	**7,776,000**	WP 3-212	WP 3-644
69	30842240	23867	L-220 REPL 5.77MI MP 18.73-34.92 PH1	2H1	12/1/2013	-	2,396,000	21,388,000	-	**23,784,000**	WP 3-215	WP 3-645
70	30841463	23484	L-300B REPL 0.36MI MP 160.88-248.97 PH1	2H1	12/1/2014	-	-	188,000	1,689,000	**1,877,000**	WP 3-219	WP 3-646
71	30842242	23770	L-301A REPL 0.07MI MP 0.00-17.69 PH1	2H1	7/1/2012	10,776	186,224	-	-	**197,000**	WP 3-222	WP 3-647
72	30842243	23777	L-301B REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	76,000	**76,000**	WP 3-225	WP 3-648
73	30842244	23792	L-301C REPL 0.01MI MP 17.26-17.26 PH1	2H1	7/1/2012	-	109,000	-	-	**109,000**	WP 3-228	WP 3-649
74	30842246	23779	L-301G REPL 0.01MI MP 2.34-2.34 PH1	2H1	7/1/2012	-	1	-	-	**1**	WP 3-231	WP 3-650
75	30843887	24040	L-306 REPL 0.03MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	128,000	**128,000**	WP 3-234	WP 3-651
76	30842250	23775	L-310 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	60,000	**60,000**	WP 3-237	WP 3-652
77	30841464	23798	L-314 REPL 0.57MI MP 20.31-20.91 PH1	2H1	12/1/2014	-	-	104,000	932,000	**1,036,000**	WP 3-240	WP 3-653
78	30842125	23742	L-314A REPL 0.08MI MP 0.15-0.24 PH1	2H1	7/1/2013	-	-	190,000	-	**190,000**	WP 3-243	WP 3-654
79	30865398	24908	L-331B-1 REPL 0.02MI MP 0.74-0.76 PH1	2H1	7/1/2014	-	-	-	1	**1**	WP 3-246	WP 3-655
80	30842122	23831	L-400 REPL 0.06MI MP 115.31-115.37 PH1	2H1	7/1/2014	-	-	-	388,000	**388,000**	WP 3-249	WP 3-656

Table 2
Capital Expenditures by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
81	30841476	23736	DFM-0107-01 REPL 0.24MI MP 0.00-0.24 PH1	2H1	12/1/2014	-	-	122,000	1,100,000	**1,222,000**	WP 3-254	WP 3-657
82	30842180	23774	DFM-0107-02 REPL 0.02MI MP 0.00-0.01 PH1	2H1	7/1/2014	-	-	-	102,000	**102,000**	WP 3-257	WP 3-658
83	30842132	23739	DFM-0205-01 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	65,000	**65,000**	WP 3-260	WP 3-659
84	30842128	23693	DFM-0223-03 REPL 0.07MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	131,000	**131,000**	WP 3-263	WP 3-660
85	30842163	23781	DFM-0401-10 REPL 0.01MI MP 0.00-0.01 PH1	2H1	7/1/2014	-	-	-	80,000	**80,000**	WP 3-266	WP 3-661
86	30841720	23759	DFM-0403-10 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	57,000	**57,000**	WP 3-269	WP 3-662
87	30842168	23849	DFM-0404-11 REPL 0.04MI MP 0.00-0.04 PH1	2H1	7/1/2013	-	-	230,000	-	**230,000**	WP 3-272	WP 3-663
88	30842175	23786	DFM-0405-01 REPL 8.74MI MP 2.04-12.36 PH1	2H1	12/1/2013	-	3,571,000	32,100,000	-	**35,671,000**	WP 3-275	WP 3-664
89	30842129	23729	DFM-0405-16 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	57,000	**57,000**	WP 3-279	WP 3-665
90	30842176	23811	DFM-0603-01 REPL 0.58MI MP 0.00-0.57 PH1	2H1	12/1/2013	-	183,000	1,528,000	-	**1,711,000**	WP 3-282	WP 3-666
91	30843921	24085	DFM-0604-06 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	1,242	-	-	55,758	**57,000**	WP 3-286	WP 3-667
92	30842189	23780	DFM-0604-16 REPL 0.50MI MP 0.00-0.500 PH1	2H1	12/1/2013	-	113,000	1,021,000	-	**1,134,000**	WP 3-289	WP 3-668
93	30842196	23760	DFM-0611-08 REPL 0.06MI MP 0.00-0.06 PH1	2H1	7/1/2013	446	-	336,554	-	**337,000**	WP 3-292	WP 3-669
94	30842203	23725	DFM-0614-10 REPL 0.09MI MP 0.00-0.00 PH1	2H1	7/1/2014	1,312	-	-	511,688	**513,000**	WP 3-295	WP 3-670
95	30842238	23707	DFM-0617-06 REPL 0.01MI MP 10.63-10.64 PH1	2H1	7/1/2014	-	-	-	110,000	**110,000**	WP 3-298	WP 3-671
96	30842194	23716	DFM-0619-05 REPL 0.08MI MP 1.29-1.38 PH1	2H1	7/1/2014	-	-	-	731,000	**731,000**	WP 3-301	WP 3-672
97	30842177	23930	DFM-0627-01 REPL 0.02MI MP 0.00-0.02 PH1	2H1	7/1/2013	-	-	189,000	-	**189,000**	WP 3-304	WP 3-673
98	30842199	23855	DFM-0630-01 REPL 0.14MI MP 0.00-10.55 PH1	2H1	12/1/2014	-	-	29,000	265,000	**294,000**	WP 3-307	WP 3-674
99	30865351	24882	DFM-0630-06 REPL 0.10MI MP 0.00-0.10 PH1	2H1	12/1/2014	-	-	36,000	320,000	**356,000**	WP 3-310	WP 3-675
100	30865352	24883	DFM-0804-01 REPL 0.01MI MP 0.21-1.16 PH1	2H1	7/1/2012	-	84,000	-	-	**84,000**	WP 3-313	WP 3-676
101	30865353	24884	DFM-0804-03 REPL 0.02MI MP 0.00-0.02 PH1	2H1	7/1/2014	-	-	-	135,000	**135,000**	WP 3-316	WP 3-677
102	30843917	24081	DFM-0809-01 REPL 0.03MI MP 0.00-0.03 PH1	2H1	7/1/2014	-	-	-	158,000	**158,000**	WP 3-319	WP 3-678
103	30842204	23722	DFM-0810-01 REPL 0.03MI MP 0.00-0.03 PH1	2H1	7/1/2014	-	-	-	80,000	**80,000**	WP 3-322	WP 3-679
104	30865355	24885	DFM-0837-01 REPL 0.03MI MP 1.52-1.54 PH1	2H1	7/1/2014	-	-	-	133,000	**133,000**	WP 3-325	WP 3-680
105	30865356	24886	DFM-1013-02 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	62,000	**62,000**	WP 3-328	WP 3-681
106	30865357	24887	DFM-1017-01 REPL 0.01MI MP 0.01-0.01 PH1	2H1	7/1/2013	-	-	72,000	-	**72,000**	WP 3-331	WP 3-682
107	30842178	23807	DFM-1020-01 REPL 2.69MI MP 0.00-2.69 PH1	2H1	12/1/2014	25,000	-	797,000	7,146,000	**7,968,000**	WP 3-334	WP 3-683
108	30842179	23810	DFM-1024-02 REPL 0.02MI MP 0.00-0.02 PH1	2H1	7/1/2014	-	-	-	108,000	**108,000**	WP 3-337	WP 3-684
109	30841611	23686	DFM-1202-12 REPL 0.01MI MP 1.91-1.92 PH1	2H1	7/1/2013	-	-	76,000	-	**76,000**	WP 3-340	WP 3-685
110	30842181	23685	DFM-1202-15 REPL 0.02MI MP 0.00-0.02 PH1	2H1	7/1/2012	-	101,000	-	-	**101,000**	WP 3-343	WP 3-686
111	30842127	23711	DFM-1202-16 REPL 0.08MI MP 0.00-0.08 PH1	2H1	7/1/2013	-	-	342,000	-	**342,000**	WP 3-346	WP 3-687
112	30842182	23828	DFM-1209-01 REPL 0.34MI MP 4.29-4.64 PH1	2H1	12/1/2014	-	-	116,000	1,044,000	**1,160,000**	WP 3-349	WP 3-688
113	30842221	23717	DFM-1209-05 REPL 0.03MI MP 4.99-5.02 PH1	2H1	7/1/2014	1,360	-	-	222,640	**224,000**	WP 3-352	WP 3-689
114	30842183	23821	DFM-1213-01 REPL 0.26MI MP 0.55-3.51 PH1	2H1	7/1/2014	-	-	-	632,000	**632,000**	WP 3-355	WP 3-690
115	30842220	23726	DFM-1220-01 REPL 0.01MI MP 0.86-0.87 PH1	2H1	7/1/2013	-	-	63,000	-	**63,000**	WP 3-358	WP 3-691
116	30865358	24888	DFM-1302-01 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	133,000	-	**133,000**	WP 3-361	WP 3-692
117	30842172	23830	DFM-1302-02 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	82,000	-	**82,000**	WP 3-364	WP 3-693
118	30842185	23802	DFM-1306-01 REPL 0.04MI MP 1.48-4.19 PH1	2H1	7/1/2013	-	-	325,000	-	**325,000**	WP 3-367	WP 3-694
119	30865359	24889	DFM-1306-06 REPL 0.02MI MP 0.00-0.01 PH1	2H1	7/1/2013	-	-	179,000	-	**179,000**	WP 3-370	WP 3-695
120	30842186	23805	DFM-1307-06 REPL 0.03MI MP 0.00-0.00 PH1	2H1	7/1/2014	-	-	-	160,000	**160,000**	WP 3-373	WP 3-696

Table 2
Capital Expenditures by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
121	30842222	23751	DFM-1406-01 REPL 0.01MI MP 0.00-0.01 PH1	2H1	7/1/2013	-	-	67,000	-	**67,000**	WP 3-376	WP 3-697
122	30842187	23862	DFM-1502-08 REPL 0.53MI MP 0.00-0.52 PH1	2H1	12/1/2014	-	-	271,000	2,437,000	**2,708,000**	WP 3-379	WP 3-698
123	30842188	23875	DFM-1503-01 REPL 0.93MI MP 0.00-0.92 PH1	2H1	12/1/2014	-	-	325,000	2,923,000	**3,248,000**	WP 3-382	WP 3-699
124	30842190	23783	DFM-1509-01 REPL 0.33MI MP 0.00-0.33 PH1	2H1	12/1/2014	-	-	63,000	470,000	**533,000**	WP 3-385	WP 3-700
125	30842249	23778	DFM-1509-04 REPL 0.01MI MP 0.78-0.78 PH1	2H1	7/1/2012	-	51,000	-	-	**51,000**	WP 3-388	WP 3-701
126	30842192	23733	DFM-1603-03 REPL 0.01MI MP 0.48-0.49 PH1	2H1	7/1/2014	-	-	-	96,000	**96,000**	WP 3-391	WP 3-702
127	30865380	24890	DFM-1607-01 REPL 1.62MI MP 0.00-1.62 PH1	2H1	12/1/2014	-	-	873,000	7,858,000	**8,731,000**	WP 3-394	WP 3-703
128	30842193	23697	DFM-1614-08 REPL 0.44MI MP 0.56-1.00 PH1	2H1	12/1/2014	-	-	165,000	1,487,000	**1,652,000**	WP 3-397	WP 3-704
129	30842191	23827	DFM-1615-07 REPL 0.01MI MP 0.00-0.01 PH1	2H1	7/1/2013	-	-	77,000	-	**77,000**	WP 3-400	WP 3-705
130	30842195	23682	DFM-1617-01 REPL 0.44MI MP 0.82-1.26 PH1	2H1	12/1/2014	-	-	165,000	1,484,000	**1,649,000**	WP 3-403	WP 3-706
131	30865381	24891	DFM-1805-01 REPL 0.03MI MP 0.00-0.03 PH1	2H1	7/1/2013	-	-	98,000	-	**98,000**	WP 3-406	WP 3-707
132	30841468	23762	DFM-1813-02 REPL 0.07MI MP 1.00-16.40 PH1	2H1	7/1/2012	-	161,000	-	-	**161,000**	WP 3-409	WP 3-708
133	30842241	23684	DFM-1813-06 REPL 0.02MI MP 0.00-0.02 PH1	2H1	7/1/2014	-	-	-	85,000	**85,000**	WP 3-412	WP 3-709
134	30842226	23769	DFM-1815-02 REPL 0.72MI MP 18.76-19.48 PH1	2H1	12/1/2014	-	-	326,000	2,938,000	**3,264,000**	WP 3-415	WP 3-710
135	30842184	23801	DFM-1815-15 REPL 0.01MI MP 1.38-1.39 PH1	2H1	7/1/2013	-	-	74,000	-	**74,000**	WP 3-418	WP 3-711
136	30842138	23784	DFM-1816-20 REPL 0.01MI MP 0.00-0.01 PH1	2H1	7/1/2014	-	-	-	89,000	**89,000**	WP 3-421	WP 3-712
137	30842197	23761	DFM-1817-01 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	74,000	-	**74,000**	WP 3-424	WP 3-713
138	30842198	23766	DFM-1818-01 REPL 0.13MI MP 0.00-0.60 PH1	2H1	12/1/2014	-	-	-	276,000	**276,000**	WP 3-427	WP 3-714
139	30865382	24892	DFM-1880-08 REPL 0.02MI MP 0.00-0.02 PH1	2H1	7/1/2014	-	-	-	132,000	**132,000**	WP 3-430	WP 3-715
140	30841609	23806	DFM-2410-01 REPL 0.02MI MP 0.00-0.03 PH1	2H1	7/1/2014	-	-	-	94,000	**94,000**	WP 3-433	WP 3-716
141	30865383	24893	DFM-2412-01 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	52,000	-	**52,000**	WP 3-436	WP 3-717
142	30865384	24894	DFM-3002-01 REPL 0.02MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	100,000	-	**100,000**	WP 3-439	WP 3-718
143	30865385	24895	DFM-3008-01 REPL 0.03MI MP 7.99-8.02 PH1	2H1	7/1/2013	-	-	182,000	-	**182,000**	WP 3-442	WP 3-719
144	30841615	23699	DFM-3022-01 REPL 0.01MI MP 0.00-0.00 PH1	2H1	7/1/2013	-	-	51,000	-	**51,000**	WP 3-445	WP 3-720
145	30842200	23695	DFM-7219-01 REPL 3.73MI MP 0.00-3.73 PH1	2H1	12/1/2014	-	-	952,000	8,569,000	**9,521,000**	WP 3-449	WP 3-721
146	30842137	23763	DFM-7220-01 REPL 0.02MI MP 15.71-15.74 PH1	2H1	7/1/2014	-	-	-	87,000	**87,000**	WP 3-452	WP 3-722
147	30842201	23720	DFM-7221-10 REPL 0.14MI MP 15.99-16.13 PH1	2H1	12/1/2012	540	488,460	-	-	**489,000**	WP 3-455	WP 3-723
148	30841616	23710	DFM-7221-15 REPL 1.34MI MP 0.04-1.51 PH1	2H1	12/1/2012	713,000	6,413,000	-	-	**7,126,000**	WP 3-458	WP 3-724
149	30842202	23701	DFM-7225-02 REPL 2.15MI MP 0.00-2.42 PH1	2H1	12/1/2014	-	-	1,149,000	10,340,000	**11,489,000**	WP 3-461	WP 3-725
150	30841614	23617	DFM-7226-02 REPL 1.37MI MP 0.35-3.26 PH1	2H1	12/1/2012	406,000	3,656,000	-	-	**4,062,000**	WP 3-464	WP 3-726
151	30865386	24896	DFM-8832-01 REPL 0.02MI MP 0.00-0.01 PH1	2H1	7/1/2013	-	-	79,000	-	**79,000**	WP 3-467	WP 3-727
152	30842139	23750	TAPS-REPL CC PH1	2H1	12/1/2014	-	-	1,682,000	14,676,000	**16,358,000**	WP 3-470	WP 3-728
153	30842135	23753	TAPS-REPL DA PH1	2H1	12/1/2014	-	-	710,000	6,326,000	**7,036,000**	WP 3-476	WP 3-729
154	30841617	23741	TAPS-REPL DI PH1	2H1	12/1/2014	-	-	661,000	5,872,000	**6,533,000**	WP 3-481	WP 3-730
155	30842136	23757	TAPS-REPL EB PH1	2H1	7/1/2014	-	-	-	458,000	**458,000**	WP 3-486	WP 3-731
156	30842123	23690	TAPS-REPL FR PH1	2H1	12/1/2014	-	-	593,000	5,335,000	**5,928,000**	WP 3-490	WP 3-732
157	30842165	23794	TAPS-REPL HB PH1	2H1	12/1/2014	-	-	561,000	5,052,000	**5,613,000**	WP 3-495	WP 3-733
158	30841139	23616	TAPS-REPL KE PH1	2H1	12/1/2014	-	-	737,000	6,392,000	**7,129,000**	WP 3-499	WP 3-734
159	30842173	23923	TAPS-REPL LP PH1	2H1	7/1/2014	-	-	-	304,000	**304,000**	WP 3-504	WP 3-735
160	30842205	23749	TAPS-REPL MI PH1	2H1	12/1/2014	-	-	1,053,000	9,359,000	**10,412,000**	WP 3-507	WP 3-736

Table 2
Capital Expenditures by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
161	30842124	23718	TAPS-REPL NB PH1	2H1	12/1/2014	-	-	246,000	2,165,000	**2,411,000**	WP 3-509	WP 3-737
162	30842162	23776	TAPS-REPL NV PH1	2H1	12/1/2014	-	-	1,024,000	9,063,000	**10,087,000**	WP 3-514	WP 3-738
163	30842133	23740	TAPS-REPL PN PH1	2H1	12/1/2014	-	-	1,128,000	10,087,000	**11,215,000**	WP 3-518	WP 3-739
164	30842174	23928	TAPS-REPL SA PH1	2H1	12/1/2014	-	-	1,490,000	11,621,000	**13,111,000**	WP 3-524	WP 3-740
165	30842166	23817	TAPS-REPL SF PH1	2H1	12/1/2014	-	-	257,000	2,309,000	**2,566,000**	WP 3-530	WP 3-741
166	30842169	23787	TAPS-REPL SI PH1	2H1	12/1/2014	-	-	497,000	2,974,000	**3,471,000**	WP 3-533	WP 3-742
167	30842126	23689	TAPS-REPL SJ PH1	2H1	12/1/2014	-	-	847,000	7,606,000	**8,453,000**	WP 3-538	WP 3-743
168	30842134	23744	TAPS-REPL SO PH1	2H1	12/1/2014	-	-	139,000	1,251,000	**1,390,000**	WP 3-543	WP 3-744
169	30841474	23706	TAPS-REPL ST PH1	2H1	12/1/2014	-	-	1,878,000	16,824,000	**18,702,000**	WP 3-546	WP 3-745
170	30842160	23785	TAPS-REPL YO PH1	2H1	12/1/2014	-	-	1,562,000	13,017,000	**14,579,000**	WP 3-551	WP 3-746
171			**Total MAT 2H1 - Imp Plan Pipe Replacement**			**15,489,675**	**197,960,965**	**280,150,277**	**339,962,087**	**833,563,004**		
172												
173	30843926	24030	Emergency Pipe Replacement	2H2	12/31/2014	2,000,000	2,000,000	2,000,000	2,000,000	**8,000,000**	WP 3-557	n/a
174	30846247	24158	Strength Test-Capital Valves and Testheads	2H2	12/31/2014	6,700,000	3,700,000	3,800,000	3,900,000	**18,100,000**	WP 3-558	n/a
175	30866501	25002	Post StrengthTest Emergency Replacements	2H2	12/31/2014	7,500,000	10,000,000	10,000,000	10,000,000	**37,500,000**	WP 3-559	n/a
176			**Total MAT 2H2 - Imp Plan Emergency Pipe Repl**			**16,200,000**	**15,700,000**	**15,800,000**	**15,900,000**	**63,599,999**		
177												
178	30847124	24009	L-131 MP 50.5-57.4 UPGRADE PH-1	2H4	11/1/2012	150,000	1,500,000	357,000	-	**2,007,000**	WP 3-560	WP 3-747
179	30846928	24025	L-132 MP 31.7-38.4 UPGRADE PH-1	2H4	11/1/2012	75,000	1,500,000	462,000	-	**2,037,000**	WP 3-563	WP 3-748
180	30846926	24023	L-300A MP 299-352 UPGRADE PH-1	2H4	11/1/2013	150,000	1,000,000	6,935,000	-	**8,085,000**	WP 3-566	WP 3-749
181	30846925	24021	L-300A MP 352.3-391.2 UPGRADE PH-1	2H4	11/1/2012	300,000	4,534,000	-	-	**4,834,000**	WP 3-570	WP 3-750
182	30846924	24017	L-300B MP 299.0-351.8 UPGRADE PH-1	2H4	11/1/2013	150,000	1,000,000	6,845,000	-	**7,995,000**	WP 3-573	WP 3-751
183	30846923	24012	L-300B MP 351.8-390.9 UPGRADE PH-1	2H4	11/1/2012	300,000	5,101,000	-	-	**5,401,000**	WP 3-576	WP 3-752
184			**Total MAT 2H4 - Imp Plan ILI Pipeline Retrofit**			**1,125,000**	**14,635,000**	**14,599,000**	**-**	**30,359,000**		
185												
186			**Total Pipeline Modernization Capital Projects**			**32,814,675**	**228,904,965**	**310,549,277**	**355,862,087**	**928,131,004**		

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-2, Table 2, Line 20

TITLE:	L-108_2 REPL 2.58MI MP 48.18-50.69 PH1
ORDER NO:	30842211
PSRS NO.	23815
MAT CODE:	2H1
OPERATIVE DATE:	12/01/14
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**25**	**0**	**1,016**	**9,116**

DESCRIPTION: Replace 2.58 miles of pipeline L-108 between MP 48.18 and 50.69. The total number of segments to be replaced is 18.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	13,601	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
11,439	800	1,362

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength- tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 92 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.

In addition, 17 segment(s) totaling 13,509 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-2, Table 2, Line 33

TITLE:	L-119B REPL 0.29MI MP 8.96-9.22 PH1
ORDER NO:	30842164
PSRS NO.	23791
MAT CODE:	2H1
OPERATIVE DATE:	12/01/13
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**104**	**939**	**0**

DESCRIPTION: Replace 0.29 miles of pipeline L-119B between MP 8.96 and MP 9.22. The total number of segments to be replaced is 3.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
1,518	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
0	1,518	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength- tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 158 feet of pipe install ed prior to 1970 operating above 3 0% SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.
- 2 segment(s) totaling 1,360 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-2, Table 2, Line 35

TITLE:	L-123 REPL 4.16MI MP 0.00-7.51 PH1
ORDER NO:	30842218
PSRS NO.	23822
MAT CODE:	2H1
OPERATIVE DATE:	12/01/14
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**25**	**0**	**1,005**	**9,023**

DESCRIPTION: Replace 4.16 miles of pipeline L-123 between MP 0.00 and MP 7.51. The total number of segments to be replaced is 24.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
21,968	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
14,749	6,415	804

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength- tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 2 segment(s) totaling 3,534 feet of pipe installed prior to 1970 operating above 30 % SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.
- 18 segment(s) totaling 18,214 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 200 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 3 segment(s) totaling 20 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-2, Table 2, Line 39

TITLE:	L-131_1 REPL 1.69MI MP 32.38-35.87 PH1
ORDER NO:	30841473
PSRS NO.	23694
MAT CODE:	2H1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital)
($000)

	2011	2012	2013	2014
Total Expenditures:	**1,198**	**10,485**	**0**	**0**

DESCRIPTION: Replace 1.69 miles of pipeline L-131 between MP 32.38 and MP 35.87. The total number of segments to be replaced is 9.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	8,926	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
750	1,112	7,064

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 826 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 209 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 9 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-2, Table 2, Line 40

TITLE:	L-131_2 REPL 0.29MI MP 8.15-8.44 PH1
ORDER NO:	30841475
PSRS NO.	23746
MAT CODE:	2H1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**135**	**1,212**	**0**	**0**

DESCRIPTION: Replace 0.29 miles of pipeline L-131 between MP 8.15 and MP 8.44. The total number of segments to be replaced is 3.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
1,511	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
0	0	1,511

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 2 segment(s) totaling 1,468 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 43 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-3, Table 2, Line 64

TITLE:	L-191 REPL 1.97MI MP 0.07-6.47 PH1
ORDER NO:	30841618
PSRS NO.	23748
MAT CODE:	2H1
OPERATIVE DATE:	12/1/2013
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital)
($000)

	2011	2012	2013	2014
Total Expenditures:	**25**	**2,049**	**18,171**	**0**

DESCRIPTION: Replace1.97miles of pipeline L-191 between MP 0.07 and MP 6.47. The total number of segments to be replaced is 9.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	10,167	226

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
59	100	10,234

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 6 segment(s) totaling 10,262 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.
- 3 segment(s) totaling 131 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

Included in this project is 126 feet of pipe that was installed after 1970, and PG&E has not been able to confirm complete strength test documentation. The cost to replace the post-1970 pipe is forecasted to be $248,000 and is NOT included in the cost forecast for this project. The costs associated with replacing post-70 pipe without a verified strength test will be charged to a separate order for which incremental cost recovery is not being requested.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-3, Table 2, Line 68

TITLE:	L-210A REPL 2.10MI MP 19.69-25.62 PH1
ORDER NO:	30842237
PSRS NO.	23698
MAT CODE:	2H1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital)
($000)

	2011	2012	2013	2014
Total Expenditures:	**778**	**6,998**	**0**	**0**

DESCRIPTION: Replace 2.10 miles of pipeline L-210A between MP 19.69 and MP 25.62. The total number of segments to be replaced is 14.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	11,100	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
7,904	3,196	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 7 segment(s) totaling 5,428 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 3 segment(s) totaling 5,620 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 4 segment(s) totaling 52 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-4, Table 2, Line 88

TITLE: DFM-0405-01 REPL 8.74MI MP 2.04–12.36 PH1
ORDER NO: 30842175
PSRS NO. 23786
MAT CODE: 2H1
OPERATIVE DATE: 12/1/2013
AFUDC ELIGIBLE: YES

ESCALATED FINANCIAL EXPENDITURES (Capital)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**3,571**	**32,100**	**0**

DESCRIPTION: Replace 8.74 miles of pipeline DFM-0405-01 between MP 2.04 and MP 12.36. The total number of segments to be replaced is 36.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
46,129	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
4,905	13,946	27,278

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 25 segment(s) totaling 33,486 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.
- 7 segment(s) totaling 10,583 feet of pipe installed prior to 1970 operating below 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-4, Table 2, Line 95

TITLE:	DFM-0617-06 REPL 0.01 MI MP 10.63–10.64 PH1
ORDER NO:	30842238
PSRS NO.	23707
MAT CODE:	2H1
OPERATIVE DATE:	7/1/2014
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**0**	**0**	**110**

DESCRIPTION: Replace 34 feet of pipeline DFM-0617-06 between MP 10.63 and MP 10.64. The total number of segments to be replaced is 1.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
34	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
0	0	34

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 34 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-4, Table 2, Line 109

TITLE:	DFM-1202-12 REPL 0.01MI MP 1.91–1.92 PH1
ORDER NO:	30841611
PSRS NO.	23686
MAT CODE:	2H1
OPERATIVE DATE:	7/1/2013
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**0**	**76**	**0**

DESCRIPTION: Replace 48 feet of pipeline DFM-1202-12 between MP 1.91 and MP 1.92. The total number of segments to be replaced is 1.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
48	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
0	48	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 48 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-4, Table 3-2, Line 115

TITLE:	DFM-1220-01 REPL 0.01MI MP 0.86–0.87 PH1
ORDER NO:	30842220
PSRS NO.	23726
MAT CODE:	2H1
OPERATIVE DATE:	7/1/2013
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**0**	**63**	**0**

DESCRIPTION: Replace 41 feet of pipeline DFM-1220-01 between MP 0.86 and MP 0.87. The total number of segments to be replaced is 1.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
41	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
41	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 41 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-5, Table 2, Line 147

TITLE:	DFM-7221-10 REPL 0.14MI MP 15.99-16.13 PH1
ORDER NO:	30842201
PSRS NO.	23720
MAT CODE:	2H1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**1**	**488**	**0**	**0**

DESCRIPTION: Replace 0.14miles of pipeline DFM-7221-10 between MP 15.99 and MP 16.13. The total number of segments to be replaced is 1.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
754	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
0	754	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 754 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-5, Table 2, Line 150

TITLE:	DFM-7226-02 REPL 1.37MI MP 0.35-3.26 PH1
ORDER NO:	30841614
PSRS NO.	23617
MAT CODE:	2H1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	**406**	**3,656**	**0**	**0**

DESCRIPTION: Replace 1.37miles of pipeline DFM-7226-02 between MP 0.35 and MP 3.26. The total number of segments to be replaced is 4.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
7,231	0	0	0

Footage per area classification

Non-Congested	Semi-Congested	Highly-Congested
0	7,231	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength-tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 4 segment(s) totaling 7,231 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats, located within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

CAPITAL PROJECT SUMMARY

Reference: WP 3-6, Table 2, Line 179

TITLE:	L-132 MP 31.7-38.4 Upgrade PH1
ORDER NO:	30846928
PSRS NO.	24025
MAT Code:	2H4
OPERATIVE DATE:	11/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	75	1,500	462	0

DESCRIPTION

This project will consist of upgrading 7.48 miles of 2 4-36 inch, Line-132, pipeline between MP 31.7 and MP 38.4. The goal of the upgrade is to ensure an in-line inspection tool (commonly referred to as a Smart Pig) can successfully pass through the pipeline and collect data in order for PG&E to verify the integrity of this pipeline. The project will require the replacement of approximately (0) mainline valve assemblies along with miscellaneous fittings, and the installation of two (2) launcher and receiver facilities.

JUSTIFICATION

The work is being performed to be able to use in-line inspection (ILI) methods on the pipeline, which provides critical backbone gas transportation to the Bay Area. The pipeline is 1948-1995 vintages, with 2.86 miles of pipe located in High Consequence Areas (HCAs). Information gained from the ILI tools will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG &E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

CAPITAL PROJECT SUMMARY

Reference: WP 3-6, Table 2, Line 181

TITLE:	L-300A MP 352.3-391.2 Upgrade PH1
ORDER NO:	30846925
PSRS NO.	24021
MAT Code:	2H4
OPERATIVE DATE:	11/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	300	4,534	0	0

DESCRIPTION

This project will consist of upgrading 38.96 miles of 34-36 inch, Line-300A, pipeline between MP 352.3 and MP 391.2. The goal of the upgrade is to ensure an in-line inspection tool (commonly referred to as a Smart Pig) can successfully pass through the pipeline and collect data in order for PG&E to verify the integrity of this pipeline. The project will require the replacement of approximately two (2) mainline valve assemblies along with miscellaneous fittings, and the installation of two (2) launcher and receiver facilities.

JUSTIFICATION

The work is being performed to be able to use in-line inspection (ILI) methods on the pipeline, which provides critical backbone gas transportation to the Bay Area. The pipeline is 1950-1997 vintages, paralleling I-5 with 2.63 miles of pipe located in High Consequence Areas (HCAs). Information gained from the ILI tools will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG&E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

CAPITAL PROJECT SUMMARY

Reference: WP 3-6, Table 2, Line 182

TITLE:	L-300B MP 299.0-351.8 Upgrade PH1
ORDER NO:	30846924
PSRS NO.	24017
MAT Code:	2H4
OPERATIVE DATE:	11/1/2013
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	150	1,000	6,845	0

DESCRIPTION

This project will consist of upgrading 52.74 miles of 34 inch, Line-300B, pipeline between MP 299.0 and MP 351.8. The goal of the upgrade is to ensure an in-line inspection tool (commonly referred to as a Smart Pig) can successfully pass through the pipeline and collect data in order for PG&E to verify the integrity of this pipeline. The project will require the replacement of approximately six (6) mainline valve assemblies along with miscellaneous fittings, and the installation of two (2) launcher and receiver facilities.

JUSTIFICATION

The work is being performed to be able to use in-line inspection (ILI) methods on the pipeline, which provides critical backbone gas transportation to the Bay Area. The pipeline is 1950-1971 vintage, paralleling I-5. Information gained from the ILI tools will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG&E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

CAPITAL PROJECT SUMMARY

Reference: WP 3-6, Table 2, Line 183

TITLE:	L-300B MP 351.8-390.9 Upgrade PH1
ORDER NO:	30846923
PSRS NO.	24012
MAT Code:	2H4
OPERATIVE DATE:	11/1/2012
AFUDC ELIGIBLE:	YES

ESCALATED FINANCIAL EXPENDITURES (Capital) ($000)

	2011	2012	2013	2014
Total Expenditures:	300	5,101	0	0

DESCRIPTION

This project will consist of upgrading 39.38 miles of 24-34 inch, Line-300B, pipeline between MP 351.8 and MP 390.9. The goal of the upgrade is to ensure an in-line inspection tool (commonly referred to as a Smart Pig) can successfully pass through the pipeline and collect data in order for PG&E to verify the integrity of this pipeline. The project will require the replacement of approximatelytwo (2) mainlinevalve assemblies along with miscellaneous fittings, and the installation of three (3) launcher and receiver facilities.

JUSTIFICATION

The work is being performed to be able to use in-line inspection (ILI) methods on the pipeline, which provides critical backbone gas transportation to the Bay Area. The pipeline is 1950 Vintage, paralleling I-5 with 1.34 miles of pipe located in a High Consequence Areas (HCAs). Information gained from the ILI tools will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG &E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

UPDATED 11/04/11

Table 3
Expenses by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
1	97000510	24160	SP3 TEST 0.49MI MP 180.91-181.40 PH1	34A	12/1/2011	1,098,000	-	-	-	**1,098,000**	WP 3-758	WP 3-1311
2	9715461	24162	SP5 TEST 4.04MI MP 0.00-5.57 PH1	34A	12/1/2011	3,017,000	-	-	-	**3,017,000**	WP 3-761	WP 3-1312
3			**Total MAT 34A - StanPac Expense**			**4,115,000**	**-**	**-**	**-**	**4,115,000**		
4												
5	41482857	24202	L-002 TEST 4.48MI MP 75.90-122.00 PH1	KE1	12/1/2014	-	-	-	3,673,000	**3,673,000**	WP 3-764	WP 3-1313
6	41482922	24210	L-021A_1 TEST 0.09MI MP 24.49-24.58 PH1	KE1	7/1/2012	-	1,021,000	-	-	**1,021,000**	WP 3-767	WP 3-1314
7	41473973	23881	L-021A_2 TEST 0.36MI MP 16.96-17.31 PH1	KE1	7/1/2012	-	1	-	-	**1**	WP 3-770	WP 3-1315
8	41474090	23532	L-021B TEST 18.93MI MP 0.00-18.64 PH1	KE1	12/1/2013	-	-	6,348,000	-	**6,348,000**	WP 3-773	WP 3-1316
9	41474091	23533	L-021C TEST 7.10MI MP 35.05-51.41 PH1	KE1	12/1/2012	-	2,236,000	-	-	**2,236,000**	WP 3-776	WP 3-1317
10	41482921	24208	L-021D TEST 0.28MI MP 24.67-24.95 PH1	KE1	7/1/2012	-	1	-	-	**1**	WP 3-779	WP 3-1318
11	41483065	24207	L-021E TEST 0.33MI MP 116.16-137.38 PH1	KE1	7/1/2012	-	657,000	-	-	**657,000**	WP 3-782	WP 3-1319
12	41474092	23535	L-021F TEST 5.18MI MP 2.70-19.93 PH1	KE1	12/1/2012	-	2,373,000	-	-	**2,373,000**	WP 3-785	WP 3-1320
13	41474094	23538	L-021G TEST 2.54MI MP 0.00-2.54 PH1	KE1	12/1/2012	-	1,460,000	-	-	**1,460,000**	WP 3-788	WP 3-1321
14	41474099	23540	L-050A TEST 6.38MI MP 2.55-38.63 PH1	KE1	12/1/2014	-	-	-	2,486,000	**2,486,000**	WP 3-791	WP 3-1322
15	41482923	24212	L-050A-1 TEST 0.64MI MP 1.56-2.25 PH1	KE1	7/1/2013	-	-	908,000	-	**908,000**	WP 3-794	WP 3-1323
16	41483068	24168	L-057A-MC TEST 0.45MI MP 0.00-0.42 PH1	KE1	7/1/2014	-	-	-	922,000	**922,000**	WP 3-797	WP 3-1324
17	41482931	24183	L-057A-MD1 TEST 1.13MI MP 0.00-1.13 PH1	KE1	12/1/2012	-	968,000	-	-	**968,000**	WP 3-800	WP 3-1325
18	41482930	24178	L-057A-MD2 TEST 0.32MI MP 0.00-0.32 PH1	KE1	7/1/2014	-	-	-	877,000	**877,000**	WP 3-803	WP 3-1326
19	41474061	23496	L-100 TEST 10.36MI MP 138.43-150.13 PH1	KE1	12/1/2012	-	3,916,000	-	-	**3,916,000**	WP 3-806	WP 3-1327
20	P.03758	23500	L-101 TEST 0.28MI MP 2.45-3.48 PH1	KE1	12/1/2011	1,757,000	-	-	-	**1,757,000**	WP 3-809	WP 3-1328
21	41474063	23502	L-103 TEST 2.45MI MP 25.31-27.77PH1	KE1	12/1/2013	-	-	1,235,000	-	**1,235,000**	WP 3-812	WP 3-1329
22	P.03759	23542	L-105A TEST 2.16MI MP 38.00-41.00 PH1	KE1	12/1/2011	1,572,000	-	-	-	**1,572,000**	WP 3-815	WP 3-1330
23	P.03766	24204	L-105C TEST 1.74MI MP 0.00-1.76 PH1	KE1	12/1/2011	1,411,000	-	-	-	**1,411,000**	WP 3-818	WP 3-1331
24	P.03767	24560	L-105N_1 TEST 4.88MI MP 11.07-30.63 PH1	KE1	12/1/2011	3,931,000	-	-	-	**3,931,000**	WP 3-821	WP 3-1332
25	41473949	23491	L-105N_2 TEST 0.48MI MP 21.24-21.70 PH1	KE1	7/1/2012	-	1,007,000	-	-	**1,007,000**	WP 3-824	WP 3-1333
26	41474068	23505	L-109 TEST 3.40MI MP 7.57-48.84 PH1	KE1	12/1/2012	-	4,242,000	-	-	**4,242,000**	WP 3-827	WP 3-1334
27	41474070	23548	L-118A TEST 1.30MI MP 0.00-58.74 PH1	KE1	12/1/2012	1,067	2,167,933	-	-	**2,169,000**	WP 3-830	WP 3-1335
28	41474071	23550	L-118B TEST 16.44MI MP 1.04-20.07 PH1	KE1	12/1/2013	-	-	4,579,000	-	**4,579,000**	WP 3-833	WP 3-1336
29	41474072	23552	L-119A TEST 3.68MI MP 0.00-14.02 PH1	KE1	12/1/2012	-	1,643,000	-	-	**1,643,000**	WP 3-838	WP 3-1337
30	41482798	24262	L-119A-1 TEST 0.25MI MP 11.14.11.36 PH1	KE1	7/1/2013	-	-	801,000	-	**801,000**	WP 3-841	WP 3-1338
31	41474073	23554	L-119B TEST 6.91MI MP 0.00-10.02 PH1	KE1	12/1/2012	-	2,668,000	-	-	**2,668,000**	WP 3-844	WP 3-1339
32	41474075	23559	L-126A TEST 9.84MI MP 0.00-10.89 PH1	KE1	12/1/2014	71	-	-	3,116,929	**3,117,000**	WP 3-847	WP 3-1340
33	41474076	23561	L-126B TEST 10.14MI MP 0.00-10.57 PH1	KE1	12/1/2014	-	-	-	3,171,000	**3,171,000**	WP 3-850	WP 3-1341
34	P.03752	24699	L-131_1 TEST 4.41MI MP 42.35-57.47 PH1	KE1	12/1/2011	3,559,000	-	-	-	**3,559,000**	WP 3-853	WP 3-1342
35	41474018	23874	L-131_2 TEST 4.02MI MP 8.44-45.90 PH1	KE1	12/1/2012	-	2,680,000	-	-	**2,680,000**	WP 3-856	WP 3-1343
36	41474033	23471	L-131Z TEST 0.54MI MP 0.00-0.54 PH1	KE1	7/1/2013	-	-	890,000	-	**890,000**	WP 3-859	WP 3-1344
37	P.03760	24537	L-132_1 TEST 42.62MI MP 0.74-51.53 PH1	KE1	12/1/2011	21,498,000	-	-	-	**21,498,000**	WP 3-862	WP 3-1345
38	41474074	23557	L-132_2 TEST MP 1.91MI 40.05-49.71 PH1	KE1	12/1/2012	-	2,088,000	-	-	**2,088,000**	WP 3-870	WP 3-1347
39	P.03761	23480	L-132A TEST 1.46MI MP 0.01-1.46 PH1	KE1	12/1/2011	1,228,000	-	-	-	**1,228,000**	WP 3-873	WP 3-1348
40	41474035	23487	L-134A TEST 5.94MI MP 4.00-25.55 PH1	KE1	12/1/2014	-	-	-	2,156,000	**2,156,000**	WP 3-876	WP 3-1349

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

UPDATED 11/04/11

Table 3
Expenses by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
41	41474036	23489	L-137B TEST 5.29MI MP 0.00-7.37 PH1	KE1	12/1/2013	-	-	2,220,000	-	**2,220,000**	WP 3-879	WP 3-1350
42	41474080	23510	L-138 TEST 17.09MI MP 22.04-45.56 PH1	KE1	12/1/2012	-	5,841,000	-	-	**5,841,000**	WP 3-882	WP 3-1351
43	41474037	23493	L-142N TEST 11.67MI MP 0.00-14.05 PH1	KE1	12/1/2012	-	4,373,000	-	-	**4,373,000**	WP 3-886	WP 3-1352
44	41474038	23495	L-142S TEST 2.28MI MP 0.02-11.48 PH1	KE1	12/1/2012	-	1,637,000	-	-	**1,637,000**	WP 3-891	WP 3-1353
45	P.03762	24548	L-147 TEST 3.11MI MP 0.17-3.40 PH1	KE1	12/1/2011	2,491,000	-	-	-	**2,491,000**	WP 3-894	WP 3-1354
46	41474082	23513	L-148 TEST 17.62MI MP 0.00-17.63 PH1	KE1	12/1/2011	3,922,000	-	-	-	**3,922,000**	WP 3-897	WP 3-1355
47	41474083	23515	L-150 TEST 6.63MI MP 6.15-18.09 PH1	KE1	12/1/2013	-	-	2,699,000	-	**2,699,000**	WP 3-900	WP 3-1356
48	41474084	23517	L-151 TEST 0.42MI MP 10.81-11.23 PH1	KE1	7/1/2014	-	-	-	894,000	**894,000**	WP 3-903	WP 3-1357
49	P.03764	24554	L-153_1 TEST 17.35MI MP 0.00-22.87PH1	KE1	12/1/2011	9,189,000	-	-	-	**9,189,000**	WP 3-906	WP 3-1358
50	41473934	23582	L-153_2 TEST 10.86MI MP 3.58-27.88PH1	KE1	12/1/2012	-	4,607,000	-	-	**4,607,000**	WP 3-911	WP 3-1359
51	41474040	23498	L-158-1 TEST 2.58MI MP 11.07-13.65 PH1	KE1	12/1/2014	-	-	-	1,296,000	**1,296,000**	WP 3-914	WP 3-1360
52	41474041	23499	L-162A TEST 1.69MI MP 4.41-9.03 PH1	KE1	12/1/2013	-	-	1,338,000	-	**1,338,000**	WP 3-917	WP 3-1361
53	41474042	23501	L-172A TEST 2.11MI MP 35.51-67.50 PH1	KE1	12/1/2012	-	2,407,000	-	-	**2,407,000**	WP 3-920	WP 3-1362
54	41474043	23503	L-177A TEST 0.33MI MP 88.50-88.83 PH1	KE1	7/1/2012	-	828,000	-	-	**828,000**	WP 3-923	WP 3-1363
55	41474044	23506	L-177B TEST 6.65MI MP 0.86-7.51 PH1	KE1	12/1/2013	-	-	2,221,000	-	**2,221,000**	WP 3-926	WP 3-1364
56	41474046	23509	L-181B TEST 1.55MI MP 0.64-2.17 PH1	KE1	12/1/2013	-	-	1,076,000	-	**1,076,000**	WP 3-929	WP 3-1365
57	41482928	24217	L-183 TEST 0.32MI MP 5.96-6.29 PH1	KE1	7/1/2014	-	-	-	876,000	**876,000**	WP 3-932	WP 3-1366
58	41474086	23521	L-186 TEST 2.08MI MP 9.20-26.13 PH1	KE1	12/1/2014	-	-	-	1,681,000	**1,681,000**	WP 3-935	WP 3-1367
59	41474087	23524	L-187 TEST 39.21MI MP 22.58-65.70 PH1	KE1	12/1/2013	-	-	9,681,000	-	**9,681,000**	WP 3-938	WP 3-1368
60	P.03765	24555	L-191 TEST 3.96MI MP 6.47-10.47 PH1	KE1	12/1/2011	2,415,000	-	-	-	**2,415,000**	WP 3-942	WP 3-1369
61	41474047	23511	L-191-1 TEST 10.07MI MP 9.59-35.83 PH1	KE1	12/1/2012	-	3,494,000	-	-	**3,494,000**	WP 3-945	WP 3-1370
62	41474048	23514	L-191A TEST 4.89MI MP 0.00-4.84 PH1	KE1	12/1/2014	-	-	-	1,714,000	**1,714,000**	WP 3-948	WP 3-1371
63	41474089	23494	L-195A3-1 TEST 0.48MI MP 0.00-0.48 PH1	KE1	7/1/2013	-	-	878,000	-	**878,000**	WP 3-951	WP 3-1372
64	41474060	23527	L-196A TEST 0.46MI MP 11.49-11.93 PH1	KE1	7/1/2014	-	-	-	902,000	**902,000**	WP 3-954	WP 3-1373
65	41474051	23520	L-197B TEST 5.18MI MP 0.00-5.49 PH1	KE1	12/1/2014	-	-	-	1,762,000	**1,762,000**	WP 3-957	WP 3-1374
66	41474052	23522	L-197C-1 TEST 2.34MI MP 14.73-17.05 PH1	KE1	12/1/2014	-	-	-	1,251,000	**1,251,000**	WP 3-960	WP 3-1375
67	41482859	24205	L-197C-2 TEST 2.88MI MP 0.55-3.43 PH1	KE1	12/1/2014	-	-	-	1,350,000	**1,350,000**	WP 3-963	WP 3-1376
68	41482793	24264	L-200A-1 TEST 0.34MI MP 1.08-1.42 PH1	KE1	7/1/2012	-	829,000	-	-	**829,000**	WP 3-966	WP 3-1377
69	41474101	23525	L-210B TEST 13.54MI MP 7.57-25.98 PH1	KE1	12/1/2012	-	4,965,000	-	-	**4,965,000**	WP 3-969	WP 3-1378
70	41482927	24216	L-210C TEST 0.10MI MP 31.64-31.74 PH1	KE1	7/1/2012	-	1	-	-	**1**	WP 3-972	WP 3-1379
71	41474095	23528	L-220 TEST 4.58MI MP 23.14-27.68 PH1	KE1	12/1/2014	-	-	-	1,661,000	**1,661,000**	WP 3-975	WP 3-1380
72	P.03754	24495	L-300A_1 TEST 58.46MI MP 0.29-502.24 PH1	KE1	12/1/2011	32,911,000	-	-	-	**32,911,000**	WP 3-978	WP 3-1381
73	41474039	23497	L-300A_2 TEST 21.67MI MP 230.32-490.59 PH1	KE1	12/1/2012	-	11,359,000	-	-	**11,359,000**	WP 3-985	WP 3-1384
74	P.03754	24492	L-300A-1 TEST 0.61MI MP 156.40-157.01 PH1	KE1	12/1/2011	1,128,000	-	-	-	**1,128,000**	WP 3-989	WP 3-1385
75	P.03756	24521	L-300B_1 TEST 59.49MI MP 0.00-502.64 PH1	KE1	12/1/2011	24,871,000	-	-	-	**24,871,000**	WP 3-992	WP 3-1386
76	41483066	24219	L-300B_2 TEST 12.35MI MP 148.90-283.14 PH1	KE1	12/1/2014	-	-	-	6,348,000	**6,348,000**	WP 3-998	WP 3-1388
77	41474056	23536	L-303 TEST 1.16MI MP 19.21-20.43 PH1	KE1	2/1/2012	-	1,524,000	-	-	**1,524,000**	WP 3-1001	WP 3-1389
78	41474096	23529	L-306 TEST 7.24MI MP 0.00-70.02 PH1	KE1	12/1/2012	-	3,555,000	-	-	**3,555,000**	WP 3-1004	WP 3-1390
79	41474097	23530	L-314 TEST 4.34MI MP 20.91-24.92 PH1	KE1	12/1/2014	-	-	-	1,617,000	**1,617,000**	WP 3-1007	WP 3-1391
80	41474098	23492	L-318-12 TEST 2.02MI MP 0.00-0.00 PH1	KE1	12/1/2014	-	-	-	1,193,000	**1,193,000**	WP 3-1010	WP 3-1392

Table 3
Expenses by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
81	41483067	24220	L-331A TEST 0.34MI MP 8.06-8.40 PH1	KE1	7/1/2013	-	-	1	-	**1**	WP 3-1013	WP 3-1393
82	41474057	23539	L-400_1 TEST 17MI MP 80.04-298.84 PH1	KE1	12/1/2013	-	-	10,051,000	-	**10,051,000**	WP 3-1016	WP 3-1394
83	41483064	24201	L-400_2 TEST 17.5MI MP 122.22-139.73 PH1	KE1	12/1/2014	-	-	-	13,089,000	**13,089,000**	WP 3-1019	WP 3-1395
84	P.03757	23551	L-400-3 TEST 4.00MI MP 295.91-299.91 PH1	KE1	12/1/2011	2,424,000	-	-	-	**2,424,000**	WP 3-1022	WP 3-1396
85	41474031	23531	L-401 TEST 0.80MI MP 323.44-326.76 PH1	KE1	12/1/2012	-	1,973,000	-	-	**1,973,000**	WP 3-1025	WP 3-1397
86	41473886	23556	DFM-0115-01 TEST 0.40MI MP 0.00-0.41 PH1	KE1	12/1/2014	-	-	-	897,000	**897,000**	WP 3-1028	WP 3-1398
87	41473887	23558	DFM-0126-01 TEST 0.07MI MP 1.76-1.84 PH1	KE1	7/1/2012	-	1	-	-	**1**	WP 3-1031	WP 3-1399
88	41473888	23560	DFM-0141-01 TEST 0.43MI MP 0.00-0.42 PH1	KE1	7/1/2014	-	-	-	896,000	**896,000**	WP 3-1034	WP 3-1400
89	41482926	24215	DFM-0210-01 TEST 6.27MI MP 0.00-6.62 PH1	KE1	12/1/2013	-	-	2,154,000	-	**2,154,000**	WP 3-1037	WP 3-1401
90	41473891	23566	DFM-0211-01 TEST 0.68MI MP 0.00-0.68 PH1	KE1	7/1/2014	-	-	-	680,000	**680,000**	WP 3-1040	WP 3-1402
91	41473985	23927	DFM-0213-02 TEST 0.90MI MP 0.00-0.94 PH1	KE1	7/1/2014	-	-	-	981,000	**981,000**	WP 3-1043	WP 3-1403
92	41473893	23570	DFM-0215-01 TEST 0.95MI MP 0.00-0.98 PH1	KE1	7/1/2013	-	-	962,000	-	**962,000**	WP 3-1046	WP 3-1404
93	41473895	23574	DFM-0401-01 TEST 5.44MI MP 0.03-5.48 PH1	KE1	12/1/2012	-	1,733,000	-	-	**1,733,000**	WP 3-1049	WP 3-1405
94	41473897	23578	DFM-0402-01 TEST 0.69MI MP 0.27-2.36 PH1	KE1	7/1/2012	-	1,370,000	-	-	**1,370,000**	WP 3-1052	WP 3-1406
95	41473920	23584	DFM-0405-01 TEST 3.25MI MP 1.09-16.54 PH1	KE1	12/1/2013	-	-	1,255,000	-	**1,255,000**	WP 3-1055	WP 3-1407
96	41473922	23588	DFM-0406-03 TEST 0.76MI MP 0.08-0.81 PH1	KE1	7/1/2014	-	-	-	955,000	**955,000**	WP 3-1059	WP 3-1408
97	41473923	23590	DFM-0407-01 TEST 4.36MI MP 0.00-4.34 PH1	KE1	12/1/2012	-	1,079,000	-	-	**1,079,000**	WP 3-1062	WP 3-1409
98	41473924	23563	DFM-0601-01 TEST 0.36MI MP 0.09-0.46 PH1	KE1	7/1/2014	-	-	-	556,000	**556,000**	WP 3-1065	WP 3-1410
99	41473925	23565	DFM-0604-01 TEST 1.08MI MP 0.00-4.71 PH1	KE1	12/1/2013	-	-	1,234,000	-	**1,234,000**	WP 3-1068	WP 3-1411
100	41473926	23567	DFM-0604-06 TEST 2.29MI MP 0.00-2.28 PH1	KE1	12/1/2014	-	-	-	1,240,000	**1,240,000**	WP 3-1071	WP 3-1412
101	41473927	23569	DFM-0604-07 TEST 6.25MI MP 0.01-6.41 PH1	KE1	12/1/2013	-	-	2,096,000	-	**2,096,000**	WP 3-1074	WP 3-1413
102	41473930	23575	DFM-0611-01 TEST 1.07MI MP 0.00-1.07 PH1	KE1	12/1/2012	-	978,000	-	-	**978,000**	WP 3-1077	WP 3-1414
103	41473931	23577	DFM-0611-02 TEST 1.50MI MP 0.00-1.91 PH1	KE1	12/1/2012	-	1,023,000	-	-	**1,023,000**	WP 3-1080	WP 3-1415
104	41482853	24196	DFM-0611-05 TEST 0.12MI MP 0.00-0.12 PH1	KE1	7/1/2012	-	909,000	-	-	**909,000**	WP 3-1084	WP 3-1416
105	41473962	23884	DFM-0621-01 TEST 0.68MI MP 0.02-0.70 PH1	KE1	7/1/2014	-	-	-	909,000	**909,000**	WP 3-1087	WP 3-1417
106	41473936	23587	DFM-0630-01 TEST 0.07MI MP 1.33-1.40 PH1	KE1	7/1/2014	-	-	-	831,000	**831,000**	WP 3-1090	WP 3-1418
107	41473965	23835	DFM-0638-02 TEST 1.24MI MP 1.69-2.93 PH1	KE1	12/1/2014	-	-	-	1	**1**	WP 3-1093	WP 3-1419
108	41473966	23843	DFM-0651-01 TEST 0.86MI MP 1.01-1.87 PH1	KE1	7/1/2012	-	1	-	-	**1**	WP 3-1096	WP 3-1420
109	41473969	23861	DFM-0813-01 TEST 1.30MI MP 0.00-1.29 PH1	KE1	12/1/2012	-	1,002,000	-	-	**1,002,000**	WP 3-1099	WP 3-1421
110	41473970	23866	DFM-0813-02 TEST 0.50MI MP 0.00-0.50 PH1	KE1	7/1/2014	-	-	-	910,000	**910,000**	WP 3-1102	WP 3-1422
111	41473971	23871	DFM-0814-05 TEST 0.31MI MP 0.00-0.31 PH1	KE1	7/1/2013	-	-	849,000	-	**849,000**	WP 3-1105	WP 3-1423
112	41473972	23876	DFM-0817-01 TEST 1.31MI MP 0.00-1.30 PH1	KE1	12/1/2013	-	-	1,034,000	-	**1,034,000**	WP 3-1108	WP 3-1424
113	41473974	23885	DFM-1004-01 TEST 0.35MI MP 4.40-4.75 PH1	KE1	7/1/2014	-	-	-	882,000	**882,000**	WP 3-1111	WP 3-1425
114	41473975	23892	DFM-1023-01 TEST 2.83MI MP 0.00-2.83 PH1	KE1	12/1/2013	-	-	1,249,000	-	**1,249,000**	WP 3-1114	WP 3-1426
115	41473976	23894	DFM-1027-01 TEST 1.21MI MP 3.46-6.58 PH1	KE1	12/1/2014	-	-	-	1,293,000	**1,293,000**	WP 3-1117	WP 3-1427
116	41483062	24193	DFM-1027-04 TEST 0.92MI MP 0.70-1.62 PH1	KE1	12/1/2014	-	-	-	992,000	**992,000**	WP 3-1120	WP 3-1428
117	41482847	24187	DFM-1202-01 TEST 2.13MI MP 0.00-2.13 PH1	KE1	12/1/2012	-	1,367,000	-	-	**1,367,000**	WP 3-1123	WP 3-1429
118	41482846	24186	DFM-1202-02 TEST 0.39MI MP 2.00-2.39 PH1	KE1	7/1/2013	-	-	1,000,000	-	**1,000,000**	WP 3-1126	WP 3-1430
119	41482845	24185	DFM-1202-03 TEST 0.39MI MP 0.00-0.39 PH1	KE1	7/1/2014	-	-	-	889,000	**889,000**	WP 3-1129	WP 3-1431
120	41473979	23901	DFM-1202-16 TEST 2.50MI MP 0.08-2.58 PH1	KE1	12/1/2013	-	-	1,245,000	-	**1,245,000**	WP 3-1132	WP 3-1432

Table 3
Expenses by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
121	41473980	23903	DFM-1209-02 TEST 1.48MI MP 0.00-1.47 PH1	KE1	12/1/2013	3,023	-	1,059,977	-	**1,063,000**	WP 3-1135	WP 3-1433
122	41473982	23918	DFM-1301-01 TEST 4.40MI MP 0.00-4.63 PH1	KE1	12/1/2014	-	-	-	1,874,000	**1,874,000**	WP 3-1138	WP 3-1434
123	41473961	23878	DFM-1306-01 TEST 0.72MI MP 0.01-0.72 PH1	KE1	7/1/2014	-	-	-	949,000	**949,000**	WP 3-1141	WP 3-1435
124	41473987	23931	DFM-1310-01 TEST 1.28MI MP 0.00-1.29 PH1	KE1	12/1/2014	-	-	-	1,058,000	**1,058,000**	WP 3-1144	WP 3-1436
125	41473988	23934	DFM-1401-01 TEST 0.80MI MP 0.00-0.79 PH1	KE1	7/1/2012	-	1,061,000	-	-	**1,061,000**	WP 3-1147	WP 3-1437
126	41473990	23911	DFM-1501-01 TEST 5.55MI MP 0.00-6.88 PH1	KE1	12/1/2014	-	-	-	2,086,000	**2,086,000**	WP 3-1150	WP 3-1438
127	41473991	23912	DFM-1501-02 TEST 0.80MI MP 0.62-2.44 PH1	KE1	12/1/2014	-	-	-	1,218,000	**1,218,000**	WP 3-1153	WP 3-1439
128	41473992	23913	DFM-1502-02 TEST 1.60MI MP 0.00-1.60 PH1	KE1	12/1/2014	-	-	-	1,115,000	**1,115,000**	WP 3-1156	WP 3-1440
129	41473933	23581	DFM-1502-06 TEST 0.32MI MP 0.00-0.32 PH1	KE1	7/1/2014	-	-	-	876,000	**876,000**	WP 3-1159	WP 3-1441
130	41473932	23579	DFM-1502-11 TEST 1.98MI MP 0.00-2.96 PH1	KE1	12/1/2014	-	-	-	1,434,000	**1,434,000**	WP 3-1162	WP 3-1442
131	41474066	23545	DFM-1519-01 TEST 0.55MI MP 1.48-2.03 PH1	KE1	7/1/2013	-	-	891,000	-	**891,000**	WP 3-1165	WP 3-1443
132	41473999	23841	DFM-1601-09 TEST 0.86MI MP 0.00-0.86 PH1	KE1	7/1/2014	-	-	-	975,000	**975,000**	WP 3-1168	WP 3-1444
133	41482842	24272	DFM-1603-01 TEST 1.23MI MP 0.07-1.30 PH1	KE1	12/1/2013	-	-	1,020,000	-	**1,020,000**	WP 3-1171	WP 3-1445
134	41474000	23842	DFM-1603-03 TEST 0.48MI MP 0.00-0.48 PH1	KE1	7/1/2014	-	-	-	863,000	**863,000**	WP 3-1174	WP 3-1446
135	41474002	23847	DFM-1614-01 TEST 3.97MI MP 0.00-3.97 PH1	KE1	12/1/2014	-	-	-	1,549,000	**1,549,000**	WP 3-1177	WP 3-1447
136	41474005	23856	DFM-1615-01 TEST 8.03MI MP 6.72-14.74 PH	KE1	12/1/2012	-	2,393,000	-	-	**2,393,000**	WP 3-1180	WP 3-1448
137	41474007	23857	DFM-1615-07 TEST 0.25MI MP 0.01-0.25 PH1	KE1	7/1/2014	-	-	-	1	**1**	WP 3-1183	WP 3-1449
138	41483061	24274	DFM-1617-01 TEST 0.82MI MP 0.00-0.82 PH1	KE1	7/1/2013	-	-	939,000	-	**939,000**	WP 3-1187	WP 3-1450
139	41474008	23860	DFM-1622-01 TEST 0.99MI MP 0.00-1.00 PH1	KE1	7/1/2014	-	-	-	998,000	**998,000**	WP 3-1190	WP 3-1451
140	41474001	23846	DFM-1640-01 TEST 0.70MI MP 0.00-0.70 PH1	KE1	7/1/2014	-	-	-	945,000	**945,000**	WP 3-1193	WP 3-1452
141	41474011	23872	DFM-1813-02 TEST 5.17MI MP 8.93-16.39 PH1	KE1	12/1/2013	-	-	1,957,000	-	**1,957,000**	WP 3-1196	WP 3-1453
142	41474012	23877	DFM-1815-02 TEST 9.80MI MP 6.50-16.85 PH1	KE1	12/1/2013	-	-	3,020,000	-	**3,020,000**	WP 3-1199	WP 3-1454
143	41474013	23880	DFM-1815-15 TEST 1.98MI MP 0.18-2.13 PH1	KE1	12/1/2013	-	-	1,357,000	-	**1,357,000**	WP 3-1202	WP 3-1455
144	P.03751	24484	DFM-1816-01_1 TEST 9.38MI MP 0.00-8.44 PH1	KE1	12/31/2011	2,631,000	-	-	-	**2,631,000**	WP 3-1205	WP 3-1456
145	41473986	23929	DFM-1816-01_2 TEST 9.17MI MP 8.44-18.25 PH1	KE1	12/1/2013	-	-	2,668,000	-	**2,668,000**	WP 3-1209	WP 3-1457
146	41474015	23858	DFM-1816-02 TEST 0.12MI MP 0.00-0.12 PH1	KE1	7/1/2013	-	-	816,000	-	**816,000**	WP 3-1212	WP 3-1458
147	41474016	23864	DFM-1816-05 TEST 0.80MI MP 0.00-0.80 PH1	KE1	7/1/2014	-	-	-	963,000	**963,000**	WP 3-1215	WP 3-1459
148	41474017	23870	DFM-1816-15 TEST 6.04MI MP 0.00-6.01 PH1	KE1	12/1/2013	-	-	2,112,000	-	**2,112,000**	WP 3-1218	WP 3-1460
149	41474019	23879	DFM-1819-01 TEST 0.64MI MP 0.42-1.07 PH1	KE1	7/1/2014	-	-	-	757,000	**757,000**	WP 3-1221	WP 3-1461
150	41474020	23883	DFM-1869-01 TEST 0.16MI MP 0.00-0.16 PH1	KE1	7/1/2014	-	-	-	847,000	**847,000**	WP 3-1224	WP 3-1462
151	41474021	23886	DFM-1870-01 TEST 3.33MI MP 0.00-3.33 PH1	KE1	12/1/2014	-	-	-	1,432,000	**1,432,000**	WP 3-1227	WP 3-1463
152	41482848	24188	DFM-2403-12 TEST 2.88MI MP 0.00-2.88 PH1	KE1	12/1/2012	-	1,250,000	-	-	**1,250,000**	WP 3-1230	WP 3-1464
153	41474024	23895	DFM-2408-01 TEST 0.99MI MP 2.32-2.72 PH1	KE1	7/1/2014	-	-	-	998,000	**998,000**	WP 3-1233	WP 3-1465
154	41474028	23905	DFM-3010-01 TEST 1.27MI MP 0.00-1.27 PH1	KE1	12/1/2012	995	995,005	-	-	**996,000**	WP 3-1236	WP 3-1466
155	41474029	23906	DFM-3017-01 TEST 6.68MI MP 0.02-6.95 PH1	KE1	12/1/2013	-	-	2,226,000	-	**2,226,000**	WP 3-1239	WP 3-1467
156	41474030	23907	DFM-6603-01 TEST 2.18MI MP 3.96-6.14 PH1	KE1	12/1/2014	-	-	-	1,223,000	**1,223,000**	WP 3-1242	WP 3-1468
157	41482924	24213	DFM-7204-01 TEST 0.06MI MP 1.90-1.96 PH1	KE1	7/1/2014	-	-	-	829,000	**829,000**	WP 3-1245	WP 3-1469
158	41482854	24197	DFM-7218-01 TEST 1.32MI MP 0.00-1.32 PH1	KE1	12/1/2013	-	-	1,034,000	-	**1,034,000**	WP 3-1248	WP 3-1470
159	41473939	23467	DFM-7221-10 TEST 6.10MI MP 7.45-15.99 PH1	KE1	12/1/2012	-	2,050,000	-	-	**2,050,000**	WP 3-1251	WP 3-1471
160	41473941	23470	DFM-7222-01 TEST 13.55MI MP 0.09-13.99 PH1	KE1	12/1/2014	-	-	-	3,991,000	**3,991,000**	WP 3-1255	WP 3-1472

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

UPDATED 11/04/11

Table 3
Expenses by Maintenance Activity Type (MAT)

Line No	Order	PSRS Id	Order Description	MAT	Operative Date	2011	2012	2013	2014	Total	Workpaper Reference	Map Reference
161	41473942	23472	DFM-7223-01 TEST 9.90MI MP 0.15-10.05 PH1	KE1	12/1/2013	-	-	2,798,000	-	**2,798,000**	WP 3-1259	WP 3-1473
162	41473943	23474	DFM-7224-09 TEST 1.35MI MP 0.00-1.35 PH1	KE1	12/1/2014	-	-	-	1,070,000	**1,070,000**	WP 3-1262	WP 3-1474
163	41473944	23477	DFM-7224-12 TEST 0.48MI MP 0.25-0.73 PH1	KE1	7/1/2013	-	-	880,000	-	**880,000**	WP 3-1265	WP 3-1475
164	41473945	23478	DFM-7226-01 TEST 5.59MI MP 0.00-5.59 PH1	KE1	12/1/2013	-	-	2,034,000	-	**2,034,000**	WP 3-1268	WP 3-1476
165	41473946	23481	DFM-7226-02 TEST 0.39MI MP 3.47-3.86 PH1	KE1	7/1/2013	-	-	869,000	-	**869,000**	WP 3-1271	WP 3-1477
166	41473947	23483	DFM-7226-13 TEST 0.25MI MP 0.00-0.25 PH1	KE1	7/1/2014	-	-	-	864,000	**864,000**	WP 3-1274	WP 3-1478
167	41482925	24214	DFM-7227-05 TEST 0.19MI MP 0.00-0.19 PH1	KE1	7/1/2013	-	-	829,000	-	**829,000**	WP 3-1277	WP 3-1479
168			**Total MAT KE1 - Imp Plan Pressure Test**			**116,943,156**	**93,728,943**	**84,512,978**	**93,860,931**	**389,046,008**		
169												
170	41476259	24027	L-101 MP 0.00-11.62 ILI & ANALYSIS PH1	KE3	11/1/2014	-	-	-	1,087,000	**1,087,000**	WP 3-1280	WP 3-1480
171	41476300	24028	L-101 MP 11.62-33.68 ILI & ANALYSIS PH1	KE3	11/1/2014	-	-	-	1,655,000	**1,655,000**	WP 3-1284	WP 3-1481
172	41482821	24010	L-131 MP 50.5-57.4 ILI & ANALYSIS PH-1	KE3	11/1/2013	-	-	300,000	497,000	**797,000**	WP 3-1289	WP 3-1482
173	41482737	24026	L-132 MP 31.7-38.4 ILI & ANALYSIS PH-1	KE3	11/1/2013	-	-	325,000	499,000	**824,000**	WP 3-1292	WP 3-1483
174	41483499	24024	L-300A MP 299-352 ILI & ANALYSIS PH-1	KE3	11/1/2014	-	-	-	1,326,000	**1,326,000**	WP 3-1295	WP 3-1484
175	41482736	24022	L-300A MP 352.3-391.2 ILI & ANALYSIS PH-1	KE3	11/1/2013	-	-	500,000	788,000	**1,288,000**	WP 3-1299	WP 3-1485
176	41482735	24018	L-300B MP 299.0-351.8 ILI & ANALYSIS PH-1	KE3	11/1/2014	-	-	-	1,326,000	**1,326,000**	WP 3-1302	WP 3-1486
177	41482734	24015	L-300B MP 351.8-390.9 ILI & ANALYSIS PH-1	KE3	11/1/2013	-	-	600,000	688,000	**1,288,000**	WP 3-1305	WP 3-1487
178			**Total MAT KE3 - Imp Plan Pipeline ILI**			**-**	**-**	**1,725,000**	**7,866,000**	**9,591,000**		
179												
180	41521348	24913	Engineering Condition Assessment	KEX	12/31/2014	-	1,000,000	1,030,000	1,060,000	**3,090,000**	WP 3-1308	n/a
181	41521349	24914	Remaining Life Fatigue Analysis	KEX	12/31/2014	100,000	150,000	25,000	25,000	**300,000**	WP 3-1309	n/a
182	41457916	23163	Imp Plan - Pipeline Planning Exp	KEX	12/31/2011	1,500,000	-	-	-	**1,500,000**	WP 3-1310	n/a
183			**Total MAT KEX - Imp Plan Pipeline Other**			**1,600,000**	**1,150,000**	**1,055,000**	**1,085,000**	**4,890,000**		
184												
185			**Total Pipeline Modernization Expense Projects**			**122,658,156**	**94,878,943**	**87,292,978**	**102,811,931**	**407,642,008**		

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 1

TITLE:	SP3 TEST 0.49MI MP 180.91-181.40 PH1
ORDER NO:	97000510
PSRS NO.	24160
MAT CODE:	34A
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**1,098**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 0.49 miles of pipeline SP3 between MP 80.91 and MP 181.40. The total number of segments to be hydrotested is 6.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	0	2,597	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

6 segment(s) totaling 2,597 feet of pipe installed prior to 1970 operating above 30% SMYS within a Class Location 2-4 or HCA.

This Stanpac pipeline is co-owned by PG&E and Chevron. Chevron is responsible for 1/7 of the project costs. Therefore, PG&E is only forecasting 6/7 of the total project cost in this Implementation Plan.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 2

TITLE:	SP5 TEST 4.04MI MP 0.00-5.57 PH1
ORDER NO:	9715461
PSRS NO.	24162
MAT CODE:	34A
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**3,017**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 4.04 miles of pipeline SP5 between MP 0.00 and MP 5.57. The total number of segments to be hydrotested is 17.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	20,447	885

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 13 segment(s) totaling 17,021 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 78 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 3 segment(s) totaling 4,233 feet of pipe that has a documented strength test is included in this project for construction efficiency.

This Stanpac pipeline is co-owned by PG&E and Chevron. Chevron is responsible for 1/7 of the project costs. Therefore, PG&E is only forecasting 6/7 of the total project cost in this Implementation Plan.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 11

TITLE:	L-021E TEST 0.33MI MP 116.16-137.38 PH1
ORDER NO:	41483065
PSRS NO.	24207
MAT CODE:	KE1
OPERATIVE DATE:	7/1/2012
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**657**	**0**	**0**

DESCRIPTION: Hydrotest 0.33 miles of pipeline L-021E between MP 116.16 and MP 137.38. The total number of segments to be hydrotested is 4.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
1,747	0	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 105 fe et of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 2 segment(s) totaling 664 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

In addition, 1 segment(s) totaling 978 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Included in this project is 664 feet of pipe that was installed after 1970, and PG&E has not been able to confirm complete strength test documentation. The cost to strength test the post-1970 pipe is forecasted to be $403,000 and is NOT included in the cost forecast for this project. The costs associated with strength tes ting post-70 pipe without a verified strength test will be charged to a separate order for which incremental cost recovery is not being requested.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 20

TITLE:	L-101 TEST 0.28MI MP 2.45-3.48 PH1
ORDER NO:	P.03758
PSRS NO.	23500
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**1,757**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 0.28 miles of pipeline L-101 between MP 2.45 and MP 3.48. The total number of segments to be hydrotested is 13.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	0	0	1,473

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 5 segment(s) totaling 1,135 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 4 segment(s) totaling 20 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 4 segment(s) totaling 318 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 22

TITLE:	L-105A TEST 2.16MI MP 38.00-41.00 PH1
ORDER NO:	P.03759
PSRS NO.	23542
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**1,572**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 2.16 miles of pipeline L-105A between MP 38.00 and MP 41.00. The total number of segments to be hydrotested is 5.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	4	0	11,379

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 4 feet of pipe installed prior to 1970 operating below 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 4 segment(s) totaling 11,379 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 24

TITLE:	L-105N_1 TEST 4.88 MI MP 11.07-30.63 PH1
ORDER NO:	P.03767
PSRS NO.	24560
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**3,931**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 4.88 miles of pipeline L- 105N between MP 11.07 and MP 30.63. The total number of segments to be hydrotested is 28.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	109	15,663	10,001

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 16 segment(s) totaling 18,415 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 12 segment(s) totaling 7,358 feet of pipe that has a document ed strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 34

TITLE:	L-131_1 TEST 4.41MI MP 42.35-57.47 PH1
ORDER NO:	P.03752
PSRS NO.	24699
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**3,559**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 4.41 miles of pipeline L-131 between MP 42.35 and MP 57.47. The total number of segments to be hydrotested is 33.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	0	133	23,144

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 7 segment(s) totaling 11,420 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

In addition, 26 segment(s) totaling 11,857 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 35

TITLE:	L-131_2 TEST 4.02MI MP 8.44-45.90 PH1
ORDER NO:	41474018
PSRS NO.	23874
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**2,680**	**0**	**0**

DESCRIPTION: Hydrotest 4.02 miles of pipeline L-131 between MP 8.44 and MP 45.90. The total number of segments to be hydrotested is 11.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
3,637	0	17,593	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 172 fe et of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 6 segment(s) totaling16,292 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 2 segment(s) totaling 4,670 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 2 segment(s) totaling 96 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-753, Table 3, Line 39

TITLE:	L-132A TEST 1.46MI MP 0.01-1.46 PH1
ORDER NO:	P.03761
PSRS NO.	23480
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**1,228**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 1.46 miles of pipeline L-132A between MP 0.01 and MP 1.46. The total number of segments to be hydrotested is 20.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	372	7,337	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 6 segment(s) totaling 4,199 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 2 segment(s) totaling 89 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 3 segment(s) totaling 372 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 9 segment(s) totaling 3,049 feet of pipe that has a document ed strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-754, Table 3, Line 42

TITLE:	L-138 TEST 17.09MI MP 22.04-45.56 PH1
ORDER NO:	41474080
PSRS NO.	23510
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**5,841**	**0**	**0**

DESCRIPTION: Hydrotest 17.09 miles of pipeline L-138 between MP 22.04 and MP 45.56. The total number of segments to be hydrotested is 35.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
2,763	87,468	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 15 segment(s) totaling 48,545 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 4 segment(s) totaling 2,659 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 10 segment(s) totaling 36,151 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 6 segment(s) totaling 2,876 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-754, Table 3, Line 45

TITLE:	L-147 TEST 3.11MI MP 0.17-3.40 PH1
ORDER NO:	P.03762
PSRS NO.	24548
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**2,491**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 3.11 miles of pipeline L-147 between MP 0.17 and MP 3.40. The total number of segments to be hydrotested is 29.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	7,352	9,046	0

JUSTIFICATION:

This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 734 fe et of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 9 segment(s) totaling 9,685 feet of pipe installed prior to 1960 operating above 30% SMYS with the potential for pipe fabrication threats and located within a Class Location 2-4 or HCA.
- 4 segment(s) totaling 1,712 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 3 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 14 segment(s) totaling 4,264 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-754, Table 3, Line 60

TITLE:	L-191 TEST 3.96MI MP 6.47-10.47 PH1
ORDER NO:	P.03765
PSRS NO.	24555
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**2,415**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 3.96 miles of pipeline L-191 between MP 6.47 and MP 10.47. The total number of segments to be hydrotested is 9.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	0	20,916	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 20 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 7 segment(s) totaling 20,778 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

In addition, 1 segment(s) totaling 118 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-754, Table 3, Line 72

TITLE:	L-300A_1 TEST 58.46MI MP 0.29-502.24 PH1
ORDER NO:	P.03754
PSRS NO.	24495
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**32,911**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 58.46 miles of pipeline L-300A between MP 0.29 and MP 502.24. The total number of segments to be hydrotested is 252.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
0	0	7,722	300,960

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 77 feet of pipe installed prior to 1970 operating above 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 78 segment(s) totaling 107,939 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 11 segment(s) totaling 39,701 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 162 segment(s) totaling 160,965 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-754, Table 3, Line 73

TITLE:	L-300A_2 TEST 21.67MI MP 230.32-490.59 PH1
ORDER NO:	41474039
PSRS NO.	23497
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2012
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**11,359**	**0**	**0**

DESCRIPTION: Hydrotest 21.67 miles of pipeline L-300A between MP 230.32 and MP 490.59. The total number of segments to be hydrotested is 88.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	0	114,406

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 40 segment(s) totaling 78,428 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 17 segment(s) totaling 23,745 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 31 segment(s) totaling 12,233 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Included in this project is 426 feet of pipe that was installed after 1970, and PG&E has not been able to confirm complete strength test documentation. The cost to strength test the post-1970 pipe is forecasted to be $42,000 and is NOT included in the cost forecast for this project. The costs associated with strength tes ting post-70 pipe without a verifi ed strength test will be charged to a separate order for which incremental cost recovery is not being requested.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-754, Table 3, Line 75

TITLE:	L-300B_1 TEST 59.49MI MP 0.00-502.64 PH1
ORDER NO:	P.03756
PSRS NO.	24521
MAT CODE:	KE1
OPERATIVE DATE:	12/1/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**24,871**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 59.49 miles of pipeline L-300B between MP 0.00 and MP 502.64. The total number of segments to be hydrotested is 213.

Footage per pipe diameter

12" and less	14" to 20"	22" to 28"	30" to 42"
0	0	11	314,073

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 69 segment(s) totaling 105,040 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.
- 23 segment(s) totaling 30,060 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

In addition, 121 segment(s) totaling 178,984 feet of pipe that has a documented strength test is included in this project for construction efficiency.

Included in this project is 987 feet of pipe that was installed after 1970, and PG&E has not been able to confirm complete strength test documentation. The cost to strength test the post-1970 pipe is forecasted to be $78,000 and is NOT included in the cost forecast for this project. The costs associated with strength testing post-70 pipe without a verified strength test will be charged to a separate order for which incremental cost recovery is not being requested.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-755, Table 3, Line 91

TITLE:	DFM-0213-02 TEST 0.90MI MP 0.00-0.94 PH1
ORDER NO:	41473985
PSRS NO.	23927
MAT CODE:	KE1
OPERATIVE DATE:	7/1/2014
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**0**	**0**	**981**

DESCRIPTION: Hydrotest 0.90 miles of pipeline DFM-0213-02 between MP 0.00 and MP 0.94. The total number of segments to be hydrotested is 5.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
4,748	0	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 3 segment(s) totaling 154 feet of pipe installed prior to 1970 operating below 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 2 segment(s) totaling 4,594 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-755, Table 3, Line 104

TITLE:	DFM-0611-05 TEST 0.12MI MP 0.00-0.12 PH1
ORDER NO:	41482853
PSRS NO.	24196
MAT CODE:	KE1
OPERATIVE DATE:	7/1/2012
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**909**	**0**	**0**

DESCRIPTION: Hydrotest 0.12 miles of pipeline DFM-0611-05 between MP 0.00 and MP 0.12. The total number of segments to be hydrotested is 2.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
293	346	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 293 feet of pipe installed prior to 1970 operating below 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 1 segment(s) totaling 346 feet of pipe operating above 30% SMYS within a Class Location 2-4 or HCA.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-756, Table 3, Line 139

TITLE:	DFM-1622-01 TEST 0.99MI MP 0.00-1.00 PH1
ORDER NO:	41474008
PSRS NO.	23860
MAT CODE:	KE1
OPERATIVE DATE:	7/1/2014
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**0**	**0**	**0**	**998**

DESCRIPTION: Hydrotest 0.99 miles of pipeline DFM-1622-01 between MP 0.00 and MP 1.00. The number of segments to be hydrotested is 7.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
5,242	0	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 1 segment(s) totaling 18 feet of pipe installed prior to 1970 operating below 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 6 segment(s) totaling 5,224 feet of pipe that would have been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

PROJECT SUMMARY

Reference: WP 3-756, Table 3, Line 144

TITLE:	DFM-1816-01_1 TEST 9.38MI MP 0.00-8.44 PH1
ORDER NO:	P.03751
PSRS NO.	24484
MAT CODE:	KE1
OPERATIVE DATE:	12/31/2011
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	**2,631**	**0**	**0**	**0**

DESCRIPTION: Hydrotest 9.38 miles of pipeline DFM-1816-01 between MP 0.00 and MP 8.44. The total number of segments to be hydrotested is 34.

Footage per pipe diameter

12″ and less	14″ to 20″	22″ to 28″	30″ to 42″
49,543	0	0	0

JUSTIFICATION:
This Phase 1 project is driven by the results of PG&E's Pipeline Decision Tree. The segment(s) below have not been strength tested to 1.25 x MAOP for class 1 and 2 pipelines or 1.5 x MAOP for class 3 and 4 pipelines and include:

- 4 segment(s) totaling 26,824 feet of pipe installed prior to 1970 operating above 30% SMYS with the potenti al for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 2 segment(s) totaling 1,326 feet of pipe installed prior to 1970 operating below 30% SMYS with the potential for pipe manufacturing threats and located within a Class Location 2-4 or HCA.
- 9 segment(s) totaling 3,654 feet of pipe that would ha ve been strength tested or replaced in Phase 2 (starting in 2015), but was included in this Phase 1 project due to proximity and economics.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

EXPENSE PROJECT SUMMARY

Reference: WP 3-757, Table 3, Line 173

TITLE:	L132 MP 31.7-38.4 ILI & Analysis PH1
ORDER NO:	41482737
PSRS NO.	24026
MAT Code:	KE3
OPERATIVE DATE:	11/1/2013
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	0	0	325	499

DESCRIPTION

This project will clean and inspect with a Magnetic Flux Leakage (MFL) inspection tool, 7.48 miles of upgraded 30-36 inch pipeline. Based on the results of the inspection, the pipeline may be exposed at certain locations in order to perform verification. Minor repairs will be made to the pipeline if necessary. A new capital order will be created if pipe replacement or recoating is required.

JUSTIFICATION

The work is being performed to inspect the pipeline with a MFL tool. The objective for inspecting the pipeline is to assess the condition of the pipeline, which provides critical gas transportation in the BayArea. The pipeline is 1948-1995 vintages, which includes 2.86 miles located in High Consequence Areas (HCAs). Information gained from the MFL tool will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG&E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

EXPENSE PROJECT SUMMARY

Reference: WP 3-757, Table 3, Line 175

TITLE:	L300A MP 352.2-391.2 ILI & Analysis PH1
ORDER NO:	41482736
PSRS NO.	24022
MAT Code:	KE3
OPERATIVE DATE:	11/1/2013
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	0	0	500	788

DESCRIPTION

This project will clean and inspect with a Magnetic Flux Leakage (MFL) inspection tool, 38.96 miles of upgraded 34-36 inch Pipeline. Basedon the results of the inspection, the pipeline may be exposed at certain locations in order to perform verification. Minor repairs will be made to the pipeline if necessary. A new capital order will be created if pipe replacement or recoating is required.

JUSTIFICATION

The work is being performed to inspect the pipeline with a MFL tool. The objective for inspecting the pipeline is to assess the condition of the pipeline, which provides critical gas transportation to the Bay Area. The pipeline is 1950-1997 vintages, which includes 2.63 miles located in High Consequence Areas (HCAs). Information gained from the MFL tool will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG&E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

EXPENSE PROJECT SUMMARY

Reference: WP 3-757, Table 3, Line 176

TITLE:	L300B MP 299.0-351.8 ILI & Analysis PH1
ORDER NO:	41482735
PSRS NO.	24018
MAT Code:	KE3
OPERATIVE DATE:	11/1/2014
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	0	0	0	1,326

DESCRIPTION

This project will clean and inspect with a Magnetic Flux Leakage (MFL) inspection tool, 52.79 miles of upgraded 34 inch Pipeline. Based on the results of the inspection, the pipeline may be exposed at certain locations in order to perform verification. Minor repairs will be made to the pipeline if necessary. A new capital order will be created if pipe replacement or recoating is required.

JUSTIFICATION

The work is being performed to inspect the pipeline with a MFL tool. The objective for inspecting the pipeline is to assessthe condition of the pipeline, which provides critical gas transportation to the BayArea. Thepipeline is 1950-1971 vintages. Information gained from the MFL tool will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG&E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

EXPENSE PROJECT SUMMARY

Reference: WP 3-757, Table 3, Line 177

TITLE:	L300B MP 351.8-390.9 ILI & Analysis PH1
ORDER NO:	41482734
PSRS NO.	24015
MAT Code:	KE3
OPERATIVE DATE:	11/1/2013
AFUDC ELIGIBLE:	N/A

ESCALATED FINANCIAL EXPENDITURES (Expense)
($000)

	2011	2012	2013	2014
Total Expenditures:	0	0	600	688

DESCRIPTION

This project will clean and inspect with a Magnetic Flux Leakage (MFL) inspection tool, 39.38 miles of upgraded 34-36 inch Pipeline. Based on the results of the inspection, the pipeline may be exposed at certain locations in order to perform verification. Minor repairs will be made to the pipeline if necessary. A new capital order will be created if pipe replacement or recoating is required.

JUSTIFICATION

The work is being performed to inspect the pipeline with a MFL tool. The objective for inspecting the pipeline is to assess the condition of the pipeline, which provides critical gas transportation to the Bay Area. The pipeline is 1950vintage, which includes 1.34 miles located in High Consequence Areas (HCAs). Information gained from the MFL tool will identify any critical and sub-critical pipeline anomalies. ILI data is valuable input into the Engineering Condition Assessment process PG&E will use to identify and mitigate ground movement threats, and to identify and remove excessive pups, miter bend and wrinkle bends.

Pacific Gas and Electric Company
Implementation Plan
Workpapers Supporting Chapter 3, Pipeline Modernization

The following correction applies to the second to last line on the Project Cost workpapers associated with Strength Testing projects. The specific workpaper pages are identified below. The text in the accompanying Project Summaries in each case correctly states that the cost of strength testing post-70 pipe without a verified strength test will be charged to a separate order for which incremental cost recovery is not being requested.

ORIGINAL:
"cost of **replacing** post-70 pipe without verifiable strength test"

REVISED:
"cost of **strength testing** post-70 pipe without verifiable strength test"

THIS CORRECTION APPLIES TO THE FOLLOWING WORKPAPERS:

WP 3-759	WP 3-798	WP 3-839	WP 3-884	WP 3-927
WP 3-762	WP 3-801	WP 3-842	WP 3-888	WP 3-930
WP 3-765	WP 3-804	WP 3-845	WP 3-892	WP 3-933
WP 3-768	WP 3-807	WP 3-848	WP 3-895	WP 3-936
WP 3-771	WP 3-810	WP 3-851	WP 3-898	WP 3-939
WP 3-774	WP 3-813	WP 3-854	WP 3-901	WP 3-943
WP 3-777	WP 3-816	WP 3-857	WP 3-904	WP 3-946
WP 3-780	WP 3-819	WP 3-860	WP 3-908	WP 3-949
WP 3-783	WP 3-822	WP 3-864	WP 3-912	WP 3-952
WP 3-786	WP 3-825	WP 3-871	WP 3-915	WP 3-955
WP 3-789	WP 3-828	WP 3-874	WP 3-918	WP 3-958
WP 3-792	WP 3-831	WP 3-877	WP 3-921	WP 3-961
WP 3-795	WP 3-835	WP 3-880	WP 3-924	WP 3-964

THIS CORRECTION APPLIES TO THE FOLLOWING WORKPAPERS (continued):

WP 3-967	WP 3-1050	WP 3-1127	WP 3-1203
WP 3-970	WP 3-1053	WP 3-1130	WP 3-1207
WP 3-973	WP 3-1057	WP 3-1133	WP 3-1210
WP 3-976	WP 3-1060	WP 3-1136	WP 3-1213
WP 3-980	WP 3-1063	WP 3-1139	WP 3-1216
WP 3-986	WP 3-1066	WP 3-1142	WP 3-1219
WP 3-990	WP 3-1069	WP 3-1145	WP 3-1222
WP 3-993	WP 3-1072	WP 3-1148	WP 3-1225
WP 3-999	WP 3-1075	WP 3-1151	WP 3-1228
WP 3-1002	WP 3-1078	WP 3-1154	WP 3-1231
WP 3-1005	WP 3-1082	WP 3-1157	WP 3-1234
WP 3-1008	WP 3-1085	WP 3-1160	WP 3-1237
WP 3-1011	WP 3-1088	WP 3-1163	WP 3-1240
WP 3-1014	WP 3-1091	WP 3-1166	WP 3-1243
WP 3-1017	WP 3-1094	WP 3-1169	WP 3-1246
WP 3-1020	WP 3-1097	WP 3-1172	WP 3-1249
WP 3-1023	WP 3-1100	WP 3-1175	WP 3-1253
WP 3-1026	WP 3-1103	WP 3-1178	WP 3-1257
WP 3-1029	WP 3-1106	WP 3-1181	WP 3-1260
WP 3-1032	WP 3-1109	WP 3-1185	WP 3-1263
WP 3-1035	WP 3-1112	WP 3-1188	WP 3-1266
WP 3-1038	WP 3-1115	WP 3-1191	WP 3-1269
WP 3-1041	WP 3-1118	WP 3-1194	WP 3-1272
WP 3-1044	WP 3-1121	WP 3-1197	WP 3-1275
WP 3-1047	WP 3-1124	WP 3-1200	WP 3-1278