UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

California Independent System Operator Corporation	)	Docket No. ER04-____-000

GRID MANAGEMENT CHARGE

VOLUME III OF IX

- Exhibit Numbers ISO-27 through ISO-39

October 31, 2003

	A	B
1		
2	**California Independent System Operator 2004 GMC Cost Allocation Calculation of Operations and Maintenance Revenue Requirement**	
3	This spreadsheet compiles budget expenditure data, calculates allocations to functions and provides a summary of these allocations at the cost center and division levels.	
4		
5	**Sheet Index:**	**Description**
6	Budget data	Budget data by cost center, including total proposed budget, salaries, temporary/contract staff, consultants and other expenses
7	Direct Labor %	Direct assignments for non IS staff, pulled from 2004 pre labor.xls spreadsheet
8	Direct Contract %	Direct assignments for temporary/contract staff and consultants for not IS staff, pulled from 2004 prel contract.xls spreadsheet
9	System Direct%	Assignments, allocations and functionalizations for IS staff pulled from Systema4.xls spreadsheet
10	Direct Labor$	Pulls salaries from Budget data worksheet, applies factors in Direct Labor % and calculates costs to functions
11	Direct Contract$	Pulls temporary/contract staff and consultants expenditures from Budget data worksheet, applies factors in Direct Contract % and calculates costs to functions
12	System Direct$	Pulls IS cost center expenditures from Budget data worksheet, applies factors in System Direct% and calculates costs to functions
13	Total Directs$	Pulls functionalized costs from Direct Labor$, Direct Contract$, System Direct$ and sums them.
14	Total Directs%	Calculates percentage allocations to functions
15	FTE	Shows FTE calculations, using direct assignments of non-ISO staff
16	OH	Shows overhead calculations, using direct assignments of non-ISO staff
17	Dept Direct	Shows calculation of allocation for DataWarehouse. The calculation is a weighted average of the departments shown.
18	Ratios	Summary worksheet showing factors applied for direct labor, FTE, overhead, operating costs and MD02 capital. These factors are applied in this spreadsheet and used in other spreadsheets also.
19	1100	Summary of cost centers under division 1100. Includes MD02 and Grid Planning. Shows calculation of CEO cost allocation.
20	1300	Summary of cost centers under division 1300. Includes CFO cost allocation.
21	1400	Summary of cost centers under division 1400. Includes CIO cost allocation, as well as supervisory cost centers.
22	1500	Summary of cost centers under division 1500. Includes VP, Grid Operations cost allocation, as well as supervisory cost centers.

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	A	B
1		
2	**California Independent System Operator 2004 GMC Cost Allocation Calculation of Operations and Maintenance Revenue Requirement**	
3	This spreadsheet compiles budget expenditure data, calculates allocations to functions and provides a summary of these allocations at the cost center and division levels.	
4		
5	**Sheet Index:**	**Description**
23	1600	Summary of cost centers under division 1600. Includes General Counsel cost allocation.
24	1700	Summary of cost centers under division 1700. Includes VP, Market Services cost allocation.
25	1800	Summary of cost centers under division 1800. Includes VP, Corporate and Strategic Development cost allocation as well as supervisory cost centers
26	2100	Shows allocation of employee salary adjustments
27	Totals	Summaries totals for all cost centers individually
28	Salaries	
29	Methods	Brief description of assignment, allocation, functionalization methods
30	Revenue Req	Summaries totals by division. Data in this table is pushed to Revenue3.xls spreadsheet for calculation of total revenue requirement
31	Reserve credit worksheets	Worksheet divider
32	2003 GMC	2003 GMC allocators by cost center
33	2004 percentages	Percentage allocations by Cost Center using 2004 GMC allocators
34	CAS-CRS	Calculation of allocation factors for CAS reserve credit to new 2004 GMC functions
35	CONG	Calculation of allocation factors for CONG reserve credit to new 2004 GMC functions
36	ASREO	Calculation of allocation factors for ASREO reserve credit to new 2004 GMC functions

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California Independent System Operator
2004 GMC Cost Allocation
Draft and Preliminary
Subject to both review and approval

2004 Budget Amount By Cost Center

CC #	Cost Center	Amount (total)	Salaries	Temp/Contract Staff	Consultants and Expenses	Other	FTE
1111	CEO - General	$897,241	$ 659,078	$ -	$ 150,000	$ 88,163	2.0
1241	MD02	$1,284,788	$ 1,216,788	$ 35,000	$ -	$ 33,000	7.0
1311	CFO - General	$332,272	$ 356,323	$ -	$ -	$ (24,051)	1.5
1321	Accounting	$2,931,098	$ 921,198	$ 42,000	$ 80,000	$ 1,887,900	9.5
1331	Financial Planning and Treasury	$3,471,773	$ 780,134	$ 30,000	$ 120,000	$ 2,541,639	6.5
1351	Facilities	$6,136,300	$ 710,066	$ -	$ 62,782	$ 5,363,452	7.0
1361	Security & Corporate Services	$2,660,758	$ 731,998	$ 17,500	$ 35,000	$ 1,876,260	10.0
1411	Chief Information Officer	($319,362)	$ (85,121)	$ -	$ 82,550	$ (316,791)	2.0
1422	Corporate & Enterprise Applications	$272,402	$ 246,402	$ -	$ -	$ 26,000	2.0
1424	Asset Management	$20,455,331	$ 936,407	$ 210,000	$ 70,000	$ 19,238,924	8.0
1431	End User Support	$6,662,499	$ 524,422	$ 164,290	$ -	$ 5,973,787	4.0
1432	Computer Operations and Infrastructure	$982,255	$ 904,348	$ -	$ -	$ 77,907	6.0
1433	Network Services	$1,621,981	$ 1,541,673	$ -	$ -	$ 80,308	11.0
1441	Outsourced Contracts	$10,669,871	$ 176,527	$ 85,000	$ -	$ 10,408,344	2.0
1442	Production Support	$2,642,634	$ 2,402,034	$ -	$ 80,000	$ 160,600	17.0
1451	Infrastructure Services	$1,696,047	$ 1,124,828	$ -	$ 198,000	$ 373,219	9.0
1461	Control Systems	$2,385,558	$ 2,168,381	$ 81,000	$ -	$ 136,177	19.0
1462	Field Data Acquisition System (FDAS)	$2,547,393	$ 2,000,514	$ 97,595	$ 185,004	$ 264,280	15.0
1463	Operations Systems Services	$347,495	$ 316,193	$ -	$ -	$ 31,302	3.0
1466	Enterprise Applications	$1,609,967	$ 1,406,534	$ -	$ 120,685	$ 82,748	10.0
1467	Settlement Systems Services	$1,170,354	$ 1,086,619	$ -	$ -	$ 83,735	9.0
1468	Corporate Application Support and Administration	$609,686	$ 577,687	$ -	$ -	$ 31,999	4.0
1469	Analytical and Reporting Applications	$1,298,406	$ 1,225,867	$ -	$ -	$ 72,539	9.0

	A	B	C	D	E	F	G	H
1	**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**							
2	2004 Budget Amount By Cost Center							
3	CC #	Cost Center	Amount (total)	Salaries	Temp/Contract Staff	Consultants and Expenses	Other	FTE
27	1471	IT Planning	$950,115	$ 674,348	$ 115,087	$ 97,853	$ 62,827	5.0
28	1481	Markets and Scheduling System	$1,516,144	$ 1,263,277	$ 150,000	$ 39,128	$ 63,739	9.0
29	1482	Market Systems Support Services	$616,978	$ 585,478	$ -	$ -	$ 31,500	4.0
30	1511	VP Grid Operations	($154,783)	$ (289,459)	$ -	$ 240,000	$ (105,324)	1.5
31	1521	Grid Planning	$2,497,543	$ 2,382,163	$ -	$ -	$ 115,380	16.0
32	1542	Outage Coordination	$1,910,211	$ 1,709,637	$ 18,500	$ 75,000	$ 107,074	12.0
33	1543	Loads and Resources	$1,185,612	$ 963,112	$ 170,000	$ -	$ 52,500	7.0
34	1544	Real-Time Scheduling	$2,786,442	$ 2,729,242	$ -	$ -	$ 57,200	20.0
35	1545	Grid Operations	$7,545,786	$ 7,225,286	$ 48,000	$ 11,200	$ 261,300	50.0
36	1546	Security Coordination	$1,368,574	$ 1,320,574	$ -	$ -	$ 48,000	8.0
37	1547	Engineering and Maintenance	$576,104	$ 322,104	$ 100,000	$ 75,000	$ 79,000	3.0
38	1548	OSAT Group - General	$293,953	$ 251,453	$ -	$ 20,000	$ 22,500	2.0
39	1549	Operations Training	$2,882,700	$ 2,114,224	$ 36,000	$ 465,600	$ 266,876	18.0
40	1554	Special Projects Engineering	$853,958	$ 657,008	$ -	$ 121,900	$ 75,050	4.0
41	1555	Operations Support Group	$1,111,667	$ 1,063,107	$ -	$ -	$ 48,560	9.0
42	1558	Transmission Maintenance	$1,623,755	$ 1,322,205	$ 110,000	$ 90,000	$ 101,550	9.0
43	1559	Operations Application Support	$584,623	$ 573,103	$ -	$ -	$ 11,520	5.0
44	1561	Operations Engineering South	$1,241,824	$ 1,118,224	$ 25,000	$ -	$ 98,600	7.5
45	1562	Operations Engineering North	$1,355,194	$ 1,307,334	$ 10,000	$ -	$ 37,860	9.0
46	1563	Operations Coordination	$704,967	$ 627,767	$ 48,000	$ -	$ 29,200	4.0
47	1564	Operations Scheduling	$295,029	$ 253,529	$ -	$ -	$ 41,500	2.0
48	1565	Pre-Scheduling and Support	$1,834,525	$ 1,797,925	$ -	$ -	$ 36,600	13.0
49	1566	Regional Coordination - General	$547,417	$ 455,517	$ -	$ -	$ 91,900	3.0

California Independent System Operator
2004 GMC Cost Allocation
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2004 Budget Amount By Cost Center

CC #	Cost Center	Amount (total)	Salaries	Temp/Contract Staff	Consultants and Expenses	Other	FTE
1611	VP General Counsel - General	$285,317	$ 301,939	$ -	$ 20,000	$ (36,622)	2.0
1631	Legal and Regulatory	$12,216,636	$ 3,454,104	$ 90,000	$ 70,640	$ 8,601,892	22.0
1641	Market Analysis	$2,948,963	$ 2,050,085	$ 41,000	$ 683,800	$ 174,078	16.0
1642	Market Surveillance Committee	$561,750		$ -	$ 558,750	$ 3,000	-
1651	Board of Governors	$231,400		$ -	$ -	$ 231,400	-
1661	Compliance - General	$1,722,093	$ 1,268,093	$ 265,000	$ 137,000	$ 52,000	10.0
1662	Compliance - Audits	$434,112	$ 405,112	$ -	$ -	$ 29,000	3.0
1711	VP Market Services - General	($69,788)	$ 18,946	$ -	$ -	$ (88,734)	2.0
1721	Billing and Settlements-General	$450,755	$ 426,755	$ -	$ -	$ 24,000	3.0
1722	Business Development Support	$700,651	$ 604,441	$ 89,360	$ -	$ 6,850	5.0
1723	RMR Settlements	$992,025	$ 762,347	$ 195,428	$ -	$ 34,250	7.0
1724	BBS - PSS	$1,280,172	$ 1,074,144	$ 178,720	$ -	$ 27,308	9.0
1725	BBS - FSS	$1,283,046	$ 994,282	$ 267,524	$ -	$ 21,240	9.0
1731	Contracts and Special Projects	$1,525,676	$ 1,250,164	$ 34,042	$ 174,466	$ 67,004	9.0
1741	Client Relations	$2,366,671	$ 2,076,971	$ -	$ 108,500	$ 181,200	17.0
1751	Market Operations - General	$979,523	$ 373,302	$ 85,105	$ 143,616	$ 377,500	3.0
1752	Manager of Markets	$2,773,203	$ 2,323,353	$ -	$ 350,000	$ 99,850	17.0
1753	Market Engineering	$1,955,609	$ 1,362,453	$ 285,105	$ 280,751	$ 27,300	10.0
1755	Business Solutions	$1,175,260	$ 959,204	$ -	$ 203,056	$ 13,000	7.0
1756	Market Quality - General	$2,102,495	$ 2,030,338	$ -	$ 37,657	$ 34,500	18.0
1757	Market Integration	$998,732	$ 871,516	$ -	$ 114,256	$ 12,960	6.0
1811	VP Corporate and Strategic Development - General	$467,576	$ 322,823	$ -	$ 155,000	$ (10,247)	2.0
1821	Communications	$847,176	$ 496,232	$ 2,500	$ 145,000	$ 203,444	4.0

	A	B	C	D	E	F	G	H
1	**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**							
2	2004 Budget Amount By Cost Center							
3	CC #	Cost Center	Amount (total)	Salaries	Temp/Contract Staff	Consultants and Expenses	Other	FTE
73	1831	Strategic Development	$737,340	$ 558,240	$ -	$ 155,500	$ 23,600	3.0
74	1841	Human Resources	$4,624,949	$ 1,833,824	$ 50,000	$ 510,000	$ 2,231,125	13.0
75	1851	Project Office	$696,828	$ 627,028	$ 45,000	$ 11,000	$ 13,800	4.0
76	1861	Regulatory Policy	$951,804	$ 633,504	$ -	$ 270,000	$ 48,300	4.0
77	2111	Other	$0	$ -	$ -	$ -	$ -	-
78			$ 151,735,058	$ 79,435,257	$ 3,221,756	$ 6,548,694	$ 62,529,351	599.5

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	A	B	C	D	E	F	G	H	I
1	**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**								
2	Direct Personnel Assignments by Cost Center for Divisions 1500, 1600, 1700								
3	**CC #**	**Cost Center**	**Total**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4									
5	1521	Grid Planning	100%	63%	38%	0%	0%	0%	0%
6	1542	Outage Coordination	100%	100%	0%	0%	0%	0%	0%
7	1543	Loads and Resources	100%	57%	43%	0%	0%	0%	0%
8	1544	Real-time Scheduling	100%	60%	40%	0%	0%	0%	0%
9	1545	Grid Operations	100%	68%	32%	0%	0%	0%	0%
10	1546	Reliability Coordinators	100%	100%	0%	0%	0%	0%	0%
11	1547	Engineering and Maintenance - General	100%	67%	33%	0%	0%	0%	0%
12	1548	OSAT General	100%	100%	0%	0%	0%	0%	0%
13	1549	Operations Training	100%	61%	39%	0%	0%	0%	0%
14	1554	Special Projects Engineering	100%	50%	50%	0%	0%	0%	0%
15	1555	Operations Support	100%	56%	44%	0%	0%	0%	0%
16	1558	Transmission Maintenance	100%	67%	33%	0%	0%	0%	0%
17	1559	Operations Applications Support	100%	60%	40%	0%	0%	0%	0%
18	1561	Operations Engineering South	100%	67%	33%	0%	0%	0%	0%
19	1562	Operations Engineering North	100%	56%	44%	0%	0%	0%	0%
20	1563	Operations Coordination	100%	80%	20%	0%	0%	0%	0%
21	1564	Scheduling Department Director	100%	100%	0%	0%	0%	0%	0%
22	1565	Scheduling Support	100%	77%	23%	0%	0%	0%	0%
23	1566	Regional Coordination	100%	100%	0%	0%	0%	0%	0%
24	1641	Market Analysis	100%	20%	22%	0%	16%	33%	9%
25	1642	Market Surveillance Committee	100%	25%	25%	0%	25%	25%	0%
26	1661	Compliance - General	100%	24%	22%	14%	0%	25%	15%
27	1662	Compliance - Audits	100%	8%	0%	0%	0%	50%	42%
28	1721	Billing & Settlements	100%	25%	0%	0%	0%	0%	75%
29	1722	Business Development Support	100%	0%	0%	0%	0%	0%	100%
30	1723	RMR Settlements	100%	100%	0%	0%	0%	0%	0%
31	1724	BBS Settlements - Preliminary Settlements	100%	0%	0%	0%	0%	0%	100%
32	1725	BBS Settlements - Final Settlements	100%	0%	0%	0%	0%	0%	100%
33	1731	Contracts & Special Projects	100%	50%	0%	0%	0%	0%	50%
34	1741	Client Relations	100%	0%	0%	0%	0%	0%	100%
35	1751	Market Operations - General	100%	40%	0%	20%	20%	15%	5%
36	1752	Manager, Markets	100%	31%	6%	31%	25%	6%	0%
37	1753	Market Engineering	100%	30%	0%	0%	40%	20%	10%

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	A	B	C	D	E	F	G	H	I
38	1755	Business Solutions	100%	7%	0%	57%	14%	14%	7%
39	1756	Market Quality	100%	0%	0%	0%	0%	72%	28%
40	1757	Market Integration	100%	8%	0%	33%	33%	17%	8%
41									
42									
43	**California Independent System Operator**								
44	Dollar Allocation of Salaries by Cost Center for Divisions 1500, 1600, 1700								
45	**CC#**	**Cost Center**	**Budget (Salaries and other expenses)**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
46									
47	1521	Grid Planning	$ 2,497,543	$ 1,560,965	$ 936,579	$ -	$ -	$ -	$ -
48	1542	Outage Coordination	$ 1,816,711	$ 1,816,711	$ -	$ -	$ -	$ -	$ -
49	1543	Loads and Resources	$ 1,015,612	$ 580,350	$ 435,262	$ -	$ -	$ -	$ -
50	1544	Real-time Scheduling	$ 2,786,442	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -
51	1545	Grid Operations	$ 7,486,586	$ 5,090,879	$ 2,395,708	$ -	$ -	$ -	$ -
52	1546	Reliability Coordinators	$ 1,368,574	$ 1,368,574	$ -	$ -	$ -	$ -	$ -
53	1547	Engineering and Maintenance - General	$ 401,104	$ 267,403	$ 133,701	$ -	$ -	$ -	$ -
54	1548	OSAT General	$ 273,953	$ 273,953	$ -	$ -	$ -	$ -	$ -
55	1549	Operations Training	$ 2,381,100	$ 1,455,116	$ 925,983	$ -	$ -	$ -	$ -
56	1554	Special Projects Engineering	$ 732,058	$ 366,029	$ 366,029	$ -	$ -	$ -	$ -
57	1555	Operations Support	$ 1,111,667	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -
58	1558	Transmission Maintenance	$ 1,423,755	$ 949,170	$ 474,585	$ -	$ -	$ -	$ -
59	1559	Operations Applications Support	$ 584,623	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -
60	1561	Operations Engineering South	$ 1,216,824	$ 811,216	$ 405,608	$ -	$ -	$ -	$ -
61	1562	Operations Engineering North	$ 1,345,194	$ 747,330	$ 597,864	$ -	$ -	$ -	$ -
62	1563	Operations Coordination	$ 656,967	$ 525,574	$ 131,393	$ -	$ -	$ -	$ -
63	1564	Scheduling Department Director	$ 295,029	$ 295,029	$ -	$ -	$ -	$ -	$ -
64	1565	Scheduling Support	$ 1,834,525	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -
65	1566	Regional Coordination	$ 547,417	$ 547,417	$ -	$ -	$ -	$ -	$ -
66	1641	Market Analysis	$ 2,224,163	$ 451,783	$ 486,536	$ -	$ 347,525	$ 729,803	$ 208,515
67	1642	Market Surveillance Committee	$ 3,000	$ 750	$ 750	$ -	$ 750	$ 750	$ -
68	1661	Compliance - General	$ 1,320,093	$ 316,822	$ 290,420	$ 184,813	$ -	$ 330,023	$ 198,014
69	1662	Compliance - Audits	$ 434,112	$ 36,176	$ -	$ -	$ -	$ 217,056	$ 180,880
70	1721	Billing & Settlements	$ 450,755	$ 112,689	$ -	$ -	$ -	$ -	$ 338,066
71	1722	Business Development Support	$ 611,291	$ -	$ -	$ -	$ -	$ -	$ 611,291
72	1723	RMR Settlements	$ 796,597	$ 796,597	$ -	$ -	$ -	$ -	$ -
73	1724	BBS Settlements - Preliminary Settlements	$ 1,101,452	$ -	$ -	$ -	$ -	$ -	$ 1,101,452
74	1725	BBS Settlements - Final Settlements	$ 1,015,522	$ -	$ -	$ -	$ -	$ -	$ 1,015,522
75	1731	Contracts & Special Projects	$ 1,317,168	$ 658,584	$ -	$ -	$ -	$ -	$ 658,584
76	1741	Client Relations	$ 2,258,171	$ -	$ -	$ -	$ -	$ -	$ 2,258,171
77	1751	Market Operations - General	$ 750,802	$ 300,321	$ -	$ 150,160	$ 150,160	$ 112,620	$ 37,540
78	1752	Manager, Markets	$ 2,423,203	$ 757,251	$ 151,450	$ 757,251	$ 605,801	$ 151,450	$ -

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	A	B	C	D	E	F	G	H	I
79	1753	Market Engineering	$ 1,389,753	$ 416,926	$ -	$ -	$ 555,901	$ 277,951	$ 138,975
80	1755	Business Solutions	$ 972,204	$ 69,443	$ -	$ 555,545	$ 138,886	$ 138,886	$ 69,443
81	1756	Market Quality	$ 2,064,838	$ -	$ -	$ -	$ -	$ 1,491,272	$ 573,566
82	1757	Market Integration	$ 884,476	$ 73,706	$ -	$ 294,825	$ 294,825	$ 147,413	$ 73,706
83									
84		**Total Direct Personnel**	$ 49,793,285	$ 24,698,168	$ 9,997,721	$ 1,942,595	$ 2,093,850	$ 3,597,225	$ 7,463,726

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	A	B	C	D	E	F	G	H	I
1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**								
2	Direct Assignments of Temporary/Contract Staff or Consultants by Cost Center for Divisions 1500, 1600, 1700								
3	**CC #**	**Cost Center**	**Total**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4									
5	1521	Grid Planning	100%	0%	100%	0%	0%	0%	0%
6	1542	Outage Coordination	100%	0%	100%	0%	0%	0%	0%
7	1543	Loads and Resources	100%	0%	100%	0%	0%	0%	0%
8	1544	Real-time Scheduling	100%	0%	100%	0%	0%	0%	0%
9	1545	Grid Operations	100%	0%	100%	0%	0%	0%	0%
10	1546	Reliability Coordinators	100%	0%	100%	0%	0%	0%	0%
11	1547	Engineering and Maintenance - General	100%	0%	100%	0%	0%	0%	0%
12	1548	OSAT General	100%	0%	100%	0%	0%	0%	0%
13	1549	Operations Training	100%	0%	100%	0%	0%	0%	0%
14	1554	Special Projects Engineering	100%	0%	100%	0%	0%	0%	0%
15	1555	Operations Support	100%	0%	100%	0%	0%	0%	0%
16	1558	Transmission Maintenance	100%	0%	100%	0%	0%	0%	0%
17	1559	Operations Applications Support	100%	0%	100%	0%	0%	0%	0%
18	1561	Operations Engineering South	100%	0%	100%	0%	0%	0%	0%
19	1562	Operations Engineering North	100%	0%	100%	0%	0%	0%	0%
20	1563	Operations Coordination	100%	0%	100%	0%	0%	0%	0%
21	1564	Scheduling Department Director	100%	0%	100%	0%	0%	0%	0%
22	1565	Scheduling Support	100%	0%	100%	0%	0%	0%	0%
23	1566	Regional Coordination	100%	0%	100%	0%	0%	0%	0%
24	1641	Market Analysis	100%	0%	40%	0%	33%	27%	0%
25	1642	Market Surveillance Committee	100%	25%	25%	0%	25%	25%	0%
26	1661	Compliance - General	100%	15%	15%	5%	0%	40%	25%
27	1662	Compliance - Audits	100%	15%	15%	5%	0%	40%	25%
28	1721	Billing & Settlements	100%	25%	0%	0%	0%	0%	75%
29	1722	Business Development Support	100%	0%	0%	0%	0%	0%	100%
30	1723	RMR Settlements	100%	0%	100%	0%	0%	0%	0%
31	1724	BBS Settlements - Preliminary Settlements	100%	0%	0%	0%	0%	0%	100%
32	1725	BBS Settlements - Final Settlements	100%	0%	0%	0%	0%	0%	100%
33	1731	Contracts & Special Projects	100%	0%	50%	0%	0%	0%	50%
34	1741	Client Relations	100%	0%	0%	0%	0%	0%	100%

	A	B	C	D	E	F	G	H	I
35	1751	Market Operations - General	100%	0%	0%	0%	0%	100%	0%
36	1752	Manager, Markets	100%	0%	0%	0%	0%	100%	0%
37	1753	Market Engineering	100%	0%	0%	0%	0%	100%	0%
38	1755	Business Solutions	100%	0%	0%	0%	0%	100%	0%
39	1756	Market Quality	100%	0%	0%	0%	0%	0%	100%
40	1757	Market Integration	100%	0%	0%	0%	0%	100%	0%
41									
42									
43	**California Independent System Operator**								
44	Dollar Allocation of Temporary/Contract Staff and Consultant Expenditures by Cost Center for Divisions 1500, 1600, 1700								
45	**CC#**	**Cost Center**	**Budget (Contract Staff and Consultants)**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
46									
47	1521	Grid Planning	$ -	$ -	$ -	$ -	$ -	$ -	$ -
48	1542	Outage Coordination	$ 93,500	$ -	$ 93,500	$ -	$ -	$ -	$ -
49	1543	Loads and Resources	$ 170,000	$ -	$ 170,000	$ -	$ -	$ -	$ -
50	1544	Real-time Scheduling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
51	1545	Grid Operations	$ 59,200	$ -	$ 59,200	$ -	$ -	$ -	$ -
52	1546	Reliability Coordinators	$ -	$ -	$ -	$ -	$ -	$ -	$ -
53	1547	Engineering and Maintenance - General	$ 175,000	$ -	$ 175,000	$ -	$ -	$ -	$ -
54	1548	OSAT General	$ 20,000	$ -	$ 20,000	$ -	$ -	$ -	$ -
55	1549	Operations Training	$ 501,600	$ -	$ 501,600	$ -	$ -	$ -	$ -
56	1554	Special Projects Engineering	$ 121,900	$ -	$ 121,900	$ -	$ -	$ -	$ -
57	1555	Operations Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -
58	1558	Transmission Maintenance	$ 200,000	$ -	$ 200,000	$ -	$ -	$ -	$ -
59	1559	Operations Applications Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -
60	1561	Operations Engineering South	$ 25,000	$ -	$ 25,000	$ -	$ -	$ -	$ -
61	1562	Operations Engineering North	$ 10,000	$ -	$ 10,000	$ -	$ -	$ -	$ -
62	1563	Operations Coordination	$ 48,000	$ -	$ 48,000	$ -	$ -	$ -	$ -
63	1564	Scheduling Department Director	$ -	$ -	$ -	$ -	$ -	$ -	$ -
64	1565	Scheduling Support	$ -	$ -	$ -	$ -	$ -	$ -	$ -
65	1566	Regional Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
66	1641	Market Analysis	$ 724,800	$ -	$ 289,920	$ -	$ 239,184	$ 195,696	$ -
67	1642	Market Surveillance Committee	$ 558,750	$ 139,688	$ 139,688	$ -	$ 139,688	$ 139,688	$ -
68	1661	Compliance - General	$ 402,000	$ 60,300	$ 60,300	$ 20,100	$ -	$ 160,800	$ 100,500
69	1662	Compliance - Audits	$ -	$ -	$ -	$ -	$ -	$ -	$ -
70	1721	Billing & Settlements	$ -	$ -	$ -	$ -	$ -	$ -	$ -
71	1722	Business Development Support	$ 89,360	$ -	$ -	$ -	$ -	$ -	$ 89,360

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	A	B	C	D	E	F	G	H	I
72	1723	RMR Settlements	$ 195,428	$ -	$ 195,428	$ -	$ -	$ -	$ -
73	1724	BBS Settlements - Preliminary Settlements	$ 178,720	$ -	$ -	$ -	$ -	$ -	$ 178,720
74	1725	BBS Settlements - Final Settlements	$ 267,524	$ -	$ -	$ -	$ -	$ -	$ 267,524
75	1731	Contracts & Special Projects	$ 208,508	$ -	$ 104,254	$ -	$ -	$ -	$ 104,254
76	1741	Client Relations	$ 108,500	$ -	$ -	$ -	$ -	$ -	$ 108,500
77	1751	Market Operations - General	$ 228,721	$ -	$ -	$ -	$ -	$ 228,721	$ -
78	1752	Manager, Markets	$ 350,000	$ -	$ -	$ -	$ -	$ 350,000	$ -
79	1753	Market Engineering	$ 565,856	$ -	$ -	$ -	$ -	$ 565,856	$ -
80	1755	Business Solutions	$ 203,056	$ -	$ -	$ -	$ -	$ 203,056	$ -
81	1756	Market Quality	$ 37,657	$ -	$ -	$ -	$ -	$ -	$ 37,657
82	1757	Market Integration	$ 114,256	$ -	$ -	$ -	$ -	$ 114,256	$ -
83									
84		**Total Direct Contracts**	$ 5,657,336	$ 199,988	$ 2,213,790	$ 20,100	$ 378,872	$ 1,958,073	$ 886,515

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	A	B	C	D	E	F	G	H	I
1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**								
2	Functionalization by Cost Center for IS Division								
3	**CC #**	**Cost Center**		**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4									
5	1424	Asset Management		35%	6%	12%	5%	10%	31%
6	1431	End User Support		37%	14%	10%	4%	9%	26%
7	1433	Network Services		42%	12%	11%	3%	9%	23%
8	1441	Outsourced Contracts		41%	11%	12%	3%	9%	25%
9	1442	Production Support Services		23%	0%	22%	3%	7%	45%
10	1451	Infrastructure Services		23%	0%	22%	3%	7%	45%
11	1461	Control Systems		96%	2%	0%	0%	1%	1%
12	1462	Field Data Acquisition System (FDAS)		21%	0%	0%	0%	0%	79%
13	1466	Enterprise Applications		48%	7%	1%	1%	3%	39%
14	1467	Settlement Systems Services		9%	0%	0%	0%	0%	91%
15	1468	Corporate Application Support and Administration		44%	21%	4%	4%	10%	17%
16	1469	Analytical and Reporting Applications		24%	18%	6%	9%	24%	18%
17	1471	IT Planning		23%	0%	22%	3%	7%	45%
18	1481	Markets and Scheduling System		45%	3%	27%	3%	17%	6%
19	1482	Market Systems Support Services		44%	1%	20%	6%	23%	5%
20									
21									
22	**California Independent System Operator**								
23	Dollar Allocation of IS Expenditures by Cost Center for IS Division								
24	**CC#**	**Cost Center**	**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
25									
26	1424	Asset Management	$ 20,455,331	$ 7,086,102	$ 1,296,474	$ 2,549,214	$ 999,390	$ 2,083,966	$ 6,440,185
27	1431	End User Support	$ 6,662,499	$ 2,482,662	$ 962,353	$ 635,689	$ 234,380	$ 606,459	$ 1,740,955
28	1433	Network Services	$ 1,621,981	$ 688,219	$ 191,454	$ 179,942	$ 42,507	$ 144,434	$ 375,426
29	1441	Outsourced Contracts	$ 10,669,871	$ 4,396,546	$ 1,124,882	$ 1,299,187	$ 271,779	$ 928,981	$ 2,648,497
30	1442	Production Support Services	$ 2,642,634	$ 619,872	$ 4,640	$ 575,596	$ 70,826	$ 181,333	$ 1,190,368
31	1451	Infrastructure Services	$ 1,696,047	$ 397,835	$ 2,978	$ 369,418	$ 45,456	$ 116,380	$ 763,980
32	1461	Control Systems	$ 2,385,558	$ 2,300,738	$ 58,314	$ -	$ -	$ 13,253	$ 13,253
33	1462	Field Data Acquisition System (FDAS)	$ 2,547,393	$ 545,870	$ -	$ -	$ -	$ -	$ 2,001,523

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	A	B	C	D	E	F	G	H	I
34	1466	Enterprise Applications	$ 1,609,967	$ 772,488	$ 117,536	$ 19,228	$ 21,515	$ 55,868	$ 623,331
35	1467	Settlement Systems Services	$ 1,170,354	$ 106,396	$ -	$ -	$ -	$ -	$ 1,063,958
36	1468	Corporate Application Support and Administration	$ 609,686	$ 268,649	$ 130,913	$ 21,417	$ 23,964	$ 62,226	$ 102,517
37	1469	Analytical and Reporting Applications	$ 1,298,406	$ 317,618	$ 237,242	$ 83,140	$ 113,545	$ 315,526	$ 231,334
38	1471	IT Planning	$ 950,115	$ 222,865	$ 1,668	$ 206,946	$ 25,464	$ 65,195	$ 427,977
39	1481	Markets and Scheduling System	$ 1,516,144	$ 685,877	$ 43,352	$ 405,118	$ 37,904	$ 257,834	$ 86,059
40	1482	Market Systems Support Services	$ 616,978	$ 271,532	$ 6,468	$ 125,046	$ 38,098	$ 144,465	$ 31,368
41									
42		Totals	$ 56,452,963	$ 21,163,268	$ 4,178,273	$ 6,469,941	$ 1,924,829	$ 4,975,920	$ 17,740,733
43									

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	A	B	C	D	E	F	G	H	I	J
1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**									
2	Total Direct Dollar Allocations of Expenditures by Cost Center for Divisions 1400, 1500, 1600, 1700									
3	**CC#**	**Cost Center**	**FTE**	**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
5	1424	Asset Management	8	$ 20,455,331	$ 7,086,102	$ 1,296,474	$ 2,549,214	$ 999,390	$ 2,083,966	$ 6,440,185
6	1431	End User Support	4	$ 6,662,499	$ 2,482,662	$ 962,353	$ 635,689	$ 234,380	$ 606,459	$ 1,740,955
7	1433	Network Services	11	$ 1,621,981	$ 688,219	$ 191,454	$ 179,942	$ 42,507	$ 144,434	$ 375,426
8	1441	Outsourced Contracts	2	$ 10,669,871	$ 4,396,546	$ 1,124,882	$ 1,299,187	$ 271,779	$ 928,981	$ 2,648,497
9	1442	Production Support Services	17	$ 2,642,634	$ 619,872	$ 4,640	$ 575,596	$ 70,826	$ 181,333	$ 1,190,368
10	1451	Infrastructure Services	9	$ 1,696,047	$ 397,835	$ 2,978	$ 369,418	$ 45,456	$ 116,380	$ 763,980
11	1461	Control Systems	19	$ 2,385,558	$ 2,300,738	$ 58,314	$ -	$ -	$ 13,253	$ 13,253
12	1462	Field Data Acquisition System (FDAS)	15	$ 2,547,393	$ 545,870	$ -	$ -	$ -	$ -	$ 2,001,523
13	1466	Enterprise Applications	10	$ 1,609,967	$ 772,488	$ 117,536	$ 19,228	$ 21,515	$ 55,868	$ 623,331
14	1467	Settlement Systems Services	9	$ 1,170,354	$ 106,396	$ -	$ -	$ -	$ -	$ 1,063,958
15	1468	Corporate Application Support and Administration	4	$ 609,686	$ 268,649	$ 130,913	$ 21,417	$ 23,964	$ 62,226	$ 102,517
16	1469	Analytical and Reporting Applications	9	$ 1,298,406	$ 317,618	$ 237,242	$ 83,140	$ 113,545	$ 315,526	$ 231,334
17	1471	IT Planning	5	$ 950,115	$ 222,865	$ 1,668	$ 206,946	$ 25,464	$ 65,195	$ 427,977
18	1481	Markets and Scheduling System	9	$ 1,516,144	$ 685,877	$ 43,352	$ 405,118	$ 37,904	$ 257,834	$ 86,059
19	1482	Market Systems Support Services	4	$ 616,978	$ 271,532	$ 6,468	$ 125,046	$ 38,098	$ 144,465	$ 31,368
20	1521	Grid Planning	16	$ 2,497,543	$ 1,560,965	$ 936,579	$ -	$ -	$ -	$ -
21	1542	Outage Coordination	12	$ 1,910,211	$ 1,816,711	$ 93,500	$ -	$ -	$ -	$ -
22	1543	Loads and Resources	7	$ 1,185,612	$ 580,350	$ 605,262	$ -	$ -	$ -	$ -
23	1544	Real-time Scheduling	20	$ 2,786,442	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -
24	1545	Grid Operations	50	$ 7,545,786	$ 5,090,879	$ 2,454,908	$ -	$ -	$ -	$ -
25	1546	Reliability Coordinators	8	$ 1,368,574	$ 1,368,574	$ -	$ -	$ -	$ -	$ -
26	1547	Engineering and Maintenance - General	3	$ 576,104	$ 267,403	$ 308,701	$ -	$ -	$ -	$ -
27	1548	OSAT General	2	$ 293,953	$ 273,953	$ 20,000	$ -	$ -	$ -	$ -
28	1549	Operations Training	18	$ 2,882,700	$ 1,455,116	$ 1,427,583	$ -	$ -	$ -	$ -
29	1554	Special Projects Engineering	4	$ 853,958	$ 366,029	$ 487,929	$ -	$ -	$ -	$ -
30	1555	Operations Support	9	$ 1,111,667	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -
31	1558	Transmission Maintenance	9	$ 1,623,755	$ 949,170	$ 674,585	$ -	$ -	$ -	$ -
32	1559	Operations Applications Support	5	$ 584,623	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -
33	1561	Operations Engineering South	7.5	$ 1,241,824	$ 811,216	$ 430,608	$ -	$ -	$ -	$ -
34	1562	Operations Engineering North	9	$ 1,355,194	$ 747,330	$ 607,864	$ -	$ -	$ -	$ -
35	1563	Operations Coordination	4	$ 704,967	$ 525,574	$ 179,393	$ -	$ -	$ -	$ -
36	1564	Scheduling Department Director	2	$ 295,029	$ 295,029	$ -	$ -	$ -	$ -	$ -
37	1565	Scheduling Support	13	$ 1,834,525	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -

	A	B	C	D	E	F	G	H	I	J
1	**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**									
2	Total Direct Dollar Allocations of Expenditures by Cost Center for Divisions 1400, 1500, 1600, 1700									
3	**CC#**	**Cost Center**	**FTE**	**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
38	1566	Regional Coordination	3	$ 547,417	$ 547,417	$ -	$ -	$ -	$ -	$ -
39	1641	Market Analysis	16	$ 2,948,963	$ 451,783	$ 776,456	$ -	$ 586,709	$ 925,499	$ 208,515
40	1642	Market Surveliance Committee	0	$ 561,750	$ 140,438	$ 140,438	$ -	$ 140,438	$ 140,438	$ -
41	1661	Compliance - General	10	$ 1,722,093	$ 377,122	$ 350,720	$ 204,913	$ -	$ 490,823	$ 298,514
42	1662	Compliance - Audits	3	$ 434,112	$ 36,176	$ -	$ -	$ -	$ 217,056	$ 180,880
43	1721	Billing & Settlements	3	$ 450,755	$ 112,689	$ -	$ -	$ -	$ -	$ 338,066
44	1722	Business Development Support	5	$ 700,651	$ -	$ -	$ -	$ -	$ -	$ 700,651
45	1723	RMR Settlements	7	$ 992,025	$ 796,597	$ 195,428	$ -	$ -	$ -	$ -
46	1724	BBS Settlements - Preliminary Settlements	9	$ 1,280,172	$ -	$ -	$ -	$ -	$ -	$ 1,280,172
47	1725	BBS Settlements - Final Settlements	9	$ 1,283,046	$ -	$ -	$ -	$ -	$ -	$ 1,283,046
48	1731	Contracts & Special Projects	9	$ 1,525,676	$ 658,584	$ 104,254	$ -	$ -	$ -	$ 762,838
49	1741	Client Relations	17	$ 2,366,671	$ -	$ -	$ -	$ -	$ -	$ 2,366,671
50	1751	Market Operations - General	3	$ 979,523	$ 300,321	$ -	$ 150,160	$ 150,160	$ 341,341	$ 37,540
51	1752	Manager, Markets	17	$ 2,773,203	$ 757,251	$ 151,450	$ 757,251	$ 605,801	$ 501,450	$ -
52	1753	Market Engineering	10	$ 1,955,609	$ 416,926	$ -	$ -	$ 555,901	$ 843,807	$ 138,975
53	1755	Business Solutions	7	$ 1,175,260	$ 69,443	$ -	$ 555,545	$ 138,886	$ 341,942	$ 69,443
54	1756	Market Quality	18	$ 2,102,495	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223
55	1757	Market Integration	6	$ 998,732	$ 73,706	$ -	$ 294,825	$ 294,825	$ 261,669	$ 73,706
56										
57			485.5	$ 111,903,584	$ 46,061,424	$ 16,389,784	$ 8,432,636	$ 4,397,550	$ 10,531,217	$ 26,090,974

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California Independent System Operator
2004 GMC Cost Allocation
Draft and Preliminary
Subject to both review and approval

Total Direct Allocations of Expenditures by Cost Center for Divisions 1400, 1500, 1600, 1700

CC#	Cost Center	Budget	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
1424	Asset Management	100%	35%	6%	12%	5%	10%	31%	100%
1431	End User Support	100%	37%	14%	10%	4%	9%	26%	100%
1433	Network Services	100%	42%	12%	11%	3%	9%	23%	100%
1441	Outsourced Contracts	100%	41%	11%	12%	3%	9%	25%	100%
1442	Production Support Services	100%	23%	0%	22%	3%	7%	45%	100%
1451	Infrastructure Services	100%	23%	0%	22%	3%	7%	45%	100%
1461	Control Systems	100%	96%	2%	0%	0%	1%	1%	100%
1462	Field Data Acquisition System (FDAS)	100%	21%	0%	0%	0%	0%	79%	100%
1466	Enterprise Applications	100%	48%	7%	1%	1%	3%	39%	100%
1467	Settlement Systems Services	100%	9%	0%	0%	0%	0%	91%	100%
1468	Corporate Application Support and Administration	100%	44%	21%	4%	4%	10%	17%	100%
1469	Analytical and Reporting Applications	100%	24%	18%	6%	9%	24%	18%	100%
1471	IT Planning	100%	23%	0%	22%	3%	7%	45%	100%
1481	Markets and Scheduling System	100%	45%	3%	27%	3%	17%	6%	100%
1482	Market Systems Support Services	100%	44%	1%	20%	6%	23%	5%	100%
1521	Grid Planning	100%	63%	38%	0%	0%	0%	0%	100%
1542	Outage Coordination	100%	95%	5%	0%	0%	0%	0%	100%
1543	Loads and Resources	100%	49%	51%	0%	0%	0%	0%	100%
1544	Real-time Scheduling	100%	60%	40%	0%	0%	0%	0%	100%
1545	Grid Operations	100%	67%	33%	0%	0%	0%	0%	100%
1546	Reliability Coordinators	100%	100%	0%	0%	0%	0%	0%	100%
1547	Engineering and Maintenance - General	100%	46%	54%	0%	0%	0%	0%	100%
1548	OSAT General	100%	93%	7%	0%	0%	0%	0%	100%
1549	Operations Training	100%	50%	50%	0%	0%	0%	0%	100%
1554	Special Projects Engineering	100%	43%	57%	0%	0%	0%	0%	100%
1555	Operations Support	100%	56%	44%	0%	0%	0%	0%	100%
1558	Transmission Maintenance	100%	58%	42%	0%	0%	0%	0%	100%
1559	Operations Applications Support	100%	60%	40%	0%	0%	0%	0%	100%
1561	Operations Engineering South	100%	65%	35%	0%	0%	0%	0%	100%
1562	Operations Engineering North	100%	55%	45%	0%	0%	0%	0%	100%
1563	Operations Coordination	100%	75%	25%	0%	0%	0%	0%	100%
1564	Scheduling Department Director	100%	100%	0%	0%	0%	0%	0%	100%
1565	Scheduling Support	100%	77%	23%	0%	0%	0%	0%	100%
1566	Regional Coordination	100%	100%	0%	0%	0%	0%	0%	100%
1641	Market Analysis	100%	15%	26%	0%	20%	31%	7%	100%

	A	B	C	D	E	F	G	H	I	J
1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**									
2	Total Direct Allocations of Expenditures by Cost Center for Divisions 1400, 1500, 1600, 1700									
3	**CC#**	**Cost Center**	**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4										
40	1642	Market Surveillance Committee	100%	25%	25%	0%	25%	25%	0%	100%
41	1661	Compliance - General	100%	22%	20%	12%	0%	29%	17%	100%
42	1662	Compliance - Audits	100%	8%	0%	0%	0%	50%	42%	100%
43	1721	Billing & Settlements	100%	25%	0%	0%	0%	0%	75%	100%
44	1722	Business Development Support	100%	0%	0%	0%	0%	0%	100%	100%
45	1723	RMR Settlements	100%	80%	20%	0%	0%	0%	0%	100%
46	1724	BBS Settlements - Preliminary Settlements	100%	0%	0%	0%	0%	0%	100%	100%
47	1725	BBS Settlements - Final Settlements	100%	0%	0%	0%	0%	0%	100%	100%
48	1731	Contracts & Special Projects	100%	43%	7%	0%	0%	0%	50%	100%
49	1741	Client Relations	100%	0%	0%	0%	0%	0%	100%	100%
50	1751	Market Operations - General	100%	31%	0%	15%	15%	35%	4%	100%
51	1752	Manager, Markets	100%	27%	5%	27%	22%	18%	0%	100%
52	1753	Market Engineering	100%	21%	0%	0%	28%	43%	7%	100%
53	1755	Business Solutions	100%	6%	0%	47%	12%	29%	6%	100%
54	1756	Market Quality	100%	0%	0%	0%	0%	71%	29%	100%
55	1757	Market Integration	100%	7%	0%	30%	30%	26%	7%	100%

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1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**									
2	Calculation of FTE Allocator									
3	**CC #**	**Cost Center**	**Method**	**FTE**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
5	1111	CEO - General	OH	2.0	0.88	0.43	0.08	0.09	0.21	0.31
6	1241	MD02	DS	7.0	0.49	-	0.97	0.76	1.99	2.79
7	1311	CFO - General	SCC	Not used						
8	1321	Accounting	OH	9.5	4.18	2.04	0.36	0.44	0.99	1.49
9	1331	Financial Planning and Treasury	OH	6.5	2.86	1.40	0.25	0.30	0.68	1.02
10	1351	Facilities	FTE	Not used						
11	1361	Security & Corporate Services	FTE	Not used						
12	1411	Chief Information Officer	SCC	Not used						
13	1422	Corporate & Enterprise Applications	SCC	Not used						
14	1424	Asset Management	DS	Not used						
15	1431	End User Support	FTE/DS	Not used						
16	1432	Computer Operations and Infrastructure	SCC	Not used						
17	1433	Network Services	DS	Not used						
18	1441	Outsourced Contracts	DS	Not used						
19	1442	Production Support	SD	Not used						
20	1451	Infrastructure Services	DS	Not used						
21	1461	Control Systems	DS	Not used						
22	1462	Field Data Acquisition System (FDAS)	DS	Not used						
23	1463	Operations Systems Services	SCC	Not used						
24	1466	Enterprise Applications	CD	Not used						
25	1467	Settlement Systems Services	DS	Not used						
26	1468	Corporate Application Support and Administration	FTE	Not used						
27	1469	Analytical and Reporting Applications	DD	Not used						
28	1471	IT Planning	DS	Not used						
29	1481	Markets and Scheduling System	DS	Not used						
30	1482	Market Systems Support Services	DS	Not used						
31	1511	VP Grid Operations	SCC	1.5	1.00	0.50	-	-	-	-
32	1521	Grid Planning	DA	16.0	10.00	6.00	-	-	-	-
33	1542	Outage Coordination	DA	12.0	11.41	0.59	-	-	-	-
34	1543	Loads and Resources	DA	7.0	3.43	3.57	-	-	-	-
35	1544	Real-Time Scheduling	DA	20.0	12.00	8.00	-	-	-	-
36	1545	Grid Operations	DA	50.0	33.73	16.27	-	-	-	-
37	1546	Security Coordination	DA	8.0	8.00	-	-	-	-	-

	A	B	C	D	E	F	G	H	I	J
1	**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**									
2	Calculation of FTE Allocator									
3	**CC #**	**Cost Center**	**Method**	**FTE**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
38	1547	Engineering and Maintenance	DA	3.0	1.39	1.61	-	-	-	-
39	1548	OSAT Group - General	DA	2.0	1.86	0.14	-	-	-	-
40	1549	Operations Training	DA	18.0	9.09	8.91	-	-	-	-
41	1554	Special Projects Engineering	DA	4.0	1.71	2.29	-	-	-	-
42	1555	Operations Support Group	DA	9.0	5.00	4.00	-	-	-	-
43	1558	Transmission Maintenance	DA	9.0	5.26	3.74	-	-	-	-
44	1559	Operations Application Support	DA	5.0	3.00	2.00	-	-	-	-
45	1561	Operations Engineering South	DA	7.5	4.90	2.60	-	-	-	-
46	1562	Operations Engineering North	DA	9.0	4.96	4.04	-	-	-	-
47	1563	Operations Coordination	DA	4.0	2.98	1.02	-	-	-	-
48	1564	Operations Scheduling	DA	2.0	2.00	-	-	-	-	-
49	1565	Pre-Scheduling and Support	DA	13.0	10.00	3.00	-	-	-	-
50	1566	Regional Coordination - General	DA	3.0	3.00	-	-	-	-	-
51	1611	VP General Counsel - General	SCC	2.0	0.72	0.44	0.07	0.14	0.34	0.29
52	1631	Legal and Regulatory	OH	22.0	9.68	4.73	0.83	1.01	2.30	3.44
53	1641	Market Analysis	DA	16.0	2.45	4.21	-	3.18	5.02	1.13
54	1642	Market Surveillance Committee	DA	Not used						
55	1651	Board of Governors	OH	Not used						
56	1661	Compliance - General	DA	10.0	2.19	2.04	1.19	-	2.85	1.73
57	1662	Compliance - Audits	DA	3.0	0.25	-	-	-	1.50	1.25
58	1711	VP Market Services - General	SCC	2.0	0.34	0.05	0.19	0.19	0.41	0.82
59	1721	Billing and Settlements-General	DA	3.0	0.75	-	-	-	-	2.25
60	1722	Business Development Support	DA	5.0	-	-	-	-	-	5.00
61	1723	RMR Settlements	DA	7.0	5.62	1.38	-	-	-	-
62	1724	BBS - PSS	DA	9.0	-	-	-	-	-	9.00
63	1725	BBS - FSS	DA	9.0	-	-	-	-	-	9.00
64	1731	Contracts and Special Projects	DA	9.0	3.89	0.61	-	-	-	4.50
65	1741	Client Relations	DA	17.0	-	-	-	-	-	17.00
66	1751	Market Operations - General	DA	3.0	0.92	-	0.46	0.46	1.05	0.11
67	1752	Manager of Markets	DA	17.0	4.64	0.93	4.64	3.71	3.07	-
68	1753	Market Engineering	DA	10.0	2.13	-	-	2.84	4.31	0.71
69	1755	Business Solutions	DA	7.0	0.41	-	3.31	0.83	2.04	0.41
70	1756	Market Quality - General	DA	18.0	-	-	-	-	12.77	5.23

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1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**									
2	Calculation of FTE Allocator									
3	**CC #**	**Cost Center**	**Method**	**FTE**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
71	1757	Market Integration	DA	6.0	0.44	-	1.77	1.77	1.57	0.44
72	1811	VP Corporate and Strategic Development - General	SCC	Not used						
73	1821	Communications	OH	4.0	1.76	0.86	0.15	0.18	0.42	0.63
74	1831	Strategic Development	OH	3.0	1.32	0.65	0.11	0.14	0.31	0.47
75	1841	Human Resources	FTE	Not used						
76	1851	Project Office	OH	4.0	1.76	0.86	0.15	0.18	0.42	0.63
77	1861	Regulatory Policy	OH	4.0	1.76	0.86	0.15	0.18	0.42	0.63
78	2111	Other	PS	-						
79										
80		Totals		418.0	184.2	89.8	14.7	16.4	42.7	70.3
81				100%	44.06%	21.47%	3.51%	3.93%	10.21%	16.81%

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1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**									
2	Calculation of Overhead Allocator									
3	**CC #**	**Cost Center**		**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
5	1111	CEO - General	OH	Not used						
6	1241	MD02	DS	$ 1,284,788	$ 89,351	$ -	$ 178,118	$ 140,159	$ 364,559	$ 512,601
7	1311	CFO - General	SCC	Not used						
8	1321	Accounting	OH	Not used						
9	1331	Financial Planning and Treasury	OH	Not used						
10	1351	Facilities	FTE	Not used						
11	1361	Security & Corporate Services	FTE	Not used						
12	1411	Chief Information Officer	SCC	Not used						
13	1422	Corporate & Enterprise Applications	SCC	Not used						
14	1424	Asset Management	DS	Not used						
15	1431	End User Support	FTE/I	Not used						
16	1432	Computer Operations and Infrastructure	SCC	Not used						
17	1433	Network Services	DS	Not used						
18	1441	Outsourced Contracts	DS	Not used						
19	1442	Production Support	SD	Not used						
20	1451	Infrastructure Services	SD	Not used						
21	1461	Control Systems	DS	Not used						
22	1462	Field Data Acquisition System (FDAS)	DS	Not used						
23	1463	Operations Systems Services	SCC	Not used						
24	1466	Enterprise Applications	CD	Not used						
25	1467	Settlement Systems Services	DS	Not used						
26	1468	Corporate Application Support and Administratior	FTE	Not used						
27	1469	Analytical and Reporting Applications	DD	Not used						
28	1471	IT Planning	SD	Not used						
29	1481	Markets and Scheduling System	DS	Not used						
30	1482	Market Systems Support Services	DS	Not used						
31	1511	VP Grid Operations	SCC	$ (154,783)	$ (103,249)	$ (51,534)	$ -	$ -	$ -	$ -
32	1521	Grid Planning	DA	$ 2,497,543	$ 1,560,965	$ 936,579	$ -	$ -	$ -	$ -
33	1542	Outage Coordination	DA	$ 1,910,211	$ 1,816,711	$ 93,500	$ -	$ -	$ -	$ -
34	1543	Loads and Resources	DA	$ 1,185,612	$ 580,350	$ 605,262	$ -	$ -	$ -	$ -
35	1544	Real-Time Scheduling	DA	$ 2,786,442	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -
36	1545	Grid Operations	DA	$ 7,545,786	$ 5,090,879	$ 2,454,908	$ -	$ -	$ -	$ -
37	1546	Security Coordination	DA	$ 1,368,574	$ 1,368,574	$ -	$ -	$ -	$ -	$ -
38	1547	Engineering and Maintenance	DA	$ 576,104	$ 267,403	$ 308,701	$ -	$ -	$ -	$ -
39	1548	OSAT Group - General	DA	$ 293,953	$ 273,953	$ 20,000	$ -	$ -	$ -	$ -
40	1549	Operations Training	DA	$ 2,882,700	$ 1,455,116	$ 1,427,583	$ -	$ -	$ -	$ -
41	1554	Special Projects Engineering	DA	$ 853,958	$ 366,029	$ 487,929	$ -	$ -	$ -	$ -
42	1555	Operations Support Group	DA	$ 1,111,667	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -
43	1558	Transmission Maintenance	DA	$ 1,623,755	$ 949,170	$ 674,585	$ -	$ -	$ -	$ -
44	1559	Operations Application Support	DA	$ 584,623	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -
45	1561	Operations Engineering South	DA	$ 1,241,824	$ 811,216	$ 430,608	$ -	$ -	$ -	$ -
46	1562	Operations Engineering North	DA	$ 1,355,194	$ 747,330	$ 607,864	$ -	$ -	$ -	$ -
47	1563	Operations Coordination	DA	$ 704,967	$ 525,574	$ 179,393	$ -	$ -	$ -	$ -
48	1564	Operations Scheduling	DA	$ 295,029	$ 295,029	$ -	$ -	$ -	$ -	$ -

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1	**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**									
2	Calculation of Overhead Allocator									
3	**CC #**	**Cost Center**		**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
4										
49	1565	Pre-Scheduling and Support	DA	$ 1,834,525	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -
50	1566	Regional Coordination - General	DA	$ 547,417	$ 547,417	$ -	$ -	$ -	$ -	$ -
51	1611	VP General Counsel - General	SCC	Not used						
52	1631	Legal and Regulatory	OH	Not used						
53	1641	Market Analysis	DA	$ 2,948,963	$ 451,783	$ 776,456	$ -	$ 586,709	$ 925,499	$ 208,515
54	1642	Market Surveillance Committee	DA	$ 561,750	$ 140,438	$ 140,438	$ -	$ 140,438	$ 140,438	$ -
55	1651	Board of Governors	OH	Not used						
56	1661	Compliance - General	DA	$ 1,722,093	$ 377,122	$ 350,720	$ 204,913	$ -	$ 490,823	$ 298,514
57	1662	Compliance - Audits	DA	$ 434,112	$ 36,176	$ -	$ -	$ -	$ 217,056	$ 180,880
58	1711	VP Market Services - General	SCC	$ (69,788)	$ (11,963)	$ (1,694)	$ (6,601)	$ (6,555)	$ (14,201)	$ (28,774)
59	1721	Billing and Settlements-General	DA	$ 450,755	$ 112,689	$ -	$ -	$ -	$ -	$ 338,066
60	1722	Business Development Support	DA	$ 700,651	$ -	$ -	$ -	$ -	$ -	$ 700,651
61	1723	RMR Settlements	DA	$ 992,025	$ 796,597	$ 195,428	$ -	$ -	$ -	$ -
62	1724	BBS - PSS	DA	$ 1,280,172	$ -	$ -	$ -	$ -	$ -	$ 1,280,172
63	1725	BBS - FSS	DA	$ 1,283,046	$ -	$ -	$ -	$ -	$ -	$ 1,283,046
64	1731	Contracts and Special Projects	DA	$ 1,525,676	$ 658,584	$ 104,254	$ -	$ -	$ -	$ 762,838
65	1741	Client Relations	DA	$ 2,366,671	$ -	$ -	$ -	$ -	$ -	$ 2,366,671
66	1751	Market Operations - General	DA	$ 979,523	$ 300,321	$ -	$ 150,160	$ 150,160	$ 341,341	$ 37,540
67	1752	Manager of Markets	DA	$ 2,773,203	$ 757,251	$ 151,450	$ 757,251	$ 605,801	$ 501,450	$ -
68	1753	Market Engineering	DA	$ 1,955,609	$ 416,926	$ -	$ -	$ 555,901	$ 843,807	$ 138,975
69	1755	Business Solutions	DA	$ 1,175,260	$ 69,443	$ -	$ 555,545	$ 138,886	$ 341,942	$ 69,443
70	1756	Market Quality - General	DA	$ 2,102,495	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223
71	1757	Market Integration	DA	$ 998,732	$ 73,706	$ -	$ 294,825	$ 294,825	$ 261,669	$ 73,706
72	1811	VP Corporate and Strategic Development - Gene	SCC	Not used						
73	1821	Communications	OH	Not used						
74	1831	Strategic Development	OH	Not used						
75	1841	Human Resources	FTE	Not used						
76	1851	Project Office	OH	Not used						
77	1861	Regulatory Policy	OH	Not used						
78	2111	Other	PS	Not used						
79										
80		Totals		$ 56,510,839	$ 24,872,295	$ 12,158,283	$ 2,134,212	$ 2,606,325	$ 5,905,655	$ 8,834,068
81				100%	44%	22%	4%	5%	10%	16%

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1		**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**								
2		DataWarehouse/Department Direct Allocators								
3				**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4		**Dept Directs**								
5		Compliance		$ 413,298	$ 350,720	$ 204,913	$ -	$ 707,879	$ 479,394	$ 2,156,205
6		Dept Market Analysis		$ 451,783	$ 776,456	$ -	$ 586,709	$ 925,499	$ 208,515	$ 2,948,963
7		Market Operations		$ 1,617,647	$ 151,450	$ 1,757,782	$ 1,745,574	$ 2,290,209	$ 319,665	$ 7,882,327
8		Operations Engineering		$ 1,558,546	$ 1,038,472	$ -	$ -	$ -	$ -	$ 2,597,019
9		Legal		$ 5,376,947	$ 2,628,404	$ 461,379	$ 563,441	$ 1,276,697	$ 1,909,768	$ 12,216,636
10		Settlements		$ 909,286	$ 195,428	$ -	$ -	$ -	$ 3,601,935	$ 4,706,648
11										
12		Compliance		19.2%	16.3%	9.5%	0.0%	32.8%	22.2%	100.0%
13		Dept Market Analysis		15.3%	26.3%	0.0%	19.9%	31.4%	7.1%	100.0%
14		Market Operations		20.5%	1.9%	22.3%	22.1%	29.1%	4.1%	100.0%
15		Operations Engineering		60.0%	40.0%	0.0%	0.0%	0.0%	0.0%	100.0%
16		Legal		44.0%	21.5%	3.8%	4.6%	10.5%	15.6%	100.0%
17		Settlements		19.3%	4.2%	0.0%	0.0%	0.0%	76.5%	100.0%
18			Weights							
19		Compliance	50%	$ 206,649	$ 175,360	$ 102,457	$ -	$ 353,940	$ 239,697	$ 1,078,103
20		Dept Market Analysis	30%	$ 135,535	$ 232,937	$ -	$ 176,013	$ 277,650	$ 62,555	$ 884,689
21		Market Operations	5%	$ 80,882	$ 7,573	$ 87,889	$ 87,279	$ 114,510	$ 15,983	$ 394,116
22		Operations Engineering	5%	$ 77,927	$ 51,924	$ -	$ -	$ -	$ -	$ 129,851
23		Legal	5%	$ 268,847	$ 131,420	$ 23,069	$ 28,172	$ 63,835	$ 95,488	$ 610,832
24		Settlements	5%	$ 45,464	$ 9,771	$ -	$ -	$ -	$ 180,097	$ 235,332
25										
26			100%	$ 815,305	$ 608,985	$ 213,415	$ 291,464	$ 809,935	$ 593,820	$ 3,332,923
27		**Data Warehouse**		24%	18%	6%	9%	24%	18%	100%

	A	B	C	D	E	F	G	H	I	J
1		**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**								
2		Summary of Allocators								
3		**Costs**	**Budget**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4										
5		Direct Labor Costs	$ 49,793,285	$ 24,698,168	$ 9,997,721	$ 1,942,595	$ 2,093,850	$ 3,597,225	$ 7,463,726	$ 49,793,285
6		Direct Contract Costs	$ 5,657,336	$ 199,988	$ 2,213,790	$ 20,100	$ 378,872	$ 1,958,073	$ 886,515	$ 5,657,336
7										
8										
9		Direct Operating Costs	$ 55,450,621	$ 24,898,156	$ 12,211,511	$ 1,962,695	$ 2,472,721	$ 5,555,297	$ 8,350,241	$ 55,450,621
10										
11		Ratios								
12		Direct Labor Costs	89.8%	44.5%	18.0%	3.5%	3.8%	6.5%	13.5%	89.8%
13		Direct Contract Costs	10.2%	0.4%	4.0%	0.0%	0.7%	3.5%	1.6%	10.2%
14										
15		Direct Operating Costs		44.9%	22.0%	3.5%	4.5%	10.0%	15.1%	100.0%
16										
17		Direct FTE Ratios (FTE)		44.1%	21.5%	3.5%	3.9%	10.2%	16.8%	100.0%
18										
19		Overhead Allocator (OH)		44.0%	21.5%	3.8%	4.6%	10.5%	15.6%	100.0%
20										
21		Operating Costs (OC)		41.5%	16.2%	6.7%	4.1%	9.8%	21.8%	100.0%
22										
23		MD 02 Capital Allocator		7.0%	0.0%	13.9%	10.9%	28.4%	39.9%	100.0%

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3	CC#	Cost Center	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
4	1111	Chief Executive Officer	OH	$ 394,905	$ 193,041	$ 33,886	$ 41,381	$ 93,766	$ 140,261	$ 897,241
5										
6	1241	MD02	DS	$ 89,351	$ -	$ 178,118	$ 140,159	$ 364,559	$ 512,601	$ 1,284,788
7										
8	1521	Grid Planning	DA	$ 1,560,965	$ 936,579	$ -	$ -	$ -	$ -	$ 2,497,543
9										
10		Total (not including Officer)		$ 1,650,316	$ 936,579	$ 178,118	$ 140,159	$ 364,559	$ 512,601	$ 3,782,332
11		Ratio of total (not including Officer)		43.6%	24.8%	4.7%	3.7%	9.6%	13.6%	100%
12										
13										
14		Key to Method Acronyms								
15		Direct Assignment	DA							
16		Direct System	DS							
17		Supervised cost center (directors/officers)	SCC							
18		Allocated by personnel headcount	FTE							
19		Overhead	OH							
20		System Direct - Proportional to allocation of directly functionalized systems	SD							
21		expenditures on applications (software) or hardware	CD							
22		Department Direct - proportional to the cost assignments of departments utilizing applications	DD							
23		Proportional to Salaries	PS							
24										

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CC#	Cost Center	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
1311	Chief Financial Officer	SCC	$ 146,340	$ 71,406	$ 12,041	$ 14,014	$ 34,254	$ 54,216	$ 332,272
1321	Accounting	OH	$ 1,290,074	$ 630,625	$ 110,697	$ 135,185	$ 306,314	$ 458,205	$ 2,931,098
1331	Financial Planning	OH	$ 1,528,042	$ 746,950	$ 131,116	$ 160,121	$ 362,817	$ 542,726	$ 3,471,773
1351	Facilities	FTE	$ 2,703,870	$ 1,317,599	$ 215,552	$ 241,189	$ 626,284	$ 1,031,805	$ 6,136,300
1361	Security & Corporate Services	FTE	$ 1,172,424	$ 571,324	$ 93,465	$ 104,582	$ 271,563	$ 447,401	$ 2,660,758
	Total (not including Officer)		$ 6,694,409	$ 3,266,498	$ 550,831	$ 641,076	$ 1,566,978	$ 2,480,136	$ 15,199,929
	Ratio of total (not including Officer)		44.0%	21.5%	3.6%	4.2%	10.3%	16.3%	100.0%
	Total (including Officer)		$ 6,840,749	$ 3,337,904	$ 562,872	$ 655,090	$ 1,601,233	$ 2,534,352	$ 15,532,200
	Ratio of total (including Officer)		44.0%	21.5%	3.6%	4.2%	10.3%	16.3%	100.0%

Key to Method Acronyms	
Direct Assignment	DA
Direct System	DS
Supervised cost center (directors/officers)	SCC
Allocated by personnel headcount	FTE
Overhead	OH
System Direct - Proportional to allocation of directly functionalized systems	SD
expenditures on applications (software) or hardware	CD
Department Direct - proportional to the cost assignments of departments utilizing applications	DD
Proportional to Salaries	PS

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California Independent System Operator
2004 GMC Cost Allocation
Draft and Preliminary
Subject to both review and approval
Chief Information Officer Division

CC#	Cost Center	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
1411	Chief Information Officer	SCC	$ (119,699)	$ (23,714)	$ (36,521)	$ (10,842)	$ (28,103)	$ (100,484)	$ (319,362)
1463	Operations Systems Services	SCC	$ 164,980	$ 4,562	$ 22,368	$ 3,207	$ 17,532	$ 134,846	$ 347,495
1461	Control Systems	DS	$ 2,300,738	$ 58,314	$ -	$ -	$ 13,253	$ 13,253	$ 2,385,558
1462	Field Data Acquisition System (FDAS)	DS	$ 545,870	$ -	$ -	$ -	$ -	$ 2,001,523	$ 2,547,393
1467	Settlement Systems Services	DS	$ 106,396	$ -	$ -	$ -	$ -	$ 1,063,958	$ 1,170,354
1481	Markets and Scheduling System	DS	$ 685,877	$ 43,352	$ 405,118	$ 37,904	$ 257,834	$ 86,059	$ 1,516,144
1482	Market Systems Support Services	DS	$ 271,532	$ 6,468	$ 125,046	$ 38,098	$ 144,465	$ 31,368	$ 616,978
1422	Corporate & Enterprise Applications	SCC	$ 105,208	$ 37,607	$ 9,585	$ 12,313	$ 33,575	$ 74,114	$ 272,402
1466	Enterprise Applications	CD	$ 772,488	$ 117,536	$ 19,228	$ 21,515	$ 55,868	$ 623,331	$ 1,609,967
1468	Corporate Application Support and Administration	FTE	$ 268,649	$ 130,913	$ 21,417	$ 23,964	$ 62,226	$ 102,517	$ 609,686
1469	Analytical and Reporting Applications	DD	$ 317,618	$ 237,242	$ 83,140	$ 113,545	$ 315,526	$ 231,334	$ 1,298,406
1432	Computer Operations and Infrastructure	SCC	$ 325,930	$ 90,375	$ 137,002	$ 30,594	$ 81,596	$ 316,759	$ 982,255
1431	End User Support	FTE/DS	$ 2,482,662	$ 962,353	$ 635,689	$ 234,380	$ 606,459	$ 1,740,955	$ 6,662,499
1433	Network Services	DS	$ 688,219	$ 191,454	$ 179,942	$ 42,507	$ 144,434	$ 375,426	$ 1,621,981
1442	Production Support	SD	$ 619,872	$ 4,640	$ 575,596	$ 70,826	$ 181,333	$ 1,190,368	$ 2,642,634
1451	Information Security	SD	$ 397,835	$ 2,978	$ 369,418	$ 45,456	$ 116,380	$ 763,980	$ 1,696,047
1424	Asset Management	DS	$ 7,086,102	$ 1,296,474	$ 2,549,214	$ 999,390	$ 2,083,966	$ 6,440,185	$ 20,455,331
1441	Outsourced Contracts	DS	$ 4,396,546	$ 1,124,882	$ 1,299,187	$ 271,779	$ 928,981	$ 2,648,497	$ 10,669,871
1471	IT Planning	SD	$ 222,865	$ 1,668	$ 206,946	$ 25,464	$ 65,195	$ 427,977	$ 950,115
	Total (not including Officer)		$ 21,759,386	$ 4,310,817	$ 6,638,895	$ 1,970,943	$ 5,108,623	$ 18,266,452	$ 58,055,115
	Ratio of total (not including Officer)		37.5%	7.4%	11.4%	3.4%	8.8%	31.5%	100.0%
	Total (including Officer)		$ 21,639,687	$ 4,287,103	$ 6,602,375	$ 1,960,100	$ 5,080,520	$ 18,165,968	$ 57,735,753
	Ratio of total (including Officer)		37.5%	7.4%	11.4%	3.4%	8.8%	31.5%	100.0%

Key to Method Acronyms	
Direct Assignment	DA
Direct System	DS
Supervised cost center (directors/officers)	SCC
Allocated by personnel headcount	FTE
Overhead	OH
System Direct - Proportional to allocation of directly functionalized systems	SD
Calculated Direct - Calculated as a function of expenditures on applications (software) or hardware	CD
Department Direct - proportional to the cost assignments of departments utilizing applications	DD
Proportional to Salaries	PS

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	A	B	C	D	E	F	G	H	I	J
1		**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**								
2		**Vice President, Grid Operations Division**								
3	CC#	Cost Center	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
4	1511	Vice President, Grid Operations	SCC	$ (103,249)	$ (51,534)	$ -	$ -	$ -	$ -	$ (154,783)
5										
6	1564	Operations Scheduling	DA	$ 295,029	$ -	$ -	$ -	$ -	$ -	$ 295,029
7	1542	Outage Coordination	DA	$ 1,816,711	$ 93,500	$ -	$ -	$ -	$ -	$ 1,910,211
8	1544	Real-Time Scheduling	DA	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -	$ 2,786,442
9	1565	Pre-Scheduling and Support	DA	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -	$ 1,834,525
10										
11	1547	Engineering and Maintenance	DA	$ 267,403	$ 308,701	$ -	$ -	$ -	$ -	$ 576,104
12	1543	Loads and Resources	DA	$ 580,350	$ 605,262	$ -	$ -	$ -	$ -	$ 1,185,612
13	1558	Transmission Maintenance	DA	$ 949,170	$ 674,585	$ -	$ -	$ -	$ -	$ 1,623,755
14	1561	Operations Engineering South	DA	$ 811,216	$ 430,608	$ -	$ -	$ -	$ -	$ 1,241,824
15	1562	Operations Engineering North	DA	$ 747,330	$ 607,864	$ -	$ -	$ -	$ -	$ 1,355,194
16										
17	1548	OSAT Group - General	DA	$ 273,953	$ 20,000	$ -	$ -	$ -	$ -	$ 293,953
18	1549	Operations Training	DA	$ 1,455,116	$ 1,427,583	$ -	$ -	$ -	$ -	$ 2,882,700
19	1555	Operations Support Group	DA	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -	$ 1,111,667
20	1559	Operations Application Support	DA	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -	$ 584,623
21	1563	Coordinated Operations	DA	$ 525,574	$ 179,393	$ -	$ -	$ -	$ -	$ 704,967
22										$ -
23	1566	Regional Coordination - General	DA	$ 547,417	$ -	$ -	$ -	$ -	$ -	$ 547,417
24	1546	Security Coordination	DA	$ 1,368,574	$ -	$ -	$ -	$ -	$ -	$ 1,368,574
25	1554	Special Projects Engineering	DA	$ 366,029	$ 487,929	$ -	$ -	$ -	$ -	$ 853,958
26										
27	1545	Grid Operations	DA	$ 5,090,879	$ 2,454,908	$ -	$ -	$ -	$ -	$ 7,545,786
28										
29		Total (not including Officer)		$ 19,146,156	$ 9,556,186	$ -	$ -	$ -	$ -	$ 28,702,342
30		Ratio of total (not including Officer)		66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	100.0%
31										
32		Total (including Officer)		$ 19,042,906	$ 9,504,653	$ -	$ -	$ -	$ -	$ 28,547,559
33		Ratio of total (including Officer)		66.7%	33.3%	0.0%	0.0%	0.0%	0.0%	100.0%
34										
35										
36		Key to Method Acronyms								
37		Direct Assignment	DA							
38		Direct System	DS							
39		Supervised cost center (directors/officers)	SCC							
40		Allocated by personnel headcount	FTE							
41		Overhead	OH							
42		System Direct - Proportional to allocation of directly functionalized systems	SD							
43		Calculated Direct - Calculated as a function of expenditures on applications (software) or hardware	CD							
44		Department Direct - proportional to the cost assignments of departments utilizing applications	DD							
45		Proportional to Salaries	PS							

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	A	B	C	D	E	F	G	H	I	J
3	CC#	Cost Center	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
4	1611	General Counsel	SCC	$ 102,130	$ 62,148	$ 10,632	$ 20,495	$ 48,427	$ 41,484	$ 285,317
5										
6	1661	Compliance - General	DA	$ 377,122	$ 350,720	$ 204,913	$ -	$ 490,823	$ 298,514	$ 1,722,093
7	1662	Compliance - Audits	DA	$ 36,176	$ -	$ -	$ -	$ 217,056	$ 180,880	$ 434,112
8										
9	1631	Legal and Regulatory	OH	$ 5,376,947	$ 2,628,404	$ 461,379	$ 563,441	$ 1,276,697	$ 1,909,768	$ 12,216,636
10										
11	1641	Market Analysis	DA	$ 451,783	$ 776,456	$ -	$ 586,709	$ 925,499	$ 208,515	$ 2,948,963
12	1642	Market Surveillance Committee	DA	$ 140,438	$ 140,438	$ -	$ 140,438	$ 140,438	$ -	$ 561,750
13										
14	1651	Board of Governors	OH	$ 101,847	$ 49,786	$ 8,739	$ 10,672	$ 24,182	$ 36,174	$ 231,400
15										
16		Total (not including Officer)		$ 6,484,313	$ 3,945,803	$ 675,031	$ 1,301,260	$ 3,074,696	$ 2,633,851	$ 18,114,954
17		Ratio of total (not including Officer)		35.8%	21.8%	3.7%	7.2%	17.0%	14.5%	100.0%
18										
19		Total (including Officer)		$ 6,586,443	$ 4,007,951	$ 685,663	$ 1,321,756	$ 3,123,124	$ 2,675,335	$ 18,400,271
20		Ratio of total (including Officer)		35.8%	21.8%	3.7%	7.2%	17.0%	14.5%	100.0%
21										
22										
23		Key to Method Acronyms								
24		Direct Assignment	DA							
25		Direct System	DS							
26		Supervised cost center (directors/officers)	SCC							
27		Allocated by personnel headcount	FTE							
28		Overhead	OH							
29		System Direct - Proportional to allocation of directly functionalized systems	SD							
30		expenditures on applications (software) or hardware	CD							
31		Department Direct - proportional to the cost assignments of departments utilizing applications	DD							
32		Proportional to Salaries	PS							

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	A	B	C	D	E	F	G	H	I	J
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**								
2		**Vice President, Market Services Division**								
3	CC#	Cost Center	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
4	1711	Vice President, Market Services	SCC	$ (11,963)	$ (1,694)	$ (6,601)	$ (6,555)	$ (14,201)	$ (28,774)	$ (69,788)
5										
6	1751	Market Operations - General	DA	$ 300,321	$ -	$ 150,160	$ 150,160	$ 341,341	$ 37,540	$ 979,523
7	1752	Manager of Markets	DA	$ 757,251	$ 151,450	$ 757,251	$ 605,801	$ 501,450	$ -	$ 2,773,203
8	1753	Market Engineering	DA	$ 416,926	$ -	$ -	$ 555,901	$ 843,807	$ 138,975	$ 1,955,609
9	1755	Business Solutions	DA	$ 69,443	$ -	$ 555,545	$ 138,886	$ 341,942	$ 69,443	$ 1,175,260
10	1757	Market Integration	DA	$ 73,706	$ -	$ 294,825	$ 294,825	$ 261,669	$ 73,706	$ 998,732
11										
12	1721	Billing and Settlements-General	DA	$ 112,689	$ -	$ -	$ -	$ -	$ 338,066	$ 450,755
13	1722	Business Development Support	DA	$ -	$ -	$ -	$ -	$ -	$ 700,651	$ 700,651
14	1723	RMR Settlements	DA	$ 796,597	$ 195,428	$ -	$ -	$ -	$ -	$ 992,025
15	1724	BBS - PSS	DA	$ -	$ -	$ -	$ -	$ -	$ 1,280,172	$ 1,280,172
16	1725	BBS - FSS	DA	$ -	$ -	$ -	$ -	$ -	$ 1,283,046	$ 1,283,046
17										
18	1731	Contracts and Special Projects	DA	$ 658,584	$ 104,254	$ -	$ -	$ -	$ 762,838	$ 1,525,676
19										
20	1741	Client Relations	DA	$ -	$ -	$ -	$ -	$ -	$ 2,366,671	$ 2,366,671
21										
22	1756	Market Quality	DA	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223	$ 2,102,495
23										
24		Total (not including Officer)		$ 3,185,517	$ 451,132	$ 1,757,782	$ 1,745,574	$ 3,781,481	$ 7,662,331	$ 18,583,817
25		Ratio of total (not including Officer)		17.1%	2.4%	9.5%	9.4%	20.3%	41.2%	100.0%
26										
27		Total (including Officer)		$ 3,173,554	$ 449,438	$ 1,751,181	$ 1,739,019	$ 3,767,280	$ 7,633,557	$ 18,514,029
28		Ratio of total (including Officer)		17.1%	2.4%	9.5%	9.4%	20.3%	41.2%	100.0%
29										
30		Key to Method Acronyms								
31		Direct Assignment	DA							
32		Direct System	DS							
33		Supervised cost center (directors/officers)	SCC							
34		Allocated by personnel headcount	FTE							
35		Overhead	OH							
36		System Direct - Proportional to allocation of directly functionalized systems	SD							
37		Calculated Direct - Calculated as a function of expenditures on applications (software) or hardware	CD							
38		Department Direct - proportional to the cost assignments of departments utilizing applications	DD							
39		Proportional to Salaries	PS							

	A	B	C	D	E	F	G	H	I	J
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**								
2		**Vice President, Corporate and Strategic Development Division**								
3	**CC#**	**Cost Center**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4	1811	VP Corporate and Strategic Development - General	SCC	$ 205,934	$ 100,481	$ 16,932	$ 19,689	$ 48,192	$ 76,347	$ 467,576
5										
6	1821	Communications	OH	$ 372,870	$ 182,269	$ 31,995	$ 39,072	$ 88,534	$ 132,435	$ 847,176
7										
8	1831	Strategic Development	OH	$ 324,528	$ 158,638	$ 27,847	$ 34,007	$ 77,056	$ 115,265	$ 737,340
9										
10	1841	Human Resources	FTE	$ 2,037,915	$ 993,079	$ 162,462	$ 181,785	$ 472,033	$ 777,675	$ 4,624,949
11										
12	1851	Project Office	OH	$ 306,697	$ 149,922	$ 26,317	$ 32,138	$ 72,822	$ 108,932	$ 696,828
13										
14	1861	Regulatory Policy	OH	$ 418,921	$ 204,780	$ 35,946	$ 43,898	$ 99,468	$ 148,791	$ 951,804
15										
16		Total (not including Officer)		$ 3,460,931	$ 1,688,689	$ 284,567	$ 330,900	$ 809,912	$ 1,283,098	$ 7,858,097
17		Ratio of total (not including Officer)		44.0%	21.5%	3.6%	4.2%	10.3%	16.3%	100.0%
18										
19		Total (including Officer)		$ 3,666,865	$ 1,789,170	$ 301,499	$ 350,590	$ 858,104	$ 1,359,445	$ 8,325,673
20		Ratio of total (including Officer)		44.0%	21.5%	3.6%	4.2%	10.3%	16.3%	100.0%
21										
22										
23		Key to Method Acronyms								
24		Direct Assignment	DA							
25		Direct System	DS							
26		Supervised cost center (directors/officers)	SCC							
27		Allocated by personnel headcount	FTE							
28		Overhead	OH							
29		System Direct - Proportional to allocation of directly functionalized systems	SD							
30		expenditures on applications (software) or hardware	CD							
31		Department Direct - proportional to the cost assignments of departments utilizing applications	DD							
32		Proportional to Salaries	PS							

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	A	B	C	D	E	F	G	H	I	J
1		**California Independent System Operator** **2004 GMC Cost Allocation** **Draft and Preliminary** **Subject to both review and approval**								
2		**Salary Adjustments**								
3	**CC#**	**Cost Center**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4	2111	Other	PS	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5			**Salary Adjustments were allocated to the salaries of each cost center**							
6		Total		$ -	$ -	$ -	$ -	$ -	$ -	$ -
7		Ratio of total								
8										
9										
10		Key to Method Acronyms								
11		Direct Assignment	DA							
12		Direct System	DS							
13		Supervised cost center (directors/officers)	SCC							
14		Allocated by personnel headcount	FTE							
15		Overhead	OH							
16		System Direct - Proportional to allocation of directly functionalized systems	SD							
17		expenditures on applications (software) or hardware	CD							
18		Department Direct - proportional to the cost assignments of departments utilizing applications	DD							
19		Proportional to Salaries	PS							

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	A	B	C	D	E	F	G	H	I	J	K
1	**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**										
2	**Totals by Cost Center**										
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4	1111	CEO - General	1100	OH	$ 394,905	$ 193,041	$ 33,886	$ 41,381	$ 93,766	$ 140,261	$ 897,241
5	1241	MD02	1100	DS	$ 89,351	$ -	$ 178,118	$ 140,159	$ 364,559	$ 512,601	$ 1,284,788
6	1311	CFO - General	1300	SCC	$ 146,340	$ 71,406	$ 12,041	$ 14,014	$ 34,254	$ 54,216	$ 332,272
7	1321	Accounting	1300	OH	$ 1,290,074	$ 630,625	$ 110,697	$ 135,185	$ 306,314	$ 458,205	$ 2,931,098
8	1331	Financial Planning and Treasury	1300	OH	$ 1,528,042	$ 746,950	$ 131,116	$ 160,121	$ 362,817	$ 542,726	$ 3,471,773
9	1351	Facilities	1300	FTE	$ 2,703,870	$ 1,317,599	$ 215,552	$ 241,189	$ 626,284	$ 1,031,805	$ 6,136,300
10	1361	Security & Corporate Services	1300	FTE	$ 1,172,424	$ 571,324	$ 93,465	$ 104,582	$ 271,563	$ 447,401	$ 2,660,758
11	1411	Chief Information Officer	1400	SCC	$ (119,699)	$ (23,714)	$ (36,521)	$ (10,842)	$ (28,103)	$ (100,484)	$ (319,362)
12	1422	Corporate & Enterprise Applications	1400	SCC	$ 105,208	$ 37,607	$ 9,585	$ 12,313	$ 33,575	$ 74,114	$ 272,402
13	1424	Asset Management	1400	DS	$ 7,086,102	$ 1,296,474	$ 2,549,214	$ 999,390	$ 2,083,966	$ 6,440,185	$ 20,455,331
14	1431	End User Support	1400	FTE/DS	$ 2,482,662	$ 962,353	$ 635,689	$ 234,380	$ 606,459	$ 1,740,955	$ 6,662,499
15	1432	Computer Operations and Infrastructure	1400	SCC	$ 325,930	$ 90,375	$ 137,002	$ 30,594	$ 81,596	$ 316,759	$ 982,255
16	1433	Network Services	1400	DS	$ 688,219	$ 191,454	$ 179,942	$ 42,507	$ 144,434	$ 375,426	$ 1,621,981
17	1441	Outsourced Contracts	1400	DS	$ 4,396,546	$ 1,124,882	$ 1,299,187	$ 271,779	$ 928,981	$ 2,648,497	$ 10,669,871
18	1442	Production Support	1400	SD	$ 619,872	$ 4,640	$ 575,596	$ 70,826	$ 181,333	$ 1,190,368	$ 2,642,634
19	1451	Infrastructure Services	1400	SD	$ 397,835	$ 2,978	$ 369,418	$ 45,456	$ 116,380	$ 763,980	$ 1,696,047
20	1461	Control Systems	1400	DS	$ 2,300,738	$ 58,314	$ -	$ -	$ 13,253	$ 13,253	$ 2,385,558
21	1462	Field Data Acquisition System (FDAS)	1400	DS	$ 545,870	$ -	$ -	$ -	$ -	$ 2,001,523	$ 2,547,393
22	1463	Operations Systems Services	1400	SCC	$ 164,980	$ 4,562	$ 22,368	$ 3,207	$ 17,532	$ 134,846	$ 347,495
23	1466	Enterprise Applications	1400	CD	$ 772,488	$ 117,536	$ 19,228	$ 21,515	$ 55,868	$ 623,331	$ 1,609,967
24	1467	Settlement Systems Services	1400	DS	$ 106,396	$ -	$ -	$ -	$ -	$ 1,063,958	$ 1,170,354
25	1468	Corporate Application Support and Administration	1400	FTE	$ 268,649	$ 130,913	$ 21,417	$ 23,964	$ 62,226	$ 102,517	$ 609,686
26	1469	Analytical and Reporting Applications	1400	DD	$ 317,618	$ 237,242	$ 83,140	$ 113,545	$ 315,526	$ 231,334	$ 1,298,406
27	1471	IT Planning	1400	SD	$ 222,865	$ 1,668	$ 206,946	$ 25,464	$ 65,195	$ 427,977	$ 950,115
28	1481	Markets and Scheduling System	1400	DS	$ 685,877	$ 43,352	$ 405,118	$ 37,904	$ 257,834	$ 86,059	$ 1,516,144
29	1482	Market Systems Support Services	1400	DS	$ 271,532	$ 6,468	$ 125,046	$ 38,098	$ 144,465	$ 31,368	$ 616,978
30	1511	VP Grid Operations	1500	SCC	$ (103,249)	$ (51,534)	$ -	$ -	$ -	$ -	$ (154,783)
31	1521	Grid Planning	1100	DA	$ 1,560,965	$ 936,579	$ -	$ -	$ -	$ -	$ 2,497,543
32	1542	Outage Coordination	1500	DA	$ 1,816,711	$ 93,500	$ -	$ -	$ -	$ -	$ 1,910,211
33	1543	Loads and Resources	1500	DA	$ 580,350	$ 605,262	$ -	$ -	$ -	$ -	$ 1,185,612
34	1544	Real-Time Scheduling	1500	DA	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -	$ 2,786,442
35	1545	Grid Operations	1500	DA	$ 5,090,879	$ 2,454,908	$ -	$ -	$ -	$ -	$ 7,545,786
36	1546	Security Coordination	1500	DA	$ 1,368,574	$ -	$ -	$ -	$ -	$ -	$ 1,368,574
37	1547	Engineering and Maintenance	1500	DA	$ 267,403	$ 308,701	$ -	$ -	$ -	$ -	$ 576,104
38	1548	OSAT Group - General	1500	DA	$ 273,953	$ 20,000	$ -	$ -	$ -	$ -	$ 293,953
39	1549	Operations Training	1500	DA	$ 1,455,116	$ 1,427,583	$ -	$ -	$ -	$ -	$ 2,882,700
40	1554	Special Projects Engineering	1500	DA	$ 366,029	$ 487,929	$ -	$ -	$ -	$ -	$ 853,958
41	1555	Operations Support Group	1500	DA	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -	$ 1,111,667
42	1558	Transmission Maintenance	1500	DA	$ 949,170	$ 674,585	$ -	$ -	$ -	$ -	$ 1,623,755
43	1559	Operations Application Support	1500	DA	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -	$ 584,623
44	1561	Operations Engineering South	1500	DA	$ 811,216	$ 430,608	$ -	$ -	$ -	$ -	$ 1,241,824
45	1562	Operations Engineering North	1500	DA	$ 747,330	$ 607,864	$ -	$ -	$ -	$ -	$ 1,355,194

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California Independent System Operator
2004 GMC Cost Allocation
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Totals by Cost Center

CC #	Cost Center	Sheet	Method	Core Reliability	Energy & Transmission	Forward Scheduling	Congestion Management	Market Usage	Settlements, Metering and Client Relations	Total
1563	Operations Coordination	1500	DA	$ 525,574	$ 179,393	$ -	$ -	$ -	$ -	$ 704,967
1564	Operations Scheduling	1500	DA	$ 295,029	$ -	$ -	$ -	$ -	$ -	$ 295,029
1565	Pre-Scheduling and Support	1500	DA	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -	$ 1,834,525
1566	Regional Coordination - General	1500	DA	$ 547,417	$ -	$ -	$ -	$ -	$ -	$ 547,417
1611	VP General Counsel - General	1600	SCC	$ 102,130	$ 62,148	$ 10,632	$ 20,495	$ 48,427	$ 41,484	$ 285,317
1631	Legal and Regulatory	1600	OH	$ 5,376,947	$ 2,628,404	$ 461,379	$ 563,441	$ 1,276,697	$ 1,909,768	$ 12,216,636
1641	Market Analysis	1600	DA	$ 451,783	$ 776,456	$ -	$ 586,709	$ 925,499	$ 208,515	$ 2,948,963
1642	Market Surveillance Committee	1600	DA	$ 140,438	$ 140,438	$ -	$ 140,438	$ 140,438	$ -	$ 561,750
1651	Board of Governors	1600	OH	$ 101,847	$ 49,786	$ 8,739	$ 10,672	$ 24,182	$ 36,174	$ 231,400
1661	Compliance - General	1600	DA	$ 377,122	$ 350,720	$ 204,913	$ -	$ 490,823	$ 298,514	$ 1,722,093
1662	Compliance - Audits	1600	DA	$ 36,176	$ -	$ -	$ -	$ 217,056	$ 180,880	$ 434,112
1711	VP Market Services - General	1700	SCC	$ (11,963)	$ (1,694)	$ (6,601)	$ (6,555)	$ (14,201)	$ (28,774)	$ (69,788)
1721	Billing and Settlements-General	1700	DA	$ 112,689	$ -	$ -	$ -	$ -	$ 338,066	$ 450,755
1722	Business Development Support	1700	DA	$ -	$ -	$ -	$ -	$ -	$ 700,651	$ 700,651
1723	RMR Settlements	1700	DA	$ 796,597	$ 195,428	$ -	$ -	$ -	$ -	$ 992,025
1724	BBS - PSS	1700	DA	$ -	$ -	$ -	$ -	$ -	$ 1,280,172	$ 1,280,172
1725	BBS - FSS	1700	DA	$ -	$ -	$ -	$ -	$ -	$ 1,283,046	$ 1,283,046
1731	Contracts and Special Projects	1700	DA	$ 658,584	$ 104,254	$ -	$ -	$ -	$ 762,838	$ 1,525,676
1741	Client Relations	1700	DA	$ -	$ -	$ -	$ -	$ -	$ 2,366,671	$ 2,366,671
1751	Market Operations - General	1700	DA	$ 300,321	$ -	$ 150,160	$ 150,160	$ 341,341	$ 37,540	$ 979,523
1752	Manager of Markets	1700	DA	$ 757,251	$ 151,450	$ 757,251	$ 605,801	$ 501,450	$ -	$ 2,773,203
1753	Market Engineering	1700	DA	$ 416,926	$ -	$ -	$ 555,901	$ 843,807	$ 138,975	$ 1,955,609
1755	Business Solutions	1700	DA	$ 69,443	$ -	$ 555,545	$ 138,886	$ 341,942	$ 69,443	$ 1,175,260
1756	Market Quality - General	1700	DA	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223	$ 2,102,495
1757	Market Integration	1700	DA	$ 73,706	$ -	$ 294,825	$ 294,825	$ 261,669	$ 73,706	$ 998,732
1811	VP Corporate and Strategic Development - General	1800	SCC	$ 205,934	$ 100,481	$ 16,932	$ 19,689	$ 48,192	$ 76,347	$ 467,576
1821	Communications	1800	OH	$ 372,870	$ 182,269	$ 31,995	$ 39,072	$ 88,534	$ 132,435	$ 847,176
1831	Strategic Development	1800	OH	$ 324,528	$ 158,638	$ 27,847	$ 34,007	$ 77,056	$ 115,265	$ 737,340
1841	Human Resources	1800	FTE	$ 2,037,915	$ 993,079	$ 162,462	$ 181,785	$ 472,033	$ 777,675	$ 4,624,949
1851	Project Office	1800	OH	$ 306,697	$ 149,922	$ 26,317	$ 32,138	$ 72,822	$ 108,932	$ 696,828
1861	Regulatory Policy	1800	OH	$ 418,921	$ 204,780	$ 35,946	$ 43,898	$ 99,468	$ 148,791	$ 951,804
2111	Other	2100	PS	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Total			$ 62,995,426	$ 24,505,839	$ 10,115,593	$ 6,208,095	$ 14,888,585	$ 33,021,519	$ 151,735,058
	Percent			42%	16%	7%	4%	10%	22%	100%
	Key to Method Acronyms									
	Direct Assignment	DA								
	Direct System	DS								
	Supervised cost center (directors/officers)	SCC								
	Allocated by personnel headcount	FTE								

	A	B	C	D	E	F	G	H	I	J	K
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**									
2		**Totals by Cost Center**									
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
88		Overhead	OH								
89		System Direct - Proportional to allocation of directly functionalized systems	SD								
90		expenditures on applications (software) or hardware	CD								
91		Department Direct - proportional to the cost assignments of departments utilizing applications	DD								
92		Proportional to Salaries	PS								

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	A	B	C	D	E	F	G	H	I	J	K
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**									
2		**Salaries as a Percentage of Totals by Cost Center**									
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4	1111	CEO - General	1100	OH	44%	22%	4%	5%	10%	16%	100%
5	1241	MD02	1100	DS	7%	0%	14%	11%	28%	40%	100%
6	1311	CFO - General	1300	SCC	44%	21%	4%	4%	10%	16%	100%
7	1321	Accounting	1300	OH	44%	22%	4%	5%	10%	16%	100%
8	1331	Financial Planning and Treasury	1300	OH	44%	22%	4%	5%	10%	16%	100%
9	1351	Facilities	1300	FTE	44%	21%	4%	4%	10%	17%	100%
10	1361	Security & Corporate Services	1300	FTE	44%	21%	4%	4%	10%	17%	100%
11	1411	Chief Information Officer	1400	SCC	37%	7%	11%	3%	9%	31%	100%
12	1422	Corporate & Enterprise Applications	1400	SCC	39%	14%	4%	5%	12%	27%	100%
13	1424	Asset Management	1400	DS	35%	6%	12%	5%	10%	31%	100%
14	1431	End User Support	1400	FTE/DS	37%	14%	10%	4%	9%	26%	100%
15	1432	Computer Operations and Infrastructure	1400	SCC	33%	9%	14%	3%	8%	32%	100%
16	1433	Network Services	1400	DS	42%	12%	11%	3%	9%	23%	100%
17	1441	Outsourced Contracts	1400	DS	41%	11%	12%	3%	9%	25%	100%
18	1442	Production Support	1400	SD	23%	0%	22%	3%	7%	45%	100%
19	1451	Infrastructure Services	1400	SD	23%	0%	22%	3%	7%	45%	100%
20	1461	Control Systems	1400	DS	96%	2%	0%	0%	1%	1%	100%
21	1462	Field Data Acquisition System (FDAS)	1400	DS	21%	0%	0%	0%	0%	79%	100%
22	1463	Operations Systems Services	1400	SCC	47%	1%	6%	1%	5%	39%	100%
23	1466	Enterprise Applications	1400	CD	48%	7%	1%	1%	3%	39%	100%
24	1467	Settlement Systems Services	1400	DS	9%	0%	0%	0%	0%	91%	100%
25	1468	Corporate Application Support and Administration	1400	FTE	44%	21%	4%	4%	10%	17%	100%
26	1469	Analytical and Reporting Applications	1400	DD	24%	18%	6%	9%	24%	18%	100%
27	1471	IT Planning	1400	SD	23%	0%	22%	3%	7%	45%	100%
28	1481	Markets and Scheduling System	1400	DS	45%	3%	27%	3%	17%	6%	100%
29	1482	Market Systems Support Services	1400	DS	44%	1%	20%	6%	23%	5%	100%
30	1511	VP Grid Operations	1500	SCC	67%	33%	0%	0%	0%	0%	100%
31	1521	Grid Planning	1100	DA	63%	38%	0%	0%	0%	0%	100%
32	1542	Outage Coordination	1500	DA	100%	0%	0%	0%	0%	0%	100%
33	1543	Loads and Resources	1500	DA	57%	43%	0%	0%	0%	0%	100%
34	1544	Real-Time Scheduling	1500	DA	60%	40%	0%	0%	0%	0%	100%
35	1545	Grid Operations	1500	DA	68%	32%	0%	0%	0%	0%	100%
36	1546	Security Coordination	1500	DA	100%	0%	0%	0%	0%	0%	100%
37	1547	Engineering and Maintenance	1500	DA	67%	33%	0%	0%	0%	0%	100%
38	1548	OSAT Group - General	1500	DA	100%	0%	0%	0%	0%	0%	100%
39	1549	Operations Training	1500	DA	61%	39%	0%	0%	0%	0%	100%
40	1554	Special Projects Engineering	1500	DA	50%	50%	0%	0%	0%	0%	100%
41	1555	Operations Support Group	1500	DA	56%	44%	0%	0%	0%	0%	100%
42	1558	Transmission Maintenance	1500	DA	67%	33%	0%	0%	0%	0%	100%
43	1559	Operations Application Support	1500	DA	60%	40%	0%	0%	0%	0%	100%
44	1561	Operations Engineering South	1500	DA	67%	33%	0%	0%	0%	0%	100%
45	1562	Operations Engineering North	1500	DA	56%	44%	0%	0%	0%	0%	100%

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1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**									
2		**Salaries as a Percentage of Totals by Cost Center**									
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
46	1563	Operations Coordination	1500	DA	80%	20%	0%	0%	0%	0%	100%
47	1564	Operations Scheduling	1500	DA	100%	0%	0%	0%	0%	0%	100%
48	1565	Pre-Scheduling and Support	1500	DA	77%	23%	0%	0%	0%	0%	100%
49	1566	Regional Coordination - General	1500	DA	100%	0%	0%	0%	0%	0%	100%
50	1611	VP General Counsel - General	1600	SCC	36%	22%	4%	7%	17%	15%	100%
51	1631	Legal and Regulatory	1600	OH	44%	22%	4%	5%	10%	16%	100%
52	1641	Market Analysis	1600	DA	20%	22%	0%	16%	33%	9%	100%
53	1642	Market Surveillance Committee	1600	DA	25%	25%	0%	25%	25%	0%	100%
54	1651	Board of Governors	1600	OH	44%	22%	4%	5%	10%	16%	100%
55	1661	Compliance - General	1600	DA	24%	22%	14%	0%	25%	15%	100%
56	1662	Compliance - Audits	1600	DA	8%	0%	0%	0%	50%	42%	100%
57	1711	VP Market Services - General	1700	SCC	17%	2%	9%	9%	20%	41%	100%
58	1721	Billing and Settlements-General	1700	DA	25%	0%	0%	0%	0%	75%	100%
59	1722	Business Development Support	1700	DA	0%	0%	0%	0%	0%	100%	100%
60	1723	RMR Settlements	1700	DA	100%	0%	0%	0%	0%	0%	100%
61	1724	BBS - PSS	1700	DA	0%	0%	0%	0%	0%	100%	100%
62	1725	BBS - FSS	1700	DA	0%	0%	0%	0%	0%	100%	100%
63	1731	Contracts and Special Projects	1700	DA	50%	0%	0%	0%	0%	50%	100%
64	1741	Client Relations	1700	DA	0%	0%	0%	0%	0%	100%	100%
65	1751	Market Operations - General	1700	DA	40%	0%	20%	20%	15%	5%	100%
66	1752	Manager of Markets	1700	DA	31%	6%	31%	25%	6%	0%	100%
67	1753	Market Engineering	1700	DA	30%	0%	0%	40%	20%	10%	100%
68	1755	Business Solutions	1700	DA	7%	0%	57%	14%	14%	7%	100%
69	1756	Market Quality - General	1700	DA	0%	0%	0%	0%	72%	28%	100%
70	1757	Market Integration	1700	DA	8%	0%	33%	33%	17%	8%	100%
71	1811	VP Corporate and Strategic Development - General	1800	SCC	44%	21%	4%	4%	10%	16%	100%
72	1821	Communications	1800	OH	44%	22%	4%	5%	10%	16%	100%
73	1831	Strategic Development	1800	OH	44%	22%	4%	5%	10%	16%	100%
74	1841	Human Resources	1800	FTE	44%	21%	4%	4%	10%	17%	100%
75	1851	Project Office	1800	OH	44%	22%	4%	5%	10%	16%	100%
76	1861	Regulatory Policy	1800	OH	44%	22%	4%	5%	10%	16%	100%
77	2111	Other	2100	PS							
78											
79		Total									
80		Percent									
81											
82											
83		Key to Method Acronyms									
84		Direct Assignment	DA								
85		Direct System	DS								
86		Supervised cost center (directors/officers)	SCC								
87		Allocated by personnel headcount	FTE								

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	A	B	C	D	E	F	G	H	I	J	K
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**									
2		**Salaries as a Percentage of Totals by Cost Center**									
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
88		Overhead	OH								
89		System Direct - Proportional to allocation of directly functionalized systems	SD								
90		expenditures on applications (software) or hardware	CD								
91		Department Direct - proportional to the cost assignments of departments utilizing applications	DD								
92		Proportional to Salaries	PS								

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	A	B	C	D	E
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**			
2		**Assignment/Allocation Method by Cost Center**			
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Description**
4	1111	CEO - General	1100	OH	Allocated using overhead ratios
5	1241	MD02	1100	DS	Direct assignment using capital expenditures for MD02
6	1311	CFO - General	1300	SCC	Allocated using supervised cost centers in 1300
7	1321	Accounting	1300	OH	Allocated using overhead ratios
8	1331	Financial Planning and Treasury	1300	OH	Allocated using overhead ratios
9	1351	Facilities	1300	FTE	Allocated proportional to FTE
10	1361	Security & Corporate Services	1300	FTE	Allocated proportional to FTE
11	1411	Chief Information Officer	1400	SCC	Allocated using supervised cost centers in 1400
12	1422	Corporate & Enterprise Applications	1400	SCC	Allocated using supervised cost centers under 1422
13	1424	Asset Management	1400	DS	Direct functionalization of contract expenditures
14	1431	End User Support	1400	FTE/DS	Allocated proportional to FTE and Monitoring (Tivoli). 67 percent weight to FTE and 33 percent to Monitorir
15	1432	Computer Operations and Infrastructure	1400	SCC	Allocated using supervised cost centers under 1432
16	1433	Network Services	1400	DS	Allocated proportional to WAN and LAN (FTE) functionalizations
17	1441	Outsourced Contracts	1400	DS	Allocated proportional to 1441 contract expenditures
18	1442	Production Support	1400	SD	Proportional to directly allocated system applications
19	1451	Infrastructure Services	1400	SD	Proportional to directly allocated system applications
20	1461	Control Systems	1400	DS	Supports EMS and PI
21	1462	Field Data Acquisition System (FDAS)	1400	DS	Supports MDAS and RIG
22	1463	Operations Systems Services	1400	SCC	Allocated using supervised cost centers under 1463
23	1466	Enterprise Applications	1400	CD	Weighted average of Chase, online settlements disputes and new resource interconnection functionalizatio
24	1467	Settlement Systems Services	1400	DS	Directly assigned to systems
25	1468	Corporate Application Support and Admini	1400	FTE	Allocated proportional to FTE
26	1469	Analytical and Reporting Applications	1400	DD	Proportional to DataWarehouse functionalization
27	1471	IT Planning	1400	SD	Proportional to directly allocated system applications
28	1481	Markets and Scheduling System	1400	DS	Directly assigned to systems
29	1482	Market Systems Support Services	1400	DS	Directly assigned to systems
30	1511	VP Grid Operations	1500	SCC	Allocated using supervised cost centers in 1500
31	1521	Grid Planning	1100	DA	Direct assignment
32	1542	Outage Coordination	1500	DA	Direct assignment
33	1543	Loads and Resources	1500	DA	Direct assignment
34	1544	Real-Time Scheduling	1500	DA	Direct assignment
35	1545	Grid Operations	1500	DA	Direct assignment
36	1546	Security Coordination	1500	DA	Direct assignment
37	1547	Engineering and Maintenance	1500	DA	Direct assignment
38	1548	OSAT Group - General	1500	DA	Direct assignment
39	1549	Operations Training	1500	DA	Direct assignment

	A	B	C	D	E
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**			
2		**Assignment/Allocation Method by Cost Center**			
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Description**
40	1554	Special Projects Engineering	1500	DA	Direct assignment
41	1555	Operations Support Group	1500	DA	Direct assignment
42	1558	Transmission Maintenance	1500	DA	Direct assignment
43	1559	Operations Application Support	1500	DA	Direct assignment
44	1561	Operations Engineering South	1500	DA	Direct assignment
45	1562	Operations Engineering North	1500	DA	Direct assignment
46	1563	Operations Coordination	1500	DA	Direct assignment
47	1564	Operations Scheduling	1500	DA	Direct assignment
48	1565	Pre-Scheduling and Support	1500	DA	Direct assignment
49	1566	Regional Coordination - General	1500	DA	Direct assignment
50	1611	VP General Counsel - General	1600	SCC	Allocated using supervised cost centers in 1600
51	1631	Legal and Regulatory	1600	OH	Allocated using overhead ratios
52	1641	Market Analysis	1600	DA	Direct assignment
53	1642	Market Surveillance Committee	1600	DA	Direct assignment
54	1651	Board of Governors	1600	OH	Allocated using overhead ratios
55	1661	Compliance - General	1600	DA	Direct assignment
56	1662	Compliance - Audits	1600	DA	Direct assignment
57	1711	VP Market Services - General	1700	SCC	Allocated using supervised cost centers in 1700
58	1721	Billing and Settlements-General	1700	DA	Direct assignment
59	1722	Business Development Support	1700	DA	Direct assignment
60	1723	RMR Settlements	1700	DA	Direct assignment
61	1724	BBS - PSS	1700	DA	Direct assignment
62	1725	BBS - FSS	1700	DA	Direct assignment
63	1731	Contracts and Special Projects	1700	DA	Direct assignment
64	1741	Client Relations	1700	DA	Direct assignment
65	1751	Market Operations - General	1700	DA	Direct assignment
66	1752	Manager of Markets	1700	DA	Direct assignment
67	1753	Market Engineering	1700	DA	Direct assignment
68	1755	Business Solutions	1700	DA	Direct assignment
69	1756	Market Quality - General	1700	DA	Direct assignment
70	1757	Market Integration	1700	DA	Direct assignment
71	1811	VP Corporate and Strategic Development	1800	SCC	Allocated using supervised cost centers in 1800
72	1821	Communications	1800	OH	Allocated using overhead ratios
73	1831	Strategic Development	1800	OH	Allocated using overhead ratios
74	1841	Human Resources	1800	FTE	Allocated using FTE ratios
75	1851	Project Office	1800	OH	Allocated using overhead ratios

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	A	B	C	D	E
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**			
2		**Assignment/Allocation Method by Cost Center**			
3	**CC #**	**Cost Center**	**Sheet**	**Method**	**Description**
76	1861	Regulatory Policy	1800	OH	Allocated using overhead ratios
77	2111	Other	2100	PS	Allocated directly to cost centers
78					
79		Key to Method Acronyms			
80		Direct Assignment	DA		
81		Direct System	DS		
82		Supervised cost center (directors/officers)	SCC		
83		Allocated by personnel headcount	FTE		
84		Overhead	OH		
85		System Direct - Proportional to allocation of directly functionalized systems	SD		
86		Calculated Direct - Calculated as a function of expenditures on applications (software) or hardware	CD		
87		Department Direct - proportional to the cost assignments of departments utilizing applications	DD		
88		Proportional to Salaries	PS		

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	B	C	D	E	F	G	H	I	J
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**							
2		**Revenue Requirement by Division**							
3			**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
4	**Operations and Maintenance**								
5	1100	CEO	$ 2,045,221	$ 1,129,620	$ 212,004	$ 181,540	$ 458,325	$ 652,863	$ 4,679,572
6	1300	Finance	$ 6,840,749	$ 3,337,904	$ 562,872	$ 655,090	$ 1,601,233	$ 2,534,352	$ 15,532,200
7	1400	Information Services	$ 21,639,687	$ 4,287,103	$ 6,602,375	$ 1,960,100	$ 5,080,520	$ 18,165,968	$ 57,735,753
8	1500	Grid Operations	$ 19,042,906	$ 9,504,653	$ -	$ -	$ -	$ -	$ 28,547,559
9	1600	Legal and Regulatory	$ 6,586,443	$ 4,007,951	$ 685,663	$ 1,321,756	$ 3,123,124	$ 2,675,335	$ 18,400,271
10	1700	Market Services	$ 3,173,554	$ 449,438	$ 1,751,181	$ 1,739,019	$ 3,767,280	$ 7,633,557	$ 18,514,029
11	1800	Corporate and Strategic Development	$ 3,666,865	$ 1,789,170	$ 301,499	$ 350,590	$ 858,104	$ 1,359,445	$ 8,325,673
12	2100	Other	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13									
14	**Total Operations and Maintenance**		**$ 62,995,426**	**$ 24,505,839**	**$ 10,115,593**	**$ 6,208,095**	**$ 14,888,585**	**$ 33,021,519**	**$ 151,735,058**
15									
16									
17									

Worksheets that follow were used to calculate the allocation of reserve credits from 2003 to new functions

Steps:

1 Arrange each cost center with its 2004 and 2003 allocations/assignments using the O&M budget. For 2003, for cost center 1482, which is new for 2004, the 1481 cost allocation is used.

2 There are three worksheets, one for CAS, CONG and ASREO. The 2004 budget dollars are used as the weights on the resulting allocations.

3 For CAS, the sum of CRS and ETS are used as the 2004 proxy. For CONG, 2003 CONG is compared to 2004 CONG. For ASREO, the sum of Forward Scheduling, Market Usage and Settlements, Metering and Client Relations is used as the 2004 proxy.

4 To do the splits from ASREO to FS, MU and SMCR, the percentage allocations to these functions are used as the weights. So, if FS (10%), MU (20%) and SMCR (15%) summed to 45%, the relative weighting of FS is 22.2% (10/45).

The general method is:

1. Check if the corresponding 2003 cost allocation is zero. If the 2003 cost allocation is zero, no portion of the credit should be passed back through this cost center. (The budget weight in this case is zero, regardless of the budget amount.) For example, if cost center has no CAS allocation, then enter a yes. This means that when allocating the CAS credit, no portion of the credit should be applied to this cost center's costs.

2. If the answer to 1 is no, then check if the 2003 allocation is less than or equal to the sum of corresponding 2004 allocation. If yes, then the entire amount of the budget is used as a weight on this specific function. For example, if, for cost center 1481, CAS=63% and the sum of CRS and ETS is 66%, then the entire budget amount for 1481 is used as a weight. The logic to this is if the credit is for CAS, all the credit should be applied back through Grid Reliability Services "GRS" (the collective name of CRS and ETS). Since GRS (CRS+ETS) is greater than CAS, none of the credit would flow back through to the other functions.

3. If the answer to 2 is no, then the portion that gets allocated to the specific function(s) is the 2004 allocation, the remainder will be spread to the other functions. For example, if CAS is 65% and GRS is 50%, then 77% (50/65) of the budget will be used as the weight for GRS. The remaining 23% of the budget for that cost center will be spread to the FS, CONG, MU and SMCR functions using their percent allocations as described above.

4. Run through the calculation for each cost center separately and sum by function. The total calculated this way will not equal the total O&M routinely if there are cost centers in the 2003 GMC did not have a specific allocation to one of the functions. For example, 1524, 1542 and 1543 were 100% CAS. Their budgets would not be used as weights for allocation of the credit of CONG and ASREO.

The resulting allocations (in %) of the reserve credits are:

	CRS	ETS	FS	CON	MU	SMCR
CAS	81%	0%	3%	2%	4%	11%
CONG	25%	10%	3%	38%	6%	17%
ASREO	11%	6%	14%	0%	24%	45%

	A	B	C	D	E
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**			
2	**Percentage Share of Personnel by Functions From 2003 Cost Allocation Matrix**				
3	**CC #**	**Cost Center**	**Control Area Services**	**Congestion Management**	**ASREO**
4					
5	1111	CEO - General	63%	11%	26%
6	1241	MD02	32%	33%	35%
7	1311	CFO - General	61%	11%	28%
8	1321	Accounting	47%	8%	45%
9	1331	Financial Planning and Treasury	60%	10%	30%
10	1351	Facilities	64%	11%	25%
11	1361	Office Administration	64%	11%	25%
12	1411	Chief Information Officer- General	62%	9%	29%
13	1422	Corporate & Enterprise Applications - General	62%	10%	28%
14	1424	Asset Management	67%	7%	26%
15	1431	End User Support	63%	10%	27%
16	1432	Computer Operations - General	61%	10%	29%
17	1433	Network Operations	63%	10%	27%
18	1441	Outsourced Contracts	60%	11%	29%
19	1442	Production Support	56%	9%	35%
20	1451	Information Security	63%	10%	27%
21	1461	Control Systems	100%	0%	0%
22	1462	Field Data Acquisition System (FDAS)	30%	8%	62%
23	1463	Operations Applications - General	74%	2%	24%
24	1466	Enterprise Applications	62%	9%	29%
25	1467	Settlement Systems Services	15%	7%	78%
26	1468	Corporate Application Support	61%	10%	29%
27	1469	Analytical and Reporting	63%	10%	27%
28	1471	IT Planning	63%	10%	27%
29	1481	Markets and Scheduling	56%	9%	35%
30	1482	Market Systems Support Services	56%	9%	35%
31	1511	VP Grid Operations - General	66%	18%	15%
32	1521	Grid Planning	100%	0%	0%
33	1542	Outage Coordination	100%	0%	0%
34	1543	Loads and Resources	100%	0%	0%
35	1544	Real-Time Scheduling	75%	15%	10%
36	1545	Grid Operations - General	80%	10%	10%
37	1546	Security Coordination	100%	0%	0%
38	1547	Engineering and Maintenance - General	99%	0%	1%
39	1548	OSAT Group - General	77%	6%	17%
40	1549	Operations Training	62%	24%	14%
41	1554	Special Projects Engineering	84%	0%	16%
42	1555	Operations Support Group	61%	21%	18%

	A	B	C	D	E
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**			
2	**Percentage Share of Personnel by Functions From 2003 Cost Allocation Matrix**				
3	**CC #**	**Cost Center**	**Control Area Services**	**Congestion Management**	**ASREO**
4					
43	1558	Transmission Maintenance	98%	0%	2%
44	1559	Operations Application Support	79%	10%	11%
45	1561	Operations Engineering South	100%	0%	0%
46	1562	Operations Engineering North	100%	0%	0%
47	1563	Coordinated Operations	60%	10%	30%
48	1564	Operations Scheduling - General	82%	11%	8%
49	1565	Pre-Scheduling and Support	74%	15%	11%
50	1566	Regional Coordination - General	83%	0%	17%
51	1611	VP General Counsel - General	57%	11%	32%
52	1631	Legal and Regulatory	62%	10%	28%
53	1641	Market Analysis	23%	19%	58%
54	1642	Market Surveillance Committee	9%	25%	66%
55	1651	Board of Governors	63%	11%	26%
56	1661	Compliance - General	82%	5%	13%
57	1662	Compliance - Audits	84%	5%	12%
58	1711	VP Market Services - General	37%	18%	45%
59	1721	Billing and Settlements-General	34%	6%	60%
60	1722	Application Support	19%	7%	74%
61	1723	Tariff and Contract Implementation	90%	0%	10%
62	1724	BBS - PSS	17%	8%	75%
63	1725	BBS - FSS	16%	7%	77%
64	1731	Contracts and Special Projects	77%	2%	21%
65	1741	Client Relations	38%	9%	53%
66	1751	Market Operations - General	20%	30%	50%
67	1752	Manager of Markets	29%	30%	41%
68	1753	Market Engineering	32%	28%	40%
69	1755	Business Solutions	25%	10%	64%
70	1756	Market Quality - General	37%	33%	30%
71	1757	Market Integration	25%	30%	45%
72	1811	VP Corporate and Strategic Development - Gener	63%	11%	26%
73	1821	Communications	64%	11%	25%
74	1831	Strategic Development	64%	11%	25%
75	1841	Human Resources	63%	11%	26%
76	1851	Project Office	63%	10%	27%
77	1861	Regulatory Policy	63%	10%	27%
78	2111	Salary Adjustments	62%	10%	27%

	A	B	C	D	E	F	G	H	I
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**							
2		**Percentage of Total Cost by Cost Center**							
3									
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
5	1111	CEO - General	44%	22%	4%	5%	10%	16%	100%
6	1241	MD02	7%	0%	14%	11%	28%	40%	100%
7	1311	CFO - General	44%	21%	4%	4%	10%	16%	100%
8	1321	Accounting	44%	22%	4%	5%	10%	16%	100%
9	1331	Financial Planning and Treasury	44%	22%	4%	5%	10%	16%	100%
10	1351	Facilities	44%	21%	4%	4%	10%	17%	100%
11	1361	Security & Corporate Services	44%	21%	4%	4%	10%	17%	100%
12	1411	Chief Information Officer	37%	7%	11%	3%	9%	31%	100%
13	1422	Corporate & Enterprise Applications	39%	14%	4%	5%	12%	27%	100%
14	1424	Asset Management	35%	6%	12%	5%	10%	31%	100%
15	1431	End User Support	37%	14%	10%	4%	9%	26%	100%
16	1432	Computer Operations and Infrastructure	33%	9%	14%	3%	8%	32%	100%
17	1433	Network Services	42%	12%	11%	3%	9%	23%	100%
18	1441	Outsourced Contracts	41%	11%	12%	3%	9%	25%	100%
19	1442	Production Support	23%	0%	22%	3%	7%	45%	100%
20	1451	Infrastructure Services	23%	0%	22%	3%	7%	45%	100%
21	1461	Control Systems	96%	2%	0%	0%	1%	1%	100%
22	1462	Field Data Acquisition System (FDAS)	21%	0%	0%	0%	0%	79%	100%
23	1463	Operations Systems Services	47%	1%	6%	1%	5%	39%	100%
24	1466	Enterprise Applications	48%	7%	1%	1%	3%	39%	100%
25	1467	Settlement Systems Services	9%	0%	0%	0%	0%	91%	100%
26	1468	Corporate Application Support and Administration	44%	21%	4%	4%	10%	17%	100%
27	1469	Analytical and Reporting Applications	24%	18%	6%	9%	24%	18%	100%
28	1471	IT Planning	23%	0%	22%	3%	7%	45%	100%
29	1481	Markets and Scheduling System	45%	3%	27%	3%	17%	6%	100%
30	1482	Market Systems Support Services	44%	1%	20%	6%	23%	5%	100%
31	1511	VP Grid Operations	67%	33%	0%	0%	0%	0%	100%
32	1521	Grid Planning	63%	38%	0%	0%	0%	0%	100%
33	1542	Outage Coordination	95%	5%	0%	0%	0%	0%	100%
34	1543	Loads and Resources	49%	51%	0%	0%	0%	0%	100%
35	1544	Real-Time Scheduling	60%	40%	0%	0%	0%	0%	100%

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	A	B	C	D	E	F	G	H	I
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**							
2		**Percentage of Total Cost by Cost Center**							
3									
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
36	1545	Grid Operations	67%	33%	0%	0%	0%	0%	100%
37	1546	Security Coordination	100%	0%	0%	0%	0%	0%	100%
38	1547	Engineering and Maintenance	46%	54%	0%	0%	0%	0%	100%
39	1548	OSAT Group - General	93%	7%	0%	0%	0%	0%	100%
40	1549	Operations Training	50%	50%	0%	0%	0%	0%	100%
41	1554	Special Projects Engineering	43%	57%	0%	0%	0%	0%	100%
42	1555	Operations Support Group	56%	44%	0%	0%	0%	0%	100%
43	1558	Transmission Maintenance	58%	42%	0%	0%	0%	0%	100%
44	1559	Operations Application Support	60%	40%	0%	0%	0%	0%	100%
45	1561	Operations Engineering South	65%	35%	0%	0%	0%	0%	100%
46	1562	Operations Engineering North	55%	45%	0%	0%	0%	0%	100%
47	1563	Operations Coordination	75%	25%	0%	0%	0%	0%	100%
48	1564	Operations Scheduling	100%	0%	0%	0%	0%	0%	100%
49	1565	Pre-Scheduling and Support	77%	23%	0%	0%	0%	0%	100%
50	1566	Regional Coordination - General	100%	0%	0%	0%	0%	0%	100%
51	1611	VP General Counsel - General	36%	22%	4%	7%	17%	15%	100%
52	1631	Legal and Regulatory	44%	22%	4%	5%	10%	16%	100%
53	1641	Market Analysis	15%	26%	0%	20%	31%	7%	100%
54	1642	Market Surveillance Committee	25%	25%	0%	25%	25%	0%	100%
55	1651	Board of Governors	44%	22%	4%	5%	10%	16%	100%
56	1661	Compliance - General	22%	20%	12%	0%	29%	17%	100%
57	1662	Compliance - Audits	8%	0%	0%	0%	50%	42%	100%
58	1711	VP Market Services - General	17%	2%	9%	9%	20%	41%	100%
59	1721	Billing and Settlements-General	25%	0%	0%	0%	0%	75%	100%
60	1722	Business Development Support	0%	0%	0%	0%	0%	100%	100%
61	1723	RMR Settlements	80%	20%	0%	0%	0%	0%	100%
62	1724	BBS - PSS	0%	0%	0%	0%	0%	100%	100%
63	1725	BBS - FSS	0%	0%	0%	0%	0%	100%	100%
64	1731	Contracts and Special Projects	43%	7%	0%	0%	0%	50%	100%
65	1741	Client Relations	0%	0%	0%	0%	0%	100%	100%
66	1751	Market Operations - General	31%	0%	15%	15%	35%	4%	100%

	A	B	C	D	E	F	G	H	I
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**							
2		**Percentage of Total Cost by Cost Center**							
3									
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**	**Total**
67	1752	Manager of Markets	27%	5%	27%	22%	18%	0%	100%
68	1753	Market Engineering	21%	0%	0%	28%	43%	7%	100%
69	1755	Business Solutions	6%	0%	47%	12%	29%	6%	100%
70	1756	Market Quality - General	0%	0%	0%	0%	71%	29%	100%
71	1757	Market Integration	7%	0%	30%	30%	26%	7%	100%
72	1811	VP Corporate and Strategic Development - Genera	44%	21%	4%	4%	10%	16%	100%
73	1821	Communications	44%	22%	4%	5%	10%	16%	100%
74	1831	Strategic Development	44%	22%	4%	5%	10%	16%	100%
75	1841	Human Resources	44%	21%	4%	4%	10%	17%	100%
76	1851	Project Office	44%	22%	4%	5%	10%	16%	100%
77	1861	Regulatory Policy	44%	22%	4%	5%	10%	16%	100%
78	2111	Other	0%	0%	0%	0%	0%	0%	0%
79									
80									
81									
82									
83									
84									

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	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
5	1111	CEO - General	44%	22%	4%	5%	10%	16%
6	1241	MD02	7%	0%	14%	11%	28%	40%
7	1311	CFO - General	44%	21%	4%	4%	10%	16%
8	1321	Accounting	44%	22%	4%	5%	10%	16%
9	1331	Financial Planning and Treasury	44%	22%	4%	5%	10%	16%
10	1351	Facilities	44%	21%	4%	4%	10%	17%
11	1361	Security & Corporate Services	44%	21%	4%	4%	10%	17%
12	1411	Chief Information Officer	38%	7%	10%	5%	9%	31%
13	1422	Corporate & Enterprise Applications	33%	7%	1%	25%	13%	21%
14	1424	Asset Management	35%	6%	11%	5%	11%	32%
15	1431	End User Support	38%	14%	8%	3%	9%	27%
16	1432	Computer Operations and Infrastructure	34%	9%	12%	3%	9%	33%
17	1433	Network Services	43%	12%	9%	3%	9%	24%
18	1441	Outsourced Contracts	42%	11%	10%	3%	9%	25%
19	1442	Production Support	25%	0%	18%	3%	8%	47%
20	1451	Infrastructure Services	25%	0%	18%	3%	8%	47%
21	1461	Control Systems	96%	2%	0%	0%	1%	1%
22	1462	Field Data Acquisition System (FDAS)	21%	0%	0%	0%	0%	79%
23	1463	Operations Systems Services	50%	3%	6%	1%	6%	33%
24	1466	Enterprise Applications	48%	7%	1%	1%	3%	39%
25	1467	Settlement Systems Services	27%	11%	2%	2%	5%	52%
26	1468	Corporate Application Support and Administration	44%	21%	4%	4%	10%	17%
27	1469	Analytical and Reporting Applications	10%	0%	0%	65%	25%	0%
28	1471	IT Planning	25%	0%	18%	3%	8%	47%
29	1481	Markets and Scheduling System	47%	3%	24%	3%	18%	6%
30	1482	Market Systems Support Services	45%	1%	19%	6%	24%	6%
31	1511	VP Grid Operations	67%	33%	0%	0%	0%	0%
32	1521	Grid Planning	63%	38%	0%	0%	0%	0%
33	1542	Outage Coordination	95%	5%	0%	0%	0%	0%
34	1543	Loads and Resources	49%	51%	0%	0%	0%	0%

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does CAS=0	Is CAS < CRS+ETS	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
5	1111	63%	11%	26%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
6	1241	32%	33%	35%	no	no	78%	22%	0%	11.7%	9.2%	23.9%	33.6%
7	1311	61%	11%	28%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
8	1321	47%	8%	45%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
9	1331	60%	10%	30%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
10	1351	64%	11%	25%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
11	1361	64%	11%	25%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
12	1411	62%	9%	29%	no	no	27%	73%	0%	4.8%	2.4%	4.6%	15.3%
13	1422	62%	10%	28%	no	no	35%	65%	0%	0.7%	14.7%	7.3%	12.0%
14	1424	67%	7%	26%	no	no	38%	62%	0%	7.2%	3.2%	6.9%	21.2%
15	1431	63%	10%	27%	no	no	17%	83%	0%	3.0%	1.3%	3.3%	9.6%
16	1432	61%	10%	29%	no	no	29%	71%	0%	5.9%	1.6%	4.4%	16.7%
17	1433	63%	10%	27%	no	no	12%	88%	0%	2.6%	0.7%	2.6%	6.5%
18	1441	60%	11%	29%	no	no	12%	88%	0%	2.6%	0.6%	2.3%	6.4%
19	1442	56%	9%	35%	no	no	55%	45%	0%	13.2%	1.9%	5.5%	34.3%
20	1451	63%	10%	27%	no	no	60%	40%	0%	14.4%	2.1%	6.0%	37.4%
21	1461	100%	0%	0%	no	no	1%	99%	0%	0.0%	0.0%	0.6%	0.6%
22	1462	30%	8%	62%	no	no	28%	72%	0%	0.0%	0.0%	0.0%	28.2%
23	1463	74%	2%	24%	no	no	28%	72%	0%	3.6%	0.7%	3.6%	20.3%
24	1466	62%	9%	29%	no	no	10%	90%	0%	0.3%	0.3%	0.8%	9.1%
25	1467	15%	7%	78%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
26	1468	61%	10%	29%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
27	1469	63%	10%	27%	no	no	84%	16%	0%	0.0%	60.8%	23.4%	0.0%
28	1471	63%	10%	27%	no	no	60%	40%	0%	14.4%	2.1%	6.0%	37.4%
29	1481	56%	9%	35%	no	no	11%	89%	0%	5.4%	0.6%	4.0%	1.5%
30	1482	56%	9%	35%	no	no	18%	82%	0%	6.2%	2.1%	8.0%	1.9%
31	1511	66%	18%	15%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
32	1521	100%	0%	0%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
33	1542	100%	0%	0%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
34	1543	100%	0%	0%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%

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	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
5	1111	$ 897,241	$ 897,241	$ -	$ -	$ -	$ -	$ -	$ 897,241
6	1241	$ 1,284,788	$ 279,222	$ -	$ 149,828	$ 117,897	$ 306,656	$ 431,185	$ 1,284,788
7	1311	$ 332,272	$ 332,272	$ -	$ -	$ -	$ -	$ -	$ 332,272
8	1321	$ 2,931,098	$ 2,931,098	$ -	$ -	$ -	$ -	$ -	$ 2,931,098
9	1331	$ 3,471,773	$ 3,471,773	$ -	$ -	$ -	$ -	$ -	$ 3,471,773
10	1351	$ 6,136,300	$ 6,136,300	$ -	$ -	$ -	$ -	$ -	$ 6,136,300
11	1361	$ 2,660,758	$ 2,660,758	$ -	$ -	$ -	$ -	$ -	$ 2,660,758
12	1411	$ (319,362)	$ (232,897)	$ -	$ (15,424)	$ (7,574)	$ (14,615)	$ (48,852)	$ (319,362)
13	1422	$ 272,402	$ 178,109	$ -	$ 1,826	$ 39,963	$ 19,891	$ 32,613	$ 272,402
14	1424	$ 20,455,331	$ 12,593,604	$ -	$ 1,463,608	$ 655,466	$ 1,409,301	$ 4,333,354	$ 20,455,331
15	1431	$ 6,662,499	$ 5,519,436	$ -	$ 198,332	$ 83,759	$ 223,073	$ 637,899	$ 6,662,499
16	1432	$ 982,255	$ 701,111	$ -	$ 58,363	$ 15,308	$ 43,131	$ 164,343	$ 982,255
17	1433	$ 1,621,981	$ 1,421,089	$ -	$ 42,154	$ 11,718	$ 41,455	$ 105,564	$ 1,621,981
18	1441	$ 10,669,871	$ 9,389,648	$ -	$ 278,289	$ 68,801	$ 246,459	$ 686,674	$ 10,669,871
19	1442	$ 2,642,634	$ 1,188,256	$ -	$ 349,827	$ 51,053	$ 146,313	$ 907,185	$ 2,642,634
20	1451	$ 1,696,047	$ 679,466	$ -	$ 244,522	$ 35,685	$ 102,270	$ 634,104	$ 1,696,047
21	1461	$ 2,385,558	$ 2,359,052	$ -	$ -	$ -	$ 13,253	$ 13,253	$ 2,385,558
22	1462	$ 2,547,393	$ 1,827,871	$ -	$ -	$ -	$ -	$ 719,522	$ 2,547,393
23	1463	$ 347,495	$ 249,360	$ -	$ 12,632	$ 2,553	$ 12,504	$ 70,446	$ 347,495
24	1466	$ 1,609,967	$ 1,441,099	$ -	$ 4,510	$ 5,047	$ 13,104	$ 146,207	$ 1,609,967
25	1467	$ 1,170,354	$ 1,170,354	$ -	$ -	$ -	$ -	$ -	$ 1,170,354
26	1468	$ 609,686	$ 609,686	$ -	$ -	$ -	$ -	$ -	$ 609,686
27	1469	$ 1,298,406	$ 205,878	$ -	$ -	$ 789,048	$ 303,480	$ -	$ 1,298,406
28	1471	$ 950,115	$ 380,633	$ -	$ 136,980	$ 19,990	$ 57,291	$ 355,221	$ 950,115
29	1481	$ 1,516,144	$ 1,341,796	$ -	$ 82,083	$ 8,666	$ 61,136	$ 22,462	$ 1,516,144
30	1482	$ 616,978	$ 505,289	$ -	$ 38,286	$ 12,769	$ 49,174	$ 11,459	$ 616,978
31	1511	$ (154,783)	$ (154,783)	$ -	$ -	$ -	$ -	$ -	$ (154,783)
32	1521	$ 2,497,543	$ 2,497,543	$ -	$ -	$ -	$ -	$ -	$ 2,497,543
33	1542	$ 1,910,211	$ 1,910,211	$ -	$ -	$ -	$ -	$ -	$ 1,910,211
34	1543	$ 1,185,612	$ 1,185,612	$ -	$ -	$ -	$ -	$ -	$ 1,185,612

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	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
35	1544	Real-Time Scheduling	60%	40%	0%	0%	0%	0%
36	1545	Grid Operations	67%	33%	0%	0%	0%	0%
37	1546	Security Coordination	100%	0%	0%	0%	0%	0%
38	1547	Engineering and Maintenance	46%	54%	0%	0%	0%	0%
39	1548	OSAT Group - General	93%	7%	0%	0%	0%	0%
40	1549	Operations Training	50%	50%	0%	0%	0%	0%
41	1554	Special Projects Engineering	43%	57%	0%	0%	0%	0%
42	1555	Operations Support Group	56%	44%	0%	0%	0%	0%
43	1558	Transmission Maintenance	58%	42%	0%	0%	0%	0%
44	1559	Operations Application Support	60%	40%	0%	0%	0%	0%
45	1561	Operations Engineering South	65%	35%	0%	0%	0%	0%
46	1562	Operations Engineering North	55%	45%	0%	0%	0%	0%
47	1563	Operations Coordination	75%	25%	0%	0%	0%	0%
48	1564	Operations Scheduling	100%	0%	0%	0%	0%	0%
49	1565	Pre-Scheduling and Support	77%	23%	0%	0%	0%	0%
50	1566	Regional Coordination - General	100%	0%	0%	0%	0%	0%
51	1611	VP General Counsel - General	36%	22%	4%	7%	17%	15%
52	1631	Legal and Regulatory	44%	22%	4%	5%	10%	16%
53	1641	Market Analysis	15%	26%	0%	20%	31%	7%
54	1642	Market Surveillance Committee	25%	25%	0%	25%	25%	0%
55	1651	Board of Governors	44%	22%	4%	5%	10%	16%
56	1661	Compliance - General	22%	20%	12%	0%	29%	17%
57	1662	Compliance - Audits	8%	0%	0%	0%	50%	42%
58	1711	VP Market Services - General	17%	2%	9%	9%	20%	41%
59	1721	Billing and Settlements-General	25%	0%	0%	0%	0%	75%
60	1722	Business Development Support	0%	0%	0%	0%	0%	100%
61	1723	RMR Settlements	80%	20%	0%	0%	0%	0%
62	1724	BBS - PSS	0%	0%	0%	0%	0%	100%
63	1725	BBS - FSS	0%	0%	0%	0%	0%	100%
64	1731	Contracts and Special Projects	43%	7%	0%	0%	0%	50%

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does CAS=0	Is CAS < CRS+ETS	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
35	1544	75%	15%	10%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
36	1545	80%	10%	10%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
37	1546	100%	0%	0%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
38	1547	99%	0%	1%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
39	1548	77%	6%	17%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
40	1549	62%	24%	14%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
41	1554	84%	0%	16%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
42	1555	61%	21%	18%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
43	1558	98%	0%	2%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
44	1559	79%	10%	11%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
45	1561	100%	0%	0%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
46	1562	100%	0%	0%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
47	1563	60%	10%	30%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
48	1564	82%	11%	8%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
49	1565	74%	15%	11%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
50	1566	83%	0%	17%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
51	1611	57%	11%	32%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
52	1631	62%	10%	28%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
53	1641	23%	19%	58%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
54	1642	9%	25%	66%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
55	1651	63%	11%	26%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
56	1661	82%	5%	13%	no	no	48%	52%	0%	10.0%	0.0%	23.9%	14.5%
57	1662	84%	5%	12%	no	no	90%	10%	0%	0.0%	0.0%	49.1%	40.9%
58	1711	37%	18%	45%	no	no	47%	53%	0%	5.5%	5.5%	11.9%	24.0%
59	1721	34%	6%	60%	no	no	26%	74%	0%	0.0%	0.0%	0.0%	26.1%
60	1722	19%	7%	74%	no	no	100%	0%	0%	0.0%	0.0%	0.0%	100.0%
61	1723	90%	0%	10%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
62	1724	17%	8%	75%	no	no	100%	0%	0%	0.0%	0.0%	0.0%	100.0%
63	1725	16%	7%	77%	no	no	100%	0%	0%	0.0%	0.0%	0.0%	100.0%
64	1731	77%	2%	21%	no	no	35%	65%	0%	0.0%	0.0%	0.0%	34.7%

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
35	1544	$ 2,786,442	$ 2,786,442	$ -	$ -	$ -	$ -	$ -	$ 2,786,442
36	1545	$ 7,545,786	$ 7,545,786	$ -	$ -	$ -	$ -	$ -	$ 7,545,786
37	1546	$ 1,368,574	$ 1,368,574	$ -	$ -	$ -	$ -	$ -	$ 1,368,574
38	1547	$ 576,104	$ 576,104	$ -	$ -	$ -	$ -	$ -	$ 576,104
39	1548	$ 293,953	$ 293,953	$ -	$ -	$ -	$ -	$ -	$ 293,953
40	1549	$ 2,882,700	$ 2,882,700	$ -	$ -	$ -	$ -	$ -	$ 2,882,700
41	1554	$ 853,958	$ 853,958	$ -	$ -	$ -	$ -	$ -	$ 853,958
42	1555	$ 1,111,667	$ 1,111,667	$ -	$ -	$ -	$ -	$ -	$ 1,111,667
43	1558	$ 1,623,755	$ 1,623,755	$ -	$ -	$ -	$ -	$ -	$ 1,623,755
44	1559	$ 584,623	$ 584,623	$ -	$ -	$ -	$ -	$ -	$ 584,623
45	1561	$ 1,241,824	$ 1,241,824	$ -	$ -	$ -	$ -	$ -	$ 1,241,824
46	1562	$ 1,355,194	$ 1,355,194	$ -	$ -	$ -	$ -	$ -	$ 1,355,194
47	1563	$ 704,967	$ 704,967	$ -	$ -	$ -	$ -	$ -	$ 704,967
48	1564	$ 295,029	$ 295,029	$ -	$ -	$ -	$ -	$ -	$ 295,029
49	1565	$ 1,834,525	$ 1,834,525	$ -	$ -	$ -	$ -	$ -	$ 1,834,525
50	1566	$ 547,417	$ 547,417	$ -	$ -	$ -	$ -	$ -	$ 547,417
51	1611	$ 285,317	$ 285,317	$ -	$ -	$ -	$ -	$ -	$ 285,317
52	1631	$ 12,216,636	$ 12,216,636	$ -	$ -	$ -	$ -	$ -	$ 12,216,636
53	1641	$ 2,948,963	$ 2,948,963	$ -	$ -	$ -	$ -	$ -	$ 2,948,963
54	1642	$ 561,750	$ 561,750	$ -	$ -	$ -	$ -	$ -	$ 561,750
55	1651	$ 231,400	$ 231,400	$ -	$ -	$ -	$ -	$ -	$ 231,400
56	1661	$ 1,722,093	$ 889,617	$ -	$ 171,572	$ -	$ 410,962	$ 249,943	$ 1,722,093
57	1662	$ 434,112	$ 43,220	$ -	$ -	$ -	$ 213,214	$ 177,678	$ 434,112
58	1711	$ (69,788)	$ (37,051)	$ -	$ (3,850)	$ (3,823)	$ (8,282)	$ (16,782)	$ (69,788)
59	1721	$ 450,755	$ 333,159	$ -	$ -	$ -	$ -	$ 117,596	$ 450,755
60	1722	$ 700,651	$ -	$ -	$ -	$ -	$ -	$ 700,651	$ 700,651
61	1723	$ 992,025	$ 992,025	$ -	$ -	$ -	$ -	$ -	$ 992,025
62	1724	$ 1,280,172	$ -	$ -	$ -	$ -	$ -	$ 1,280,172	$ 1,280,172
63	1725	$ 1,283,046	$ -	$ -	$ -	$ -	$ -	$ 1,283,046	$ 1,283,046
64	1731	$ 1,525,676	$ 996,232	$ -	$ -	$ -	$ -	$ 529,443	$ 1,525,676

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
65	1741	Client Relations	0%	0%	0%	0%	0%	100%
66	1751	Market Operations - General	31%	0%	15%	15%	35%	4%
67	1752	Manager of Markets	27%	5%	27%	22%	18%	0%
68	1753	Market Engineering	21%	0%	0%	28%	43%	7%
69	1755	Business Solutions	6%	0%	47%	12%	29%	6%
70	1756	Market Quality - General	0%	0%	0%	0%	71%	29%
71	1757	Market Integration	7%	0%	30%	30%	26%	7%
72	1811	VP Corporate and Strategic Development - Genera	44%	21%	4%	4%	10%	16%
73	1821	Communications	44%	22%	4%	5%	10%	16%
74	1831	Strategic Development	44%	22%	4%	5%	10%	16%
75	1841	Human Resources	44%	21%	4%	4%	10%	17%
76	1851	Project Office	44%	22%	4%	5%	10%	16%
77	1861	Regulatory Policy	44%	22%	4%	5%	10%	16%
78	2111	Other	0%	0%	0%	0%	0%	0%
79								

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does CAS=0	Is CAS < CRS+ETS	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
65	1741	38%	9%	53%	no	no	100%	0%	0%	0.0%	0.0%	0.0%	100.0%
66	1751	20%	30%	50%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
67	1752	29%	30%	41%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
68	1753	32%	28%	40%	no	no	33%	67%	0%	0.0%	11.8%	18.0%	3.0%
69	1755	25%	10%	64%	no	no	77%	23%	0%	38.5%	9.6%	23.7%	4.8%
70	1756	37%	33%	30%	no	no	100%	0%	0%	0.0%	0.0%	70.9%	29.1%
71	1757	25%	30%	45%	no	no	71%	29%	0%	22.5%	22.5%	20.0%	5.6%
72	1811	63%	11%	26%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
73	1821	64%	11%	25%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
74	1831	64%	11%	25%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
75	1841	63%	11%	26%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
76	1851	63%	10%	27%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
77	1861	63%	10%	27%	no	yes	0%	100%	0%	0.0%	0.0%	0.0%	0.0%
78	2111	0%	0%	0%									
79													

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
65	1741	$ 2,366,671	$ -	$ -	$ -	$ -	$ -	$ 2,366,671	$ 2,366,671
66	1751	$ 979,523	$ 979,523	$ -	$ -	$ -	$ -	$ -	$ 979,523
67	1752	$ 2,773,203	$ 2,773,203	$ -	$ -	$ -	$ -	$ -	$ 2,773,203
68	1753	$ 1,955,609	$ 1,315,086	$ -	$ -	$ 231,411	$ 351,260	$ 57,853	$ 1,955,609
69	1755	$ 1,175,260	$ 275,536	$ -	$ 452,007	$ 113,002	$ 278,214	$ 56,501	$ 1,175,260
70	1756	$ 2,102,495	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223	$ 2,102,495
71	1757	$ 998,732	$ 293,234	$ -	$ 224,857	$ 224,857	$ 199,569	$ 56,214	$ 998,732
72	1811	$ 467,576	$ 467,576	$ -	$ -	$ -	$ -	$ -	$ 467,576
73	1821	$ 847,176	$ 847,176	$ -	$ -	$ -	$ -	$ -	$ 847,176
74	1831	$ 737,340	$ 737,340	$ -	$ -	$ -	$ -	$ -	$ 737,340
75	1841	$ 4,624,949	$ 4,624,949	$ -	$ -	$ -	$ -	$ -	$ 4,624,949
76	1851	$ 696,828	$ 696,828	$ -	$ -	$ -	$ -	$ -	$ 696,828
77	1861	$ 951,804	$ 951,804	$ -	$ -	$ -	$ -	$ -	$ 951,804
78	2111	$ 151,735,058	$ 122,706,128	$ -	$ 3,890,401	$ 2,475,596	$ 5,970,085	$ 16,692,847	$ 151,735,058
79			81%	0%	3%	2%	4%	11%	

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
5	1111	CEO - General	44%	22%	4%	5%	10%	16%
6	1241	MD02	7%	0%	14%	11%	28%	40%
7	1311	CFO - General	44%	21%	4%	4%	10%	16%
8	1321	Accounting	44%	22%	4%	5%	10%	16%
9	1331	Financial Planning and Treasury	44%	22%	4%	5%	10%	16%
10	1351	Facilities	44%	21%	4%	4%	10%	17%
11	1361	Security & Corporate Services	44%	21%	4%	4%	10%	17%
12	1411	Chief Information Officer	38%	7%	10%	5%	9%	31%
13	1422	Corporate & Enterprise Applications	33%	7%	1%	25%	13%	21%
14	1424	Asset Management	35%	6%	11%	5%	11%	32%
15	1431	End User Support	38%	14%	8%	3%	9%	27%
16	1432	Computer Operations and Infrastructure	34%	9%	12%	3%	9%	33%
17	1433	Network Services	43%	12%	9%	3%	9%	24%
18	1441	Outsourced Contracts	42%	11%	10%	3%	9%	25%
19	1442	Production Support	25%	0%	18%	3%	8%	47%
20	1451	Infrastructure Services	25%	0%	18%	3%	8%	47%
21	1461	Control Systems	96%	2%	0%	0%	1%	1%
22	1462	Field Data Acquisition System (FDAS)	21%	0%	0%	0%	0%	79%
23	1463	Operations Systems Services	50%	3%	6%	1%	6%	33%
24	1466	Enterprise Applications	48%	7%	1%	1%	3%	39%
25	1467	Settlement Systems Services	27%	11%	2%	2%	5%	52%
26	1468	Corporate Application Support and Administration	44%	21%	4%	4%	10%	17%
27	1469	Analytical and Reporting Applications	10%	0%	0%	65%	25%	0%
28	1471	IT Planning	25%	0%	18%	3%	8%	47%
29	1481	Markets and Scheduling System	47%	3%	24%	3%	18%	6%
30	1482	Market Systems Support Services	45%	1%	19%	6%	24%	6%
31	1511	VP Grid Operations	67%	33%	0%	0%	0%	0%
32	1521	Grid Planning	63%	38%	0%	0%	0%	0%
33	1542	Outage Coordination	95%	5%	0%	0%	0%	0%
34	1543	Loads and Resources	49%	51%	0%	0%	0%	0%

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	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does CONG 2003 =0	Is CONG 2003 < CONG 2004	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
5	1111	63%	11%	26%	no	no	58%	26.9%	13.2%	2.3%	41.6%	6.4%	9.6%
6	1241	32%	33%	35%	no	no	67%	5.2%	0.0%	10.4%	33.1%	21.3%	30.0%
7	1311	61%	11%	28%	no	no	60%	27.8%	13.6%	2.3%	39.6%	6.5%	10.3%
8	1321	47%	8%	45%	no	no	41%	18.8%	9.2%	1.6%	59.2%	4.5%	6.7%
9	1331	60%	10%	30%	no	no	55%	25.5%	12.5%	2.2%	44.7%	6.1%	9.1%
10	1351	64%	11%	25%	no	no	64%	29.3%	14.3%	2.3%	36.0%	6.8%	11.2%
11	1361	64%	11%	25%	no	no	64%	29.3%	14.3%	2.3%	36.0%	6.8%	11.2%
12	1411	62%	9%	29%	no	no	45%	17.9%	3.4%	4.6%	55.4%	4.3%	14.4%
13	1422	62%	10%	28%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
14	1424	67%	7%	26%	no	no	29%	10.7%	1.9%	3.3%	71.1%	3.2%	9.8%
15	1431	63%	10%	27%	no	no	66%	26.0%	9.9%	5.7%	33.7%	6.4%	18.3%
16	1432	61%	10%	29%	no	no	69%	24.4%	6.6%	8.4%	30.8%	6.2%	23.6%
17	1433	63%	10%	27%	no	no	75%	33.4%	9.1%	7.2%	25.1%	7.1%	18.1%
18	1441	60%	11%	29%	no	no	76%	33.1%	8.3%	8.0%	23.7%	7.1%	19.8%
19	1442	56%	9%	35%	no	no	72%	18.5%	0.1%	13.2%	28.3%	5.5%	34.3%
20	1451	63%	10%	27%	no	no	75%	19.3%	0.1%	13.8%	25.2%	5.8%	35.8%
21	1461	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
22	1462	30%	8%	62%	no	no	100%	21.4%	0.0%	0.0%	0.0%	0.0%	78.6%
23	1463	74%	2%	24%	no	no	23%	11.6%	0.7%	1.4%	77.3%	1.4%	7.7%
24	1466	62%	9%	29%	no	no	86%	41.7%	6.3%	1.0%	14.3%	3.0%	33.6%
25	1467	15%	7%	78%	no	no	71%	19.7%	8.1%	1.3%	29.3%	3.8%	37.7%
26	1468	61%	10%	29%	no	no	61%	27.8%	13.6%	2.2%	39.3%	6.4%	10.6%
27	1469	63%	10%	27%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
28	1471	63%	10%	27%	no	no	75%	19.3%	0.1%	13.8%	25.2%	5.8%	35.8%
29	1481	56%	9%	35%	no	no	73%	35.1%	2.1%	17.7%	27.0%	13.2%	4.9%
30	1482	56%	9%	35%	no	no	33%	16.0%	0.4%	6.6%	66.7%	8.4%	2.0%
31	1511	66%	18%	15%	no	no	100%	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%
32	1521	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
33	1542	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
34	1543	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
5	1111	$ 897,241	$ 241,750	$ 118,174	$ 20,744	$ 373,307	$ 57,401	$ 85,864	$ 897,241
6	1241	$ 1,284,788	$ 67,138	$ -	$ 133,837	$ 424,723	$ 273,926	$ 385,164	$ 1,284,788
7	1311	$ 332,272	$ 92,350	$ 45,062	$ 7,599	$ 131,430	$ 21,617	$ 34,214	$ 332,272
8	1321	$ 2,931,098	$ 551,772	$ 269,722	$ 47,346	$ 1,735,270	$ 131,012	$ 195,977	$ 2,931,098
9	1331	$ 3,471,773	$ 885,094	$ 432,659	$ 75,947	$ 1,553,551	$ 210,156	$ 314,365	$ 3,471,773
10	1351	$ 6,136,300	$ 1,800,215	$ 877,247	$ 143,513	$ 2,211,382	$ 416,975	$ 686,968	$ 6,136,300
11	1361	$ 2,660,758	$ 780,590	$ 380,383	$ 62,229	$ 958,877	$ 180,804	$ 297,876	$ 2,660,758
12	1411	$ (319,362)	$ (57,220)	$ (10,712)	$ (14,570)	$ (176,906)	$ (13,806)	$ (46,148)	$ (319,362)
13	1422	$ 272,402	$ -	$ -	$ -	$ 272,402	$ -	$ -	$ 272,402
14	1424	$ 20,455,331	$ 2,195,129	$ 380,664	$ 678,235	$ 14,540,159	$ 653,069	$ 2,008,074	$ 20,455,331
15	1431	$ 6,662,499	$ 1,731,678	$ 661,637	$ 379,550	$ 2,241,986	$ 426,896	$ 1,220,753	$ 6,662,499
16	1432	$ 982,255	$ 239,547	$ 64,600	$ 82,477	$ 302,436	$ 60,951	$ 232,244	$ 982,255
17	1433	$ 1,621,981	$ 541,079	$ 148,192	$ 117,120	$ 407,115	$ 115,178	$ 293,297	$ 1,621,981
18	1441	$ 10,669,871	$ 3,529,510	$ 887,124	$ 855,988	$ 2,527,025	$ 758,082	$ 2,112,142	$ 10,669,871
19	1442	$ 2,642,634	$ 488,134	$ 3,378	$ 349,703	$ 748,295	$ 146,261	$ 906,863	$ 2,642,634
20	1451	$ 1,696,047	$ 326,779	$ 2,261	$ 234,107	$ 427,888	$ 97,914	$ 607,097	$ 1,696,047
21	1461	$ 2,385,558	$ -	$ -	$ -	$ -	$ -	$ -	$ -
22	1462	$ 2,547,393	$ 545,870	$ -	$ -	$ -	$ -	$ 2,001,523	$ 2,547,393
23	1463	$ 347,495	$ 40,258	$ 2,319	$ 4,794	$ 268,643	$ 4,745	$ 26,735	$ 347,495
24	1466	$ 1,609,967	$ 671,148	$ 102,117	$ 16,706	$ 229,898	$ 48,539	$ 541,559	$ 1,609,967
25	1467	$ 1,170,354	$ 230,951	$ 94,644	$ 15,483	$ 342,865	$ 44,986	$ 441,425	$ 1,170,354
26	1468	$ 609,686	$ 169,633	$ 82,662	$ 13,523	$ 239,843	$ 39,291	$ 64,733	$ 609,686
27	1469	$ 1,298,406	$ -	$ -	$ -	$ 1,298,406	$ -	$ -	$ 1,298,406
28	1471	$ 950,115	$ 183,060	$ 1,267	$ 131,146	$ 239,700	$ 54,851	$ 340,092	$ 950,115
29	1481	$ 1,516,144	$ 531,792	$ 32,460	$ 268,806	$ 409,316	$ 200,210	$ 73,559	$ 1,516,144
30	1482	$ 616,978	$ 98,489	$ 2,312	$ 40,569	$ 411,360	$ 52,107	$ 12,143	$ 616,978
31	1511	$ (154,783)	$ (103,249)	$ (51,534)	$ -	$ -	$ -	$ -	$ (154,783)
32	1521	$ 2,497,543	$ -	$ -	$ -	$ -	$ -	$ -	$ -
33	1542	$ 1,910,211	$ -	$ -	$ -	$ -	$ -	$ -	$ -
34	1543	$ 1,185,612	$ -	$ -	$ -	$ -	$ -	$ -	$ -

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
35	1544	Real-Time Scheduling	60%	40%	0%	0%	0%	0%
36	1545	Grid Operations	67%	33%	0%	0%	0%	0%
37	1546	Security Coordination	100%	0%	0%	0%	0%	0%
38	1547	Engineering and Maintenance	46%	54%	0%	0%	0%	0%
39	1548	OSAT Group - General	93%	7%	0%	0%	0%	0%
40	1549	Operations Training	50%	50%	0%	0%	0%	0%
41	1554	Special Projects Engineering	43%	57%	0%	0%	0%	0%
42	1555	Operations Support Group	56%	44%	0%	0%	0%	0%
43	1558	Transmission Maintenance	58%	42%	0%	0%	0%	0%
44	1559	Operations Application Support	60%	40%	0%	0%	0%	0%
45	1561	Operations Engineering South	65%	35%	0%	0%	0%	0%
46	1562	Operations Engineering North	55%	45%	0%	0%	0%	0%
47	1563	Operations Coordination	75%	25%	0%	0%	0%	0%
48	1564	Operations Scheduling	100%	0%	0%	0%	0%	0%
49	1565	Pre-Scheduling and Support	77%	23%	0%	0%	0%	0%
50	1566	Regional Coordination - General	100%	0%	0%	0%	0%	0%
51	1611	VP General Counsel - General	36%	22%	4%	7%	17%	15%
52	1631	Legal and Regulatory	44%	22%	4%	5%	10%	16%
53	1641	Market Analysis	15%	26%	0%	20%	31%	7%
54	1642	Market Surveillance Committee	25%	25%	0%	25%	25%	0%
55	1651	Board of Governors	44%	22%	4%	5%	10%	16%
56	1661	Compliance - General	22%	20%	12%	0%	29%	17%
57	1662	Compliance - Audits	8%	0%	0%	0%	50%	42%
58	1711	VP Market Services - General	17%	2%	9%	9%	20%	41%
59	1721	Billing and Settlements-General	25%	0%	0%	0%	0%	75%
60	1722	Business Development Support	0%	0%	0%	0%	0%	100%
61	1723	RMR Settlements	80%	20%	0%	0%	0%	0%
62	1724	BBS - PSS	0%	0%	0%	0%	0%	100%
63	1725	BBS - FSS	0%	0%	0%	0%	0%	100%
64	1731	Contracts and Special Projects	43%	7%	0%	0%	0%	50%

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does CONG 2003 =0	Is CONG 2003 < CONG 2004	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
35	1544	75%	15%	10%	no	no	100%	60.0%	40.0%	0.0%	0.0%	0.0%	0.0%
36	1545	80%	10%	10%	no	no	100%	67.5%	32.5%	0.0%	0.0%	0.0%	0.0%
37	1546	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
38	1547	99%	0%	1%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
39	1548	77%	6%	17%	no	no	100%	93.2%	6.8%	0.0%	0.0%	0.0%	0.0%
40	1549	62%	24%	14%	no	no	100%	50.5%	49.5%	0.0%	0.0%	0.0%	0.0%
41	1554	84%	0%	16%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
42	1555	61%	21%	18%	no	no	100%	55.6%	44.4%	0.0%	0.0%	0.0%	0.0%
43	1558	98%	0%	2%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
44	1559	79%	10%	11%	no	no	100%	60.0%	40.0%	0.0%	0.0%	0.0%	0.0%
45	1561	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
46	1562	100%	0%	0%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
47	1563	60%	10%	30%	no	no	100%	74.6%	25.4%	0.0%	0.0%	0.0%	0.0%
48	1564	82%	11%	8%	no	no	100%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
49	1565	74%	15%	11%	no	no	100%	76.9%	23.1%	0.0%	0.0%	0.0%	0.0%
50	1566	83%	0%	17%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
51	1611	57%	11%	32%	no	no	35%	13.7%	8.3%	1.4%	64.5%	6.5%	5.6%
52	1631	62%	10%	28%	no	no	54%	25.0%	12.2%	2.1%	45.8%	5.9%	8.9%
53	1641	23%	19%	58%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
54	1642	9%	25%	66%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
55	1651	63%	11%	26%	no	no	58%	26.9%	13.2%	2.3%	41.6%	6.4%	9.6%
56	1661	82%	5%	13%	no	no	100%	21.9%	20.4%	11.9%	0.0%	28.5%	17.3%
57	1662	84%	5%	12%	no	no	100%	8.3%	0.0%	0.0%	0.0%	50.0%	41.7%
58	1711	37%	18%	45%	no	no	48%	9.0%	1.3%	5.0%	52.4%	10.7%	21.7%
59	1721	34%	6%	60%	no	no	100%	25.0%	0.0%	0.0%	0.0%	0.0%	75.0%
60	1722	19%	7%	74%	no	no	100%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
61	1723	90%	0%	10%	yes	NA	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
62	1724	17%	8%	75%	no	no	100%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
63	1725	16%	7%	77%	no	no	100%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
64	1731	77%	2%	21%	no	no	100%	43.2%	6.8%	0.0%	0.0%	0.0%	50.0%

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
35	1544	$ 2,786,442	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -	$ 2,786,442
36	1545	$ 7,545,786	$ 5,090,879	$ 2,454,908	$ -	$ -	$ -	$ -	$ 7,545,786
37	1546	$ 1,368,574	$ -	$ -	$ -	$ -	$ -	$ -	$ -
38	1547	$ 576,104	$ -	$ -	$ -	$ -	$ -	$ -	$ -
39	1548	$ 293,953	$ 273,953	$ 20,000	$ -	$ -	$ -	$ -	$ 293,953
40	1549	$ 2,882,700	$ 1,455,116	$ 1,427,583	$ -	$ -	$ -	$ -	$ 2,882,700
41	1554	$ 853,958	$ -	$ -	$ -	$ 853,958	$ -	$ -	$ 853,958
42	1555	$ 1,111,667	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -	$ 1,111,667
43	1558	$ 1,623,755	$ -	$ -	$ -	$ -	$ -	$ -	$ -
44	1559	$ 584,623	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -	$ 584,623
45	1561	$ 1,241,824	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	1562	$ 1,355,194	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1563	$ 704,967	$ 525,574	$ 179,393	$ -	$ -	$ -	$ -	$ 704,967
48	1564	$ 295,029	$ 295,029	$ -	$ -	$ -	$ -	$ -	$ 295,029
49	1565	$ 1,834,525	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -	$ 1,834,525
50	1566	$ 547,417	$ -	$ -	$ -	$ -	$ -	$ -	$ -
51	1611	$ 285,317	$ 39,051	$ 23,763	$ 4,065	$ 184,058	$ 18,517	$ 15,862	$ 285,317
52	1631	$ 12,216,636	$ 3,053,116	$ 1,492,450	$ 261,978	$ 5,599,766	$ 724,929	$ 1,084,397	$ 12,216,636
53	1641	$ 2,948,963	$ -	$ -	$ -	$ 2,948,963	$ -	$ -	$ 2,948,963
54	1642	$ 561,750	$ -	$ -	$ -	$ 561,750	$ -	$ -	$ 561,750
55	1651	$ 231,400	$ 62,348	$ 30,477	$ 5,350	$ 96,277	$ 14,804	$ 22,145	$ 231,400
56	1661	$ 1,722,093	$ 377,122	$ 350,720	$ 204,913	$ -	$ 490,823	$ 298,514	$ 1,722,093
57	1662	$ 434,112	$ 36,176	$ -	$ -	$ -	$ 217,056	$ 180,880	$ 434,112
58	1711	$ (69,788)	$ (6,286)	$ (890)	$ (3,469)	$ (36,562)	$ (7,462)	$ (15,120)	$ (69,788)
59	1721	$ 450,755	$ 112,689	$ -	$ -	$ -	$ -	$ 338,066	$ 450,755
60	1722	$ 700,651	$ -	$ -	$ -	$ -	$ -	$ 700,651	$ 700,651
61	1723	$ 992,025	$ -	$ -	$ -	$ -	$ -	$ -	$ -
62	1724	$ 1,280,172	$ -	$ -	$ -	$ -	$ -	$ 1,280,172	$ 1,280,172
63	1725	$ 1,283,046	$ -	$ -	$ -	$ -	$ -	$ 1,283,046	$ 1,283,046
64	1731	$ 1,525,676	$ 658,584	$ 104,254	$ -	$ -	$ -	$ 762,838	$ 1,525,676

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
65	1741	Client Relations	0%	0%	0%	0%	0%	100%
66	1751	Market Operations - General	31%	0%	15%	15%	35%	4%
67	1752	Manager of Markets	27%	5%	27%	22%	18%	0%
68	1753	Market Engineering	21%	0%	0%	28%	43%	7%
69	1755	Business Solutions	6%	0%	47%	12%	29%	6%
70	1756	Market Quality - General	0%	0%	0%	0%	71%	29%
71	1757	Market Integration	7%	0%	30%	30%	26%	7%
72	1811	VP Corporate and Strategic Development - General	44%	21%	4%	4%	10%	16%
73	1821	Communications	44%	22%	4%	5%	10%	16%
74	1831	Strategic Development	44%	22%	4%	5%	10%	16%
75	1841	Human Resources	44%	21%	4%	4%	10%	17%
76	1851	Project Office	44%	22%	4%	5%	10%	16%
77	1861	Regulatory Policy	44%	22%	4%	5%	10%	16%
78	2111	Other	0%	0%	0%	0%	0%	0%
79								

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does CONG 2003 =0	Is CONG 2003 < CONG 2004	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
65	1741	38%	9%	53%	no	no	100%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
66	1751	20%	30%	50%	no	no	49%	17.7%	0.0%	8.9%	51.1%	20.1%	2.2%
67	1752	29%	30%	41%	no	no	27%	9.5%	1.9%	9.5%	72.8%	6.3%	0.0%
68	1753	32%	28%	40%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
69	1755	25%	10%	64%	no	yes	0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
70	1756	37%	33%	30%	no	no	100%	0.0%	0.0%	0.0%	0.0%	70.9%	29.1%
71	1757	25%	30%	45%	no	no	2%	0.2%	0.0%	0.7%	98.4%	0.6%	0.2%
72	1811	63%	11%	26%	no	no	60%	27.7%	13.5%	2.3%	39.8%	6.5%	10.3%
73	1821	64%	11%	25%	no	no	58%	26.6%	13.0%	2.3%	42.3%	6.3%	9.5%
74	1831	64%	11%	25%	no	no	58%	26.6%	13.0%	2.3%	42.3%	6.3%	9.5%
75	1841	63%	11%	26%	no	no	65%	29.6%	14.4%	2.4%	35.5%	6.9%	11.3%
76	1851	63%	10%	27%	no	no	55%	25.5%	12.5%	2.2%	44.7%	6.1%	9.1%
77	1861	63%	10%	27%	no	no	55%	25.5%	12.5%	2.2%	44.7%	6.1%	9.1%
78	2111	0%	0%	0%									
79													

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
65	1741	$ 2,366,671	$ -	$ -	$ -	$ -	$ -	$ 2,366,671	$ 2,366,671
66	1751	$ 979,523	$ 173,447	$ -	$ 86,723	$ 500,534	$ 197,138	$ 21,681	$ 979,523
67	1752	$ 2,773,203	$ 263,387	$ 52,677	$ 263,387	$ 2,019,336	$ 174,415	$ -	$ 2,773,203
68	1753	$ 1,955,609	$ -	$ -	$ -	$ 1,955,609	$ -	$ -	$ 1,955,609
69	1755	$ 1,175,260	$ -	$ -	$ -	$ 1,175,260	$ -	$ -	$ 1,175,260
70	1756	$ 2,102,495	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223	$ 2,102,495
71	1757	$ 998,732	$ 1,673	$ -	$ 6,693	$ 982,752	$ 5,941	$ 1,673	$ 998,732
72	1811	$ 467,576	$ 129,371	$ 63,124	$ 10,637	$ 186,206	$ 30,275	$ 47,963	$ 467,576
73	1821	$ 847,176	$ 225,601	$ 110,280	$ 19,358	$ 358,242	$ 53,566	$ 80,128	$ 847,176
74	1831	$ 737,340	$ 196,352	$ 95,982	$ 16,848	$ 311,796	$ 46,622	$ 69,740	$ 737,340
75	1841	$ 4,624,949	$ 1,369,130	$ 667,179	$ 109,147	$ 1,639,905	$ 317,125	$ 522,464	$ 4,624,949
76	1851	$ 696,828	$ 177,911	$ 86,968	$ 15,266	$ 311,250	$ 42,243	$ 63,190	$ 696,828
77	1861	$ 951,804	$ 243,011	$ 118,790	$ 20,852	$ 425,139	$ 57,700	$ 86,312	$ 951,804
78	2111	$ 151,735,058	$ 34,586,135	$ 14,070,150	$ 4,686,600	$ 52,193,209	$ 7,856,131	$ 22,659,013	$ 136,051,239
79			25%	10%	3%	38%	6%	17%	100%

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
5	1111	CEO - General	44%	22%	4%	5%	10%	16%
6	1241	MD02	7%	0%	14%	11%	28%	40%
7	1311	CFO - General	44%	21%	4%	4%	10%	16%
8	1321	Accounting	44%	22%	4%	5%	10%	16%
9	1331	Financial Planning and Treasury	44%	22%	4%	5%	10%	16%
10	1351	Facilities	44%	21%	4%	4%	10%	17%
11	1361	Security & Corporate Services	44%	21%	4%	4%	10%	17%
12	1411	Chief Information Officer	38%	7%	10%	5%	9%	31%
13	1422	Corporate & Enterprise Applications	33%	7%	1%	25%	13%	21%
14	1424	Asset Management	35%	6%	11%	5%	11%	32%
15	1431	End User Support	38%	14%	8%	3%	9%	27%
16	1432	Computer Operations and Infrastructure	34%	9%	12%	3%	9%	33%
17	1433	Network Services	43%	12%	9%	3%	9%	24%
18	1441	Outsourced Contracts	42%	11%	10%	3%	9%	25%
19	1442	Production Support	25%	0%	18%	3%	8%	47%
20	1451	Infrastructure Services	25%	0%	18%	3%	8%	47%
21	1461	Control Systems	96%	2%	0%	0%	1%	1%
22	1462	Field Data Acquisition System (FDAS)	21%	0%	0%	0%	0%	79%
23	1463	Operations Systems Services	50%	3%	6%	1%	6%	33%
24	1466	Enterprise Applications	48%	7%	1%	1%	3%	39%
25	1467	Settlement Systems Services	27%	11%	2%	2%	5%	52%
26	1468	Corporate Application Support and Administration	44%	21%	4%	4%	10%	17%
27	1469	Analytical and Reporting Applications	10%	0%	0%	65%	25%	0%
28	1471	IT Planning	25%	0%	18%	3%	8%	47%
29	1481	Markets and Scheduling System	47%	3%	24%	3%	18%	6%
30	1482	Market Systems Support Services	45%	1%	19%	6%	24%	6%

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does ASREO=0	Is ASREO < FS+MU+SMCR	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
5	1111	63%	11%	26%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
6	1241	32%	33%	35%	no	yes	0%	0.0%	0.0%	16.9%	0.0%	34.5%	48.6%
7	1311	61%	11%	28%	no	yes	0%	0.0%	0.0%	12.0%	0.0%	34.1%	53.9%
8	1321	47%	8%	45%	no	no	33%	21.0%	10.2%	8.4%	2.2%	23.3%	34.9%
9	1331	60%	10%	30%	no	no	0%	0.1%	0.0%	12.6%	0.0%	34.9%	52.3%
10	1351	64%	11%	25%	no	yes	0%	0.0%	0.0%	11.5%	0.0%	33.4%	55.1%
11	1361	64%	11%	25%	no	yes	0%	0.0%	0.0%	11.5%	0.0%	33.4%	55.1%
12	1411	62%	9%	29%	no	yes	0%	0.0%	0.0%	19.6%	0.0%	18.5%	61.9%
13	1422	62%	10%	28%	no	yes	0%	0.0%	0.0%	3.4%	0.0%	36.6%	60.0%
14	1424	67%	7%	26%	no	yes	0%	0.0%	0.0%	20.3%	0.0%	19.6%	60.1%
15	1431	63%	10%	27%	no	yes	0%	0.0%	0.0%	18.7%	0.0%	21.1%	60.2%
16	1432	61%	10%	29%	no	yes	0%	0.0%	0.0%	22.0%	0.0%	16.2%	61.8%
17	1433	63%	10%	27%	no	yes	0%	0.0%	0.0%	22.3%	0.0%	21.9%	55.8%
18	1441	60%	11%	29%	no	yes	0%	0.0%	0.0%	23.0%	0.0%	20.3%	56.7%
19	1442	56%	9%	35%	no	yes	0%	0.0%	0.0%	24.9%	0.0%	10.4%	64.6%
20	1451	63%	10%	27%	no	yes	0%	0.0%	0.0%	24.9%	0.0%	10.4%	64.6%
21	1461	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%
22	1462	30%	8%	62%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
23	1463	74%	2%	24%	no	yes	0%	0.0%	0.0%	13.2%	0.0%	13.1%	73.7%
24	1466	62%	9%	29%	no	yes	0%	0.0%	0.0%	2.8%	0.0%	8.0%	89.2%
25	1467	15%	7%	78%	no	no	24%	16.1%	6.6%	2.3%	1.2%	6.8%	67.0%
26	1468	61%	10%	29%	no	yes	0%	0.0%	0.0%	11.5%	0.0%	33.4%	55.1%
27	1469	63%	10%	27%	no	no	6%	0.8%	0.0%	0.0%	5.0%	94.2%	0.0%
28	1471	63%	10%	27%	no	yes	0%	0.0%	0.0%	24.9%	0.0%	10.4%	64.6%
29	1481	56%	9%	35%	no	yes	0%	0.0%	0.0%	49.5%	0.0%	36.9%	13.6%
30	1482	56%	9%	35%	no	yes	0%	0.0%	0.0%	38.7%	0.0%	49.7%	11.6%

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
5	1111	$ 897,241	$ -	$ -	$ 113,483	$ -	$ 314,022	$ 469,735	$ 897,241
6	1241	$ 1,284,788	$ -	$ -	$ 216,857	$ -	$ 443,846	$ 624,086	$ 1,284,788
7	1311	$ 332,272	$ -	$ -	$ 39,806	$ -	$ 113,238	$ 179,228	$ 332,272
8	1321	$ 2,931,098	$ 614,407	$ 300,339	$ 246,885	$ 64,383	$ 683,164	$ 1,021,921	$ 2,931,098
9	1331	$ 3,471,773	$ 3,514	$ 1,718	$ 438,401	$ 368	$ 1,213,115	$ 1,814,657	$ 3,471,773
10	1351	$ 6,136,300	$ -	$ -	$ 705,947	$ -	$ 2,051,123	$ 3,379,230	$ 6,136,300
11	1361	$ 2,660,758	$ -	$ -	$ 306,105	$ -	$ 889,386	$ 1,465,267	$ 2,660,758
12	1411	$ (319,362)	$ -	$ -	$ (62,440)	$ -	$ (59,163)	$ (197,760)	$ (319,362)
13	1422	$ 272,402	$ -	$ -	$ 9,156	$ -	$ 99,729	$ 163,517	$ 272,402
14	1424	$ 20,455,331	$ -	$ -	$ 4,154,522	$ -	$ 4,000,370	$ 12,300,439	$ 20,455,331
15	1431	$ 6,662,499	$ -	$ -	$ 1,247,410	$ -	$ 1,403,018	$ 4,012,070	$ 6,662,499
16	1432	$ 982,255	$ -	$ -	$ 215,650	$ -	$ 159,366	$ 607,239	$ 982,255
17	1433	$ 1,621,981	$ -	$ -	$ 361,430	$ -	$ 355,439	$ 905,111	$ 1,621,981
18	1441	$ 10,669,871	$ -	$ -	$ 2,451,089	$ -	$ 2,170,741	$ 6,048,041	$ 10,669,871
19	1442	$ 2,642,634	$ -	$ -	$ 658,767	$ -	$ 275,526	$ 1,708,341	$ 2,642,634
20	1451	$ 1,696,047	$ -	$ -	$ 422,798	$ -	$ 176,833	$ 1,096,416	$ 1,696,047
21	1461	$ 2,385,558	$ -	$ -	$ -	$ -	$ -	$ -	$ -
22	1462	$ 2,547,393	$ -	$ -	$ -	$ -	$ -	$ 2,547,393	$ 2,547,393
23	1463	$ 347,495	$ -	$ -	$ 45,924	$ -	$ 45,459	$ 256,112	$ 347,495
24	1466	$ 1,609,967	$ -	$ -	$ 44,324	$ -	$ 128,782	$ 1,436,861	$ 1,609,967
25	1467	$ 1,170,354	$ 187,869	$ 76,989	$ 27,499	$ 14,093	$ 79,899	$ 784,005	$ 1,170,354
26	1468	$ 609,686	$ -	$ -	$ 70,141	$ -	$ 203,794	$ 335,751	$ 609,686
27	1469	$ 1,298,406	$ 10,013	$ -	$ -	$ 65,086	$ 1,223,306	$ -	$ 1,298,406
28	1471	$ 950,115	$ -	$ -	$ 236,849	$ -	$ 99,061	$ 614,206	$ 950,115
29	1481	$ 1,516,144	$ -	$ -	$ 751,139	$ -	$ 559,456	$ 205,548	$ 1,516,144
30	1482	$ 616,978	$ -	$ -	$ 238,794	$ -	$ 306,709	$ 71,474	$ 616,978

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
31	1511	VP Grid Operations	67%	33%	0%	0%	0%	0%
32	1521	Grid Planning	63%	38%	0%	0%	0%	0%
33	1542	Outage Coordination	95%	5%	0%	0%	0%	0%
34	1543	Loads and Resources	49%	51%	0%	0%	0%	0%
35	1544	Real-Time Scheduling	60%	40%	0%	0%	0%	0%
36	1545	Grid Operations	67%	33%	0%	0%	0%	0%
37	1546	Security Coordination	100%	0%	0%	0%	0%	0%
38	1547	Engineering and Maintenance	46%	54%	0%	0%	0%	0%
39	1548	OSAT Group - General	93%	7%	0%	0%	0%	0%
40	1549	Operations Training	50%	50%	0%	0%	0%	0%
41	1554	Special Projects Engineering	43%	57%	0%	0%	0%	0%
42	1555	Operations Support Group	56%	44%	0%	0%	0%	0%
43	1558	Transmission Maintenance	58%	42%	0%	0%	0%	0%
44	1559	Operations Application Support	60%	40%	0%	0%	0%	0%
45	1561	Operations Engineering South	65%	35%	0%	0%	0%	0%
46	1562	Operations Engineering North	55%	45%	0%	0%	0%	0%
47	1563	Operations Coordination	75%	25%	0%	0%	0%	0%
48	1564	Operations Scheduling	100%	0%	0%	0%	0%	0%
49	1565	Pre-Scheduling and Support	77%	23%	0%	0%	0%	0%
50	1566	Regional Coordination - General	100%	0%	0%	0%	0%	0%
51	1611	VP General Counsel - General	36%	22%	4%	7%	17%	15%
52	1631	Legal and Regulatory	44%	22%	4%	5%	10%	16%
53	1641	Market Analysis	15%	26%	0%	20%	31%	7%
54	1642	Market Surveillance Committee	25%	25%	0%	25%	25%	0%
55	1651	Board of Governors	44%	22%	4%	5%	10%	16%
56	1661	Compliance - General	22%	20%	12%	0%	29%	17%
57	1662	Compliance - Audits	8%	0%	0%	0%	50%	42%

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does ASREO=0	Is ASREO < FS+MU+SMCR	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
31	1511	66%	18%	15%	no	no	100%	66.7%	33.3%	0.0%	0.0%	0.0%	0.0%
32	1521	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
33	1542	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
34	1543	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
35	1544	75%	15%	10%	no	no	100%	60.0%	40.0%	0.0%	0.0%	0.0%	0.0%
36	1545	80%	10%	10%	no	no	100%	67.5%	32.5%	0.0%	0.0%	0.0%	0.0%
37	1546	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
38	1547	99%	0%	1%	no	no	100%	46.4%	53.6%	0.0%	0.0%	0.0%	0.0%
39	1548	77%	6%	17%	no	no	100%	93.2%	6.8%	0.0%	0.0%	0.0%	0.0%
40	1549	62%	24%	14%	no	no	100%	50.5%	49.5%	0.0%	0.0%	0.0%	0.0%
41	1554	84%	0%	16%	no	no	100%	42.9%	57.1%	0.0%	0.0%	0.0%	0.0%
42	1555	61%	21%	18%	no	no	100%	55.6%	44.4%	0.0%	0.0%	0.0%	0.0%
43	1558	98%	0%	2%	no	no	100%	58.5%	41.5%	0.0%	0.0%	0.0%	0.0%
44	1559	79%	10%	11%	no	no	100%	60.0%	40.0%	0.0%	0.0%	0.0%	0.0%
45	1561	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
46	1562	100%	0%	0%	yes	na	0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
47	1563	60%	10%	30%	no	no	100%	74.6%	25.4%	0.0%	0.0%	0.0%	0.0%
48	1564	82%	11%	8%	no	no	100%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
49	1565	74%	15%	11%	no	no	100%	76.9%	23.1%	0.0%	0.0%	0.0%	0.0%
50	1566	83%	0%	17%	no	no	100%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
51	1611	57%	11%	32%	no	yes	0%	0.0%	0.0%	10.6%	0.0%	48.2%	41.3%
52	1631	62%	10%	28%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
53	1641	23%	19%	58%	no	no	34%	8.4%	14.5%	0.0%	10.9%	54.0%	12.2%
54	1642	9%	25%	66%	no	no	62%	20.7%	20.7%	0.0%	20.7%	38.0%	0.0%
55	1651	63%	11%	26%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
56	1661	82%	5%	13%	no	yes	0%	0.0%	0.0%	20.6%	0.0%	49.4%	30.0%
57	1662	84%	5%	12%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	54.5%	45.5%

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
31	1511	$ (154,783)	$ (103,249)	$ (51,534)	$ -	$ -	$ -	$ -	$ (154,783)
32	1521	$ 2,497,543	$ -	$ -	$ -	$ -	$ -	$ -	$ -
33	1542	$ 1,910,211	$ -	$ -	$ -	$ -	$ -	$ -	$ -
34	1543	$ 1,185,612	$ -	$ -	$ -	$ -	$ -	$ -	$ -
35	1544	$ 2,786,442	$ 1,671,865	$ 1,114,577	$ -	$ -	$ -	$ -	$ 2,786,442
36	1545	$ 7,545,786	$ 5,090,879	$ 2,454,908	$ -	$ -	$ -	$ -	$ 7,545,786
37	1546	$ 1,368,574	$ -	$ -	$ -	$ -	$ -	$ -	$ -
38	1547	$ 576,104	$ 267,403	$ 308,701	$ -	$ -	$ -	$ -	$ 576,104
39	1548	$ 293,953	$ 273,953	$ 20,000	$ -	$ -	$ -	$ -	$ 293,953
40	1549	$ 2,882,700	$ 1,455,116	$ 1,427,583	$ -	$ -	$ -	$ -	$ 2,882,700
41	1554	$ 853,958	$ 366,029	$ 487,929	$ -	$ -	$ -	$ -	$ 853,958
42	1555	$ 1,111,667	$ 617,593	$ 494,074	$ -	$ -	$ -	$ -	$ 1,111,667
43	1558	$ 1,623,755	$ 949,170	$ 674,585	$ -	$ -	$ -	$ -	$ 1,623,755
44	1559	$ 584,623	$ 350,774	$ 233,849	$ -	$ -	$ -	$ -	$ 584,623
45	1561	$ 1,241,824	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	1562	$ 1,355,194	$ -	$ -	$ -	$ -	$ -	$ -	$ -
47	1563	$ 704,967	$ 525,574	$ 179,393	$ -	$ -	$ -	$ -	$ 704,967
48	1564	$ 295,029	$ 295,029	$ -	$ -	$ -	$ -	$ -	$ 295,029
49	1565	$ 1,834,525	$ 1,411,173	$ 423,352	$ -	$ -	$ -	$ -	$ 1,834,525
50	1566	$ 547,417	$ 547,417	$ -	$ -	$ -	$ -	$ -	$ 547,417
51	1611	$ 285,317	$ -	$ -	$ 30,171	$ -	$ 137,425	$ 117,721	$ 285,317
52	1631	$ 12,216,636	$ -	$ -	$ 1,545,158	$ -	$ 4,275,662	$ 6,395,816	$ 12,216,636
53	1641	$ 2,948,963	$ 248,558	$ 427,183	$ -	$ 322,790	$ 1,591,799	$ 358,633	$ 2,948,963
54	1642	$ 561,750	$ 116,085	$ 116,085	$ -	$ 116,085	$ 213,495	$ -	$ 561,750
55	1651	$ 231,400	$ -	$ -	$ 29,267	$ -	$ 80,987	$ 121,146	$ 231,400
56	1661	$ 1,722,093	$ -	$ -	$ 354,920	$ -	$ 850,131	$ 517,042	$ 1,722,093
57	1662	$ 434,112	$ -	$ -	$ -	$ -	$ 236,789	$ 197,324	$ 434,112

	A	B	C	D	E	F	G	H
1		**California Independent System Operator 2004 GMC Cost Allocation Draft and Preliminary Subject to both review and approval**						
2		**Percentage of Total Cost by Cost Center**						
3			**2004 Cost Allocations/Assignments**					
4	**CC #**	**Cost Center**	**Core Reliability**	**Energy & Transmission**	**Forward Scheduling**	**Congestion Management**	**Market Usage**	**Settlements, Metering and Client Relations**
58	1711	VP Market Services - General	17%	2%	9%	9%	20%	41%
59	1721	Billing and Settlements-General	25%	0%	0%	0%	0%	75%
60	1722	Business Development Support	0%	0%	0%	0%	0%	100%
61	1723	RMR Settlements	80%	20%	0%	0%	0%	0%
62	1724	BBS - PSS	0%	0%	0%	0%	0%	100%
63	1725	BBS - FSS	0%	0%	0%	0%	0%	100%
64	1731	Contracts and Special Projects	43%	7%	0%	0%	0%	50%
65	1741	Client Relations	0%	0%	0%	0%	0%	100%
66	1751	Market Operations - General	31%	0%	15%	15%	35%	4%
67	1752	Manager of Markets	27%	5%	27%	22%	18%	0%
68	1753	Market Engineering	21%	0%	0%	28%	43%	7%
69	1755	Business Solutions	6%	0%	47%	12%	29%	6%
70	1756	Market Quality - General	0%	0%	0%	0%	71%	29%
71	1757	Market Integration	7%	0%	30%	30%	26%	7%
72	1811	VP Corporate and Strategic Development - Genera	44%	21%	4%	4%	10%	16%
73	1821	Communications	44%	22%	4%	5%	10%	16%
74	1831	Strategic Development	44%	22%	4%	5%	10%	16%
75	1841	Human Resources	44%	21%	4%	4%	10%	17%
76	1851	Project Office	44%	22%	4%	5%	10%	16%
77	1861	Regulatory Policy	44%	22%	4%	5%	10%	16%
78	2111	Other	0%	0%	0%	0%	0%	0%
79								

	A	I	J	K	L	M	N	O	P	Q	R	S	T
1													
2													
3		2003 Cost Allocation						Allocators to:					
4	CC #	CAS	CONG	ASREO	Does ASREO=0	Is ASREO < FS+MU+SM CR	% to allocate to other functions	CRS	ETS	FS	CONG	MU	SMCR
58	1711	37%	18%	45%	no	yes	0%	0.0%	0.0%	13.3%	0.0%	28.6%	58.0%
59	1721	34%	6%	60%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
60	1722	19%	7%	74%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
61	1723	90%	0%	10%	no	no	100%	80.3%	19.7%	0.0%	0.0%	0.0%	0.0%
62	1724	17%	8%	75%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
63	1725	16%	7%	77%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
64	1731	77%	2%	21%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
65	1741	38%	9%	53%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
66	1751	20%	30%	50%	no	yes	0%	0.0%	0.0%	28.4%	0.0%	64.5%	7.1%
67	1752	29%	30%	41%	no	yes	0%	0.0%	0.0%	60.2%	0.0%	39.8%	0.0%
68	1753	32%	28%	40%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	85.9%	14.1%
69	1755	25%	10%	64%	no	yes	0%	0.0%	0.0%	57.5%	0.0%	35.4%	7.2%
70	1756	37%	33%	30%	no	yes	0%	0.0%	0.0%	0.0%	0.0%	70.9%	29.1%
71	1757	25%	30%	45%	no	yes	0%	0.0%	0.0%	46.8%	0.0%	41.5%	11.7%
72	1811	63%	11%	26%	no	yes	0%	0.0%	0.0%	12.0%	0.0%	34.1%	54.0%
73	1821	64%	11%	25%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
74	1831	64%	11%	25%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
75	1841	63%	11%	26%	no	yes	0%	0.0%	0.0%	11.5%	0.0%	33.4%	55.1%
76	1851	63%	10%	27%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
77	1861	63%	10%	27%	no	yes	0%	0.0%	0.0%	12.6%	0.0%	35.0%	52.4%
78	2111	0%	0%	0%									
79													

	A	U	V	W	X	Y	Z	AA	AB
1									
2									
3									
4	CC #	Budget	CRS	ETS	FS	CONG	MU	SMCR	Total
58	1711	$ (69,788)	$ -	$ -	$ (9,292)	$ -	$ (19,990)	$ (40,506)	$ (69,788)
59	1721	$ 450,755	$ -	$ -	$ -	$ -	$ -	$ 450,755	$ 450,755
60	1722	$ 700,651	$ -	$ -	$ -	$ -	$ -	$ 700,651	$ 700,651
61	1723	$ 992,025	$ 796,597	$ 195,428	$ -	$ -	$ -	$ -	$ 992,025
62	1724	$ 1,280,172	$ -	$ -	$ -	$ -	$ -	$ 1,280,172	$ 1,280,172
63	1725	$ 1,283,046	$ -	$ -	$ -	$ -	$ -	$ 1,283,046	$ 1,283,046
64	1731	$ 1,525,676	$ -	$ -	$ -	$ -	$ -	$ 1,525,676	$ 1,525,676
65	1741	$ 2,366,671	$ -	$ -	$ -	$ -	$ -	$ 2,366,671	$ 2,366,671
66	1751	$ 979,523	$ -	$ -	$ 278,022	$ -	$ 631,995	$ 69,506	$ 979,523
67	1752	$ 2,773,203	$ -	$ -	$ 1,668,395	$ -	$ 1,104,808	$ -	$ 2,773,203
68	1753	$ 1,955,609	$ -	$ -	$ -	$ -	$ 1,679,066	$ 276,543	$ 1,955,609
69	1755	$ 1,175,260	$ -	$ -	$ 675,240	$ -	$ 415,615	$ 84,405	$ 1,175,260
70	1756	$ 2,102,495	$ -	$ -	$ -	$ -	$ 1,491,272	$ 611,223	$ 2,102,495
71	1757	$ 998,732	$ -	$ -	$ 467,235	$ -	$ 414,689	$ 116,809	$ 998,732
72	1811	$ 467,576	$ -	$ -	$ 55,963	$ -	$ 159,278	$ 252,335	$ 467,576
73	1821	$ 847,176	$ -	$ -	$ 107,151	$ -	$ 296,500	$ 443,525	$ 847,176
74	1831	$ 737,340	$ -	$ -	$ 93,259	$ -	$ 258,059	$ 386,022	$ 737,340
75	1841	$ 4,624,949	$ -	$ -	$ 532,074	$ -	$ 1,545,938	$ 2,546,937	$ 4,624,949
76	1851	$ 696,828	$ -	$ -	$ 88,135	$ -	$ 243,881	$ 364,813	$ 696,828
77	1861	$ 951,804	$ -	$ -	$ 120,384	$ -	$ 333,119	$ 498,301	$ 951,804
78	2111	$ 151,735,058	$ 15,695,769	$ 8,885,160	$ 18,976,620	$ 582,805	$ 32,876,736	$ 62,773,450	$ 139,790,541
79			11%	6%	14%	0%	24%	45%	100%

CALIFORNIA ISO

California Independent
System Operator

Terry M. Winter
President and Chief Executive Officer

Memorandum

To: Officers, Directors, Managers and Budget Coordinators

From: Terry M. Winter

Date: June 30, 2003

Re: ***The 2004 ISO Budgeting Process***

Summer brings with it vacations, hot weather, high energy demands.....and the start of the ISO budget process. The 2004 ISO Budget, once again to be coordinated with development of the ISO 2004 performance goals, will be a key element of communicating the ISO commitment to serve the energy needs of the people of California and the West, as reflected in our updated mission statement. While this commitment to serve is key, we are also committed to continued cost control at the ISO. Further, the ISO budget is not just a financial plan. Rather, it is the basis for establishing the ISO Grid Management Charge for our various services, to be filed with the FERC. We can expect both the FERC and our stakeholders to subject our GMC request to intense review.

Challenge. Change. Connections. This was the theme of our recently released 2002 Annual Report. This report emphasizes our challenge of providing safe and reliable power in an open and non-discriminatory manner. It notes the need to facilitate additional investment in the energy infrastructure, to foster innovation and collaboration, and to do so in an economic manner. This is essential if we are to effectively coordinate and connect with our regional neighbors, for the benefit of the people of California and the West.

With the 2004 budget, we have the opportunity to pay an immediate "dividend" to the people of California. At the start of the new year, we will be initiating a new communications network, one that is not only more technically advanced, but far more cost effective. Indeed, we are projecting annual operating savings of some 15 million dollars compared to the current system, and I believe it is incumbent upon us to pass these savings through to our customers. Since our startup in 1998, the services we have provided to our markets have increased geometrically. To provide these services, however, has necessitated increases in both our annual budget and our staffing levels. We have recognized the need for constraint: from 2001 to 2003 our operations and maintenance (O&M) budget has remained unchanged, and our capital funding requirements have been reduced. Perhaps even more indicative of our fiduciary responsibility, we have actually held our O&M expenditures well below the budgeted level for the past two years. Our performance last year was extraordinary....actual O&M spending was 9% less than the adjusted budget of $171.8 million.

I want to continue our downward spending trend. For the 2004 budget process (as detailed in the attached 2004 Budget Guidelines), I charge each division to review its many ongoing programs, services, projects and processes; establish key priorities; and identify opportunities for further "stakeholder dividends"—enhanced services with no increase in cost, or perhaps more relevant in these times of economic uncertainty, identification of cost savings, perhaps through reduction or elimination of programs, services, projects and processes that have "run the course" or which could be eliminated at minimal impact to our core mission. As the residents of the state and the nation must deal with a slowed economy and ever increasing debt, it is incumbent upon us to reduce costs where possible and appropriate.

Over the past several years, with the ongoing growth of services and demands placed on the ISO, we have looked to the concept of "conversion" of contract employees to ISO employees to "lock-in" operational savings, but last year I felt compelled to limit FTE growth. Accordingly, I challenge us all to seek out opportunities to better serve the people of California, both operationally and economically, within the constraints of our existing overall headcount and financial resources. We must hold our FTE count to 600 or less, take advantage of the realized savings and reduce our costs wherever possible.

To do this, we will use the framework we have used in the past--to accommodate any new spending requirements that some departments will undoubtedly face in 2004, we will all need to identify *potential* cost savings opportunities to fund them. Officers will review all proposed spending plans and proceed with those of highest priority.

You have always risen to every challenge we have faced and performed admirably. I know asking you to rise to this economic challenge will be met with the same success. Thank you for your support as we move through the budget process.

Terry

CALIFORNIA ISO

California Independent System Operator

Memorandum

To: ISO Board of Governors

From: William J. Regan, Jr., Chief Financial Officer
Philip Leiber, Director of Financial Planning and Treasurer

CC: ISO Board Assistants; ISO Officers

Date: September 19, 2003

Re: Discussion of Proposed FY2004 Budget

This memorandum is for information only.

At its October meeting, the Board will be asked to approve the ISO's 2004 Operating & Maintenance and Capital Budgets, and the resulting Grid Management Charges[1] that will be effective in January 2004. This preliminary proposed budget package provides management's current view as to the level and composition of the budgets that will be submitted for approval next month.

We are projecting a recommended O&M budget of $151.7 million, $20 million below the 2003 budget of $171.7 million. The reduction reflects savings from the change to a new communications system and other cost reductions, including reduced travel and training expenditures. The proposed budget also provides for 2004 capital expenditures of $32 million. However, this estimate may be further revised pending availability of an updated MD02 schedule and analysis of certain other needs. In terms of the overall revenue requirement, we anticipate a reduction of approximately $20 million from the $237.6 million level in 2003. The ultimate reduction is dependent on the finalization of the capital budget, and the amount of the operating reserve credit available for 2004.

Between now and late October when the budget will be submitted for approval, the ISO will provide for public input on the proposed budget consistent with the budget process calendar approved by the Board in June (and consistent with last year). In addition to the attached summary of the budget proposal, additional departmental budget details will be made available to stakeholders who sign a confidentiality agreement[2]. Additionally, prior to the October 3 budget workshop, we expect to finalize the proposed capital budget, complete the forecast of the ISO's financial & capital operating reserve and complete the work necessary to develop proposed GMC rates for 2004. We anticipate releasing information on these matters during the week of September 29.

The ISO does not anticipate the need for substantive changes to the level of the O&M budget between now and the October Board meeting, but changes related to the above noted items will affect the proposed GMC rates that have been shown as placeholders in the attached report. Should the Board direct changes to the budget proposal, there will be adequate time to incorporate revisions prior to the final approval in October. This schedule will enable us to submit a FERC filing on October 31 for rates to be effective January 1, 2004.

We look forward to your questions and guidance on this important matter.

---

[1] GMC charges will be consistent with the GMC rate structure approved by the Board on June 26, with a change to the billing determinant for one category as recommended by the Finance Committee on September 5.

[2] Certain budget detail is held confidential and summarized in the attached report to avoid release to potential vendors.



CALIFORNIA ISO

Proposed FY2004 Operating & Maintenance Budget and Capital Budget

ABRIDGED VERSION

(Certain budget details redacted to avoid potential release of sensitive information to vendors)

Date:
9/18/2003

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I. CAISO Vision & Mission



ISO Vision:

'Preferred provider of superior electric transmission services for the benefit of our customers in California and the West.'

ISO Mission:

For the benefit of our customers in California and the West, we:

- *plan and operate a safe and reliable electric system*
- *provide open and non-discriminatory electric transmission services*
- *facilitate appropriate investment in electric transmission and generation infrastructure*

We achieve this:

- *through efficient wholesale electric markets*
- *with a responsive organization that fosters innovation, collaboration and transparency*
- *at a reasonable cost*

II. Introduction

This document presents and explains the financial basis for the ISO's current and proposed operations and services for FY2004.

In the following sections, we will:

- Show the guidance that was provided to CAISO departments in preparation of the their proposed budgets,
- Provide an overview of the structure of the ISO's budget.
- Provide an overview of the challenges faced and responses reflected in the preparation of a FY2004 budget,
- Present in summary form the proposed FY2004 Budget, indicating the costs of services anticipated in the 2003 budget, and the costs for those services that we provided as the need arose through 2003.
- Identify in summary form the incremental and decremental programs that have been developed by ISO Staff and recommended by ISO Officers in the proposed budget for FY2004.
- Present detailed discussions by ISO division of the specific components of the proposed FY2004 Budget.
- Provide an overview of the proposed FY2004 Capital Budget.
- Provide a discussion of how the GMC rates for 2004 will be calculated.

The primary emphasis of this document is the ISO's proposed 2004 O&M and capital budgets. Other topics discussed, such as the operating reserve, cost allocations and discussion of rates are preliminary and are indicative only. They will be modified as additional data becomes available and is included in the analysis.

III. Budget Guidance

CEO Terry Winter gave the ISO Officers and staff the following guidance to develop their proposed O&M budgets:

Summer brings with it vacations, hot weather, high energy demands.....and the start of the ISO budget process. The 2004 ISO Budget, once again to be coordinated with development of the ISO 2004 performance goals, will be a key element of communicating the ISO commitment to serve the energy needs of the people of California and the West, as reflected in our updated mission statement. While this commitment to serve is key, we are also committed to continued cost control at the ISO. Further, the ISO budget is not just a financial plan. Rather, it is the basis for establishing the ISO Grid Management Charge for our various services, to be filed with the FERC. We can expect both the FERC and our stakeholders to subject our GMC request to intense review.

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I want to continue our downward spending trend. For the 2004 budget process (as detailed in the attached 2004 Budget Guidelines), I charge each division to review its many ongoing programs, services, projects and processes; establish key priorities; and identify opportunities for further "stakeholder dividends"—enhanced services with no increase in cost, or perhaps more relevant in these times of economic uncertainty, identification of cost savings, perhaps through reduction or elimination of programs, services, projects and processes that have "run the course" or which could be eliminated at minimal impact to our core mission. As the residents of the state and the nation must deal with a slowed economy and ever increasing debt, it is incumbent upon us to reduce costs where possible and appropriate.

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headcount and financial resources. We must hold our FTE count to 600 or less, take advantage of the realized savings and reduce our costs wherever possible.

To do this, we will use the framework we have used in the past--to accommodate any new spending requirements that some departments will undoubtedly face in 2004, we will all need to identify *potential* cost savings opportunities to fund them. Officers will review all proposed spending plans and proceed with those of highest priority.

You have always risen to every challenge we have faced and performed admirably. I know asking you to rise to this economic challenge will be met with the same success. Thank you for your support as we move through the budget process.

Terry

IV. Budget Structure and Preparation

Budget Structure

The proposed 2004 budget provides for a total net revenue requirement of between $208 to $220 million (tentative), compared with $237.6 million in 2003. The net revenue requirement includes an anticipated credit from the Financial & Capital Operating Reserve, as that reserve is funded beyond the required 15% level[1]. The size of the credit is affected by many factors, including 2003 financial results, and the outcome of pending matters from previous years (including matters in the 2001 GMC rate case, and billing issues). The amount of the credit to be included in ISO's October rate filing will be finalized over the next two months as additional information is available on these matters.

The net revenue requirement is recovered through the unbundled grid management charges ("GMC") charges that will be in effect for 2004. These will change as a result of the new structure approved by the Board in July 2003, resulting from the stakeholder process held on this issue from 2002/2003.

Each unbundled service offering has its own rate, paid by users of that service. These rates are calculated by determining the costs associated with each of these services, and then dividing those figures by the forecasted billing determinant volume for each service. The result is a rate per unit of use. The calculation of proposed rates for 2004 has not yet been completed, as the forecast of billing determinant volumes for 2004 and cost allocations are in process.

Accordingly, this budget package provides an overview and detail of the ISO's cost of service. The proposed rates for these services will be released later in September.

The ISO's cost of service (or "revenue requirement") for 2004 consists of:

- ⇒ Operating & maintenance (O&M) budget;
- ⇒ Debt service costs
- ⇒ Cash funded capital expenditures
- ⇒ Other revenues and expense recoveries
- ⇒ Revenue Credit from Financial & Capital Operating Reserve

The O&M budget is the largest of these components and the focus of this report. The O&M budget consists of the costs necessary for the ongoing operation of the ISO. The O&M budget can be viewed from several perspectives including:

- ⇒ By Division, group or department (cost center) (such as "VP Grid Operations", or "Accounting")
- ⇒ By Expense Type (such as "Salaries & Benefits", or "Professional & Consulting Fees")

[1] To the extent the reserve is funded in excess of 15% of the subsequent year's O&M budget, any excess is returned as a credit toward the subsequent year's revenue requirement.

Debt service costs are the principal and interest payments related to repayment of the ISO's 2000 bond issuance. Until 2002, the ISO anticipated funding all or a portion of its planned capital expenditure budget from the proceeds of bond offerings. As capital expenditures provide benefits over several years, bond financing allows the recovery of the costs of such programs over an extended period, consistent with the benefits of the programs. In recent years, due to the turmoil in the California energy markets and the deterioration of the ISO credit rating, the ISO has funded its capital requirements on a current basis. While one credit rating agency has recently restored the ISO to investment grade, a bond offering is not contemplated in the 2004 budget. Accordingly, debt service funds in the 2004 revenue requirement are only those related repayment of the 2000 bond offering.

Funding for the 2004 capital expenditures budget is included in the 2004 revenue requirement, i.e. no debt issuance is planned to fund capital needs in 2004. About 70% of the tentative 2004 capital expenditure budget (discussed in Section X of this report) relates to MD02, the major market redesign effort scheduled over years 2002 through 2005. Total capital projects to be proposed for inclusion in the 2004 revenue requirement are $32 million but this number could change prior to the approval of the budget in October, depending on an updated MD02 plan (which is currently under development at this time), and additional internal discussions on other capital projects deemed necessary for 2004.

Other revenue and expense recoveries are minor offsets to the revenue requirement from other revenue sources, or reimbursement the ISO receives for certain costs apart from the grid management charge.

The revenue credit is a reduction or offset to the ISO's revenue requirement. In any year that the ISO's Financial & Capital operating reserve is expected to exceed 15% of prospective year's O&M budget, such excess is to be used as a reduction in the revenue requirement of that prospective year. In 2004, the ISO anticipates that the revenue credit will exceed that available in 2003, resulting in a lower revenue requirement in 2004. This is due to a variety of factors, including strong revenue collections in 2003, and lower than budgeted spending. An estimated revenue credit is included in these budget figures, but will be revised to reflect the variety of factors that affect the Financial & Capital operating reserve as of December 31, 2003.

Budget Preparation

ISO staff prepared and the ISO Officers reviewed this proposed budget during the July-September 2003 period. The proposed budget was constructed following the guidance given by Terry Winter in the memorandum in the previous section of this report.

The budget was prepared in significantly more detail than is presented in this package. The detailed information has been aggregated for discussion purposes in this document.

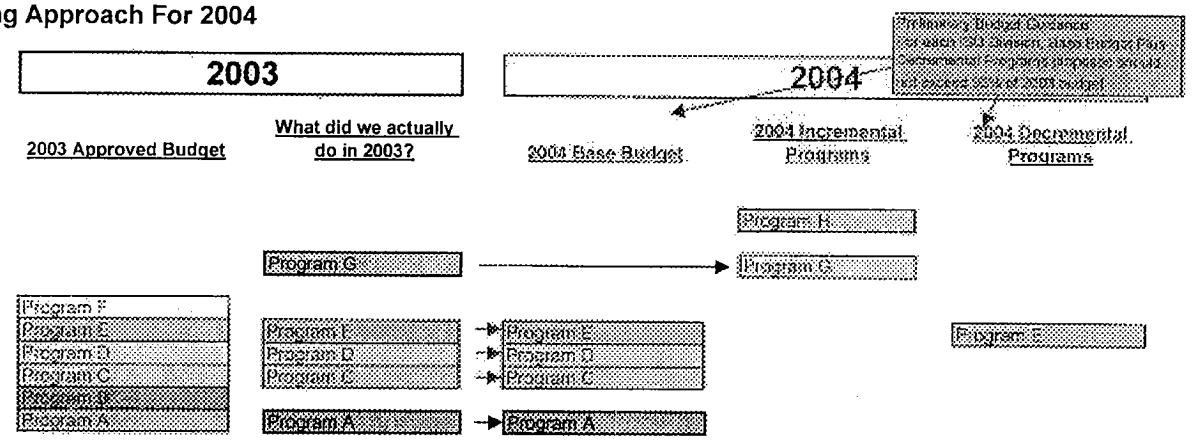
Each ISO department constructed its proposed O&M budget on the foundation of its base budget, and possible incremental and decremental programs. The base budget was constructed to include those programs included in the 2003 budget, and necessary for 2004. Incremental programs were spending needs necessary in 2004 but not contemplated in the

2003 budget. Decremental programs were defined as spending included in the 2004 base budget, but which could be eliminated, with some detrimental effect on ISO service. The proposed 2004 budget presented in this package reflects the results, recommendations and ISO decisions regarding such various programs.

The diagram on the following page illustrates these components of the budget.

Exhibit: Budget Preparation Illustration

Budgeting Approach For 2004



Explanation	Programs we contemplated in the approved 2003 budget	During 2003, we actually performed most of the functions we contemplated in the 2003 budget. However, some such as Program B & F, we did not perform, due to changed circumstances. Others, such as Program G, were unanticipated expenditures, which we now believe will be necessary in 2004.	The base budget proposal for 2004 should include only those Programs which were included in the 2003 budget, and we actually will need for 2004.	Program G: New programs/services that were not included in the 2003 budget, but we had to perform in 2003, and we will have to continue providing in 2004. Program H is a new proposal for 2004 that we have not provided in 2003.	Program E is a program we contemplated in the 2003 budget, have provided during 2003, but could eliminate in 2004, with some impact on the quality of ISO services.

Comments	Base Budget represents a continuation of only those services which were contemplated in the 2003 budget. All others should be shown separately.	+ Cost increases for performing the same program in 2004 as in 2003 are NOT shown as an INC program. For example, due to inflation, we have to pay 5% more for the same contractor services. The 5% increase is not shown as an INC program.
	+ Will result in a lower base budget proposal.	
	+ The costs of new services required during 2004 are explicitly shown as an incremental program.	

V. Overview of Budgeting Process and Results

The proposed 2004 budget provides for a continuation of the essential services in the 2003 budget, and includes resources needed to meet the new challenges not covered by the 2003 budget. Most importantly, it changes the direction of the ISO's O&M budget trend. From 1998 until 2001, the O&M budget increased, ultimately to $171.8 million. In 2002 and 2003, the O&M budget was held at $171.8 million[2], and in 2004 is to decline by approximately $20 million. The successful transition from the original MCI network to the AT&T communication network has contributed significantly to this substantial reduction in O&M costs in 2004[3], along with a continued emphasis on cost control in other areas.

For 2004, Management used a budgeting process that has worked effectively in past years. All CAISO divisions have performed a comprehensive bottom to top review of all activities performed, and identified and implemented more efficient and/or more cost effective ways of meeting their responsibilities, and eliminated work when possible (displaced to allow for new recommended tasks).

The budget guidance provided to all ISO Divisions was that cost reduction opportunities in their O&M budget of at least 7% should be identified. These reductions could be direct reductions in their proposed base budget, or through possible "decremental programs". The ISO Officers reviewed all of these decremental programs and a subset of those programs has been included in this management recommended budget. A careful balancing of the potential impact on ISO service levels versus cost savings had to be considered for each program. These reductions provided the funding for new requirements in 2004 without an overall increase in the O&M budget. Some ISO Divisions made reduced costs directly in their base budgets rather than presenting such reductions as "decremental" programs.

While new funding needs are somewhat less than in past years, the 2004 budget had to accommodate certain new incremental efforts. However, funding for these requirements has been accomplished not by increasing the O&M budget, but through the identification of cost savings and cost avoidance measures, as well as reallocations of resources to meet the most pressing needs. Incremental 2004 efforts include:

- Oversight & Investigations Program Audit
- Assurance of ISO Controls over FERC Refund Reruns, and resources for support of FERC Refund
- Continued Implementation of MD02[4]
- MD02 related market changes including changes to automated load forecasting
- Funding for intermittent resources program
- Direct funding of capital expenditures

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[2] For 2002, the original filed budget was $177 million, while targeted spending was held at $171.8 million. The revenue requirement, and the O&M budget was subsequently reduced through a settlement with stakeholders.

[3] During 2003, both networks had to be supported to allow for this transition, so costs were higher than budgeted in this area, but offset by savings elsewhere.

[4] Funding for implementation of MD02 is primarily in the capital budget.

- Continued response to and support of regulatory investigations
- Conversion to a SAS 70 Type 2 Audit for the ISO Market

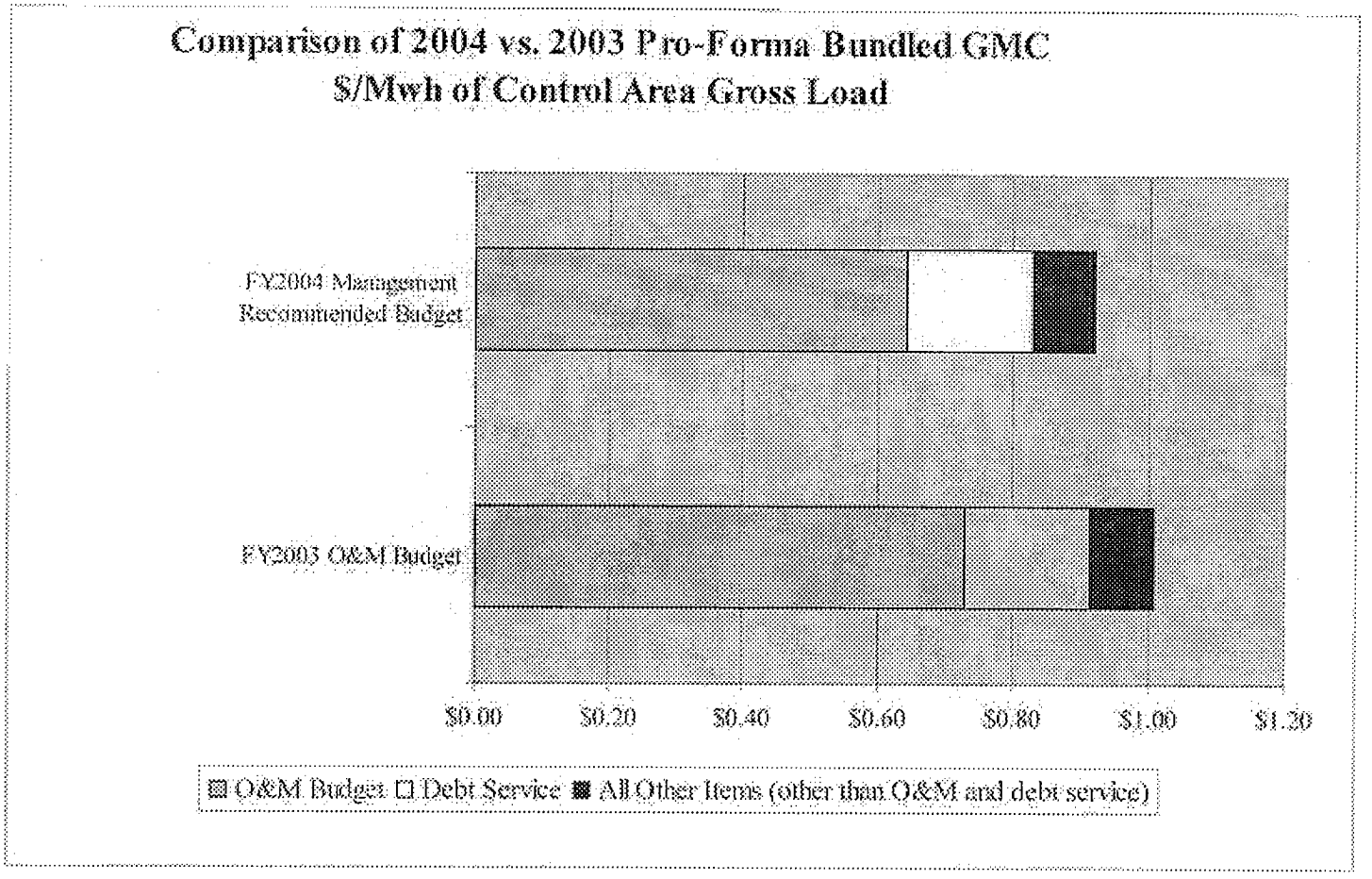
The major effort for 2004 will be the continued implementation of MD02. At this time, the schedule for Phase II and III of MD02 is dependant on the timing and content of FERC's Order, and the timing and development of major software systems. However, it is expected that most of the spending on MD02 will take place in 2004. As in 2003, a majority of the capital budget for 2004 will be related to MD02.

VI. Budget Overview

The Exhibits in this section provide a high level overview of the outcome of the budgeting process, including a summary of the overall revenue requirement, summaries of departmental budgets, and explanations of changes in expenses from 2003 to 2004.

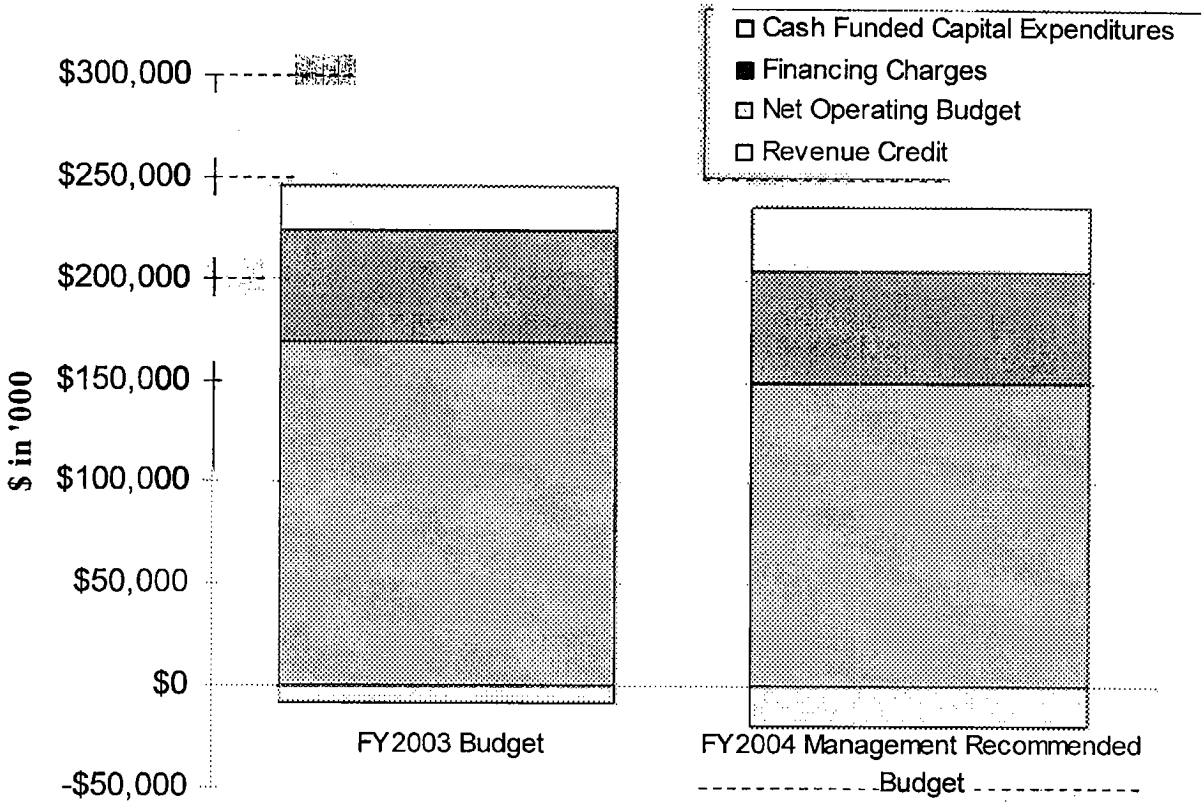
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Note: 2004 illustration assumes Capital Spending at $32 million and an operating reserve credit of approximately $19 million. The operating reserve credit could range from $15 to $28 million.

Revenue Requirement Comparison: FY2003 vs. FY2004



Note: 2004 illustration assumes Capital Spending at $32 million and an operating reserve credit of approximately $19 million. The operating reserve credit could range from $15 to $28 million.

Exhibit: Summary Table of the Proposed FY2004 Revenue Requirement

FY2004 Revenue Requirement Summary
$ in 000's

	FY2003 Budget	FY2004 Base Budget (Costs for Continuation of FY2003 Budgeted Service Level)	FY2004 Management Recommended Budget
Revenue Requirement			
Operating & Maintenance Budget	$171,739	$148,638	$151,735
Difference from FY2003		(23,101)	(20,004)
		-13%	-12%
Financing Budget:			
Principal-Existing Debt	$35,300	$36,167	$36,167
Interest-Existing Debt	8,497	7,525	7,525
Operating Reserve (25% of Principal & Interest)	10,949	10,923	10,923
Subtotal, Financing Collection	54,746	54,615	54,615
Capital Project Funding (Direct from Rates)	22,000		32,000
(App. Midpoint of anticipated range of $26 to $39 million in 2004)			
Less: Expense Recovery Budget:			
Interest Earnings	($1,252)	(652)	(652)
SC Application & Training Fees	(120)	(120)	(120)
Training Fees (reduced O&M budget $40K)			
WECC Reimbursement/NERC Reimbursement	(1,256)	(1,313)	(1,313)
Subtotal, Expense Recovery Budget	(2,628)	(2,085)	(2,085)
Subtotal, Revenue Requirement before Revenue Credit	$245,857	$201,168	$236,265
Revenue Credit From Operating Reserve	(8,256)	(19,400)	(19,400)
(Expected range of $15 to $28 million in 2004)			
Total Revenue Requirement	$237,601	$181,768	$216,865
Divided by:			
Transmission Volume in Gwh: GCAL	236,000		240,720
Equals:			
Grid Management Charge ("GMC")			
Pro-forma Bundled GMC	$1.007		$0.901

Notes:
1 GMC is unbundled. The above is for comparative purposes only, prior to the availability of information necessary to calculate unbundled GMC rates.
2 Revenue credit estimate is preliminary and is **subject to change.** The availability of a revenue credit is dependent on the level of the Financial & Capital Operating Reserve, which is affected by 2003 financial results and other factors. The projected reserve balance is anticipated to be between: 38,086 to 51,086
3 Volume forecasts for 2004 have not been completed. Placeholder is 2003 forecast inflated at 2%.
4 GCAL: Gross control area load and exports.

CALIFORNIA ISO
FY2004 Budget Summary
Detailed Table of the Proposed O&M Budget

Cost Center	Area	FY2003 O&M Budget	FY2003 Budgeted Headcount	FY2004 Costs for Continuation of BUDGETED FY2003 Service Level	FY2004 Headcount for Continuation of BUDGETED FY2003 Service Level	FY2004 Incremental Programs	FY2004 Incremental Program FTEs	FY2004 Decremental Programs	FY2004 Decremental Program FTEs	FY2004 Proposed Budget (with All Incs, Decs Approved)	FY2004 Proposed Budget FTEs	FY2004 Proposed Budget vs.2003 Budget	% Chg.
1100	Chief Executive Officer	$ 4,409,755	23.0	$ 4,539,002	24.0	$ 135,377	1.0	$ (170,500)	-	$ 4,503,879	25.0	$ 94,124	2%
1111	CEO - General	944,765	2.0	877,537	2.0	-		-		877,537	2.0	(67,228)	-7%
1241	MD02	945,482	6.0	1,232,611	7.0	-		-		1,232,611	7.0	287,129	30%
1621	Grid Planning	2,518,508	15.0	2,428,854	15.0	135,377	1.0	(170,500)		2,393,731	16.0	(125,777)	-5%
1300	Chief Financial Officer	$ 13,306,926	34.5	$ 14,843,100	34.5	$ 685,000	-	$ (144,000)	-	$ 15,384,100	34.5	$ 2,077,174	16%
1311	CFO - General	458,722	1.5	384,728	1.5	-		(65,000)		319,728	1.5	(138,994)	-30%
1321	Accounting	2,206,419	9.5	2,416,592	9.5	475,000				2,891,592	9.5	685,173	31%
1331	Financial Planning and Treasury	2,543,980	6.5	3,438,051	6.5	-				3,438,051	6.5	894,071	35%
1361	Office Administration	2,256,429	10.0	2,418,787	10.0	210,000				2,628,787	10.0	372,358	17%
1351	Facilities	5,841,376	7.0	6,184,942	7.0	-		(79,000)		6,105,942	7.0	264,566	5%
1400	VP Information Services	$ 77,158,879	144.0	$ 58,262,033	144.0	$ 4,925,063	4.0	$ (6,272,500)	-	$ 56,914,596	148.0	$ (20,244,283)	-26%
1411	VP - Information Services General	238,412	2.0	(311,780)	2.0			-		(311,780)	2.0	(550,192)	-231%
1471	Infrastructure Engineering	799,108	5.0	920,751	5.0			-		920,751	5.0	121,643	15%
1420	Asset Management Group	$ 51,226,325	10.0	$ 32,887,368	10.0	$ 4,364,350	-	$ (6,175,000)	-	$ 31,076,718	$ 10	$ (20,151,607)	-39%
1424	Asset Management	21,537,457	8.0	21,710,268	8.0	4,279,350		(5,575,000)		20,414,618	8.0	(1,122,839)	-5%
1441	Outsourced Contracts	29,690,868	2.0	11,177,100	2.0	85,000		(600,000)		10,662,100	2.0	(19,028,768)	-64%
1430	Computer Operations Center	$ 12,734,008	46.0	$ 13,381,323	47.0	$ -	-	$ (57,500)	-	$ 13,323,823	$ 47	$ 589,815	5%
1432	Computer Operations-General	449,225	3.0	942,638	6.0			-		942,638	6.0	493,413	110%
1431	End User Support	6,332,143	4.0	6,639,682	4.0			-		6,639,682	4.0	307,539	5%
1433	Network Operations	1,701,287	12.0	1,582,948	11.0			(27,500)		1,555,448	11.0	(145,839)	-9%
1442	Product Support	2,694,675	18.0	2,538,085	17.0			-		2,538,085	17.0	(156,590)	-6%
1451	Information Security	1,556,678	9.0	1,677,970	9.0			(30,000)		1,647,970	9.0	91,292	6%
1460	Corporate & Enterprise Applications	$ 3,599,123	25.0	$ 3,641,462	25.0	$ -	-	$ -	-	$ 3,641,462	$ 25	$ 42,339	1%
1422	Corporate & Enterprise Apps-General	258,972	2.0	261,872	2.0			-		261,872	2.0	2,900	1%
1466	Enterprise Apps	1,417,436	10.0	1,550,354	10.0			-		1,550,354	10.0	132,918	9%
1468	Corporate Application Support	662,920	4.0	584,523	4.0			-		584,523	4.0	(78,397)	-12%
1469	Analytical and Reporting	1,259,795	9.0	1,244,713	9.0			-		1,244,713	9.0	(15,082)	-1%
1480	Operations Applications	$ 8,559,903	56.0	$ 7,742,909	55.0	$ 560,713	4.0	$ (40,000)		$ 8,263,622	$ 59	$ (296,281)	-3%
1463	Operations Applications-General	336,981	3.0	373,896	3.0			(40,000)		333,896	3.0	(3,085)	-1%
1461	Control Systems	2,422,480	19.0	2,291,444	19.0			-		2,291,444	19.0	(131,038)	-5%
1462	Field Data Acquisition Systems (FDAS)	2,591,796	15.0	2,460,663	15.0			-		2,460,663	15.0	(131,133)	-5%
1467	Settlement Systems Services	1,108,594	9.0	1,123,694	9.0			-		1,123,694	9.0	15,100	1%
1481	Markets and Scheduling	1,578,888	10.0	1,461,712	9.0			-		1,461,712	9.0	(117,176)	-7%
1482	Market Support Services	521,164		31,500		560,713	4.0	-		592,213	4.0	71,049	14%
1500	VP Grid Operations	$ 30,177,716	187.0	$ 27,372,113	186.0	$ 89,307	-	$ -	-	$ 27,461,420	187.0	$ (2,716,296)	-9%
1511	VP Grid Operations General	847,247	1.5	(137,696)	1.5					(137,696)	1.5	(984,943)	-116%
1560	OSAT Group	$ 5,679,080	37.0	$ 5,378,309	38.0	$ -		$ -		$ 5,378,309	$ 38	$ (300,771)	-5%
1548	OSAT Group General	276,186	1.0	283,212	2.0					283,212	2.0	7,026	3%
1549	Operations Training	3,144,452	19.0	2,791,756	18.0					2,791,756	18.0	(352,696)	-11%
1555	Operations Support Group	1,070,104	9.0	1,065,814	9.0					1,065,814	9.0	(4,290)	0%
1559	Operations Application Support	483,163	4.0	559,892	5.0					559,892	5.0	76,729	16%
1563	Coordinated Operations	705,175	4.0	677,635	4.0					677,635	4.0	(27,540)	-4%
1540	Engineering and Maintenance Grp	$ 6,643,622	34.5	$ 5,676,798	34.5	$ 89,307	-	$ -	-	$ 5,766,105	35.5	$ (877,517)	-13%
1547	Engineering and Maintenance	1,166,945	3.0	562,442	3.0					562,442	3.0	(604,503)	-52%
1543	Loads and Resources	1,050,444	7.0	1,144,050	7.0					1,144,050	7.0	93,606	9%
1561	Operations Engineering South	1,288,949	7.5	1,194,570	7.5					1,194,570	7.5	(94,379)	-7%
1562	Operations Engineering North	1,278,890	9.0	1,299,176	9.0					1,299,176	9.0	20,286	2%
1558	Transmission Maintenance	1,858,394	8.0	1,476,560	8.0	89,307	1.0			1,565,867	9.0	(292,527)	-16%
1530	Operations Scheduling Group	$ 6,761,917	48.0	$ 6,546,780	47.0	$ -		$ -		$ 6,546,780	47.0	$ (215,137)	-3%
1564	Operations Scheduling	335,665	3.0	284,207	2.0					284,207	2.0	(51,458)	-15%
1544	Real-Time Scheduling	2,796,358	20.0	2,671,336	20.0					2,671,336	20.0	(125,022)	-4%
1542	Outage Coordination	1,855,062	12.0	1,835,110	12.0					1,835,110	12.0	(19,952)	-1%
1565	Pre-Scheduling and Support	1,774,832	13.0	1,756,127	13.0					1,756,127	13.0	(18,705)	-1%
1570	Grid Operations Group	$ 7,472,189	51.0	$ 7,241,970	50.0	$ -		$ -		$ 7,241,970	50.0	$ (230,219)	-3%
1545	Grid Operations	7,472,189	51.0	7,241,970	50.0					7,241,970	50.0	(230,219)	-3%
1550	Regional Coordination Group	$ 2,773,861	15.0	$ 2,665,952	15.0	$ -		$ -		$ 2,665,952	15.0	$ (107,709)	-4%
1566	Regional Coordination	574,056	3.0	528,077	3.0					528,077	3.0	(45,979)	-8%
1554	Special Projects Engineering	889,030	4.0	825,342	4.0					825,342	4.0	(63,688)	-7%
1546	Security Coordination	1,310,575	8.0	1,312,533	8.0					1,312,533	8.0	1,958	0%

DRAFT- For Discussion Purposes Only.

CALIFORNIA ISO
FY2004 Budget Summary
Detailed Table of the Proposed O&M Budget

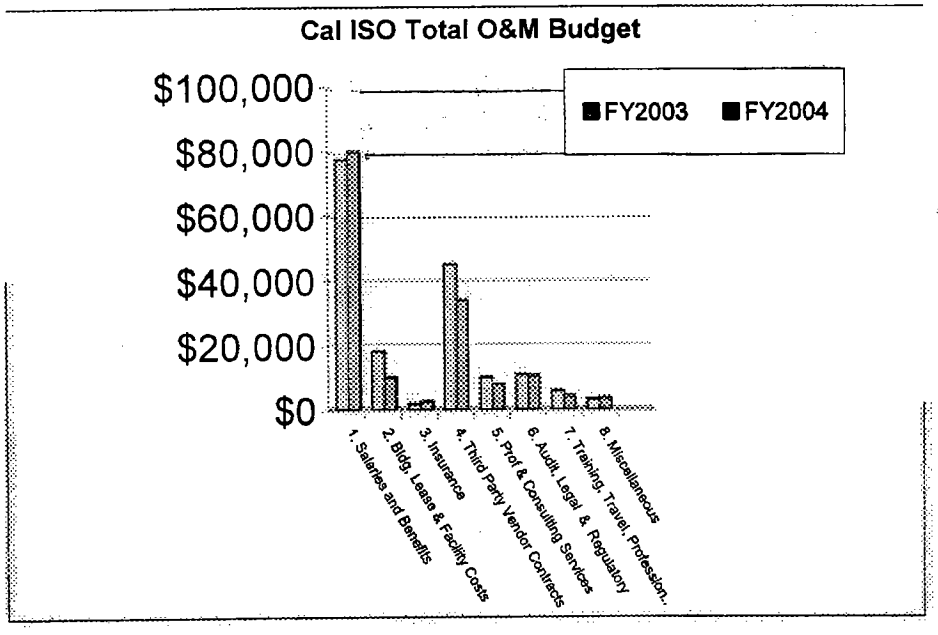
Cost Center	Area	FY2003 O&M Budget	FY2003 Budgeted Headcount	FY2004 Costs for Continuation of BUDGETED FY2003 Service Level	FY2004 Headcount for Continuation of BUDGETED FY2003 Service Level	FY2004 Incremental Programs	FY2004 Incremental Program FTEs	FY2004 Decremental Programs	FY2004 Decremental Program FTEs	FY2004 Proposed Budget (with All Incs, Decs Approved)	FY2004 Proposed Budget FTEs	FY2004 Proposed Budget vs.2003 Budget	% Chg.
1600	General Counsel	$ 19,582,687	54.0	$ 17,777,551	53.0	$ 305,400	-	$ -	-	$ 18,082,951	53.0	$ (1,499,716)	-8%
1611	VP General Counsel	423,729	2.0	275,638	2.0	-		-		275,638	2.0	(148,091)	-35%
1631	Legal and Regulatory	13,267,127	23.0	11,925,202	22.0	145,000		-		12,070,202	22.0	(1,196,925)	-9%
1641	Market Analysis	3,145,412	18.0	2,860,248	18.0	-		-		2,860,248	18.0	(285,164)	-9%
1642	Market Surveillance Committee	640,750	-	561,750	-	-	-	-	-	561,750	-	(79,000)	-12%
1651	Board of Governors	163,100	-	151,000	-	80,400	-	-	-	231,400	-	68,300	42%
1660	Compliance Group	$ 1,942,949	13.0	$ 2,083,713	13.0	$ 80,000	-	$ -	-	$ 2,083,713	13.0	$ 141,164	7%
1661	Compliance - Gen	1,509,798	10.0	1,587,162	10.0	80,000		-		1,667,162	10.0	157,364	10%
1662	Compliance Audits	432,751	3.0	416,551	3.0	-		-		416,551	3.0	(16,200)	-4%
1700	VP Market Services	$ 18,009,733	123.0	$ 17,753,412	122.0	$ 737,160	-	$ (629,000)	-	$ 17,861,572	122.0	$ (148,161)	-1%
1711	VP- Market Services General	176,692	2.0	(77,098)	2.0	12,160		(2,000)		(66,938)	2.0	(243,630)	-138%
1731	Contracts and Special Projects	1,493,113	9.0	1,471,832	9.0	-		-		1,471,832	9.0	(21,281)	-1%
1741	Client Relations	2,394,835	19.0	2,223,105	17.0	65,000		(12,000)		2,276,105	17.0	(118,730)	-5%
1720	Settlements	$ 4,348,075	32.0	$ 4,452,633	33.0	$ 85,000		$		$ 4,537,633	33.0	$ 189,558	4%
1721	Billing and Settlements	369,933	2.0	432,329	3.0					432,329	3.0	62,396	17%
1722	Business Development Support	529,686	4.0	674,329	5.0					674,329	5.0	144,643	27%
1723	Tariff and Contract Implementation	927,739	7.0	958,715	7.0					958,715	7.0	30,976	3%
1724	BBS - PSS	1,192,483	9.0	1,232,710	9.0					1,232,710	9.0	40,227	3%
1725	BBS - FSS	1,328,234	10.0	1,154,550	9.0	85,000				1,239,550	9.0	(88,684)	-7%
1750	Market Operations Group	$ 7,405,157	43.0	$ 7,579,017	43.0	$ 550,000		$ (500,000)		$ 7,629,017	43.0	$ 223,860	3%
1751	Market Operations	975,087	3.0	1,063,496	3.0	-		(100,000)		963,496	3.0	(11,591)	-1%
1752	Manager of Markets	2,452,724	17.0	2,384,160	17.0	350,000		(60,000)		2,674,160	17.0	221,435	9%
1753	Market Engineering	2,139,608	13.0	1,846,260	10.0	200,000		(150,000)		1,896,260	10.0	(243,348)	-11%
1755	Business Solutions	975,449	5.0	1,184,296	7.0			(50,000)		1,134,296	7.0	158,847	16%
1757	Market Integration	862,289	5.0	1,100,805	6.0			(140,000)		960,805	6.0	98,516	11%
1760	Market Quality Group	$ 2,191,861	18.0	$ 2,103,923	18.0	25,000		$ (115,000)		$ 2,013,923	18.0	$ (177,938)	-8%
1756	Market Quality	2,191,861	18.0	2,103,923	18.0	25,000		(115,000)		2,013,923	18.0	(177,938)	-8%
1800	VP Corp. & Strategic Development	$ 9,093,453	31.0	$ 8,090,754	30.0	$ 42,374	-	$ -	-	$ 8,133,128	30.0	$ (960,325)	-11%
1811	VP Corp. & Strategic Development-General	482,954	2.0	456,066	2.0			-		456,066	2.0	(26,888)	-6%
1821	Communications	888,662	4.0	825,635	4.0			-		825,635	4.0	(61,027)	-7%
1841	Human Resources	4,866,084	13.0	4,543,963	13.0			-		4,543,963	13.0	(322,121)	-7%
1830	Regulatory Policy Group	$ 2,857,753	12.0	$ 2,265,090	11.0	$ 42,374	-	$ -	-	$ 2,307,464	11.0	$ (550,289)	-19%
1831	Strategic Development	715,600	3.0	670,932	3.0	42,374		-		713,306	3.0	(2,294)	0%
1851	Project Office Group	684,605	5.0	669,517	4.0			-		669,517	4.0	(15,088)	-2%
1861	Regulatory Policy	1,457,548	4.0	924,641	4.0			-		924,641	4.0	(532,907)	-37%
2100	Other	$ -	-	$ -	-	$ 3,393,412	-	$ -	-	$ 3,393,412	-	$ 3,393,412	
2111	Other: Staffing Related Compensation	-	-	-	-	3,393,412	-	-	-	3,393,412	-	3,393,412	
	Total Expected O&M Budget	$ 171,739,129	596.5	$ 148,637,965	593.5	$ 10,313,093	6.0	$ (7,216,000)	-	$ 151,735,058	599.5	$ (20,004,071)	-12%
	Debt Service												
	Debt Service-Current	43,692,060		43,692,060						43,692,060			
	Debt Service-New	-				-				-			
	Operating Reserve (25% debt Service)	10,923,015		10,923,015		-				10,923,015			
	Cash Funded CapEx	22,000,000				$ 32,000,000	See note			32,000,000			
	Expense Recovery	(2,828,400)		(2,084,933)						(2,084,933)			
	Subtotal	$ 245,725,804		$ 201,168,107		$ 42,313,093		$ (7,216,000)		$ 236,265,200			
	Financial & Capital Operating Reserve Credit	$ (8,257,000)		$ (19,400,000)						(19,400,000)			
	Revenue Requirement after Revenue Credit	$ 237,468,804		181,768,107						216,865,200			
	/ Transmission Volume	236,000,000		240,720,000						240,720,000			
	=Bundled GMC Rate	$ 1.006		$ 0.755						$ 0.901	INDICATIVE ONLY		

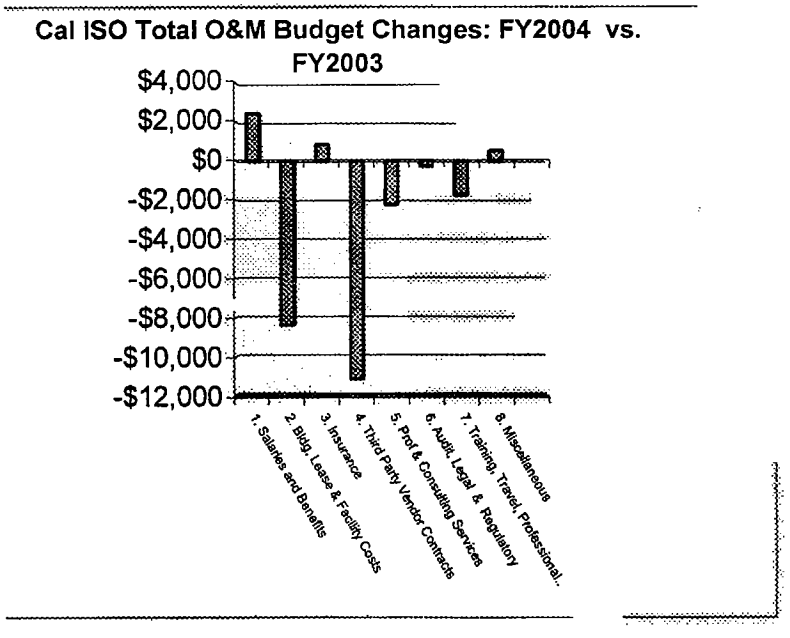
Note: Final capital budget for 2004 is dependent on the updated the MD02 project plan, available in late September/early October 2003.

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Exhibit: Chart-Expenses By Category

FY2004 Budget Overview
$ in 000's





- Detailed explanatory charts follow.

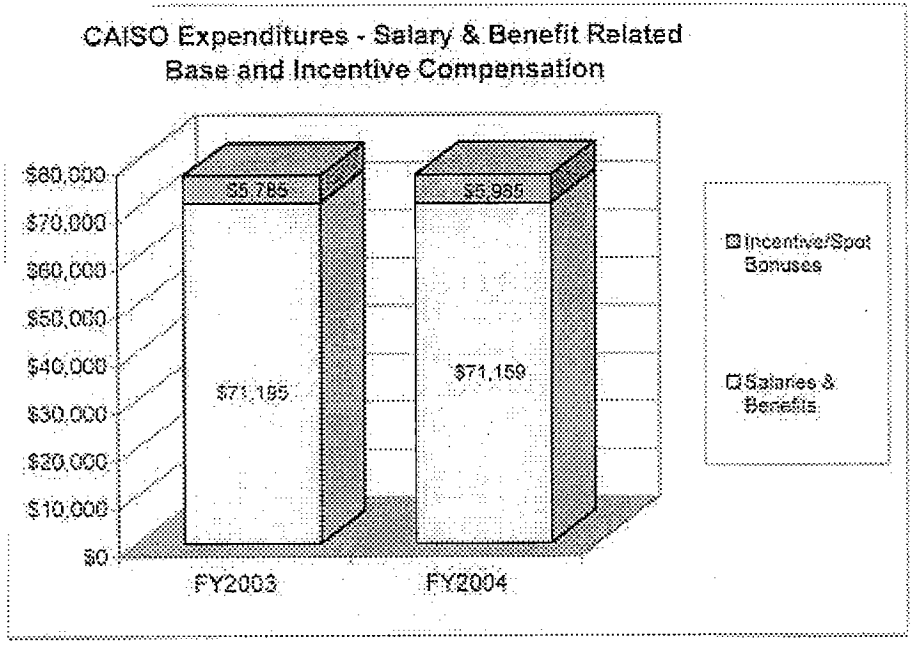
DRAFT- For Discussion Purposes Only.

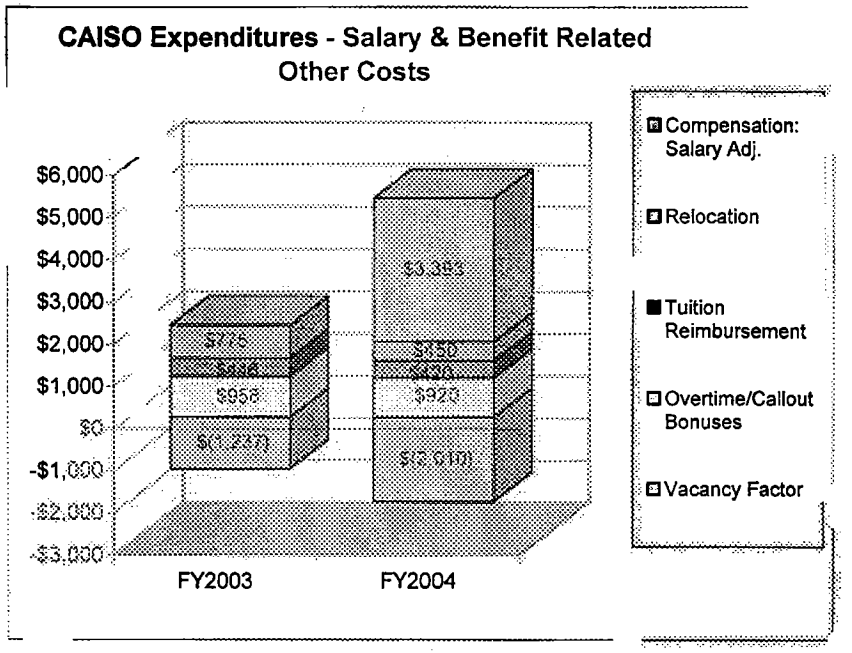
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Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's





-Adjustment for 2004 salary increases.
-Lower relocation costs due to full staffing, lower turnover.
-Increase in headcount vacancy factor to reflect savings from not having all

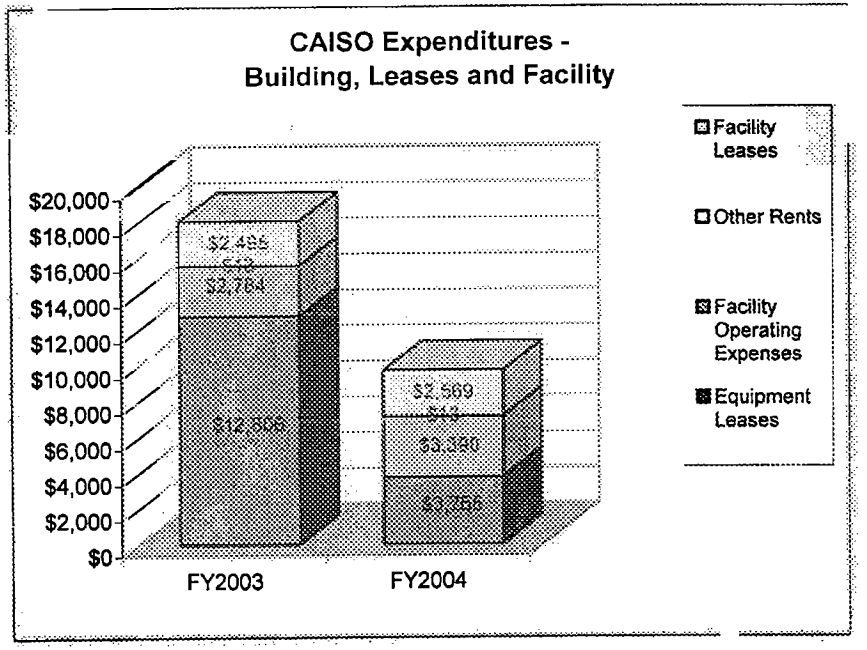
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Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's

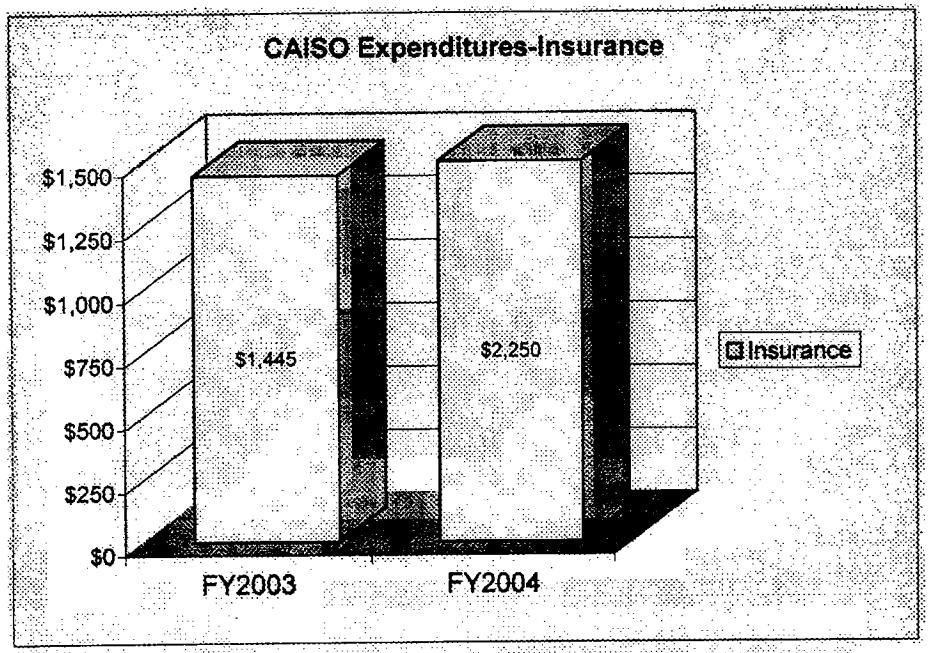


- Lease costs increase per lease terms.
- Higher facility operating costs
- Reduced leasing costs related to shift from leasing to buying equipment.

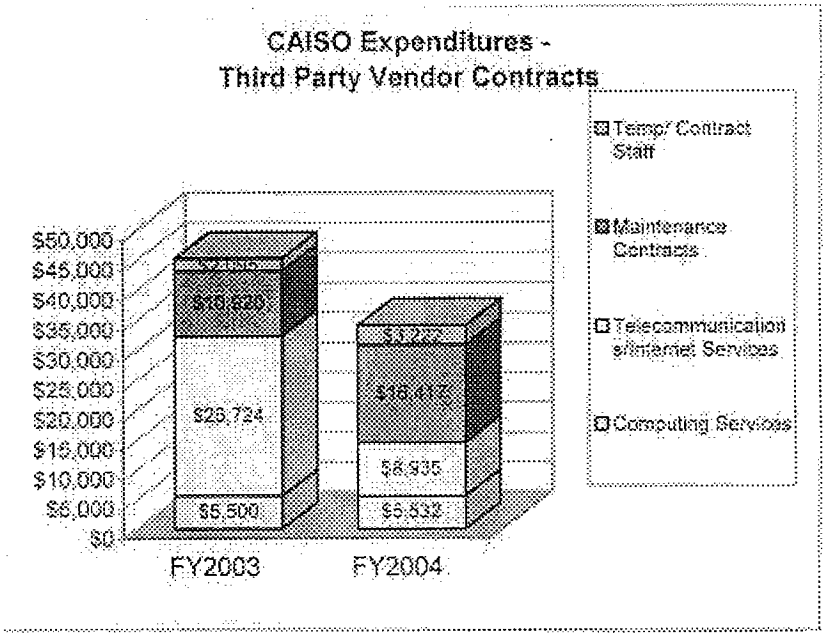
Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's



-Insurance costs in 2003 were significantly above budget and are anticipated to further increase in 2004.

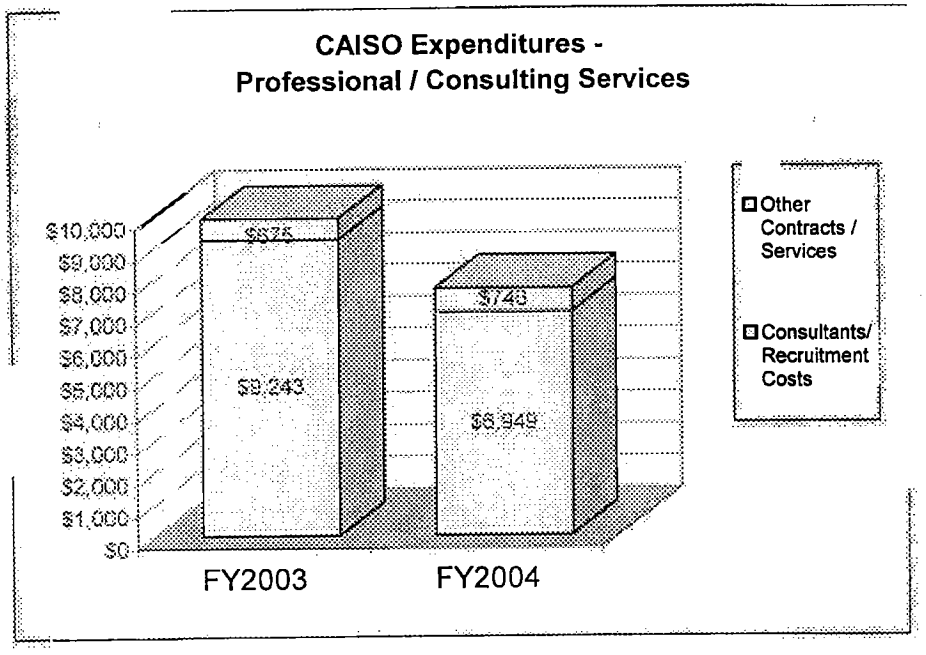


-Higher maintenance costs due to increased equipment, and purchase of three year maintenance agreements in 2004.
-Savings from end of MCI contract, switchover to AT&T

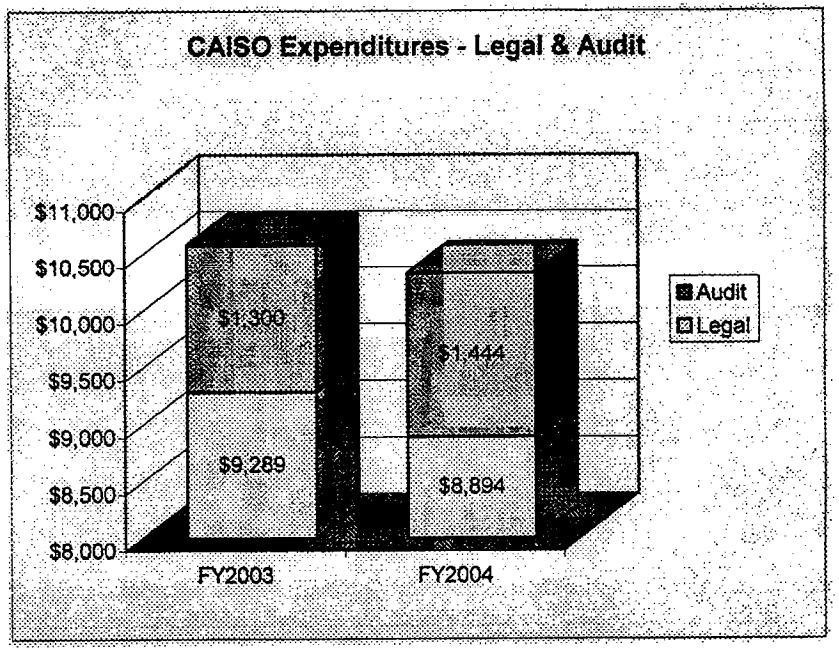
Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's

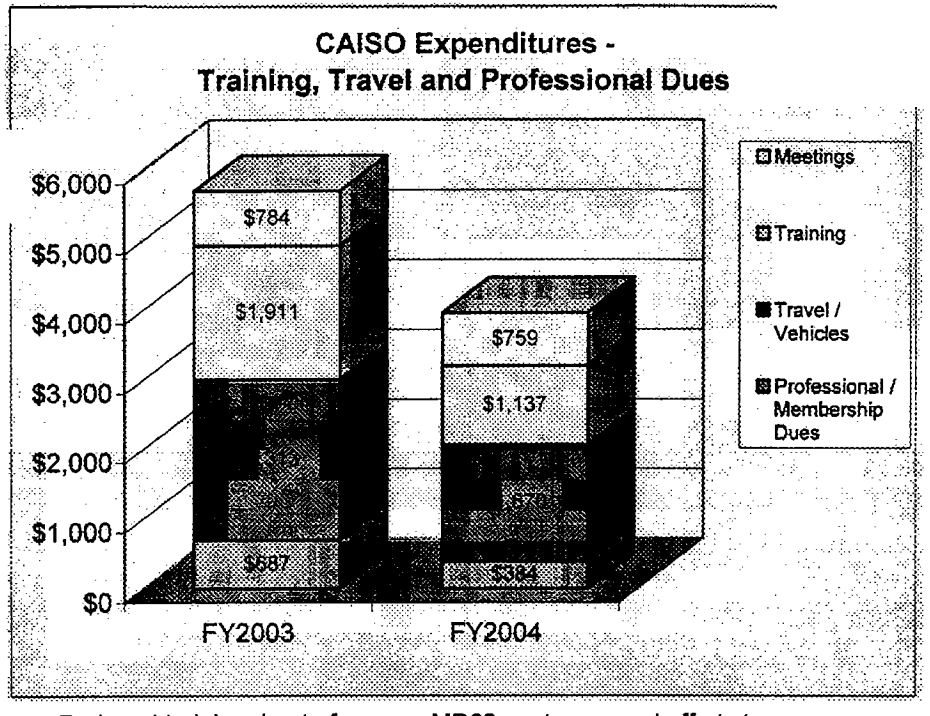


-Consulting reductions in Operations and CS&D offset in part by increases in Market Ops, IS.

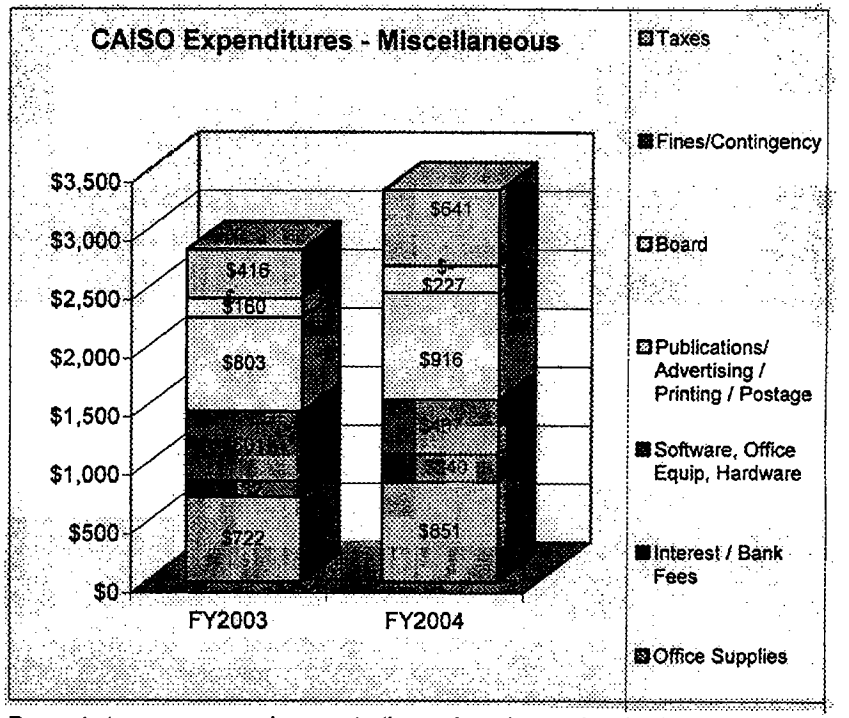


-Increases in audit costs for FERC rerun processing assurance.
-Reductions in External legal costs due to tapering off of energy crisis related legal costs.

Exhibit: Chart-Expenses By Category



-Reduced training due to focus on MD02 next year, and efforts to reduce costs / align budget with actual spending in 2002/2003.
-Reduced dues of $300K due to lower EPRI funding from $550K to $250K.



-Property tax on personal property (leased equipment) unbudgeted in 2003 for $216K.
-Subscription fees of $225K for AMP pricing service subscription.
-Higher bank fees due to more ISO bank accounts for Tariff requirements.
-Office supplies increases by $150K for backup tapes, offset by small increase elsewhere.

VII. Incremental and "Decremental" Programs in the Proposed FY2004 Budget

The proposed O&M budget contains funding for programs which management believes are necessary and appropriate, and represent additions beyond the services originally contemplated in the 2003 budget. In order to highlight these proposed changes in ISO services from those budgeted in FY2003 as well as the associated costs, ISO staff developed numerous proposed incremental programs for consideration by ISO Officers. The Officers reviewed these programs, and selected a portion of them for inclusion into the management recommended budget. These programs are discussed in the Divisional budget summaries which follow, and presented in summary form here.

A sample of the type of program justification collected for each of these programs during the budgeting process is included as an Exhibit in this section. Details about each program are available for review upon request, but have not been provided in this package.

Also highlighted in this section are the "Decremental" programs which in large part enabled the funding of incremental programs without an overall increase in the O&M budget. It should be noted that several reductions to the budget were made directly, without the reduction being noted as a Decremental program. This was appropriate where cost reductions were possible without an impact on service levels that needed to be considered by ISO Officers.

Charts and tables of incremental and decremental programs included in the proposed FY2004 budget follow:

	Page
Exhibit: Summary Table of Incremental/Decremental Programs in Budget..... ***(Individual amounts redacted for publication)***	...26
Exhibit: Detailed Table of Incremental/Decremental Programs in Budget ***(Individual amounts redacted for publication)***	27
Exhibit: Incremental/Decremental Program Template.	33

Exhibit: Summary Table of Incremental/Decremental Programs

FY2004 Budget Summary
Incremental/Decremental Program Summary

INCREMENTAL PROGRAMS INCLUDED IN PROPOSED BUDGET

	CAISO Division	1 Unclassified		Regulatory and Tariff Compliance		Reliability/ Operating Support		Market & Internal Information Provision		Internal Cost Saving or Productivity Enhancements		Communications and Stakeholder Support		ISO Infrastructure		Other	
		$	Staff	$	Staff	$	Staff	$	Staff	$	Staff	$	Staff	$	Staff	$	Staff
1100-INC	Chief Executive Officer/GP/MD02																
1300-INC	Chief Financial Officer																
1400-INC	Chief Information Officer																
1600-INC	General Counsel																
1500-INC	VP - Grid Operations																
1700-INC	VP - Market Services																
1800-INC	VP Corporate and Strategic Devt																
2100-INC	Other Costs - Staffing Related																
	Total	$		$ 653,400		$ 574,684	2	$ 1,002,873				$ 65,000		$ 4,279,350		$ 3,737,786	
	# Programs	0		9		3		5								6	

DECREMENTAL PROGRAMS INCORPORATED IN PROPOSED BUDGET

1100-DEC	Chief Executive Officer/GP/MD02																
1300-DEC	Chief Financial Officer																
1400-DEC	Chief Information Officer																
1600-DEC	General Counsel																
1500-DEC	VP - Grid Operations																
1700-DEC	VP - Market Services																
1800-DEC	VP Corporate and Strategic Devt																
2100-DEC	Other Costs - Staffing Related																
	Total	$		$		(170,500)		(116,000)		$ (65,000)		$ (12,000)		$ (6,230,000)		$ (623,500)	
	# Programs																

Notes:
Incremental programs are for services not included in the 2003 budget.

Decremental programs are cost saving measures representing reductions from the base budgets proposed by ISO departments.

Exhibit: Detailed Table of All Incremental/Decremental Programs

FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1311 CFO - General				
Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Reduction of consulting	($		Internal Cost Saving or Productivity
	Departmental	($		

1321 Accounting				
Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Market Participant Assurance of ISO controls over FERC preparatory and refund reruns	$		Market & Internal Infomation Provision
Inc - 2	O&I Program Review	$		Market & Internal Infomation Provision
Inc - 3	Officer Certification	$		Regulatory and Tariff Compliance
Inc - 5	PwC Officer Retirement Benefit Audit	$		Regulatory and Tariff Compliance
	Departmental	$		

1351 Facilities				
Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 5	Workstation changes and reconfigurations	($		ISO Infrastructure
Dec - 8	Consultants	($		Other
	Departmental	($	)	

1361 Office Adminstration				
Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Security Patrol Services budget adjustment (Alhambra)	$		Other
Inc - 2	Workplace Violence Assesment	$		Other
	Departmental	$		

1424 Asset Management				
Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Contractors (2) for IT Change Management Functions	$		ISO Infrastructure

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FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

Inc - 3	Hardware maintenance: End-of-lease, and end-of-life	$		ISO Infrastructure
Inc - 4	Software & Hardware maintenance: New, approved	$		ISO Infrastructure
Dec - 1	Lease expense savings due to capital buyout of all expiring 2004 schedules	($	)	ISO Infrastructure
Dec - 3	Potential Software Maintenance Reductions	($		ISO Infrastructure
	Departmental	($	)	

1433 Network Operations

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Elimination of Network Management Third Party Audit	($		Other
	Departmental	($		

1441 Outsourced Contracts

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Contracts Analyst position	$		Other
Dec - 2	PBX/Telephony Equipment lease expense - Capital alternative	($		ISO Infrastructure
	Departmental	($		

1451 Information Security

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 2	Elimination of PKI Replacement Study	($	)	ISO Infrastructure
	Departmental	($		

1463 Operations Applications - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Elimination of IS Customer Satisfaction Survey	($		Other
	Departmental	($		

Exh. No. ISO- 30, Page 29 of 108

FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1482 Market Systems Support Services

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Funding of Positions Authorized in 2002 after 2003 budget completed	$	4	Market & Internal Infomation Provision
	Departmental	$	4	

1521 Grid Planning

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Funding for Position Authorized in 2003	$	1	Reliability/ Operating Support
Dec - 1	Various reductions in Consulting, Travel, etc.	($		Reliability/ Operating Support
	Departmental	($)	1	

1558 Transmission Maintenance

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	New Position-Transmission Project Analyst	$	1	Reliability/ Operating Support
	Departmental	$	1	

1631 Legal and Regulatory

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Overtime Lawsuits-- Additional Trials	$		Regulatory and Tariff Compliance
	Departmental	$		

1651 Board of Governors

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Board Strategic Planning Retreat	$		Other
Inc - 2	Increase in Board Size - Governance Compromise	$		Regulatory and Tariff Compliance
	Departmental	$		

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FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1661 Compliance - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	O&I Training Program	$		Market & Internal Infomation Provision
Inc - 6	New MSS Support	$		Regulatory and Tariff Compliance
Inc - 7	Continuation of SQMD Lessons Learned Reporting	$		Regulatory and Tariff Compliance
	Departmental	$		

1711 VP Market Services - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Additional VP Market Services Travel	$		Market & Internal Infomation Provision
Dec - 1	Training Budget Reduction	($		Other
	Departmental	$		

1725 BBS - FSS

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	2004 FERC Mandated Re-run Compliance	$		Regulatory and Tariff Compliance
	Departmental	$		

1741 Client Relations

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Placeware web based conferencing	$		Communications and Stakeholder Support
Dec - 2	Reduced stakeholder meetings expenditures	($		Communications and Stakeholder Support
	Departmental	$		

1751 Market Operations - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 2	Reduce O&M Consulting Budget	($		Other
	Departmental	($		

Exh. No. ISO- 30, Page 31 of 108

FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1752 Manager of Markets

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	ALFS-Load Forecasting	$		Reliability/ Operating Support
Dec - 1	Reduce O&M Consulting Budget - CC 1752	($		Other
	Departmental	$		

1753 Market Engineering

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Intermittent Resources Program	$		Regulatory and Tariff Compliance
Dec - 4	Reduce O&M Consulting Budget CC 1753	($		Other
	Departmental	$		

1755 Business Solutions

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Reduce O&M Consulting Budget CC 1755	($		Other
	Departmental	($		

1756 Market Quality - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Contractor for daily support and FERC re-run	$		Regulatory and Tariff Compliance
Dec - 1	Eliminate Contractor Support	($	)	Market & Internal Infomation Provision
	Departmental	($		

1757 Market Integration

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Reduce O&M Consulting Budget CC 1757	($		Other
	Departmental	($		

Exh. No. ISO- 30, Page 32 of 108

FY2004 Budget
Incremental/ Decremental Program Listing

CostCenter#

Additional detail for individual programs is available upon request

1831 Strategic Development

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Incremental Funding for Board Administration	$		Other
	Departmental	$		

2111 Other

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Salary adjustments for 2004	$		Other
	Departmental	$		

Total, All INCS& DECS	$3,097,093	6
Total INCS:	***10,313,093***	
Total DECS:	***(7,216,000)***	

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Exhibit: Incremental/ Decremental Program Request Template

Cost Center: *[Click here and type Cost Center]*
Department Name: *[Click here and type department name]*
Program Title: *[Click here and type program name]*
Estimated Cost: *[Click here and type total estimated program cost]*
Estimated Additional Staffing: *[Click here and type number of additional staff]*

Program Description and Detail:

- **Description of the proposed program/expenditure/opportunity.**
- **Description of departmental services/functionality/output before and after the proposed change.**
- **Impact on market effectiveness and efficiency**
- **Potential risks from implementing/not implementing the proposed program:**

A. Reliability of Grid Management and Dispatch Operation	
B. Compliance with Protocols, Regulations, & Contract Provisions	
C. Change Management / Operational Risks	
D. Technology Risks	
E. Financial Risks & Implications	
F. Strategic Risks	
G. Introducing Potential Exposure to ISO for Litigation	

Program Costs for the Cost Center:

Category	Proposed Cost	Proposed # of additional Staff
Salaries (including base salaries plus 40% burden)		
Building, Leases & Facility		
Insurance		
Third Party Vendor Contracts		
Professional & Consluting Services		
Lega/Audit Expenses		
Travel, Training & Professional		
Other		
Total	0	

- **Impact of the proposed program on other CAISO departments.**

VIII. CAISO Staffing Overview

The following Exhibits summarize CAISO staffing composition and changes. The explanation of these changes is detailed in the Divisional budget discussions. Note that these staffing overviews provide a snapshot of only CAISO full-time employees, and do not provide the full view of all resources used by CAISO to fulfill its responsibilities, including consultants and contractors.

The proposed budget includes a staffing cost adjustment of $3.3 million to provide for merit, equity and market adjustments to employee base salaries. A funding pool of 4.4% of compensation related costs (exclusive of this amount), is provided for this purpose. This would provide for merit increases of roughly 3.5% (consistent with market forecasts), and a pool of approximately 1% for other adjustments. In order to allow for a comparison of staffing costs on a consistent basis from FY2003 to FY2004, these salary and benefit related costs have not been distributed to the ISO Divisions. Rather, the $3.3 million has been shown as a separate item in the proposed budget.

ISO employee benefits are budgeted at 33% of base salary costs (consistent with the 2003 budget). Holding benefits costs at this level was a challenge given the increases in health insurance coverage and other benefit program increases in the current market.

Other benefits include (along with other minor items) employer matching FICA contributions, matching 401K plan contributions, medicare contributions, payroll taxes, workers' compensation coverage, unemployment coverage costs, health benefits (medical,dental & vision), life insurance, etc. The total compensation package provided to ISO employees also includes incentive compensation (at up to 12% of base pay for most employees, up to 20% for managers/directors, and up to 60% for Officers, with actual payouts based on overall Corporate performance[5]), and a tuition reimbursement program for qualifying educational expenses.

Staffing costs incorporate a vacancy rate of approximately 2.4% during 2004. As a result, a provision for vacant positions reduces staffing costs by $2,010,000, compared with a provision of $1,236,000 included in the 2003 budget.

The following Exhibits are provided

	Page
Exhibit: Table-Staffing Changes in Proposed FY2004 Budget	35
Exhibit: Chart-Staffing-FY2003 to FY2004	36
Exhibit: Table-Staffing by Department	37

[5] The budget assumes a 73% payout ratio, consistent with that budgeted in previous years.

Exhibit: Table-Staffing Changes in the Proposed FY2004 Budget

CAISO Division	FY2003 Budgeted Staffing	Changes during 2004	FY2004 Base Budget	FY2004 Changes	FY2004 Proposed Budget
CEO/MD02/Grid Plng.	23.0	1.0	24.0	1.0	25.0
CFO	34.5	-	34.5	-	34.5
CIO	144.0	-	144.0	4.0	148.0
VP Grid Ops	187.0	(1.0)	186.0	1.0	187.0
General Counsel	54.0	(1.0)	53.0	-	53.0
Market Services *	123.0	(1.0)	122.0	-	122.0
VP Corp & Strat Dev	30.0	-	30.0	-	30.0
Total FTE	**595.5**	**(2.0)**	**593.5**	**6.0**	**599.5**

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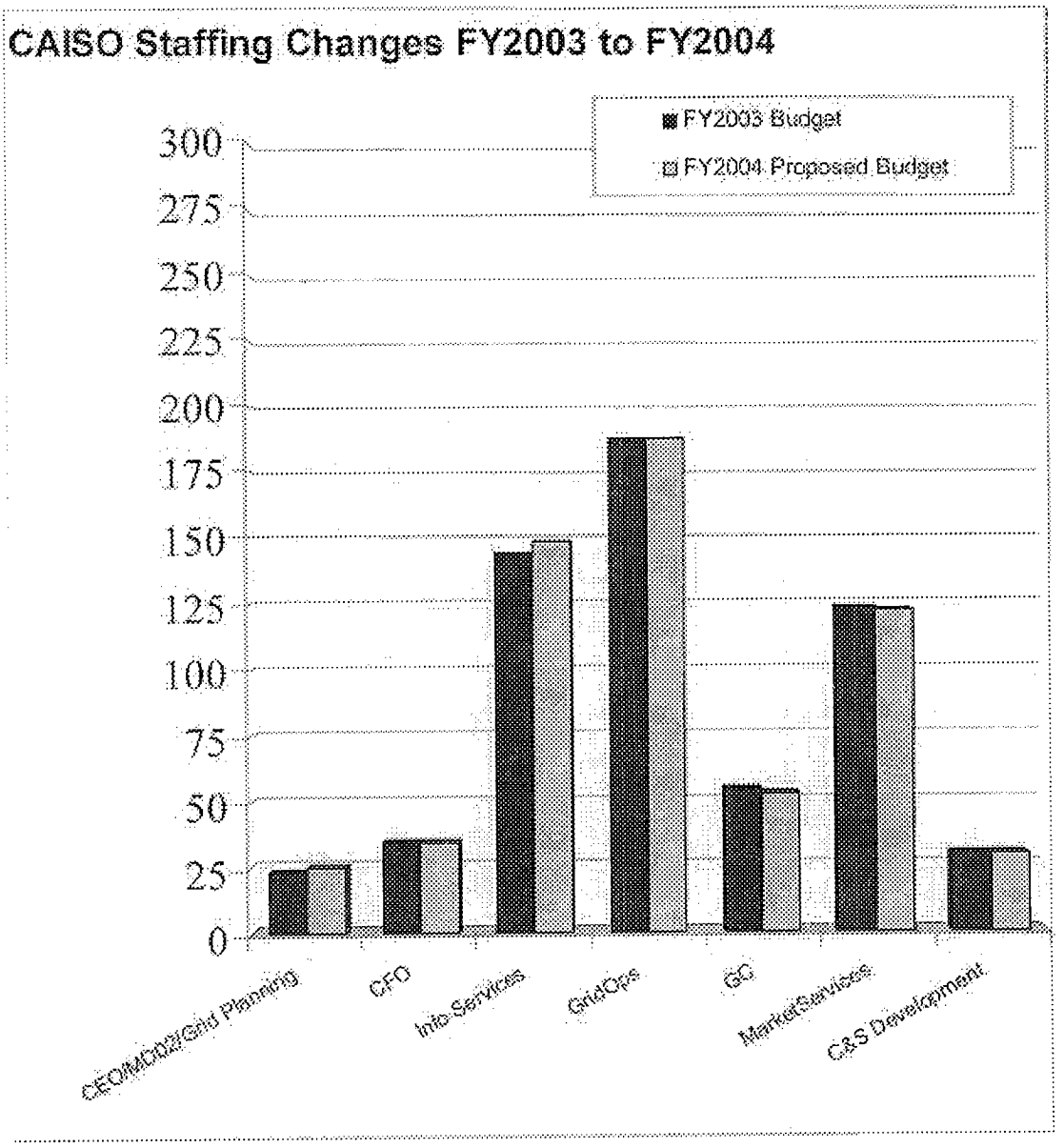

CAISO Staffing Changes FY2003 to FY2004
FY2003 Budget
FY2004 Proposed Budget
300
275
250
225
200
175
150
125
100
75
50
25
0
CEO/MC&D/Grid Planning
CFO
Info Services
GridOps
GC
MarketServices
C&S Development

Exhibit: Table-Staffing FY2003 to FY2004

CALIFORNIA ISO

FY2004 Budget Summary
Staffing Detail

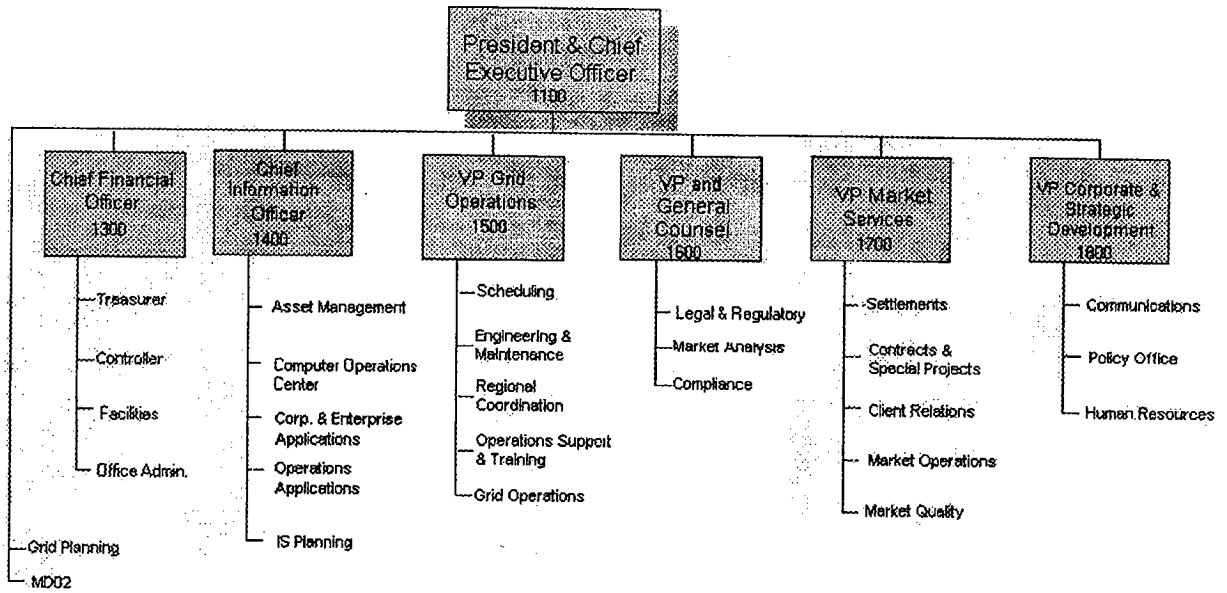
Cost Center	Area	FY2003 Headcount, Approved Budget	FY2004 Headcount Base Budget	2004 Incremental Program FTEs Management Recommended Budget	2004 Total Proposed FTE Headcount
1100	Chief Executive Officer	2.0	2.0	-	2.0
1111	CEO - General	2.0	2.0	-	2.0
1241	MD02	6.0	7.0	-	7.0
1521	Grid Planning	15.0	15.0	1.0	16.0
1300	Chief Financial Officer	34.5	34.5	-	34.5
1311	CFO - General	1.5	1.5	-	1.5
1321	Accounting	9.5	9.5	-	9.5
1331	Financial Planning and Treasury	6.5	6.5	-	6.5
1361	Office Administration	10.0	10.0	-	10.0
1351	Facilities	7.0	7.0	-	7.0
1400	VP Information Services	144.0	144.0	4.0	148.0
1411	VP - Information Services General	2.0	2.0	-	2.0
1421	Infrastructure Engineering	5.0	5.0	-	5.0
1420	Asset Management Group	10.0	10.0	-	10.0
1424	Asset Management	8.0	8.0	-	8.0
1441	Outsourced Contracts	2.0	2.0	-	2.0
1430	Computer Operations Center	46.0	47.0	-	47.0
1432	Computer Operations-General	3.0	6.0	-	6.0
1431	End User Support	4.0	4.0	-	4.0
1433	Network Operations	12.0	11.0	-	11.0
1442	Product Support	18.0	17.0	-	17.0
1491	Information Security	9.0	9.0	-	9.0
1460	Corporate & Enterprise Applications	25.0	25.0	-	25.0
1422	Corporate & Enterprise Apps-General	2.0	2.0	-	2.0
1465	Enterprise Apps	10.0	10.0	-	10.0
1468	Corporate Application Support	4.0	4.0	-	4.0
1469	Analytical and Reporting	9.0	9.0	-	9.0
1480	Operations Applications	55.0	55.0	3.0	58.0
1463	Operations Applications-General	3.0	3.0	-	3.0
1461	Control Systems	19.0	19.0	-	19.0
1462	Field Data Acquisition Systems (FDAS)	15.0	15.0	-	15.0
1467	Settlement Systems Services	9.0	9.0	-	9.0
1481	Markets and Scheduling	10.0	9.0	-	9.0
1482	Market Support Services		-	3.0	3.0
1500	VP Grid Operations	187.0	186.0	1.0	187.0
1511	VP Grid Operations General	1.5	1.5	-	1.5
1550	OSAT Group	37.0	38.0	-	38.0
1548	OSAT Group General	1.0	2.0	-	2.0
1549	Operations Training	19.0	18.0	-	18.0
1555	Operations Support Group	9.0	9.0	-	9.0
1559	Operations Application Support	4.0	5.0	-	5.0
1563	Coordinated Operations	4.0	4.0	-	4.0
1540	Engineering and Maintenance - Grid	34.5	34.5	1.0	35.5
1547	Engineering and Maintenance	3.0	3.0	-	3.0
1543	Loads and Resources	7.0	7.0	-	7.0
1561	Operations Engineering South	7.5	7.5	-	7.5
1562	Operations Engineering North	9.0	9.0	-	9.0
1558	Transmission Maintenance	8.0	8.0	1.0	9.0

FY2004 Budget Summary
Staffing Detail

Cost Center	Area	Headcount, Approved Budget	Headcount Base Budget	Incremental Program FTEs Management Recommended Budget	Total Proposed FTE Headcount
1530	Operations Scheduling Group	114.0	112.0	-	112.0
1564	Operations Scheduling	3.0	2.0	-	2.0
1544	Real- Time Scheduling	20.0	20.0	-	20.0
1542	Outage Coordination	12.0	12.0	-	12.0
1565	Pre-Scheduling and Support	13.0	13.0	-	13.0
1570	Grid Operations Group	51.0	50.0	-	50.0
1545	Grid Operations	51.0	50.0	-	50.0
1550	Regional Coordination Group	15.0	15.0	-	15.0
1566	Regional Coordination	3.0	3.0	-	3.0
1554	Special Projects Engineering	4.0	4.0	-	4.0
1546	Security Coordination	8.0	8.0	-	8.0
1600	VP General Counsel	54.0	53.0	-	53.0
1611	VP General Counsel	2.0	2.0	-	2.0
1631	Legal and Regulatory	23.0	22.0	-	22.0
1641	Market Analysis	16.0	16.0	-	16.0
1642	Market Surveillance Committee	-	-	-	-
1651	Board of Governors	-	-	-	-
1660	Compliance Group	13.0	13.0	-	13.0
1661	Compliance - Gen	10.0	10.0	-	10.0
1662	Compliance Audits	3.0	3.0	-	3.0
1700	VP Market Services	124.0	122.0	-	122.0
1711	Client Services - General	2.0	2.0	-	2.0
1731	Contracts and Special Projects	9.0	9.0	-	9.0
1741	Client Relations	19.0	17.0	-	17.0
1720	Settlements	32.0	33.0	-	33.0
1721	Billing and Settlements	2.0	3.0	-	3.0
1722	Business Development Support	4.0	5.0	-	5.0
1723	Tariff and Contract Implementation	7.0	7.0	-	7.0
1724	BBS - PSS	9.0	9.0	-	9.0
1725	BBS - FSS	10.0	9.0	-	9.0
1750	Market Operations Group	43.0	43.0	-	43.0
1751	Market Operations	3.0	3.0	-	3.0
1752	Manager of Markets	17.0	17.0	-	17.0
1753	Market Engineering	13.0	10.0	-	10.0
1755	Business Solutions	5.0	7.0	-	7.0
1757	Market Integration	5.0	6.0	-	6.0
1760	Market Quality Group	18.0	18.0	-	18.0
1756	Market Quality	18.0	18.0	-	18.0
1800	VP Corp. & Strategic Development	30.0	30.0	-	30.0
1811	VP Corp. & Strategic Development-General	2.0	2.0	-	2.0
1821	Communications	4.0	4.0	-	4.0
1841	Human Resources	13.0	13.0	-	13.0
1830	Regulatory Policy Group	11.0	11.0	-	11.0
1831	Strategic Development	3.0	3.0	-	3.0
1851	Project Office Group	4.0	4.0	-	4.0
1861	Regulatory Policy	4.0	4.0	-	4.0
	Totals	595.5	593.5	6.0	599.5

IX. CAISO Divisional Budget Overviews

The following section provides detailed information on the proposed budgets for each CAISO division, as shown on the organization chart below.

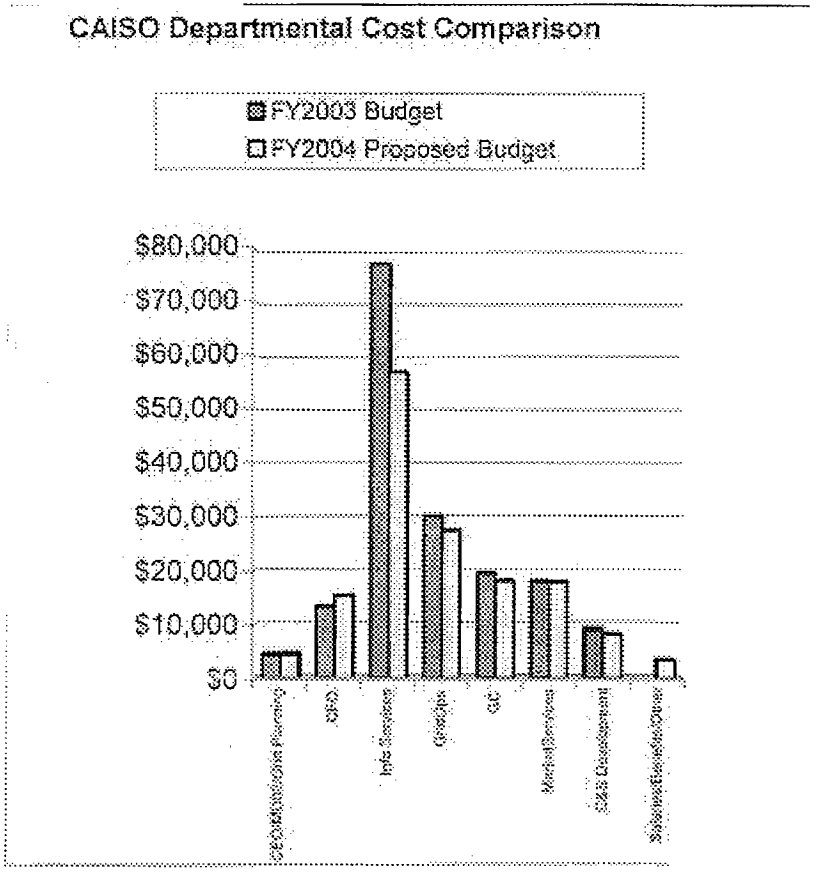


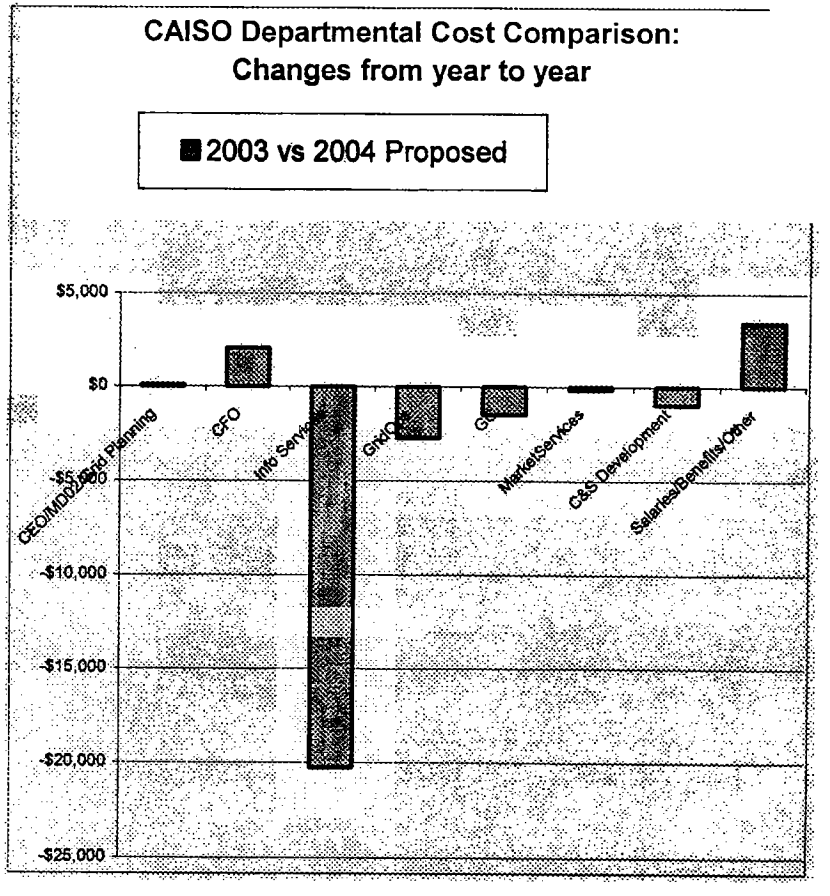
Each ISO Division provides a description of their departments, functions, staffing, and proposed budget, and incremental & decremental programs included in the proposed budget. Each discussion is prefaced by a chart providing an overview of the proposed budget. Substantial additional budget detail supports the figures shown in this document. ***The departmental discussions have been omitted from this version of the budget report to maintain confidentiality of detailed budget information.*** This section begins with a chart which overviews departmental costs and changes from FY2003.

Exhibit: Chart-Departmental Cost Comparison....40
Section: 1100 Chief Executive Officer (including MD02 & Grid Planning)....42
Section: 1300 Chief Financial Officer Division....45
Section: 1400 Chief Information Officer Division....48
Section: 1500 Grid Operations Division....52
Section: 1600 General Counsel Division....55
Section: 1700 Market Services Division....58
Section: 1800 Corporate & Strategic Development Division....61
Section: 2100 Salary Adjustments for 2004....64

Exhibit: Chart-Departmental Cost Comparison

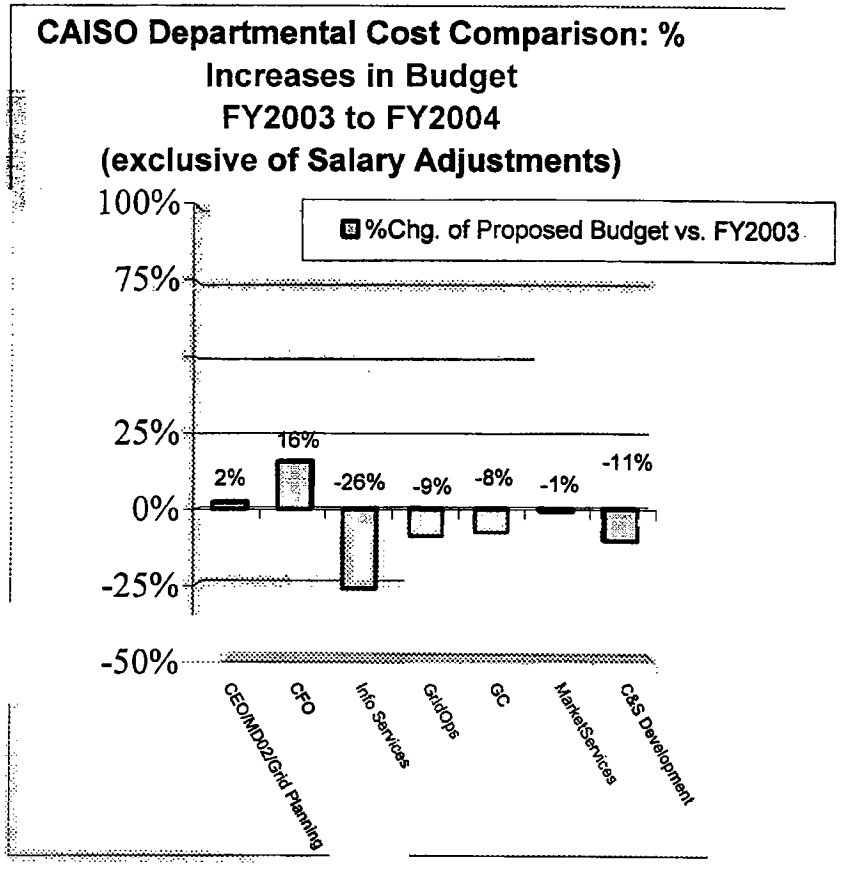
FY2004 Budget Overview
$ in 000's

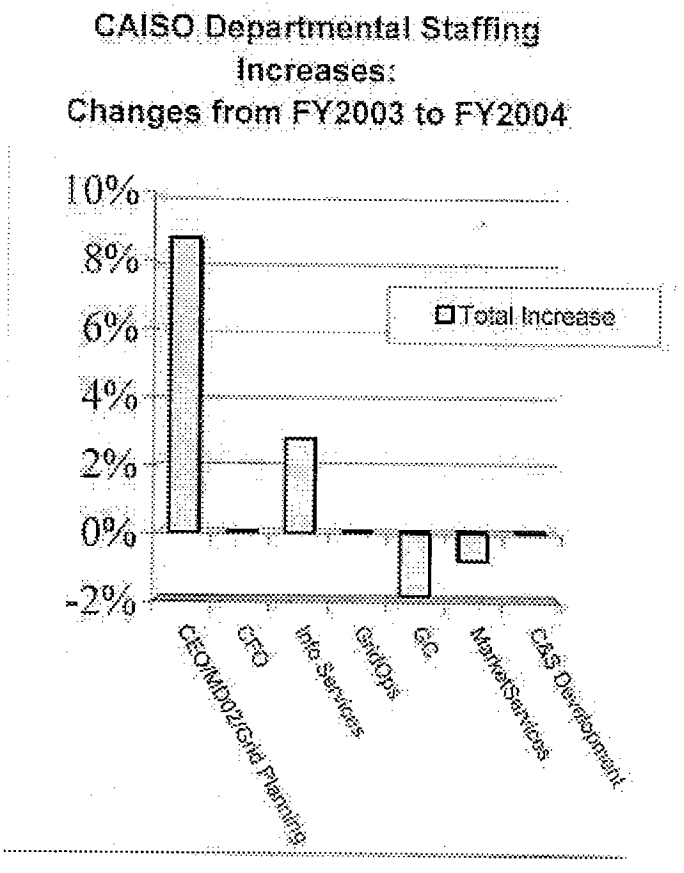




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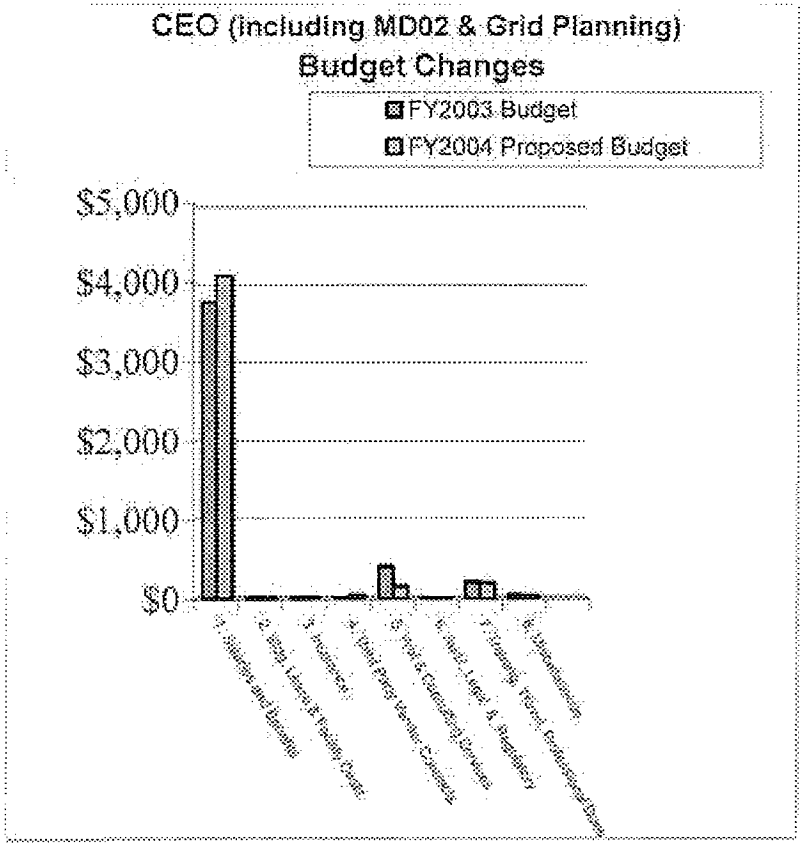
Exhibit: Chart-Departmental Cost/Staffing Comparison

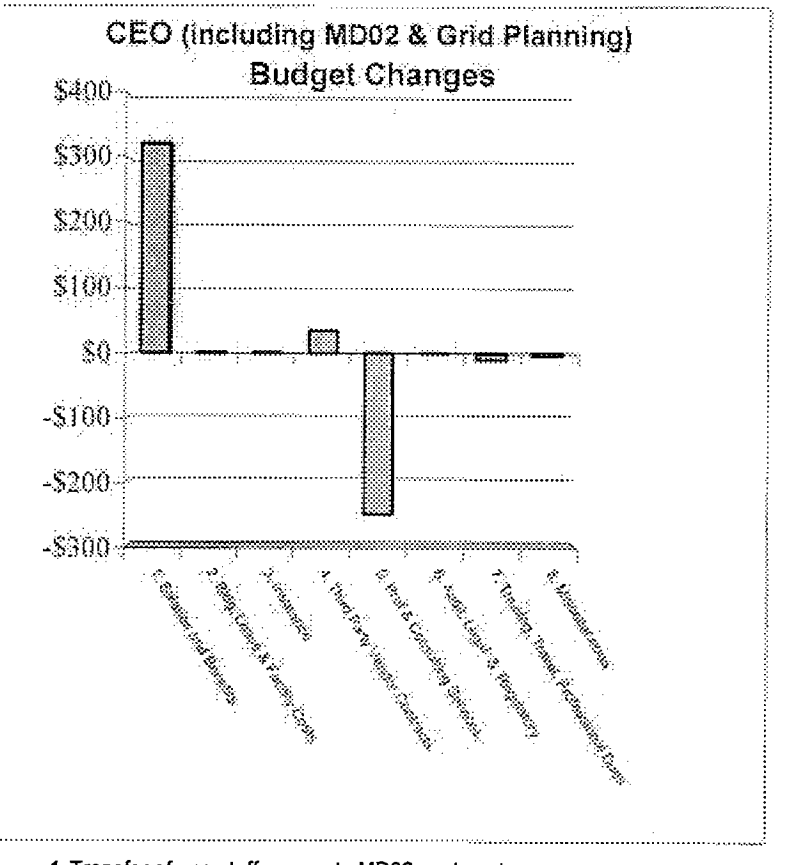




Section: 1100 Chief Executive Officer (including MD02 & Grid Planning)

FY2004 Budget Overview
$ in 000's





1 Transfer of one staff person to MD02 cost center.
One new staff for transmission planning.
5 Reduction in consulting fees budgeted in Transmission Planning.

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Divisional Budget Overview

1100 Chief Executive Officer

Rollup Overview

Division Description

Cost center 1100 is the roll-up cost center for cost center 1111 (consisting of the CEO and administrative support), 1521 (Grid Planning) and 1241 (MD02).

Division Changes and Workload

During 2002 an MD02 department was created. The MD02 department is cost center 1241, and for reporting purposes is associated with the CEO (Cost center 1100).

Discussion of Management Recommended Budget

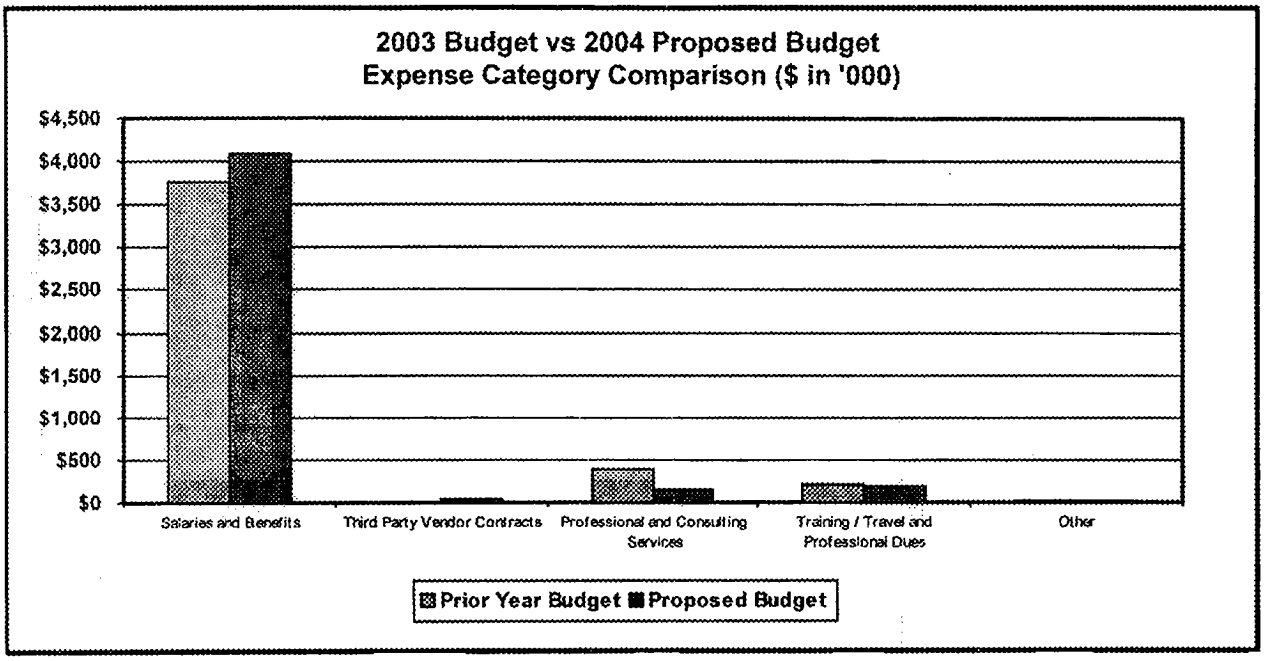
The budget for the CEO group increases by 2% from $4.4 to $4.5 million due to increased staffing in the MD02 cost center (transferred from other ISO departments), offset by reductions in Grid Planning.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1111	CEO - General	2	2	0	0	2
1241	MD02	6	7	0	0	7
1521	Grid Planning	15	15	1	0	16
	Total	23	24	1	0	25

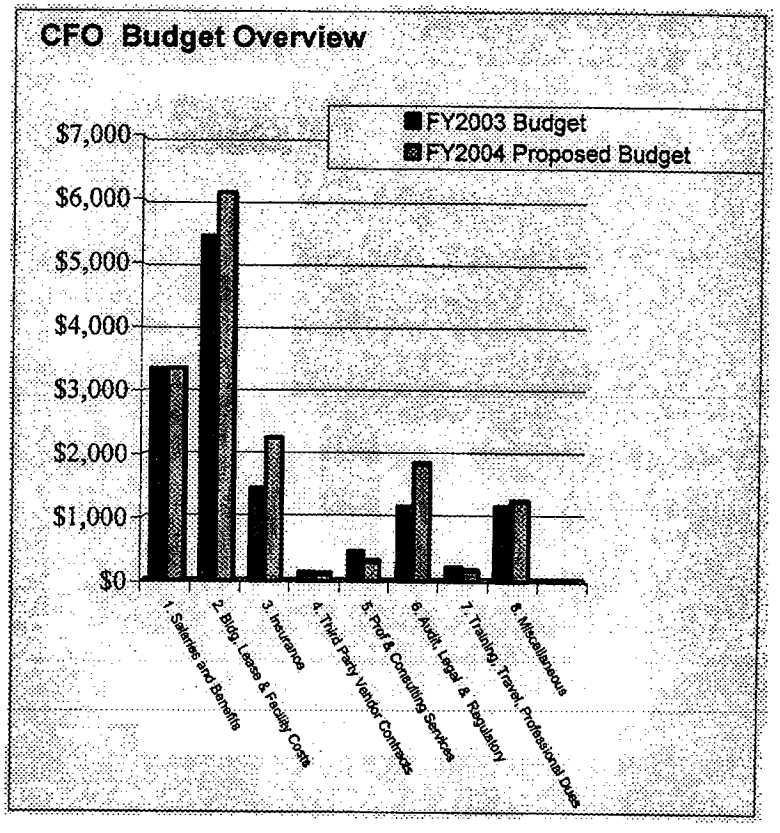
Operations and Maintenance Budget

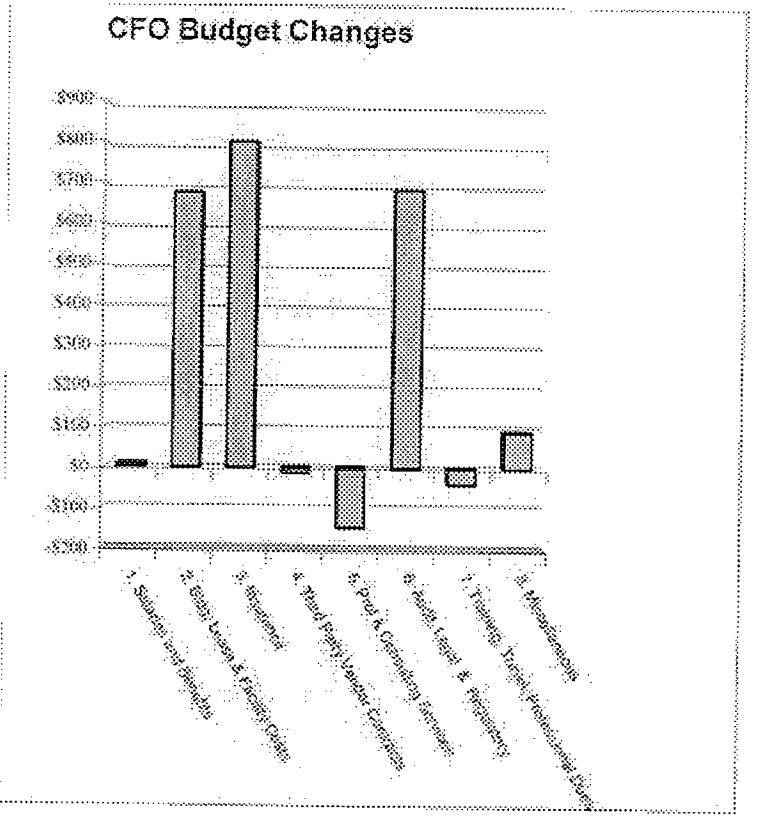
2004 Base Budget	$4,539,002
2004 Management Recommended Incremental / Decremental Programs	($35,123)
Total Proposed 2004 Budget	$4,503,879
2003 Budget	$4,409,755


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$4,500
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Salaries and Benefits
Third Party Vendor Contracts
Professional and Consulting Services
Training / Travel and Professional Dues
Other
Prior Year Budget
Proposed Budget

Section: 1300 Chief Financial Officer Division

FY2004 Budget Overview
$ in 000's





2. Standard increases in lease and building operating expenses.
3. Insurance premium increases: primarily D&O and E&O in 2003.
5. Reduction in consulting costs budgeted for CFO, facilities.
6. Higher auditor fees related to increased scope / new projects.

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Divisional Budget Overview

1300 Chief Financial Officer

Rollup Overview

Division Description

The CFO group consists of the following cost centers:

1311 CFO-General
1321 Accounting
1331 Treasury and Financial Planning
1351 Facilities
1361 Office Administration

Division Changes and Workload

The CFO group has remained unchanged in structure and overall staffing from 2002/2003.

The Finance Division addressed several issues in 2003 that are likely to continue to be challenges into 2004, including:

1) Grid management charge administration and change;
2) Aftermath of 2000/2001 energy crisis including changes to ISO tariff for credit and payments, FERC reruns, participant bankruptcies, market defaults;
3) Increased emphasis on physical security;
4) Preparing ISO business controls for SAS 70 Type II audit and other regulatory requirements, including Sarbanes/Oxley, and proposed FERC requirements including quarterly reporting.
5) Accommodating ISO staff and contractors in facilities with insufficient space and aging and inadequate infrastructure, and development of an achievable long-term facilities plan.

Discussion of Management Recommended Budget

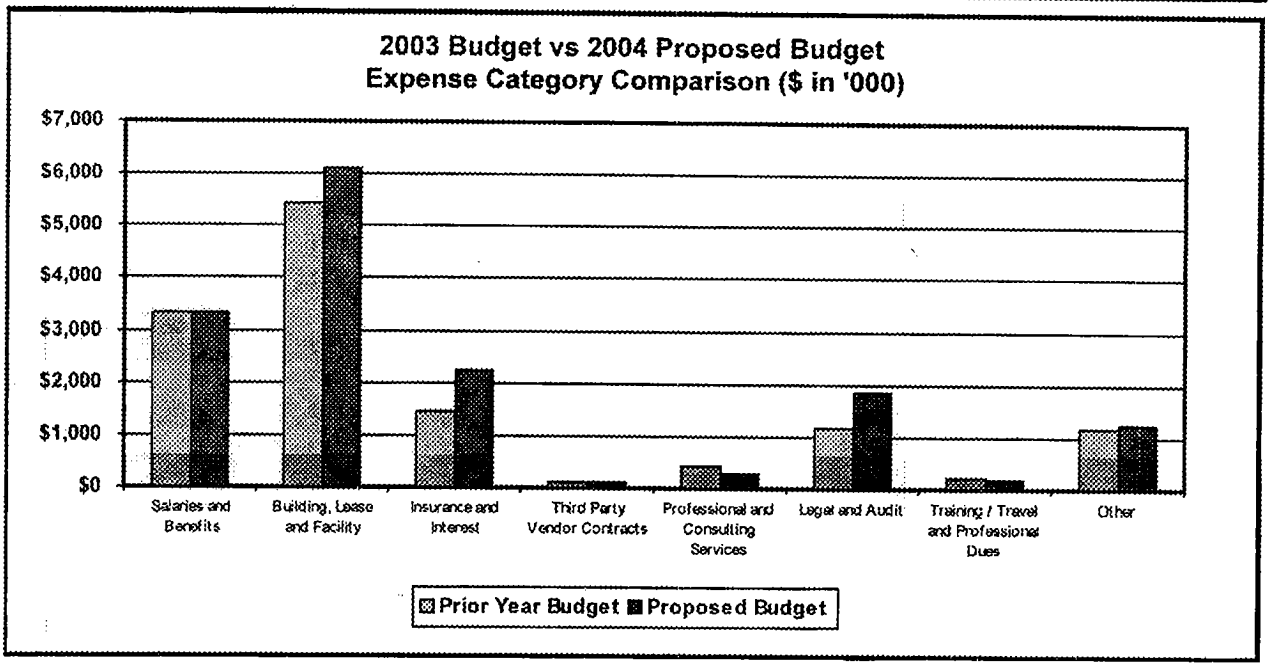
For the Division as a whole, the proposed budget increases approximately 15% from $13.3 million to $15.4 million (excluding 2004 salary adjustments, which are budgeted elsewhere for the company as a whole). Changes in costs include increased insurance premium expenses (2003 costs exceeded budgeted amounts for a continuation of coverage levels maintained in 2002), bank fees, professional services costs (increased audit costs), higher security costs than were budgeted in 2003 (costs were under-budgeted), and increased Facilities costs of $400K (increases in Leases and operating expenses).

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1311	CFO - General	1.5	1.5	0	0	1.5
1321	Accounting	9.5	9.5	0	0	9.5
1331	Financial Planning and Treasury	6.5	6.5	0	0	6.5
1351	Facilities	7	7	0	0	7
1361	Office Administration	10	10	0	0	10
	Total	34.5	34.5	0	0	34.5

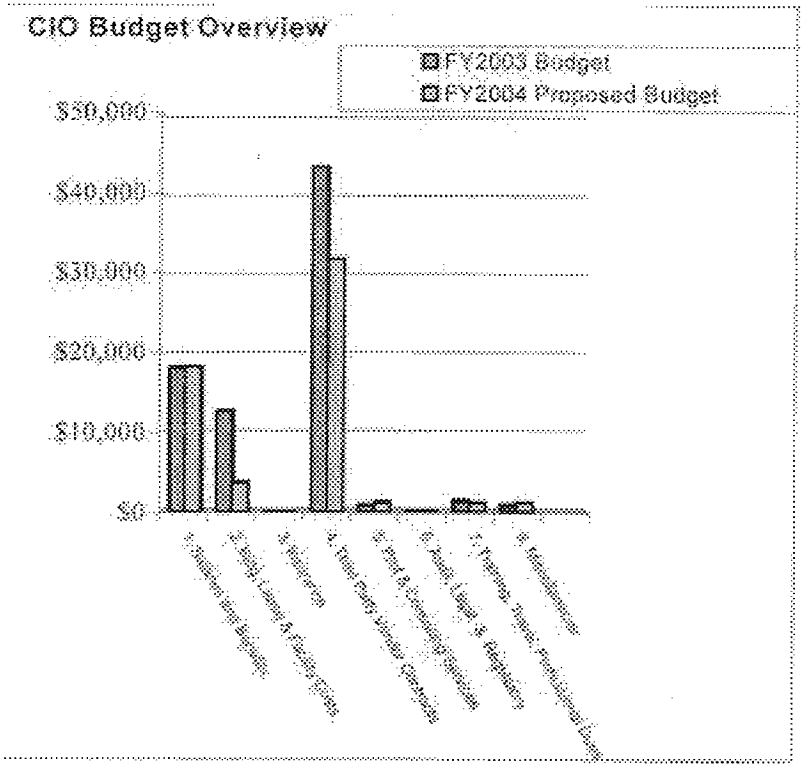
Operations and Maintenance Budget

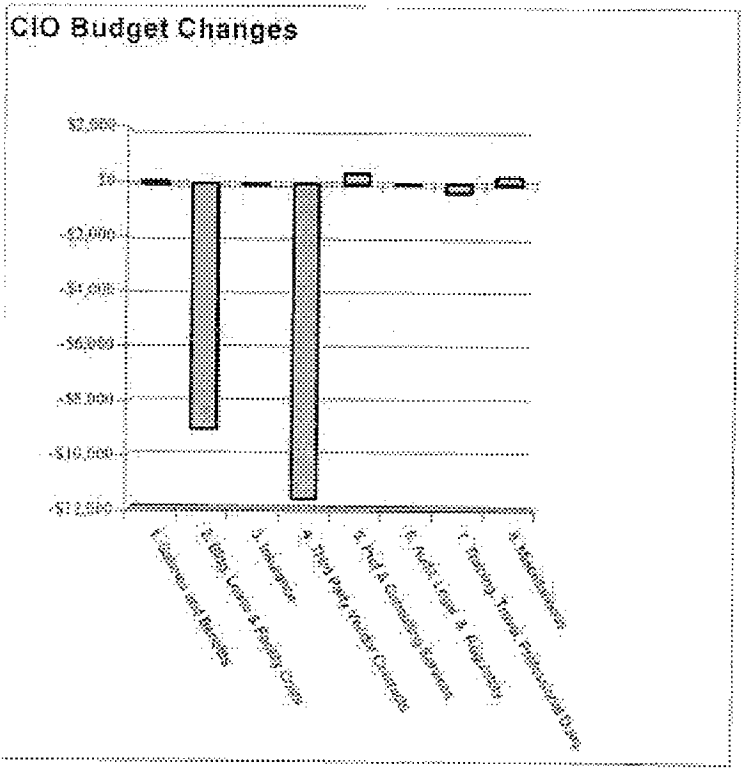
2004 Base Budget	$14,843,100
2004 Management Recommended Incremental / Decremental Programs	$541,000
Total Proposed 2004 Budget	$15,384,100
2003 Budget	$13,306,926



Section: 1400 Chief Information Officer Division

FY2004 Budget Overview
$ in 000's





1. Four new staff authorized during 2003.
   Costs offset by increase in headcount vacancy factor in 2004.
2. Reduced equipment lease expenses due to purchase of equipment.
4. Reduced telecommunications costs due to new contract.
8. Increased backup tapes.

Divisional Budget Overview

1400 Chief Information Officer

Rollup Overview

Division Description

The Information Services Division (IS) ensures the availability, reliability and security of the technology infrastructure and provides application development and support services to the ISO. Within this division are centralized IT costs to support the entire ISO. As such the majority of costs fall under the General service category.

IS objectives are summarized as follows:

- Provide strategic direction and leadership for information technology;
- Partner and consult with other business units and market participants to address their needs with information technology solutions;
- Ensure continuous availability of the information technology environment;
- Establish information technology architecture and standards;
- Secure the information technology environment; and
- Provide reliable and timely communication and office automation services.

The IS Division is divided into Operations System Services, Corporate and Enterprise Systems, Computer Operations, Infrastructure Engineering and IT Asset Management. The cost centers related to these primary functions are:

1411 VP Information Services General
1422 Corporate & Enterprise Applications-General
1424 Asset Management
1431 End User Support
1432 Computer Operations-General
1433 Network Services
1441 Outsourced Contracts
1442 Production Support
1451 Information Security
1461 Control Systems
1462 Field Data Acquisition System (FDAS)
1463 Operations Applications-General
1466 Enterprise Applications
1467 Settlement Systems Services
1468 Corporate Application Support
1469 Analytical and Reporting
1471 Infrastructure Engineering (IS Planning)
1481 Markets and Scheduling
1482 Market System Support Services

Division Changes and Workload

A major change will occur this year as the MCI telecommunications contract is expiring resulting in an opportunity to review services and minimize costs for all areas of services provided by MCI including the Wide Area Network ("WAN", the Local Area Network ("LAN") and Telephony ("Voice").

A new contract was consummated with AT&T for the WAN services providing a substantial decrease in costs while maintaining the high demands for availability, reliability, and security required to run the California Electricity Market.

LAN services will be performed by IS Division personnel expanding their current responsibilities to include the portion of the LAN previously managed by MCI. These services will also be provided at a substantial savings over the prior MCI contract.

Voice services are forecast to be outsourced in early 2004 with expenses projected at a reduction over the current MCI agreement.

Cost savings generated from the AT&T contract, insourcing the LAN services, and outsourcing Telephony have provided a cost reduction within this division of at least $15,000,000.

IS is proposing specific cost reductions for the 2004 budget in the amount of approximately $19 million as discussed within each cost center. These reductions were generated from the savings associated with the new telecommunications contracts, lower demand for leasing expenses, and other cost savings effort within the division.

Discussion of Management Recommended Budget

The IS Division's recommended budget of $56.9M for FY2004 represents a substantial reduction from FY2003 ($77.2M). This reduction was accomplished through lower telecommunications costs, reduced leasing costs (shifting some costs to the ISO capital budget due to purchasing rather than leasing equipment), and other cost savings efforts. ISO's IT infrastructure is stabilizing, allowing financial resources to be redirected from supporting tremendous growth to programs promoting efficiencies and effectiveness of the ISO's investment in IT. IS will continue to deliver a high level of service and is positioned to be flexible to respond to new activities and market changes.

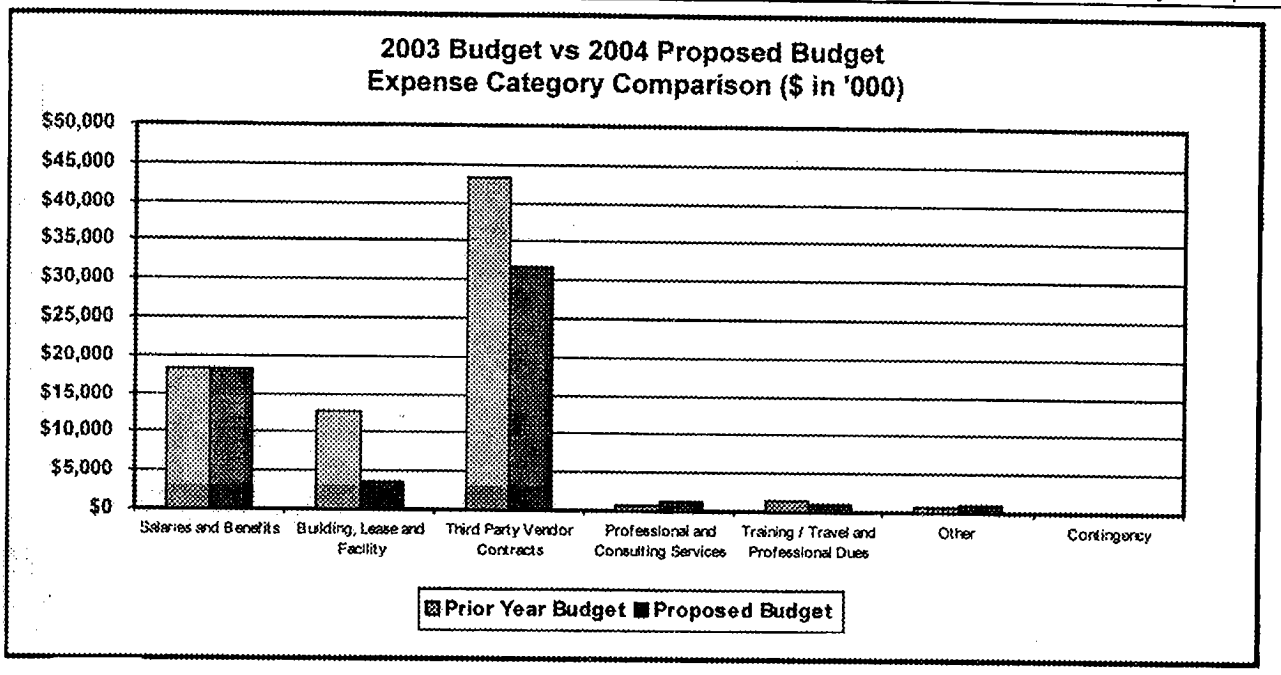
In addition to the reduction of the base budget to $58.2M, Decremental reductions are proposed in the amount of $6.3M. Incremental programs for $5M are for new services and/or programs, including those not provided for in the FY2003 budget, and discussed within individual cost centers.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1411	Chief Information Officer- General	2	2	0	0	2
1420	Asset Management Group	10	10	0	0	10
1430	Computer Operations Center	46	47	0	0	47
1460	Corporate & Enterprise Applications	25	25	0	0	25
1471	IT Planning	5	5	0	0	5
1480	Operations Applications	56	55	4	0	59
	Total	144	144	4	0	148

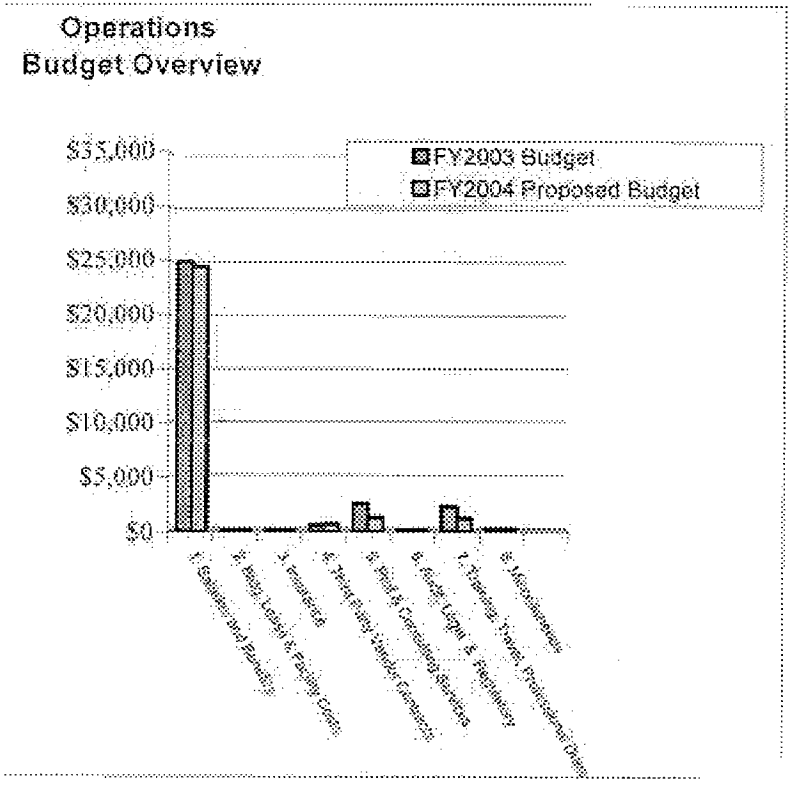
Operations and Maintenance Budget

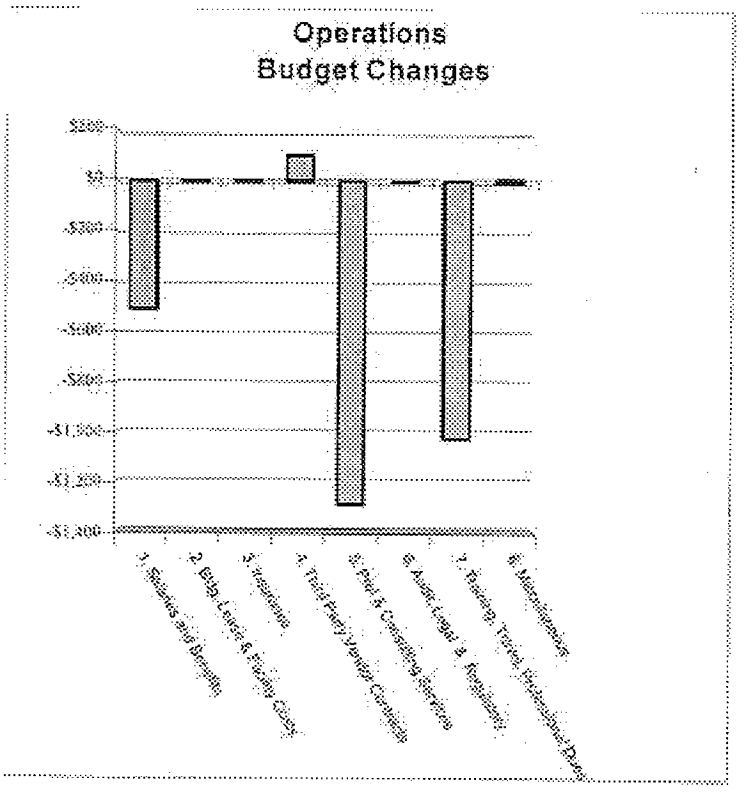
2004 Base Budget	$58,262,033
2004 Management Recommended Incremental / Decremental Programs	($1,347,437)
Total Proposed 2004 Budget	$56,914,596
2003 Budget	$77,158,879


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$50,000
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
Salaries and Benefits
Building, Lease and Facility
Third Party Vendor Contracts
Professional and Consulting Services
Training / Travel and Professional Dues
Other
Contingency
Prior Year Budget
Proposed Budget

Section: 1500 Grid Operations Division

FY2004 Budget Overview
$ in 000's





1. No change in staffing. 2003 actual salary costs somewhat lower than budgeted, and increase in headcount vacancy factor in 2004.
5. Consulting projects reduced in OSAT, transmission maintenance, Engineering & Maintenance
7. Reduced travel, training, aligning with actual spending in 2002/2003.

Divisional Budget Overview

1500 VP Grid Operations

Rollup Overview

Division Description

The Division has the following departments reporting to the VP Grid Operations:

1511 VP- Grid Operations- General
1560 Operations Support and Training (and subsidiary cost centers)
1540 Engineering and Maintenance Group (and subsidiary cost centers)
1530 Operations Scheduling Group (and subsidiary cost centers)
1570 Grid Operations Group (and subsidiary cost centers)
1550 Regional Coordination Group (and subsidiary cost centers)

Division Changes and Workload

Grid Operations reduced its number of positions by 4 in 2003, however its workload and responsibilities have continued to increase. The main mission of the department is reliable operation of the power grid and support for real-time operations. The department is devoting considerable resources to the design, development and implementation of the new market design system (MD02). In 2004, we expect to implement MD02 Phase 1B, and this will have some impact on the workflow in real-time operations. The extent of the impact is impossible to forecast at this time. This new work will be done by the existing workforce as much as possible by temporarily deferring or postponing other work.

Discussion of Management Recommended Budget

The FY2004 management recommended budget for Operations is $27.5 million which is $2.7 million or 9% less than the $30.2 million FY2003 budget. Numerous cost saving measures are included such as reductions in consulting services, EPRI membership, travel and training. In 2003, Grid Operations eliminated four positions (two in Transmission Dispatch and two in Real-time scheduling) to reduce labor costs. Also, other budget expense items were reduced. Ongoing operations were streamlined as much as possible so the elimination of these four positions resulted in a minimum increase in overtime costs.

The FY2004 budget includes one incremental program which funds an FY2003 Transmission Maintenance department authorized position. All decreases to the FY2004 budget are reflected in the base budget.

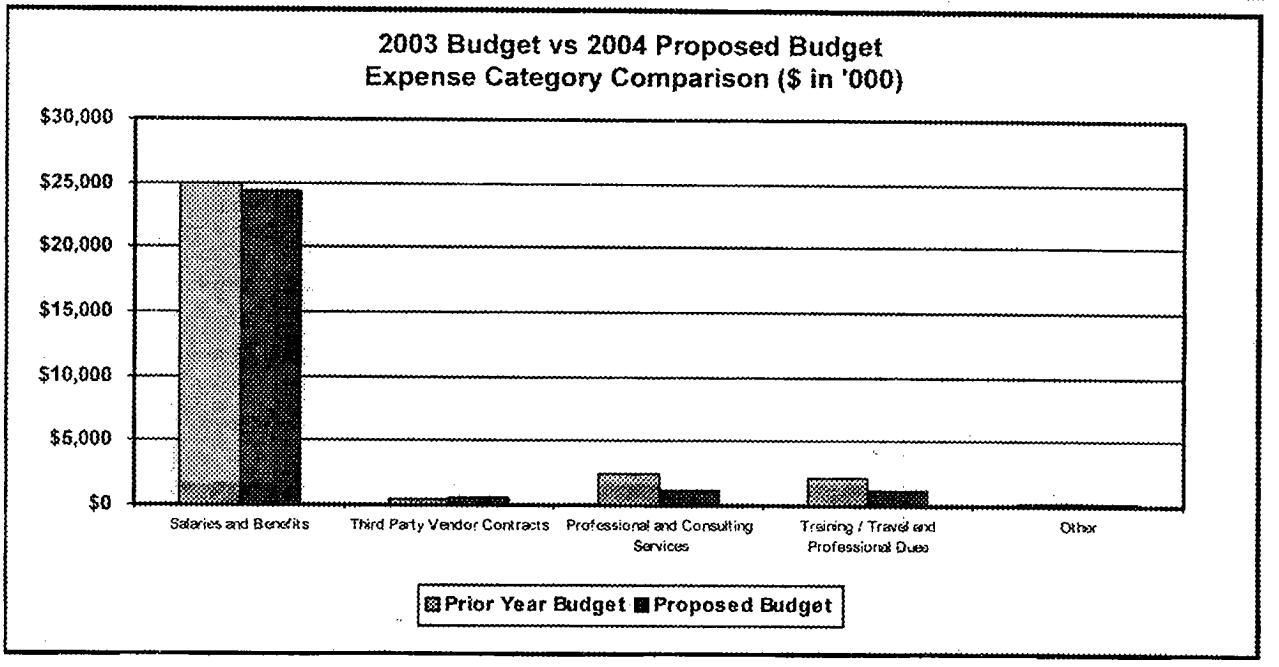
Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1511	VP Grid Operations - General	1.5	1.5	0	0	1.5
1530	Operations Scheduling Group	48	47	0	0	47
1540	Engineering and Maintenance Group	34.5	34.5	1	0	35.5
1550	Regional Coordination Group	15	15	0	0	15
1560	OSAT Group	37	38	0	0	38
1570	Grid Operations Group	51	50	0	0	50

Total	187	186	1	0	187

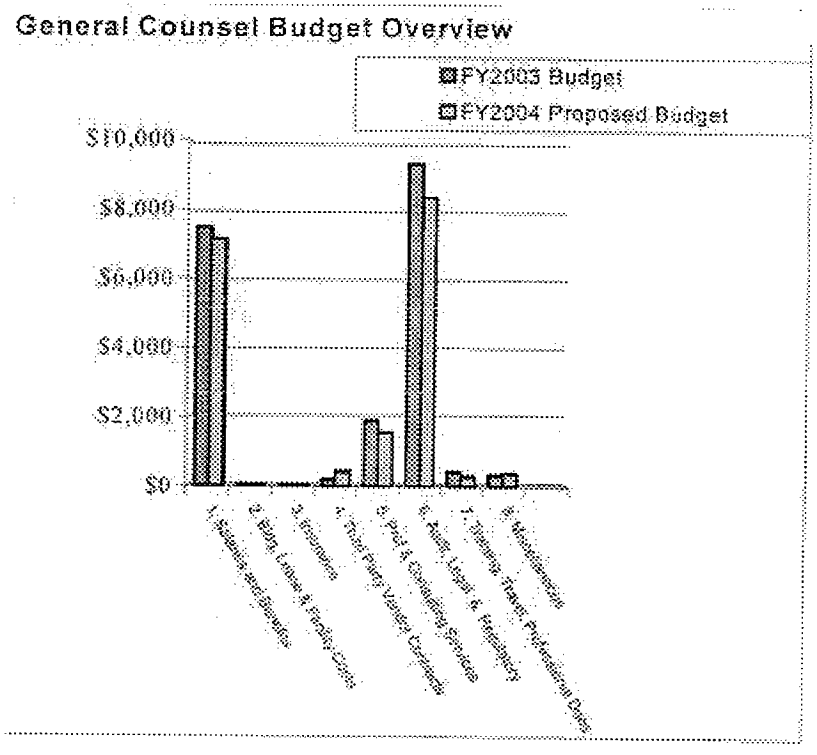
Operations and Maintenance Budget

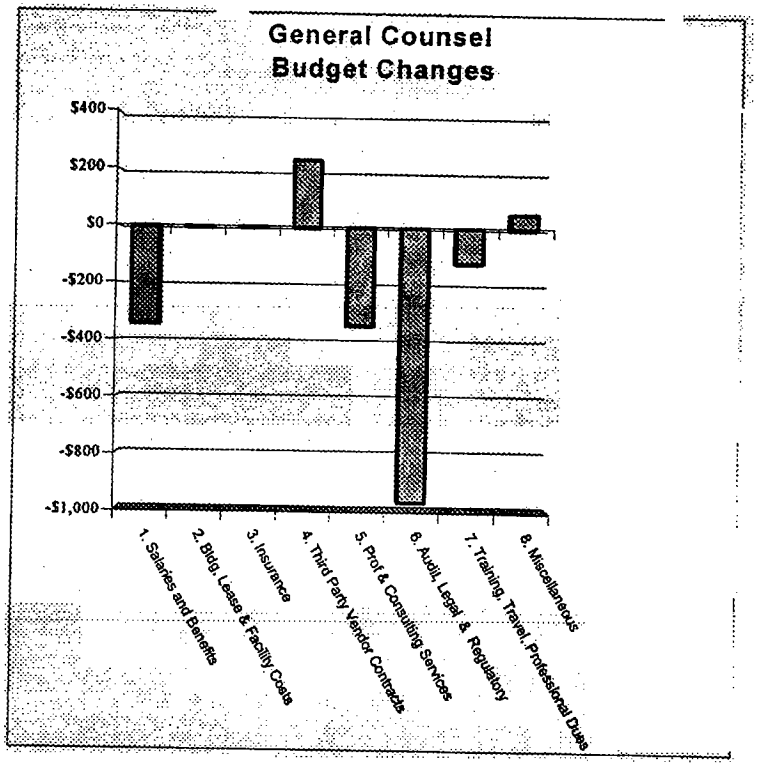
2004 Base Budget	$27,372,113
2004 Management Recommended Incremental / Decremental Programs	$89,307
Total Proposed 2004 Budget	$27,461,420
2003 Budget	$30,177,716



Section: 1600 General Counsel Division

FY2004 Budget Overview
$ in 000's





1. Transfer of one staff to CEO/MD02 Division.
5. Consulting: reduced in DMA, Market Surveillance, Compliance.
6. Legal/Regulatory Costs: reduction related to completion of crisis related matters.

Divisional Budget Overview

1600 VP General Counsel

Rollup Overview

Division Description

The General Counsel Group includes the Compliance and Data Quality Departments, the Legal & Regulatory Department, the Department of Market Analysis (DMA) and the Board of Governors. The responsibilities of each of those departments are described within their respective cost centers.

1611 General Counsel-General
1631 Legal & Regulatory
1641 Market Analysis
1642 Market Surveillance Committee
1651 Board of Governors
1660 Compliance (and subsidiary cost centers)

Division Changes and Workload

The structure of the GC group remains unchanged from the 2003 to 2004 budget, with the same cost centers contained in the 1600 roll-up group.

Discussion of Management Recommended Budget

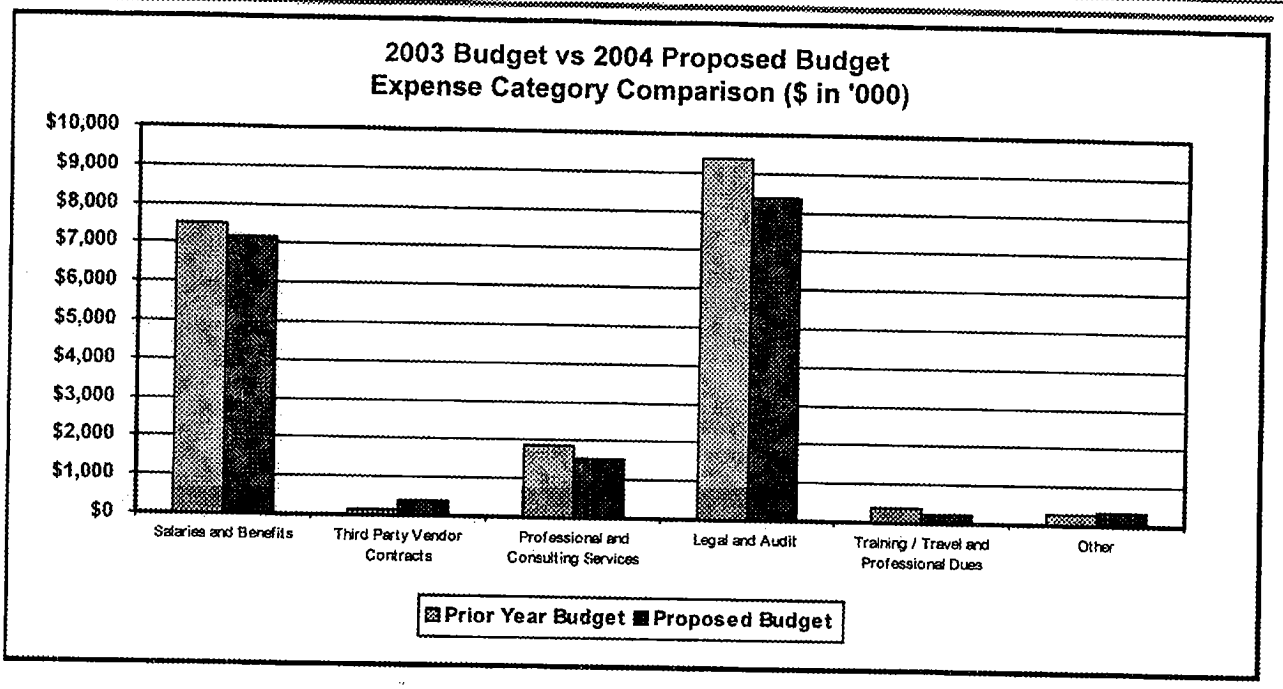
The FY2004 management recommended budget of $18.1 million represents a $1.5 million or 8% decrease from the $19.6 million FY2003 budget. Discussions of the managment recommended budgets for individual departments are included under the respective cost centers.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1611	VP General Counsel - General	2	2	0	0	2
1631	Legal and Regulatory	23	22	0	0	22
1640	DMA Group	16	16	0	0	16
1660	Compliance Group	13	13	0	0	13
	Total	54	53	0	0	53

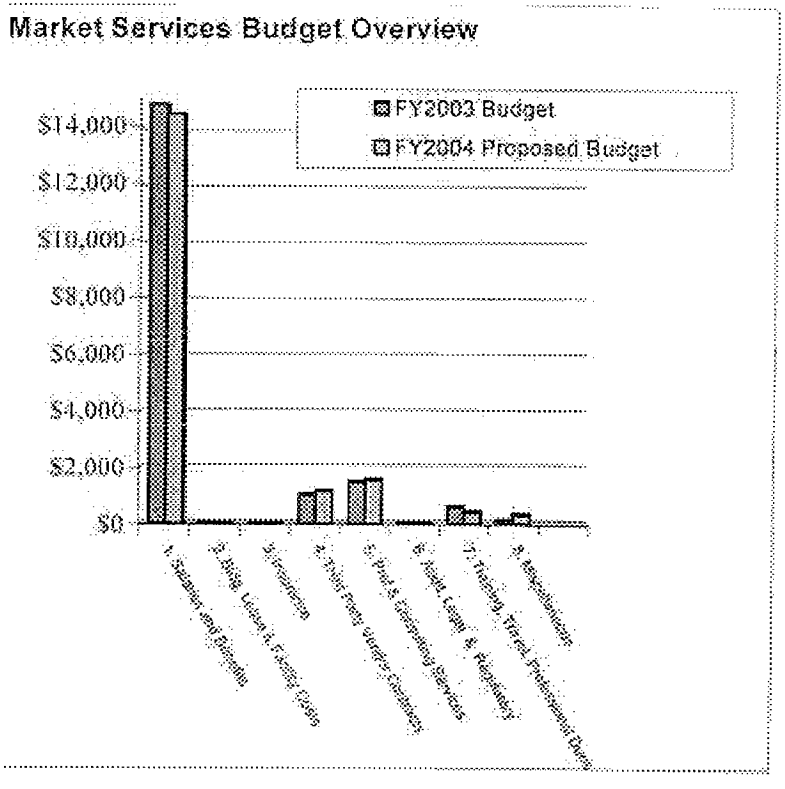
Operations and Maintenance Budget

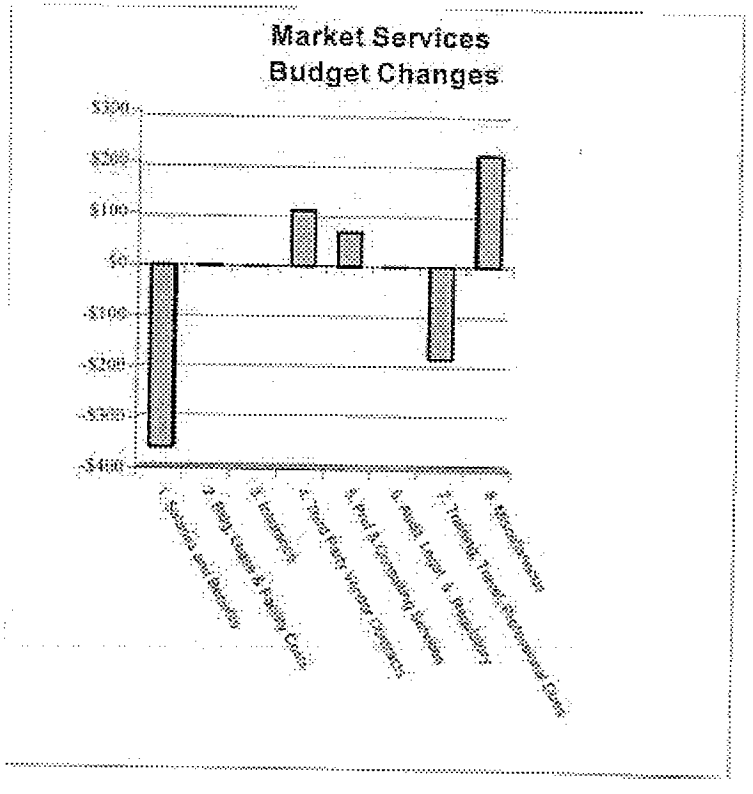
2004 Base Budget	$17,777,551
2004 Management Recommended Incremental / Decremental Programs	$305,400
Total Proposed 2004 Budget	$18,082,951
2003 Budget	$19,582,667


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$10,000
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
Salaries and Benefits
Third Party Vendor Contracts
Professional and Consulting Services
Legal and Audit
Training / Travel and Professional Dues
Other
Prior Year Budget
Proposed Budget

Section: 1700 Market Services Division

FY2004 Budget Overview
$ in 000's





1. Transfer of staff to MD02 dept.
7. Reduced travel/training, aligned with actual spending in 2002/2003.
8. Subscription to pricing service for AMP.

Divisional Budget Overview

1700 VP Market Services

Rollup Overview

Division Description

Cost center 1700 is the roll-up cost center for the following departments:

1711 Market Services-General
1731 Contracts and Special Projects
1741 Client Relations
1720 Settlements (including subsidiary cost centers)
1750 Market Operations Group (including subsidiary cost centers)
1756 Market Quality

Division Changes and Workload

In 2003 we saw many changes in the external environment which altered the workload and focus of this group. There were a number of major events in 2003 that have significantly impacted the workload of the Market Services Group. These events include:

- Multiple regulatory filings at and orders from FERC on MD02,
- Support of the refund activities,
- FERC re-run and discovery requests,
- Development of a framework for the participation of Intermittent Resources, and
- Multiple control area issues.

All of these activities have required leadership and support by the Market Services group and will continue into 2004.

Discussion of Management Recommended Budget

The FY2004 management recommended budget of $17.9 million is reduced slightly from the FY2003 budget of $18 million. The proposed budget largely reflects the costs associated with our people as well as third party vendor contracts and professional and consulting services. Included in the Management Recommended budget are certain incremental programs designed to further enhance the breadth and depth of services the ISO provides to the Market along with a number of decremental programs which could potentially decrease the level of service that the ISO provides to the Market Participants.

One incremental program includes hiring contractors for project related functions to provide the support required for the expected FERC mitigated price case compliance re-run. Workers will be released upon completion of the re-run and fulfillment of subsequent data requests.

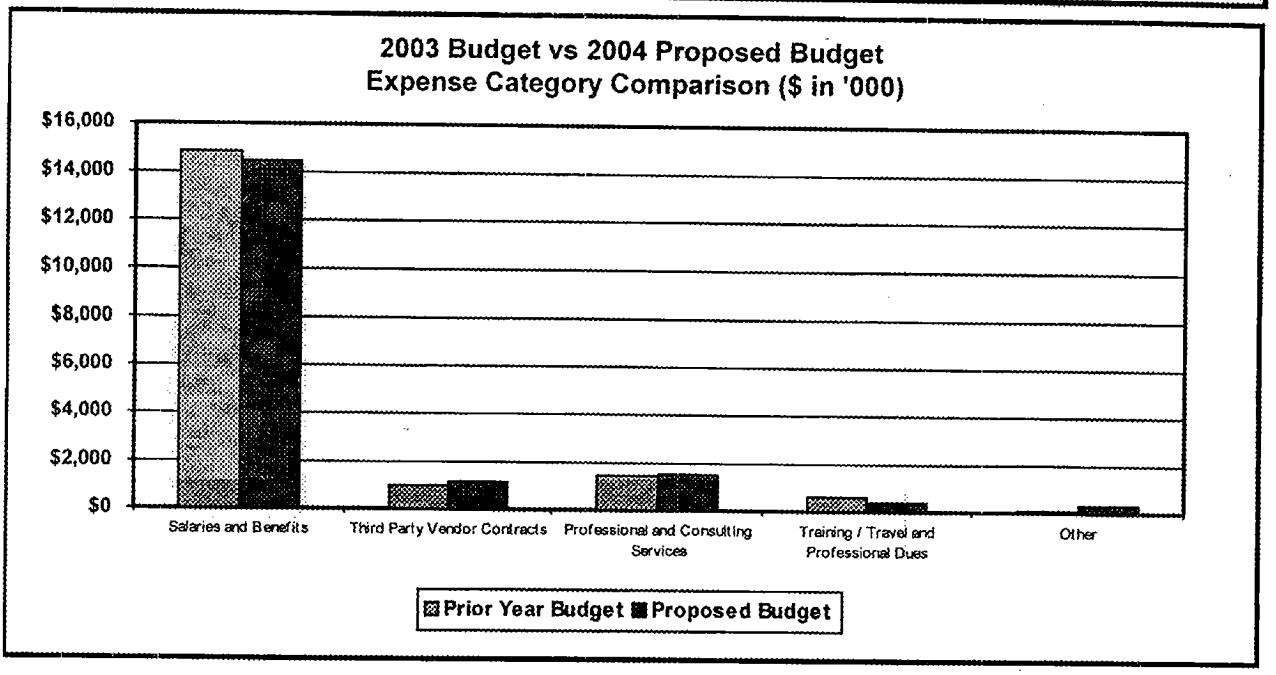
Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1711	VP Market Services - General	2	2	0	0	2
1720	Settlements	32	33	0	0	33
1731	Contracts and Special Projects	9	9	0	0	9

1741	Client Relations	19	17	0	0	17
1760	Market Operations Group	43	43	0	0	43
1760	Market Quality Group	18	18	0	0	18
	Total	123	122	0	0	122

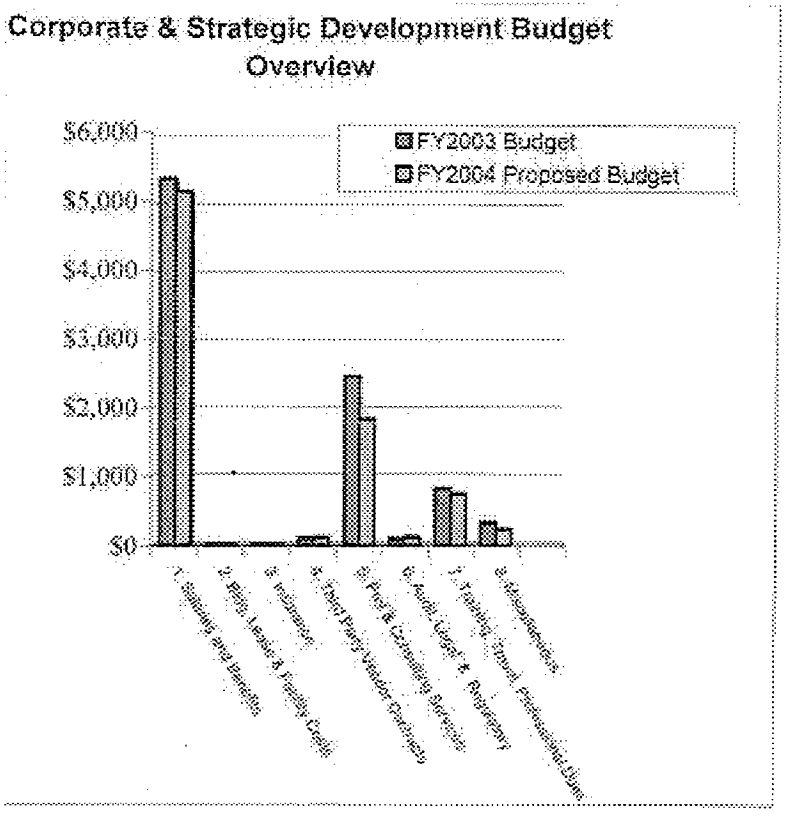
Operations and Maintenance Budget

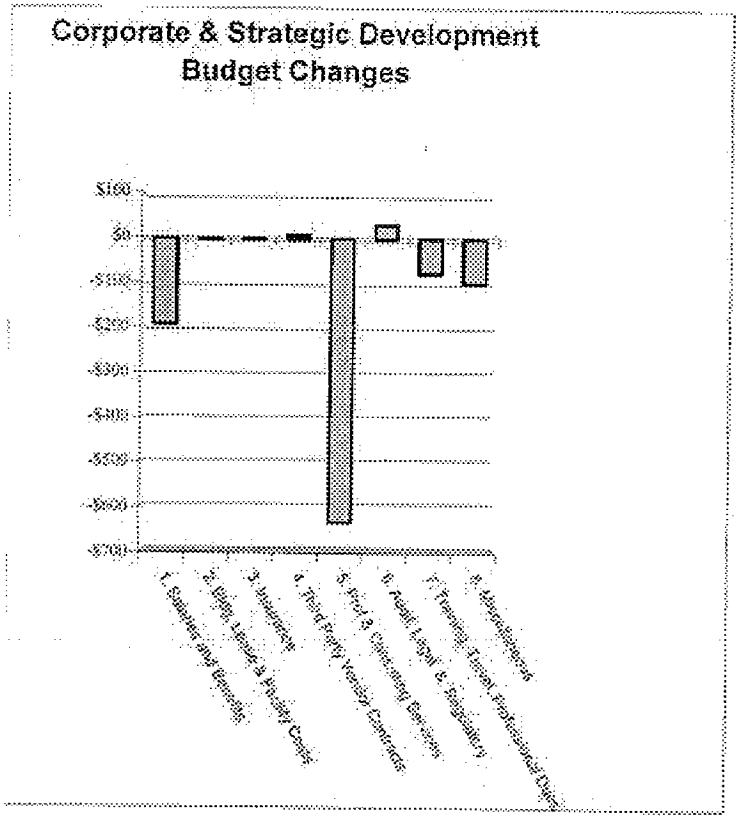
2004 Base Budget	$17,753,412
2004 Management Recommended Incremental / Decremental Programs	$108,160
Total Proposed 2004 Budget	$17,861,572
2003 Budget	$18,009,733



Section: 1800 Corporate & Strategic Development Division

FY2004 Budget Overview
$ in 000's





5. Consulting: Reduced consulting Expenses for Regulatory Policy Matters related to FERC SMD and SSG-WI efforts.

Divisional Budget Overview

1800 VP Corporate and Strategic Development

Rollup Overview

Division Description

Corporate and Strategic Development is an overhead department responsible for ensuring that both current and long-term initiatives conform to long-term objectives. Corporate and Strategic Development includes Corporate Communications, Strategic Development, Human Resources, Regulatory Policy and the Project Office. Collectively, Strategic Development, Regulatory Policy and the Project Office comprise the Policy Office. Corporate and Strategic Development is comprised of the following cost centers:

1811 VP, Corporate and Strategic Development
1821 Corporate Communications
1830 Policy Office (Roll up of Strategic Development, Regulatory Policy and Project Office)
1831 Strategic Development
1841 Human Resources
1851 Project Office
1861 Regulatory Policy

The Human Resources office is responsible for payroll, recruitment, employee retention, employee benefits and other activities. During this budget period, significant emphasis will be placed on the .

The Communications department is responsible for ensuring clear and consistent external (media) and internal communications. During this budget period, Communications' focus will be to provide clear and consistent messages regarding the implications of the market design changes in accordance with the FERC directives, rate structure and governance.

The Policy Office (Strategic Development, Regulatory Policy, and Project Office) is the focal point for articulating the long-term strategy of the CAISO and leading the development of CAISO policy positions that are consistent with the business and regulatory strategy. Their focus for 2004 will be MD02 market design issues, regional coordination, and establishing an integrated and comprehensive business planning process.

The Policy Office was created to ensure that the corporations daily activities were aligned with long-term objectives and strategies. In addition, the Policy Office was created to ensure that corporate-wide initiatives and projects appropriately reflect cross-functional objectives and concerns. The Policy Office should provide considered, steady policy guidance for daily operations as well as a foundation for responding to unexpected events and developments. In addition to leading the development of policy positions, the office will be active in ensuring that these positions are consistently communicated internally and externally in all forums (across CAISO departments, Board of Governors, regulatory and legislative environs, and engineering venues such as the WSCC, stakeholder forums).

Division Changes and Workload

Minor shifts in the organization have occurred since the development of the 2003 budget. For 2004, the Corporate and Strategic Development division contributing significant staff effort toward the successful implementation of the Market Design effort (MD02) while continuing their on-going responsibility.

Headcount will remain flat for 2004, and no organizational vacancies are anticipated.

Discussion of Management Recommended Budget

The management recommended budget of $8.1 million is a reduction from $9.1 million in 2003. The base budget

reflects the same core functions as the previous year. Corporate and Strategic Development has realized a net base budget savings of approximately 11% primarily by reducing consultant expenses, travel and training.

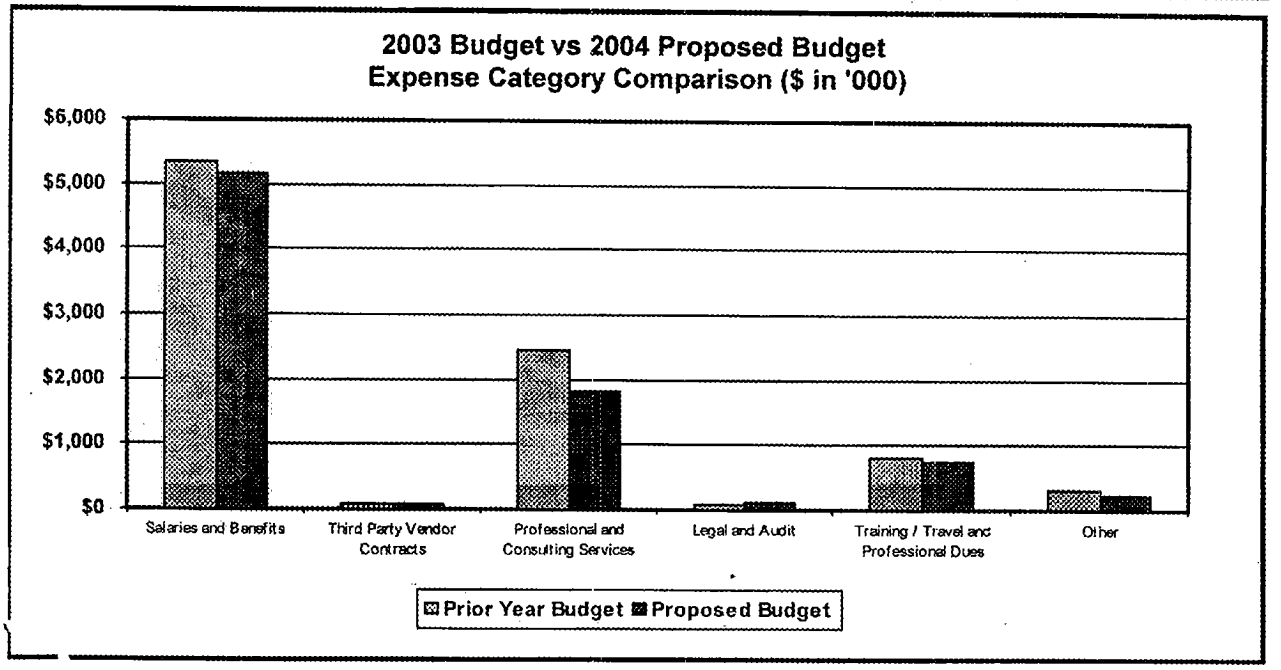
No incremental or decremental programs are proposed. Net reductions in budgetary expenses are reflected in the base budget proposal.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1811	VP Corporate and Strategic Development - General	2	2	0	0	2
1821	Communications	4	4	0	0	4
1830	Regulatory Policy Group	11	11	0	0	11
1841	Human Resources	13	13	0	0	13
	Total	30	30	0	0	30

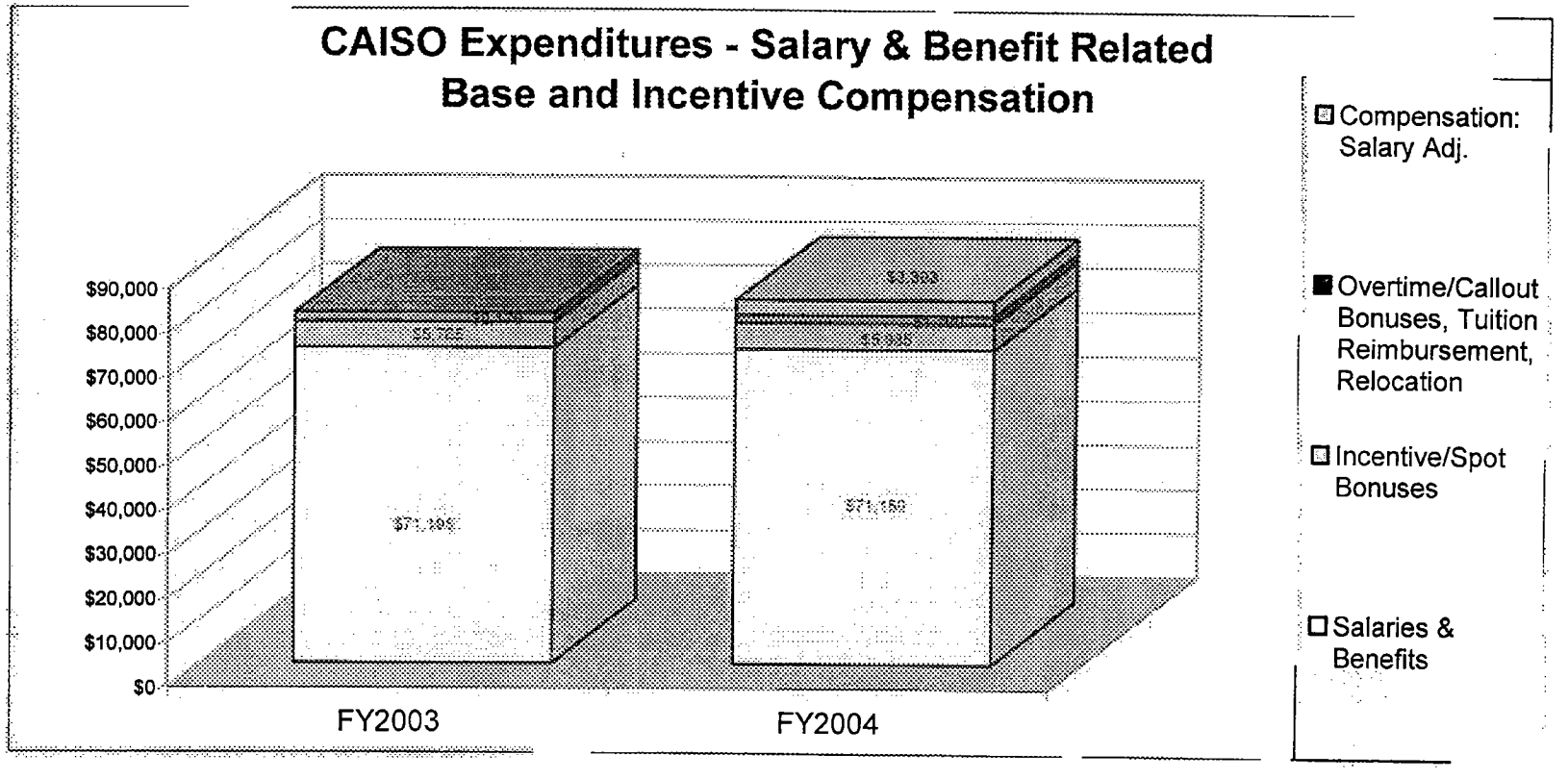
Operations and Maintenance Budget

2004 Base Budget	$8,090,754
2004 Management Recommended Incremental / Decremental Programs	$42,374
Total Proposed 2004 Budget	$8,133,128
2003 Budget	$9,093,453



Section: 2100 Salary Adjustments for 2004

FY2004 Budget Overview
$ in 000's



Exh. No. ISO- 30, Page 65 of 108

Divisional Budget Overview

2100 Other Group

Rollup Overview

Division Description

This Division exists for budgeting purposes only.

Division Changes and Workload

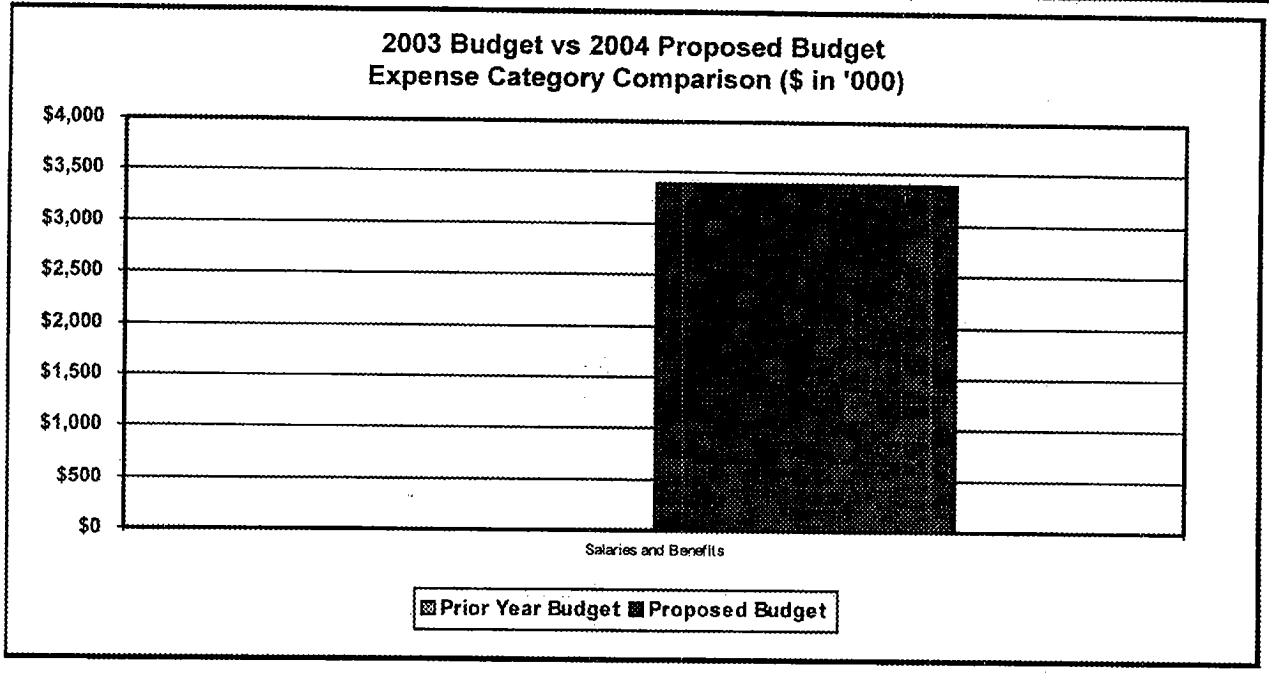
This Division exists for budgeting purposes only.

Discussion of Management Recommended Budget

This Division contains the funds related to staffing cost increases for the coming year.

Operations and Maintenance Budget

2004 Base Budget	$0
2004 Management Recommended Incremental / Decremental Programs	$3,393,412
Total Proposed 2004 Budget	$3,393,412
2003 Budget	$0



2111 Other

Departmental Description

This department exists for budgeting purposes only, and contains the funds related to changes in staff costs for the upcoming year.

Workload / Workload Changes Discussion

Management Recommended Budget Discussion

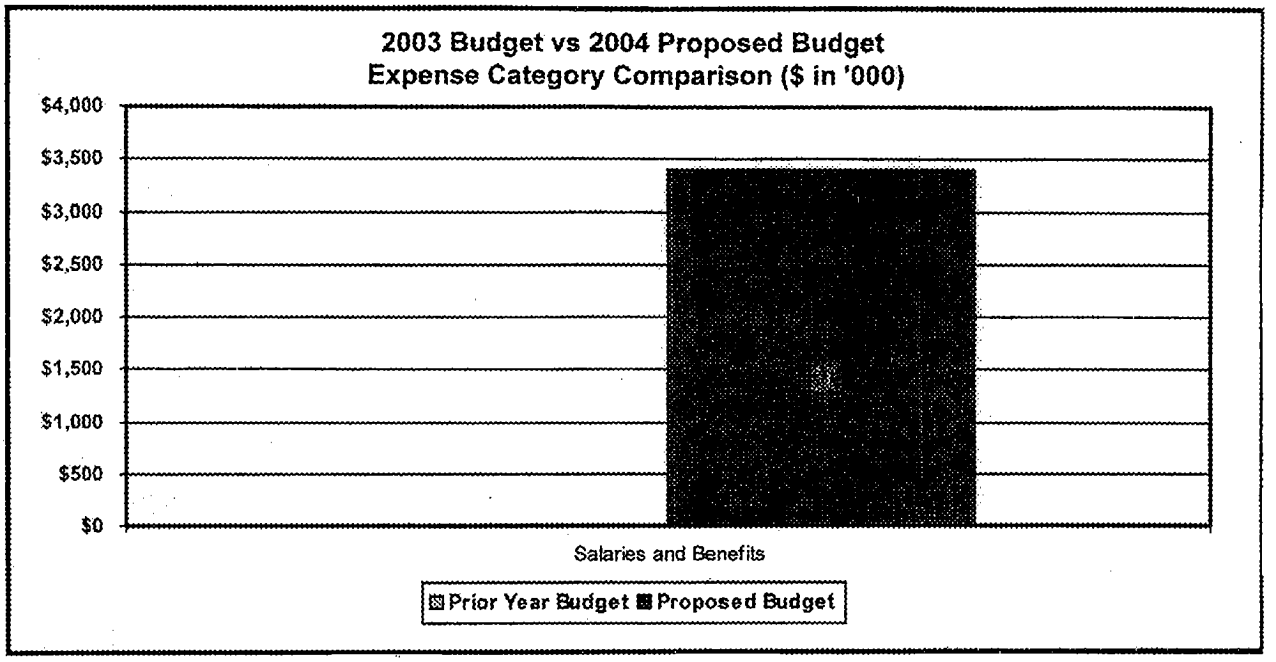
A total of 4.4% of 2004 compensation costs (excluding this item) is included here to fund employee merit pay increases, equity and other adjustments for 2003. The amount provides for a merit increase of 3.4%, plus a fund of 1% for other compensation related adjustments, including promotions, and equity adjustments (to align compensation among individuals within a job category). ISO Human Resources department retains the Hay Group as compensation consultants to determine an appropriate salary adjustment percentage annually. The recommendation is consistent with other sources, including Mercer Human Resource Consulting, and WorldatWork (a not-for-profit professional association for the compensation and benefits discipline.)

Operations and Maintenance Budget

2004 Base Budget	$0
2004 Management Recommended Incremental / Decremental Programs	$3,393,412
Total Proposed 2004 Budget	$3,393,412
2003 Budget	$0

Incremental/ Decremental Program Listing

	Program Name	*Disposition*	*Amount*	*# Employees*
Incremental - 1	Salary adjustments for 2004	Management Recommended	$3,393,412	
		Total	$3,393,412	


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Salaries and Benefits
Prior Year Budget
Proposed Budget

X. FY2004 Capital Budget

The CAISO recommended 2004 Capital Budget is not yet finalized, but is currently projected to total $32 million. An intensive, interactive process, surveying ISO departments for potential capital projects and prioritizing projects continues. To date in this process, proposed projects were classified as priority 1, 2 and 3. Priority 1 projects were presented to the Project Steering Committee (the group responsible for reviewing all new projects at the ISO and recommending whether or not a project moves forward in the approval process to the Officers and the Board.) Priority 1 projects reviewed and initially recommended by this group totaled $14-16 million, and were later further prioritized to approximately $10 million. The $10 million in proposed funding for FY2004 for non-MD02 projects would fund a subset of Priority 1 projects listed on the subsequent pages. In addition, projected MD02 spending in 2004 will likely range from $17-25 million. Pending completion of an updated MD02 project plan, $22 million has been budgeted for MD02 in 2004. The recommended capital expenditure budget at this time is $32 million. While total expenditures could be further restricted, this will likely result in deferral of essential projects into 2005. An aggressive MD02 effort could accelerate 2004 investment to higher in the $30 million range. Management expects to finalize the recommended level prior to the September Board meeting.

The proposed capital budget will not be put forward as a request for approval of individual projects, but rather for approval as to an overall spending level. During FY2004, individual projects will be subjected to a review and approval process. In past years, the projects recommended for inclusion in the budget have not necessarily been the undertaken in the subsequent year. Priorities change, and projects are sometimes deferred. As in past years, Board approval is required for all projects proposed in excess of $1 million. Funding for the capital budget will come entirely from GMC revenues in 2004. The following pages contain additional detail on anticipated 2004 capital expenditures:

1. Exhibit: Table: 2004 Capital Budget-Indicative Project Listing
2. Exhibit: Detail regarding Priority 1 Capital Projects to be considered for funding from the 2004 Capital Budget

Effect of Capital Projects on the Revenue Requirement and Grid Management Charge

In past years, management has estimated that, as a rule of thumb, each dollar of capital expenditures has as much as a $.50 cent per year impact on subsequent year revenue requirements: $.25 for O&M[1], and an additional $.12 - $.25 for debt service costs. Unlike previous years, the 2004 capital expenditures will be funded directly from the GMC rates, and as a result, there is a dollar for dollar impact on the revenue requirement for that spending. Each dollar spent in the capital expenditure budget must be collected directly from the GMC.

Apart from the direct costs of the capital expenditures, O&M costs are typically necessary to support the capital spending. In 2004, these costs are anticipated to be significantly less than the rule of thumb of $.25 for every capital dollar spent, due to the nature and timing of the expenditures in 2004. Accordingly, only $2.63 million has been included in the O&M budget in FY2004 for these impacts.

Page #	Project ID	Project Name	Priority	Amount
		Corporate Applications and Hardware Support Systems		
70	014	Data Center Infrastructure	1	
71	124	Software - Server consolidations, system redesigns and new major project purchases	1	
72	173	Computer Direct Purchases	1	
73	175	Authentication Management Infrastructure	1	
74	198	Telephony Technology Pilot	1	
76	199	Private Branch Exchange (PBX) Replacement	1	
78	213	HR/Payroll System	1	
79	218	Enterprise storage solution	1	
80	219	Enterprise Testing Infrastructure	1	
81	221	Backup library replacement	1	
	104	Web Based Training Programs	2	
	134	Implement Corporate Library	2	
	177	Token-Based Authentication	2	
	187	Centralized Security Monitoring	2	
	188	Wireless Security Toolkit	2	
	212	Corporate Information Search, Categorization, and Retrieval System	2	
	220	Console Management Software	2	
	222	Backup software replacement	2	
	176	Enterprise Directory Services	3	
	179	Information Security Risk Analysis Software	3	
	202	On-Line Analytical Processing Functionality	3	
		Sub Total - Priority 1		$5,160,000.00
		Facilities/ Building Security		
82	013	Facilities Leasehold Improvements/Furniture Purchase	1	
83	128	Remodel 101 B Storage Area for Workstations	1	
84	216	Security Vehicle Replacement	1	
85	217	Access Control Enhancements	1	
	163	Re-design building 110 workstations	3	
		Sub Total - Priority 1		$150,000.00

Page #	Project ID	Project Name	Priority	Amount
		Main Operations Systems - Non MD02		
86	139	EMS Network Applications	1	
87	140	EMS Grid Operations Training Simulator (GOTS)	1	
88	142	EMS AGC Tuning Tool	1	
89	160	EMS User Interface Upgrade	1	
90	172	Market Rules	1	
91	183	Accelerated or early market payments (Payment Acceleration)	1	
92	201	Must Offer Waiver	1	
93	203	Reference Price Calculation - Internal Calculation	1	
94	210	Upgrade Tie-Line Metering and Real-Time data	1	
	035	reserves	2	
	039	Price Response to Dynamic Demand	2	
	049	Develop Market Simulation Tools	2	
	141	EMS System Enhancements	2	
	168	The Communicator!	2	
	190	PI Process Template Upgrades	2	
	205	Market Operations O&I Implementation	2	
	033	Calculation of Ex-post GMMs	3	
		Sub Total - Priority 1		$3,990,000.00
		Operations Support Systems		
96	073	Oversight and Investigation	1	
98	191	Field Data Acquisition replacement Vehicles	1	
99	193	WAPA MSS	1	
100	200	RAVE Test & Development Server	1	
101	208	RAVE Failback Server	1	
	206	Implementation of Additional MSS Agreements	2	
	209	RMR Secure Server	2	
	211	Dynamic System Monitoring	2	
	105	Grid Restoration tool for recovery from a Blackout	3	
		Sub Total - Priority 1		$700,000.00
		Total Funding for Non MD02 Projects Priority 1		$10,000,000.00
		MD02		
95	181	**MD02 Implementation Consolidated Projects**	1	$22,000,000.00
		Grand Total Proposed 2004 Capital Projects		$32,000,000.00

The $10 million in funding for non-MD02 projects would fund a subset of the projects denoted as priority "1"

DRAFT- For Discussion Purposes Only.

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Data Center Infrastructure

Reference Number 014 ***Priority*** 1 Essential

Overview

To meet infrastructure build out for raised floor, including the purchase of computer equipment racks and mount for system equipment, seismic bracing, under floor receptacles and rack mounted static switches.

Other - Issues

This project provides capital funds for data center infrastructure installations on projects that are O & M funded. No funds from this project will be used for installations on other projects with approved Capital funds. Direct allocation by manager.

Impacts if Project is Not Implemented

Approved projects will not be implemented or delayed

Expenditure Justification

CAISO infrastructure requirement

Continuation of started project

DRAFT - For Discussion Purposes Only

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Software - Server consolidations, system redesigns and new major project purchases

Reference Number 124 ***Priority*** 1 Essential

Overview

Third party software required to providing applications not covered under individual projects or expansion for growth (additional licenses) for applications currently used. Future needs are projected to include Veritas, Vitria, Compaq, and Talarian middleware providing support for the major production ISO application set.

This total capital request is made up of the following four attributes:

To support server/system consolidations,

To support the redesign/repurchase of software at end of life for both ISO owned and leased servers,

For non-project hardware and software purchases for all of FY2004.

Other - Issues

Business Impacts:
Software purchases are required for transactions described above to ensure compliance with license terms, continuation of programs, and operating existing leased and owned systems/ servers. It would also halt the installation and operation of software for our new, non-MD02 and end-of-life systems in FY2004. Allows for proper accounting by capitalizing computing software purchases consistent with ISO accounting guidelines.

O&M Impact will include initial and ongoing maintenance of approximately 30% or $231,000.

Impacts if Project is Not Implemented

If these software applications were not purchased support for the real-time production applications running the Markets and Scheduling activities may be impacted.

Expenditure Justification

CAISO infrastructure requirement

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Computer Direct Purchases

Reference Number 173 ***Priority*** 1 Essential

Overview

This proposed program for FY2004 will to allow the ISO to determine the best financial decision on its equipment acquisitions. Traditionally the ISO has determined that leasing equipment for a term of 3 years allowed for technology changes, determination of a steady-state for applications, and retention of capital funds. Currently each acquisition is evaluated for the best benefit for the ISO. If the decision is made to purchase this is the funding that will be required.

The proposed funds will provide:

1) For hardware purchases at end-of-lease (87 leases expire in 2004, including EMS and EMC Symmetrix.

2) For end-of-life projects and programs, where we already own the systems, (replacement of at least 15% of owned hardware)

3) For purchases of Non-MD02 hardware.

Other - Issues

Business Impact:
Hardware purchases are required for transactions described above to provide new, replacement, or modifications to existing IT platforms that support the applications to operate the Electricity Grid and Market. Without these funds the ISO could not go forward with replacement, modification, or operating existing leased and owned systems/ servers. Allows for proper accounting by capitalizing computing software purchases consistent with ISO accounting guidelines.

Business Benefit:
Provides funding for hardware based on the current corporate directive to buy assets where useful life exceeds 2-3 years.

Additional O&M impact could be approximately $3.6M for purchasing maintenance and support for purchased equipment.

Impacts if Project is Not Implemented

If Leasing activity continues, the cost effectiveness of IT investments decreases generating an increase in O&M costs.

Expenditure Justification

CAISO infrastructure requirement

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Authentication Management Infrastructure

Reference Number 175 ***Priority*** 1 Essential

Overview

AMI will provide the CAISO with a single "authentication gateway" to all target systems. AMI enables single password authentication, but does not provide Secure Single Sign-on (SSSO). Single password authentication allows users to use a single password across multiply application, however, the user must log in to each system, where SSSO means that you authenticate one time and your credentials are passed across multiple environments. AMI makes both end users and IT administrators more productive by providing users with transparent access to multiple applications while reducing help desk request for password resets. Studies show that cost associated with traditional authentication mechanisms (e.g. support necessary to get new passwords to absentminded users costs as much as $300.00 per year per employee).

Other - Issues

Additional O&M impact could be approximately $35K for purchasing maintenance and support for purchased equipment if needed.

Impacts if Project is Not Implemented

The impact of not doing this project will result in continued high cost associated with access management on systems, insufficient auditing of access to systems, less secure systems, and continued audit findings resulting from having to perform access management in a decentralized fashion.

Expenditure Justification

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Telephony Technology Pilot

Reference Number 198 ***Priority*** 1 Essential

Overview

The installed Siemens PBX is end of life, and expected to be at end of support within three to five years. The Rolm Phone handsets that are installed on CA ISO desktops are no longer manufactured. These handsets are only available through vendors that refurbish them. Toll charges for connectivity between the PBX's in Folsom 151, Folsom 110, and Alhambra are $120K annually. Maintenance of the PBX and execution of required Moves, Adds, and Changes (MACs) is $500K annually. Conference calling through the use of dedicated phone bridges costs $20K per month. These ongoing costs can be reduced, if not eliminated, through the implementation of IP telephony.

The Purpose of this request is to initiate pilot projects to test the integration and implementation of enhanced telephony services for CA ISO. The organization has three basic options for future telephony services: 1) purchase additional components to enhance the existing PBX, 2) migrate to a completely IP based platform, or 3) migrate to an integrated Private Communications Exchange (PCX). The pilot testing will provide the Network Services group with integration information that will assist in the develop of a migration plan for the replacement of the installed PBX. The following enhanced services and systems will be tested within the CA ISO environment:

IP Based System (PCX or server based Call Management Service)
Unified Messaging
IP phones / PC Based Phones
Toll Bypass over IP
Automated Personal Attendant
Conference Call Hosting
Integrated XML applications (software added to IP phones to support additional features such as displaying the email address book on the phone, etc...)
Centralized LAN and Telephony System Management

Other - Issues

Business Benefit: This project supports the corporate strategic direction and vision by helping to sustain high availability and reliability of key information systems. Additionally, the cost savings incurred as a result of the project will help to manage O&M spending within the budget of 157 million dollars. The intended replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO. There is a moderate risk of business impact during a migration from one technology to another, however this is mitigated by the maintenance of the existing PBX system during migration should there be a need to fall back. There will be economic benefits to this project as CA ISO begins to take advantage of a single infrastructure to support voice and data, reducing expenses by eliminating redundant systems and circuits. A pilot test of IP telephony services will help determine the best strategy for replacing the installed PBX system. Pilot testing will be part of the CA ISO SDLC process and will ensure the immediate involvement of all groups that will require participation in a telephony migration. In addition to financial benefits, the expected business benefit of an IP telephony system and enhanced telephony services are defined below. Unified Messaging - Email and voicemail become integrated, eliminating the need for a dedicated, proprietary phone mail system and it's associated management costs. Features include the ability for a CA ISO employee to preview all messages received without having to listen to all of them in succession. Additionally, a CA ISO employee would be able to call in to the messaging system and have email read to them by an automated attendant. Toll Bypass - Toll Bypass utilizes the existing IP network to connect calls between CA ISO facilities and bypass toll charges associated with long distance calls. This also allows for a smaller number of WAN circuits required for the Telephony system, reducing the circuit inventory and monthly circuit lease and management costs. Moves/Adds/Changes

2004 Proposed Capital Projects

for IP Phones and soft phones - IP based phones can be moved and plugged into any network connection without system configuration activities. The existing telephony system requires approximately 20 minutes of system configuration activities per phone moved. Conference Call Hosting - Conference Call Hosting allows the CA ISO to host conference calls within the phone system, eliminating the need to outsource this service. Currently, outsourced conference call hosting costs the CA ISO 20K a month. A conference call hosting system large enough to support the CA ISO will cost 60-80K as a one time cost. Cable System and Management - IP based Systems use the existing LAN cabling infrastructure, eliminating the need for a dedicated cable infrastructure for the Telephony system. End User productivity - IP telephony industry audits report up to 10% increased productivity in call processing. Centralized LAN and Telephony System Management - Existing LAN management tools can be used to manage the IP telephony system, eliminating the need for dedicated telephony system management software and hardware (approximately 50K year). Single support staff for IP telephony system and LAN - The existing CA ISO Network Service staff can be leveraged to support an IP telephony system with minimal training. IP based telephony systems utilize existing LAN based technologies for phone call routing. This would eliminate the need for outsourced Telephony system management. Pilot test hardware and software - Once testing is completed, and a direction determined, most piloted hardware and software can be deployed as part of the overall solution.

Impacts if Project is Not Implemented

The intended replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Private Branch Exchange (PBX) Replacement

Reference Number 199 ***Priority*** 1 Essential

Overview

The installed Siemens PBX is end of life, and expected to be at end of support within three to five years. The Rolm Phone handsets that are installed on CA ISO desktops are no longer manufactured. These handsets are only available through vendors that refurbish them. Toll charges for connectivity between the PBX's in Folsom 151, Folsom 110, and Alhambra are $120K annually. Maintenance of the PBX and execution of required Moves, Adds, and Changes (MACs) is $500K annually. Conference calling through the use of dedicated phone bridges costs $20K per month. These ongoing costs can be reduced, if not eliminated, through the implementation of IP telephony.

The Purpose of this project is to replace the installed Siemens PBX's in Folsom and Alhambra. The following enhanced services and systems will be implemented within the CA ISO environment:

IP Based System (PCX or server based Call Management Service)
Unified Messaging
IP phones / PC Based Phones
Toll Bypass over IP
Automated Personal Attendant
Conference Call Hosting
Integrated XML applications (software added to IP phones to support additional features such as displaying the email address book on the phone, etc...)
Centralized LAN and Telephony System Management

Other - Issues

Business Benefit: This project supports the corporate strategic direction and vision by helping to sustain high availability and reliability of key information systems. Additionally, the cost savings incurred as a result of the project will help to manage O&M spending within the budget of 157 million dollars. The replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO. There is a moderate risk of business impact during a migration from one technology to another, however this is mitigated by the maintenance of the existing PBX system during migration should there be a need to fall back. There will be economic benefits to this project as CA ISO begins to take advantage of a single infrastructure to support voice and data, reducing expenses by eliminating redundant systems and circuits. In addition to financial benefits, the expected business benefit of an IP telephony system and enhanced telephony services are defined below. Unified Messaging - Email and voicemail become integrated, eliminating the need for a dedicated, proprietary phone mail system and it's associated management costs. Features include the ability for a CA ISO employee to preview all messages received without having to listen to all of them in succession. Additionally, a CA ISO employee would be able to call in to the messaging system and have email read to them by an automated attendant. Toll Bypass - Toll Bypass utilizes the existing IP network to connect calls between CA ISO facilities and bypass toll charges associated with long distance calls. This also allows for a smaller number of WAN circuits required for the Telephony system, reducing the circuit inventory and monthly circuit lease and management costs. Moves/Adds/Changes for IP Phones and soft phones - IP based phones can be moved and plugged into any network connection without system configuration activities. The existing telephony system requires approximately 20 minutes of system configuration activities per phone moved. Conference Call Hosting - Conference Call Hosting allows the CA ISO to host conference calls within the phone system, eliminating the need to outsource this service. Currently, outsourced conference call hosting costs the CA ISO 20K a month. A conference call hosting system large enough to support the CA ISO will cost 60-80K as a one time cost. Cable System and Management - IP based Systems use the existing LAN cabling infrastructure, eliminating the need for a dedicated cable infrastructure for the Telephony system. End User productivity - IP telephony industry

2004 Proposed Capital Projects

audits report up to 10% increased productivity in call processing. Centralized LAN and Telephony System Management - Existing LAN management tools can be used to manage the IP telephony system, eliminating the need for dedicated telephony system management software and hardware (approximately 50K year). Single support staff for IP telephony system and LAN - The existing CA ISO Network Service staff can be leveraged to support an IP telephony system with minimal training. IP based telephony systems utilize existing LAN based technologies for phone call routing. This would eliminate the need for outsourced Telephony system management.

Impacts if Project is Not Implemented

The intended replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name HR/Payroll System

Reference Number 213 ***Priority*** 1 Essential

Overview

In 2003, the ISO under took a project to implement Oracle Human Resources Management System and to outsource payroll to Ceridian. That project is on budget and on schedule to implement in the 4th Quarter of 2003. We are requesting additional funding to complete the Benefits implementation and the Recruiting and Training modules in Oracle. The benefits carriers were not able to meet our aggressive schedule for implementing electronic interfaces. All file transfers for enrollments, and changes on a monthly basis are manual today. Certifications are also manual. The Recruitment and Training modules we purchased in 2003 have not been implemented. The "iRecruiting" module allows us to date track and audit our hiring processes. This enables us to be in compliance with federal EEO reporting guidelines. In addition, EEO and other employment investigations routinely depend on accurate, auditable hiring process. Today, our hiring process is completely manual. The "iLearning" module in Oracle will also give us the ability to track & report on employee training as well as provide training certifications and the platform for web-based content delivery. This will replace the "Power to Learn" system used today.

No additional hardware or software is required for this project. The software licenses were purchased with the Oracle HRMS suite in 2003. Implementation services is all that is required.

Other - Issues

Impacts if Project is Not Implemented

Due to the aggressive nature of our timeline, we were not able to include all of the necessary Life Events in Benefits Phase I. A typical benefits implementation takes 8 to 12 months and we are doing it in 4 months. Additional Life Events still need to implemented into Benefits Self Service during Phase II . Examples include, Adding a child, Adding a spouse, Divorce, and Children aging out of benefits coverage. These changes are manual and will continue to be manual unless we implement Phase II.

Benefits will have to provide manual interfaces to all of our carriers. Certifications will be manual. Requires more clerical support in benefits. Employees will not be able to take advantage of the Self Service features. Employment related investigations will continue to be manual paper trail, open to dispute and interpretation.

Implementing iRecruitment give a the competitive edge we will need to attract and quickly identify and hire talent when we need it. We will have the ability to maintain a database of qualified candidates. The iLearning module gives us the ability to retain our employees by providing the training tools they need to keep their skills sharp and support their continued growth and development.

Expenditure Justification

Continuation of started project

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Enterprise storage solution

Reference Number 218 ***Priority*** 1 Essential

Overview

Replace by returning the EMC Symmetrix 3930s, 3830s, and 8830s at end of lease in 2004. Return the EMC Clarion 4700 and consolidate it with the soon to be purchased EMC Clarion CSX600s. Purchase a new storage solution to replace all the Symmetrix frames and migrate all data to the new storage.
Business Problem:
The lease for our enterprise storage solution will expire on 10/04. In addition, the capacity of our existing EMC solution is projected to be exceeded prior to the lease expiration. The alternatives are to buy-out the existing equipment and purchase additional storage or replace it with a new solution that provides enough scalability for the next 3 years.
Business Impact:
Not addressing the projected capacity issues would affect the reliability of our mission critical systems, impair our ability to store historical data and cause potential delays to Phase II MD02 projects.

Other - Issues

Business Benefit:
It is expected that the new solution will lower our storage costs over a 3-year period while providing enough scalability for the following 3 years. In addition, this solution would reduce existing computer space and power requirements

Maintenance for 3 years is estimated at: $600,000.

Impacts if Project is Not Implemented

With the lease expiring in 10/04, we have to make some decision. We can buy out equipment at estimated $855K, or continue lease with O & M impacts, not determined at this time. However, doesn't appear that there would be enough storage under this solution.

Expenditure Justification

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

Grid reliability

MD02/system redesign

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Enterprise Testing Infrastructure

Reference Number 219 ***Priority*** 1 Essential

Overview

Buy or relocate existing equipment to fill the gaps in staging, testing, development environments to comply with our Enterprise Testing Strategy which bases the number of environments required for a specific subsystem on its criticality and availability requirements as well as whether is internally developed or not. Server consolidation will be applied where possible to reduce costs. This infrastructure does not include testing environments for MD02 Phase II and III projects as these will be budgeted through MD02.
Business Problem:
Many application subsystems do not have appropriate testing infrastructure to ensure application upgrades and patches are tested according to best practices and our recently developed Enterprise Testing Strategy. This strategy calls for four separate environments for our core mission critical applications: production, staging, test and development. The subsystems affected are: SCED, SI, BITS, ADS, SLIC, and GRRMA.

Other - Issues

Business Benefit:
Increased reliability of our systems. Enhanced quality controls. Improved customer satisfaction. Reduced ongoing support.

Impacts if Project is Not Implemented

Without this testing infrastructure, existing SLAs for availability may not be met due to performance, availability, and application issues not captured through the code promotion process practiced to date in today's testing environment. Market simulation may not be feasible or could suffer due to multiple testing scheduling conflicts.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Backup library replacement

Reference Number 221 ***Priority*** 1 Essential

Overview

Return the existing ATL libraries ,both in Folsom and Alhambra, and replace it with a new solution with higher capacity and faster drives. New solution would enable the coexistence of new and old drives to ensure backward compatibility.

The lease for our enterprise backup solution in Folsom will expire on 8/04. In addition, its capacity is projected to be exceeded prior to the lease expiration due to new testing environments, MD02 projects, and normal growth. The alternatives are to buy-out the existing equipment and purchase additional backup drives or replace it with a new solution that provides enough scalability for the next 3 years and higher performance.

Other - Issues

Business Benefit:
Backup windows would be maintained or reduced, higher capacity would ensure adequate resources for the following 3 years, lower cost of ownership over a 3 year period. Will ensure solutions in both Folsom and Alhambra are compatible.

Impacts if Project is Not Implemented

Not addressing the projected capacity issues would prevent us from meeting our SLAs. It would also increase our backup windows and force us to backup during high periods of activity causing a performance degradation of our critical systems. In addition, our ability to restore data would be greatly compromised.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Facilities

Project Name Facilities Leasehold Improvements/Furniture Purchase

Reference Number 013 ***Priority*** 1 Essential

Overview

Provide for various leasehold improvement projects and furniture requirements, as needed, to support ISO staff residing in our Folsom and Alhambra locations. The projects include 1) Ergonomic chair purchases, 2) Workstation enhancements 3) Filing Cabinets 4) Active sound masking for open office area 151 5) misc. installations for small projects

Other - Issues

Impacts if Project is Not Implemented

Operational efficiency, employee safety and/ or reliability will be impaired if needed improvements are not made to the physical facility as needed.

Expenditure Justification

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Facilities

Project Name Remodel 101 B Storage Area for Workstations

Reference Number 128 ***Priority*** 1 Essential

Overview

Build out the rest of the 101B space. The remodeled space would be used for workstations to support additional personnel. This would add about 60 workstations.

Other - Issues

Additional Janitorial and maintenance would be required. Also storage would also cost more.

Impacts if Project is Not Implemented

Expenditure Justification

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Facilities

Project Name Securtiy Patrol Vehicle Replacement

Reference Number 216 ***Priority*** 1 Essential

Overview

Replace security patrol vehicle

The existing security patrol vehicle has logged over 60,000 miles in the last two years. The miles were accumulated patrolling the 1.2 mile perimeter loop around the ISO campus. This type of short length, stop and goal driving his very rough on the vehicle. Maintenance costs are increasing and availability and reliability have been significantly diminished. The patrol vehicle allows a single officer to cover an area that would normally require a total of 3 officers. The costs of two additional shifts of security officers would run about $275 annually.

Other - Issues

Impacts if Project is Not Implemented

The lack of any type of exterior perimeter controls presents numerous physical security challenges. Given the open nature of the ISO campus the only effective method for providing a secure perimeter is by utilizing manned patrols. The lack of these patrols would significantly downgrade the ISO's level of protection and security.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Facilities

Project Name Access Control Enhancements

Reference Number 217 ***Priority*** 1 Essential

Overview

Installation of "revolving type doors" on critical entry points to main ISO facility and "hardening" of main ISO reception area.

The open nature of the ISO campus and lack of any type of positive controls present numerous physical security challenges. The ISO has been identified by several agencies and reports as being a "critical facility". The ability to provide highly effective access control measures is extremely. The current access control configuration has been in place since start-up and does not address the increased threat environment or elevated access control requirements. "Tailgating" or the practice of allowing more than one person to enter critical ISO facilities on one "badge swipe" is an ongoing problem. While this is considered a minor security infraction when committed by two authorized individuals, there is nothing to prevent "tailgating" by an unauthorized person with less than noble intentions. Additionally, these security measures were incorporated into the design of the "new campus". There is nothing that decreases their necessity at the current facility.

Other - Issues

Impacts if Project is Not Implemented

The installation of revolving type doors with "badge in and out" affords a major increase in access control for a high traffic, critical ISO operation. The inability to complete this project allows an identified security vulnerability to remain unaddressed.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS Network Applications

Reference Number 139 ***Priority*** 1 Essential

Overview

To provide funding for changes identified in 2004 as the Network Application systems become Production ready.

The Network Application system that is being implemented as part of EMS phase 2 has many new attributes that were developed by ABB specifically for CAISO. It is anticipated that over the course of the next few years, enhancements and incremental changes will need to be accomplished for the many users of the Real Time State Estimator, Outage Scheduler, Power Flow etc. applications within this are of the EMS. Some of these immediate needs may be addressed within MDO2 design but others will be unique to the Net Apps functionality.

Other - Issues

The Network Application system will have a great impact on our organization as we begin to rely on its functions in 2004. It is expected we will discover required functionality to help maintain the system. There are many discussions on what parts of data are required from other potential systems (SLIC, TR, TCOS etc.). Although some may be included in the MD02 effort there is expected to needs exposed by the realities of maintaining the data and changes.

Network Applications is a huge effort that will expand into many areas of value to our organization. New discussions ranging from settlements using State Estimator data to create billing to Market issues, changes in how we run the system etc. The maintenance of the real time system will include Outage, Grid Ops, Operations Engineering, Market Ops, EMS and Data Acquisition groups.

We anticipate there will be required changes that, although not yet specific, will require medium levels of effort with our ABB vendor to develop, test and implement. To identify and resolve functions within the Network Applications area that help with the administration and upkeep of data will be a big benefit to the impact this system will have with its supporting staff.

Impacts if Project is Not Implemented

Specific Impacts are unknown at this time. Depending on the next years changes in Operations, Security Coordinators, OE requirements; impacts of not budgeting for potential changes could be significant.

Expenditure Justification

Grid reliability

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS Grid Operations Training Simulator (GOTS)

Reference Number 140 ***Priority*** 1 Essential

Overview

Provide the recognized budget to plan for changes with the GOTS system as our use and reliance on this tool begins to grow. The expectation is that we will have to make functional changes to compensate for the lack of a Market Simulator as well new functions required to complete real time operators training.

The Grid Operations Training Simulator system that is being implemented as part of EMS phase 2 has many new attributes that were developed by ABB specifically for CAISO. It is anticipated that over the course of the next few years, enhancements and incremental changes will need to be accomplished for the many users in support Real Time Operations and OSAT. This PIR is for funds in 2004 to address the anticipated changes required as OSAT begins full use of the Grid Operations Training Simulator in earnest.
Business Impact:
To realize the full use of the Training Simulator will require us to provide incremental code changes to emerging criteria to bring our simulator to as close to our real time operations as possible.

Other - Issues

Business Benefit:
The value of the GOTS in general is expected to be extremely high in advanced training of our Grid Operations workforce. Many attributes were accounted for such as play back of real disturbance events from PI, ability to set up a variety of scenarios, tracking operators actions with the GOTS PI system etc.

Impacts if Project is Not Implemented

Specific Impacts are unknown at this time. Depending on the next years experiences of beginning the training programs on the GOTS system there could be small to large changes requested.

Expenditure Justification

Grid reliability

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS AGC Tuning Tool

Reference Number 142 ***Priority*** 1 Essential

Overview

This is a proposed project to develop an automatic tuning and testing system within EMS.

Currently, Generating units providing AGC functionality are tested once, then certified and allowed to participate in the market. There are many tuning parameters in the EMS system to maximize each units performance and contribution to optimizing the grid performance as a whole. Also there is a need for Real Time Operations to test units in an ad hoc manner to ensure they comply with their bids and capacity. This is a proposed project to develop an automatic tuning and testing system within EMS.

Business Impact:
This tool would be used by EMS staff to individually tune both the units response to control signals as well as set up parameters within AGC specific to each generators characteristics. It would also be used by OSAT in the Certification of units (AGC as well as Spin) in an automatic mode. Real Time Operations would periodically use it to verify units ability to provide the Ancillary Service they bid.

Other - Issues

Business Benefit: The value of this project would be in several areas. To have a standard testing system that allows the generators to be tuned to the same criteria would be a great benefit. The EMS teams initial tuning would be enhanced. The certification testing would also be standardized and allow OSAT personnel to run the testing all from the same format. Additionally, any questionable unit could be ad hoc tested to validate performance degradation away from their certification performance.

A potential exists to partner with another client of ABB's that is interested in this same function. Commonwealth Edison is discussing this as well as other enhancement issues with us.

Impacts if Project is Not Implemented

The time and effort tuning units in a manual mode takes is impact both on EMS staff as well as Generating plant personnel. This would be considered an enhancement and not directly an impact to Operations other than not realizing a performance gain in grid operations.

Expenditure Justification

Grid reliability

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS User Interface Upgrade

Reference Number 160 ***Priority*** 1 Essential

Overview

This project will be to replace our EMS User Interface workstations from the HP DS10 devices we are currently running with Windows workstations. There will be a software upgrade to Release 2004 that includes all the necessary functionality. The work will be done primarily by ABB Network Management along with the EMS and other IS staff.

The majority of shortcomings in the Ranger system have been in their current HMI implementation. The Ranger EMS implementation project has anticipated that the vendor will make significant improvements in their HMI software shortly after ISO's implementation. The new HMI software has been scheduled for release in September of 2003, which presents an opportunity for CALISO to address the current HMI shortcomings. The HMI project will also provide a hardware opportunity where 45 DS10"s and 18 MMC's are coming up on their lease refresh date (March 2004). Rather than refresh we will be purchasing/leasing new hardware to replace the DS10's and MMC's are a retired concept.

Other - Issues

The schedule for March to take advantage of the hardware opportunity appears too aggressive for the vendor. They are working to provide us an alternative plan that includes a combined partnership with HP on a strategy to keep us hardware neutral.

The change with the HMI is to a Windows environment that has many features unavailable in our current True 64 environment. Attributes such as data replay, ad hoc trending, exporting data locally to a .csv file (excel), messaging etc. plus the extremely upgraded look and feel of the interface all have great appeal to the Operations groups.

Impacts if Project is Not Implemented

Operations has concerns with the User Interface and the lack of functionality they have had to live with since Ranger was implemented. They continue to develop PI into a real time solution to make up the gaps however PI as a real time tool is problematic (core function as an archive tool). Additionally, there are concerns with the stability of the platform as our system exceeds 16,000 individual displays. We are by far the largest display numbers customer this vendor has ever had. We continually find areas of performance with regards to display issues. All of these issues are removed with the new HMI.

Expenditure Justification

Grid reliability

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Market Rules

Reference Number 172 ***Priority*** 1 Essential

Overview

Implement market rules as directed by FERC or requested of FERC. This is a blanket project to cover unforeseen but reasonably expected costs associated with the implementation of required changes. These funds would primarily be used to modify market operations core software as well as the post-processing tools used by Market Quality.

Other - Issues

In absence of these funds being available in the event that they are needed, substantial O&M impacts would result.

Impacts if Project is Not Implemented

In the event this project is not initiated, there will be an inability to comply with mandated orders if capital dollars are not available for this project.

Expenditure Justification

Market-savings/efficiency/accuracy/analysis

FERC/NERC/WECC mandate

Market participant request/mandate/requirement

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Accelerated or early market payments (Payment Acceleration)

Reference Number 183 ***Priority*** 1 Essential

Overview

The payment acceleration project is a project designed to reduce the period of time in which payments are outstanding from between 70 - 90 days to approximately 45 days. In order to successfully implement payment acceleration, measurement file data must be compiled, analyzed and validated, and the settlement system must be upgraded to handle moving the settlement calculation, statement and invoice distribution dates substantially closer to the actual trade date. The project will include the following scope:

1. Creation of the "Measurement File Development Tool" - This tool will compile Generation, Load and Intertie MWh data from various places (such as MDAS, Data Warehouse, SI, State Estimator, SCs and PI). The MWh data will be analyzed and verified as to its level of accuracy, and then it will store the data for settlement calculations.

2. Settlement System Upgrades - Upgrades to the current settlement system include: 1. Moving the existing prelim invoicing up to the 15th of the month, 2. Importing the measurement file into settlements, 3. Providing an additional preliminary and final statement to SCs and 4. Moving the final invoicing further back to 90 or 120 days.

Other - Issues

Implementation of this project will have the added benefit of facilitating estimated aggregate liability calculations, which directly affects the amount of financial security participants have to post with the ISO. Successful project implementation will include moving the preliminary statements and invoice closer to the trade date. No substantial impact on O/M costs is expected. This project assumes O&M support from Compliance, Market Operations, Market Quality, FDA, Settlement System Support and Settlements departments.

Impacts if Project is Not Implemented

If the project is not implemented, then the ISO will continue to encounter the following:
1. Participant credit worthiness issues,
2. Market liquidity problems,
3. Utilization of settlement practices that are not considered best practices compared to other ISOs, and
4. Complaints from Scheduling Coordinators about the lengthy payment cycle.

Expenditure Justification

Market-savings/efficiency/accuracy/analysis

Supports corporate goal/strategic plan

Grid reliability

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Must Offer Waiver

Reference Number 201 ***Priority*** 1 Essential

Overview

This program will replace the first come-first served Must Offer Waiver process with an automated transmission constrained unit commitment application.

Other - Issues

Implementation of this program will increase market efficiency and will lower costs to the market as a result of using economic criteria in unit commitment.

Impacts if Project is Not Implemented

Absence of this program would require continued reliance on current practice of first come-first served and operator judgment in revoking Must Offer Waivers. Additionally, the ISO will continue to be exposed to the consequences of a non-uniform process of committing resources under the Must Offer Requirement.

Expenditure Justification

Market-savings/efficiency/accuracy/analysis

Grid reliability

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Reference Price Calculation - Internal Calculation

Reference Number 203 ***Priority*** 1 Essential

Overview

This project encompasses the costs associated with the development of an application that will internally calculating reference pricing so that the ISO could eliminate the annual subscription costs for Potomac Economics, as proposed in a decremental O&M program for 2004.

Other - Issues

None.

Impacts if Project is Not Implemented

The impacts to the O&M budget will be a progressively increasing cost for subscription expenses for Potomac Economics. This project is contingent upon the acceptance of the proposed decremental program in CC 1751

Expenditure Justification

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Upgrade Tie-Line Metering and Real-Time data

Reference Number 210 ***Priority*** 1 Essential

Overview

Review the accuracy of Tie-Line data from each of the 32 points of interconnection. Upgrade the metering systems where major data accuracy and reliability problems are evident. Insure the 4 second data transmitted to the EMS can be integrated to same hour energy data number used for revenue metering and inadvertent energy calculations and the automatic payback system. Upgrade the communications links to these metering locations so the data is DIRECTLY transmitted to the CAISO. This will eliminate some of the points of failure from the availability of a direct link instead of having the data pass through the PTO's system and the ICCP links. The data would still be transmitted to the PTO's and the adjacent control areas but the ISO will finally have a direct link to the data.

Other - Issues

Impacts if Project is Not Implemented

Reliability problems when we have bad data or no data on tie-line flows. The ACE calculation is directly affected by the accuracy and availability of this data. The State Estimator model is directly impacted by this data . When the PTO systems fail, we are missing data on many tie lines, not just one or two. There are potential financial impacts due to inaccurate billing and settlement of inadvertent energy payback accounts.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category MD02

Project Name MD02 Implementation Costs

Reference Number 181 ***Priority*** 1 Essential

Overview

2004 sections of ISO Market Redesign that will impact the following areas.
Integrated Forward Energy Markets (IFM)
AMP Mods 2
Settlements and Market Financial System Replacement
Compliance Mod 2
Residual Unit Commitment (RUC) -
Load Forecast Augmentation -
Market Transactions System (MTS)
LMP Studies -
Locational Marginal Pricing (LMP) using Full Network Model (FNM)
DMA Mods
Meter Data Acquisition System (MDAS)
Energy Management System (EMS)
Congestion Revenue Rights (CRR)
Scheduling Infrastructure Graphical User Interface (SIGUI)
Master File Re-Design (MFRD)

Other - Issues

Impacts if Project is Not Implemented

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name Oversight and Investigation

Reference Number 073 ***Priority*** 1 Essential

Overview

Efficient and effective implementation of the O&I program will require development of several automated systems, including: (1) an incident and investigation tracking system, (2) various monitoring systems, (3) various penalty administration systems, (4) a regulatory server system, and (5) an Information Release Program System. Implementation will utilize the CAISO architecture and application framework. Implementation of the of penalty programs will be an extension of Compliance Systems (CAP) This PIR will investigate and recommend a solution for the regulatory server system and incident and investigation tracking system.

Business Problem:
ISO is required to implement the Oversight & Investigation (O&I) proposal approved by ISO Board on January 23, 2003. The O & I filling is concurrent with MD02. The O&I proposal is comprised of several components including: (1) a proposed Enforcement Protocol, which will be an amendment to the ISO Tariff, that is comprised of various "Market Rules" and associated penalties; (2) a "Regulatory Server," with which the ISO would share market information with regulatory and enforcement agencies; and (3) the Information Release Program, which is comprised of the ISO publishing Market Participant performance information on the ISO web site. The ISO will implement the Enforcement Protocol and the Regulatory Server after receiving FERC approval of the O&I proposal Tariff amendments - this approval is anticipated by late September 2003. The ISO is currently implementing the Information Release Program.
This estimate includes changes to the settlement system.

Other - Issues

Business Impact:
Implementation of O & I and MD02 will require additional resources in Compliance. MD02 and O & I will cause a need for an increase in FTE's in Compliance in order to support the new production work.
Implementation of the Enforcement Protocol will require tracking numerous incidents, screening them for potential tariff violations, and conducting in-depth investigations of potential tariff violations. All of these steps will require extensive documentaion. Implementation of the Enforcement Protocol will also include administration of more than a dozen different penalties, all with different penalty amounts and billing determinants. The ISO will need to determine penalty amounts based on numerous predetermined penalty determination factors and consistently apply them to all instances. Penalty descriptions and amounts need to be transmitted to the Settlement system to be included on Settlement Statements. Administration of several of the penalties will entail extensive monitoring of market activities including comparing scheduled load to metered load and evaluating schedules to determine whether they are "circular." The regulatory server will entail providing extensive market information in a format that outside agencies can understand and properly interpret in a secure manner. As the information the ISO will provide on the regulatory server will potentially be used for litigation, the ISO must be able to reproduce and verify the information on it. The Information Release Program involves extensive analysis and reporting on Market Participant Performance regarding ancillary services performance, scheduling accuracy, and penalties incurred.
Business Benefit:
Implementation of O & I will benefit the CAISO, Market Participants and California Consumers. The O & I program is designed to bring stability and fair market prices to the California electrical market. Implementation of O & I reduces risk from the market by making governing rules transparent
Other:
Implementation of O & I and MD02 will require additional resources in Compliance. MD02 and O & I will cause a need for an increase in FTE's in Compliance in order to support the new production work.

Impacts if Project is Not Implemented

2004 Proposed Capital Projects

Compliance will not be able to develop the necessary programs that are needed to monitor the compliance with the tariff and implement FERC orders

Expenditure Justification

MD02/system redesign

FERC/NERC/WECC mandate

Market-savings/efficiency/accuracy/analysis

Supports corporate goal/strategic plan

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name Field Data Acquisition replacement Vehicles

Reference Number 191 ***Priority*** 1 Essential

Overview

Replacement of the two 1997 CA-ISO vehicles in Alhambra with newer models. The current vehicles have high mileage and are a risk of maintenance failures while our field engineering staff metering, RIG's etc) at remote locations.

The vehicle replacement will ensure the ability of the Field Data Acquisition group to perform Metering field audits and perform assistance to RIG and DPG real-time ISO generation SCADA device project and maintenance personnel. RIG and DPG site project meetings are required during the installation and commissioning of the RIG and DPG devices requiring travel to and from the customers facility.

Other - Issues

Many remote locations have to be visited and often 4 Wheel Drive is required.

Impacts if Project is Not Implemented

It is not a reasonable expectation at these vehicles will remain in service without significant maintenance issues possibly while at remote locations. They need to be replace to maintain the following functions.
1) Maintaining the current level of reliability of CAISO Metering field communication and RIG and DPG real-time ISO generation controlled SCADA equipment.
2) Maintaining the current level of accessibility to CAISO Metering, RIG and DPG sites.
3) Proactive approach to increase probability of vehicular repairs and breakdowns.
4) Maintain the level of safety and reliability that newer vehicles could provide.

Expenditure Justification

FERC/NERC/WECC mandate

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name WAPA MSS

Reference Number 193 ***Priority*** 1 Essential

Overview

This project would implement the negotiated contract for WAPA to become a MSS.

Other - Issues

It is unknown when this project will be required, due to the uncertainty of current negotiations with WAPA

Impacts if Project is Not Implemented

WAPA will leave the ISO control grid and become their own control area. Potential negative impacts on grid reliability and higher cost would result.

Expenditure Justification

CAISO infrastructure requirement

Continuation of started project

Supports corporate goal/strategic plan

MD02/system redesign

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name RAVE Test & Development Server

Reference Number 200 ***Priority*** 1 Essential

Overview

Set up Development and Test Databases similar to other ISO systems. RAVE currently does not have a database to use as the test environment. Currently the RAVE development database resides on a data warehouse production server. The server was a development server when the RAVE development database was originally installed but has since become a production server. RAVE needs to be moved to a development server.

Other - Issues

Business Benefit: 1. Ability to develop enhancements to RAVE without affecting other production databases. 2. Ability to fully test all changes prior to implementation.

Impacts if Project is Not Implemented

Without a test environment all testing must be done in production and can have a significant impact on performance of production database. When a development database is housed on a production server your development activities may cause performance issues for both the development and production databases housed there.

Expenditure Justification

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name RAVE Fallback Server

Reference Number 208 ***Priority*** 1 Essential

Overview

Purchase and Setup Fallback server in Alhambra similar to other ISO systems.

There is no fallback server for the RAVE application. GRRMA is currently the contingency plan in case of RAVE server outage. GRRMA is no longer supported; therefore validation enhancements are not added to GRRMA. The new validations added since 4th Qtr 2001 are not included in GRRMA and must be done manually or not at all. Any changes for MD02 will also not be added, so in the future GRRMA becomes less and less of a viable contingency mechanism.

Other - Issues

Business Benefit: In the event of a server failure the RMR settlements group can recover quickly and ensure timely and accurate validations of RMR invoices.

Impacts if Project is Not Implemented

The RAVE Server (RMRP) has crashed Five (5) times so far in 2003. Three (3) of those times the server was out for more than 4 days. These types of outages have a significant impact on the RMR Settlement group's ability to provide timely validation to RMR Owners/PTO's. Due to the current complexity of the invoice validation, the RMR Settlements group has to depend more heavily on RAVE to perform timely & accurate validation. In the past, RMR Settlements could rely on manual methods to validate invoices when RAVE was not available. As new validations are added and manual validations automated the impact of a RAVE outage becomes more and more severe.

Expenditure Justification

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

Supports corporate goal/strategic plan

XI. Unbundled Grid Management Charge ("GMC") Calculation

The costs of the ISO are not recovered from a single charge, but through separate charges to the users of the services provided by the ISO. The unbundled rate structure in place from 2001 to 2004 consisted of three charges: Control Area Services, Congestion Management, and Ancillary Services & Real Time Energy Operations (ASREO). For 2004 the unbundled rate structure will change, to consist of six charges:

Core Reliability Services = $\frac{\text{ISO Costs Allocable to Core Reliability Services}}{\text{Non-coincident metered peak demand in MW}}$

Energy & Transmission Services (ETS)[6]= $\frac{\text{ISO Costs Allocable to ETS}}{\text{Grid usage in MWh and net uninstructed deviations}}$

Forward Scheduling Charge= $\frac{\text{ISO Costs Allocable to Forward Scheduling}}{\text{Number of Schedules submitted}}$

Congestion Management Charge= $\frac{\text{ISO Costs Allocable to Congestion Management}}{\text{Net Interzonal Scheduled Load}}$

Market Usage Charge= $\frac{\text{ISO Costs Allocable to Market Usage}}{\text{Market Purchases \& Sales}}$

Settlements, Metering & Client Relations= $500 per month per SC ID.

The numerators for each equation will be determined by assigning or allocating all ISO costs into one of the service categories listed above. This will be done for operating & maintenance costs, debt service costs (to recover past capital & startup costs), cash funded capital expenditures, and other items. The appropriate amounts to allocate to each service are determined by the managers and directors of the ISO, who assign their costs to the service categories. This process was performed on a preliminary basis during the development of these new service categories during Spring 2003, and updated allocations will be developed during August/September 2003.

[6] ETS has two subcomponents, and costs are recovered over separate billing determinants: net grid usage, and net uninstructed deviations.

The determination of the denominators for these equations is discussed in Section XII of this report.

The indicative GMC rates that result from the budget and other assumptions in this document follow on the two subsequent pages.

THE COST ALLOCATION FACTORS FOR 2004 ARE UNDER DEVELOPMENT, AND WILL BE RELEASED PRIOR TO THE OCTOBER BUDGET APPROVAL.

COST ALLOCATION FACTORS DEVELOPED DURING THE 2004 GMC STAKEHOLDER PROCESS HAVE BEEN USED AS PLACEHOLDERS.

FY2004 GMC Summary
$ in 000's

	FY2003 Budget	FY2004 Costs for Continuation of Budgeted FY2003 Service Level	FY2004 Management Recommended Budget
Revenue Requirement			
Operating & Maintenance Budget	$ 171,739	$ 148,638	$ 151,735
Difference from FY2003		(23,101)	(20,004)
		-13%	-12%
Financing Budget:			
Principal-Existing Debt	35,300	36,167	36,167
Interest-Existing Debt	8,497	7,525	7,525
Operating Reserve (25% of Principal & Interest)	10,949	10,923	10,923
Subtotal, Financing Collection	54,746	54,615	54,615
Capital Project Funding	22,000	-	32,000
(App. Midpoint of anticipated range of $26 to $39 milllion in 2004)			
Less: Expense Recovery Budget:			
Interest Earnings	(1,252)	(652)	(652)
SC Application & Training Fees	(120)	(120)	(120)
WECC Reimbursement/NERC Reimbursement	(1,256)	(1,313)	(1,313)
Subtotal, Expense Recovery Budget	(2,628)	(2,085)	(2,085)
Subtotal, Revenue Requirement before Revenue Credit	$ 245,857	$ 201,168	$ 236,265
Revenue (Credit)/Deficiency From Operating Reserve	(8,257)	(19,400)	(19,400)
(Expected range of $15 to $28 milllion in 2004)			
Total Revenue Requirement	$ 237,600	$ 181,768	$ 216,865
Difference from FY2003 Filed Revenue Requirement			(20,735)
			-9%

Revenue Requirements by Service: Prior to Reserve Credit (see note 2)		
Core Reliability Services	$ 97,309	$ 93,513
Energy & Transmission Services- Energy	58,021	55,757
Energy & Transmission Services- Deviations	14,842	14,263
Forward Scheduling	19,833	19,059
Congestion Management	14,630	14,060
Market Usage	40,409	38,833
Settlements, Metering, Client Relations	812	781
Total	$ 245,857	$ 236,265

Financial & Capital Operating Reserve (Credit)/Shortfall Allocable to Each Service		
Core Reliability Services	$ (3,268)	$ (7,678)
Energy & Transmission Services- Energy	(1,949)	(4,578)
Energy & Transmission Services- Deviations	(498)	(1,171)
Forward Scheduling	(666)	(1,565)
Congestion Management	(491)	(1,154)
Market Usage	(1,357)	(3,189)
Settlements, Metering, Client Relations	(27)	(64)
Total	$ (8,257)	$ (19,400)

FY2004 GMC Summary (Continued)
$ in 000's

	FY2003 Budget	FY2004 Costs for Continuation of Budgeted FY2003 Service Level	FY2004 Management Recommended Budget
Net Revenue Requirements by Service (see note 1)			
Core Reliability Services	$ 94,041		$ 85,834
Energy & Transmission Services- Energy	56,072		51,179
Energy & Transmission Services- Deviations	14,344		13,092
Forward Scheduling	19,167		17,494
Congestion Management	14,139		12,905
Market Usage	39,052		35,644
Settlements, Metering, Client Relations	785		717
	$ 237,600		$ 216,865
Divided By:			
Billing Determinant Volume Forecast			
Core Reliability Services: NCP Demand in MW	532,612		532,612
Energy & Transmission Services-: Energy in MWh	240,786,893		240,786,893
Energy & Transmission Services: Deviations in MWh	16,722,610		16,722,610
Forward Scheduling: # of schedules	12,680,795		12,680,795
Congestion Management: Net Interzonal Flows in MWh	91,533,351		91,533,351
Market Usage: Purchases & Sales of RT & A/S in MWh	43,048,955		43,048,955
Settlements, Metering, Client Relations: Customer Months	1,542		1,542
Equals:			
Net Grid Management Charge ("GMC") (see note 1)			
Core Reliability Services: $ / NCP Demand in MW	$ 177		$ 161
Energy & Transmission Services-: $ / Energy in MWh	$ 0.23		$ 0.21
Energy & Transmission Services: $ / Deviations in MWh	$ 0.86		$ 0.78
Forward Scheduling: $ per schedule	$ 1.51		$ 1.38
Congestion Management: $ / Net Interzonal Flows in MWh	$ 0.15		$ 0.14
Market Usage: $/ Purchases & Sales of RT & A/S in MWh	$ 0.91		$ 0.83
Settlements, Metering, Client Relations: $ / Customer Month	$ 500.00		$ 500.00

Notes:

1. GMC Service Categories are those approved for 2004.
2. Costs are allocated using the ratios from the 2003 budget. Cost allocations are underway for 2004.
3. Volume forecast for 2004 is incomplete, 2002 volumes are used as placeholders.
4. The projected reserve balance is anticipated to be between: 38,086 to 51,086

XII. GMC Billing Determinant Forecast

To calculate the grid management charge, costs are divided by a billing determinant to arrive at a rate per GMC service category. The billing determinants for the 2004 GMC service categories are as follows:

GMC Service Category	Billing Determinant[7]
1. Core Reliability Services =	Non-coincident metered peak demand in MW
2. Energy & Transmission Services (ETS) =	Grid usage in MWh and net uninstructed deviations
3. Forward Scheduling Charge=	Number of Schedules submitted
4. Congestion Management Charge=	Net Interzonal Scheduled Load
5. Market Usage Charge=	Market Purchases & Sales

Forecasts of these values have not been finalized for 2004. For purposes of indicative rates in this report, 2002 values are used.

[7] The Billing Determinants for the 2003 GMC categories of Control Area Services, Congestion and Ancillary Services & Real Time Energy Operations are Gross Load, Interzonal Net Scheduled Load (INSL) and Market Purchases & Sales of A/S & RT Energy (PSE) respectively.

CALIFORNIA ISO

SUMMARY OF PROPOSED FY2004 BUDGETS

Presentation to Board of Governors
September 25, 2003

PRELIMINARY: SUBJECT TO CHANGE

THE FOLLOWING ITEMS ARE INCOMPLETE AND REQUIRE ADDITIONAL CONSIDERATION

- **BILLING DETERMINANT VOLUMES**
- **COST ALLOCATION FACTORS**
- **OPERATING RESERVE FORECAST**
- **RATES**

Exh. No. ISO- 31, Page 1 of 65

OUTLINE

- **Budget Timeline**
- **GMC Rates Determination Process**
- **Budget Approach / Goal**
- **Components of ISO Revenue Requirement**

	2003	2004
O&M Budget	$171,739	$151,735
Capital Budget	$22,000	$32,000 (*)
Subtotal	$193,739	$183,735
Debt Service	$54,746	$54,615
Expense Recovery	($2,628)	($2,085)
Operating Reserve	($8,257)	($16,000 - $28,000)
Total Revenue Requirement	$237,600	$208,265 - $220,265

- **Historical Spending Trend / Comparison of 2003 to 2004**
- **O&M Budget: Divisional Overviews**

Notes:
'000 Omitted
* Final amount may change pending revised MD02 schedule and other issues.

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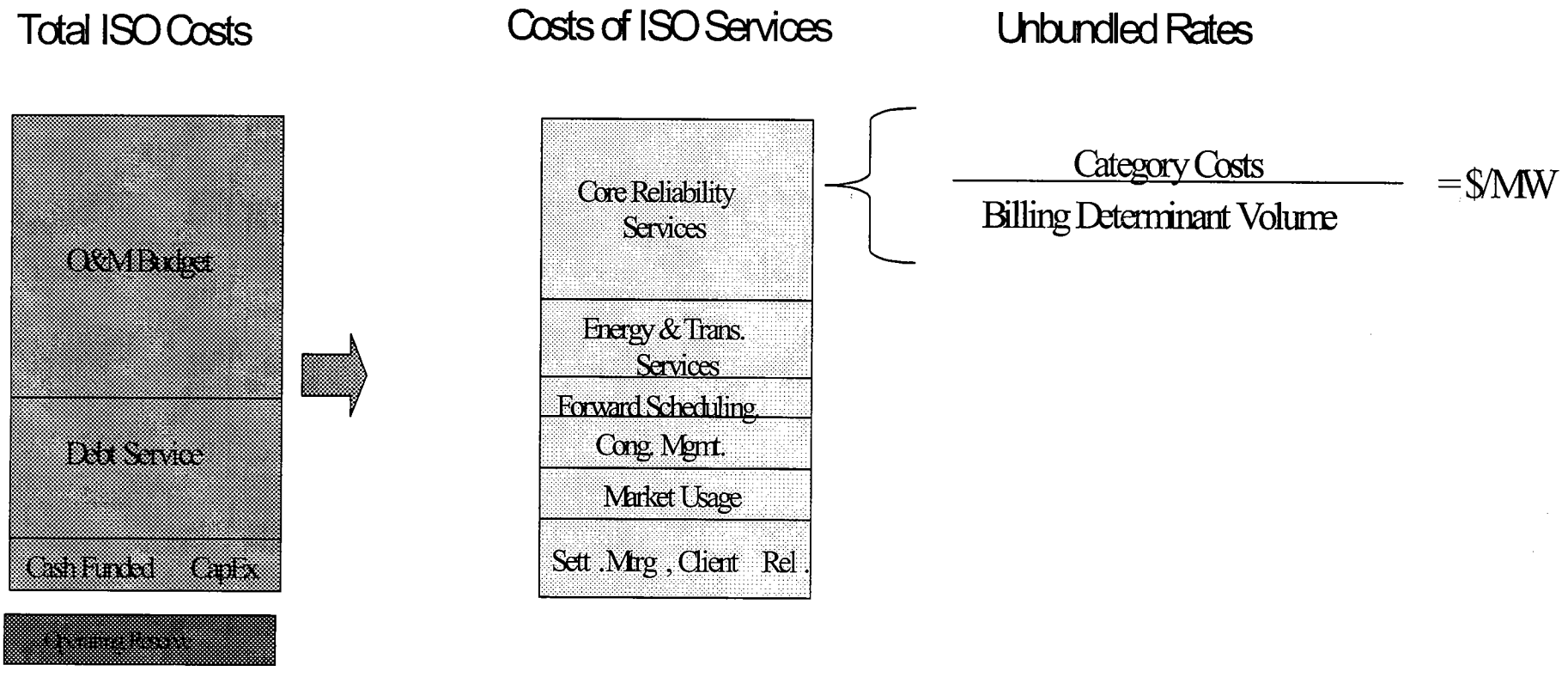
FY2004 BUDGET TIMELINE

1	**Budget Process Timeline Approved by Board**	**26-Jun-2003**
2	Annual Goal Setting Discussion Commences	Early July 2003
3	Budget Process Rollout to CAISO departments	9-Jul-2003
4	**Finance Committee Review of Preliminary Budget (Executive Session)**	**12-Sep-2003**
5	**Board discussion and review of preliminary Budget posting (Open session)**	**25-Sep-2003**
6	Public Budget Workshop	3-Oct-2003
7	Budget Overview to Market Issues Forum	9-Oct-2003
8	Written Comments on Budget Due	13-Oct-2003
9	**Finance Committee meeting to discuss and receive additional public comments on budget and develop recommendation to Board.**	**15-Oct-2003**
10	**Board Approval of Budget and Goals**	**23-Oct-2003**
11	Budget Filing with FERC	31-Oct-2003
12	New Rate Effective	1-Jan-2004

Note:
Board action or report items in **bold.**

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ISO REVENUE REQUIREMENT
(as it affects the GMC rate determination)



- Calculation of GMC Rates is dependent on cost allocations to new GMC service categories, and billing determinant forecasts, which are underway at this time.

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ISO BUDGET GOAL / APPROACH

- **Guidance Provided by Terry Winter in Early July**
  - Flat O&M budget less $15 million in savings from new communications contract to be returned to ratepayers.
  - Overall revenue requirement reduced by at least $15 million.

- **Approach**
  - 1. Base budgets: cost for continuation of services budgeted in 2003.
  - 2. Decremental programs: programs in base budget that might be reduced/eliminated with some effect on service levels.

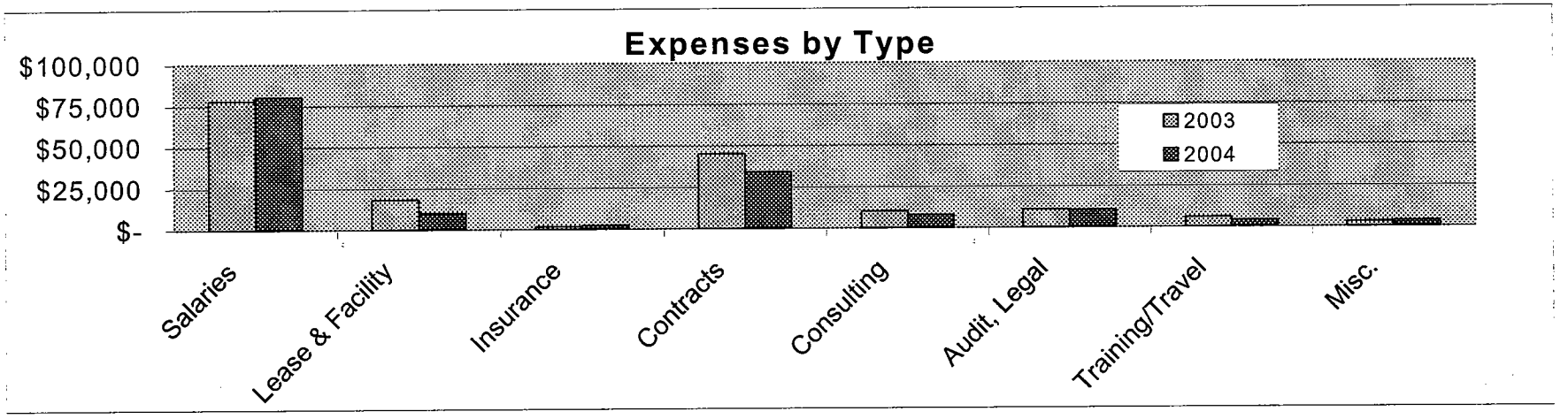
    - Each ISO Division to present the above two components of their proposed O&M budget at a level 7% below the 2003 budget.

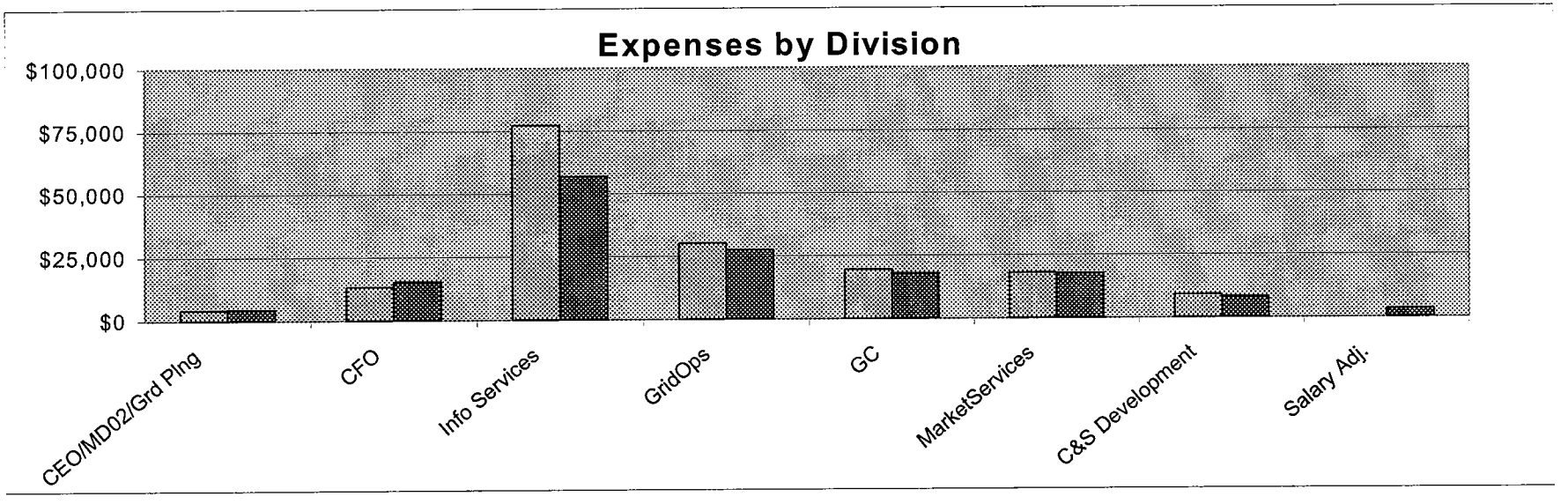
  - 3. Incremental programs: the cost of services provided in 2003 that were unbudgeted, or entirely new services necessary for 2004.

  - Management recommended budget, (INC and DEC programs) is $20 million below the 2003 budget.

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FY2003/ FY2004 OPERATING & MAINTENANCE BUDGET COMPARISONS

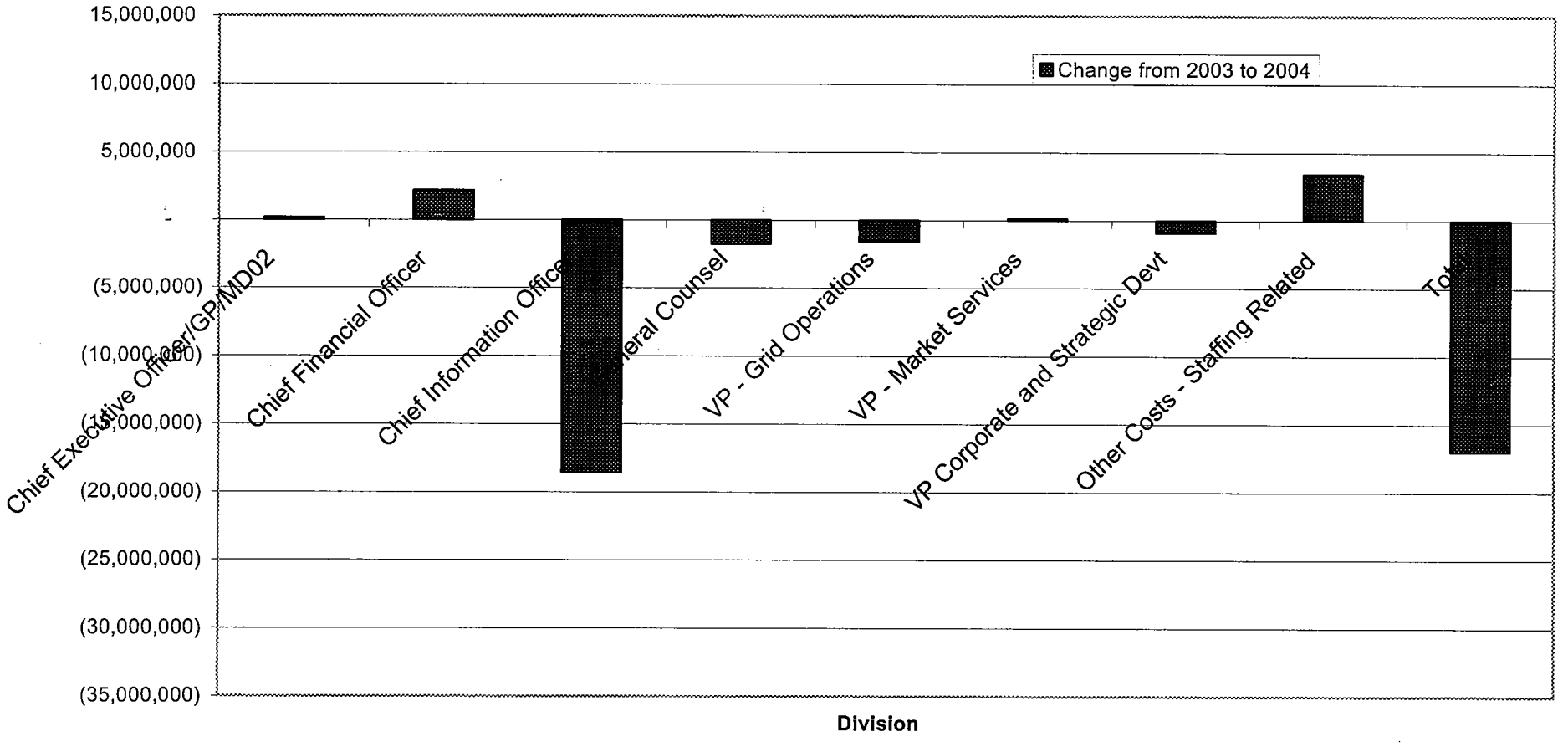




- **Goal:** Reduced budget from 2003 of at least $15 M
- **Results:** Reduction of $20 million

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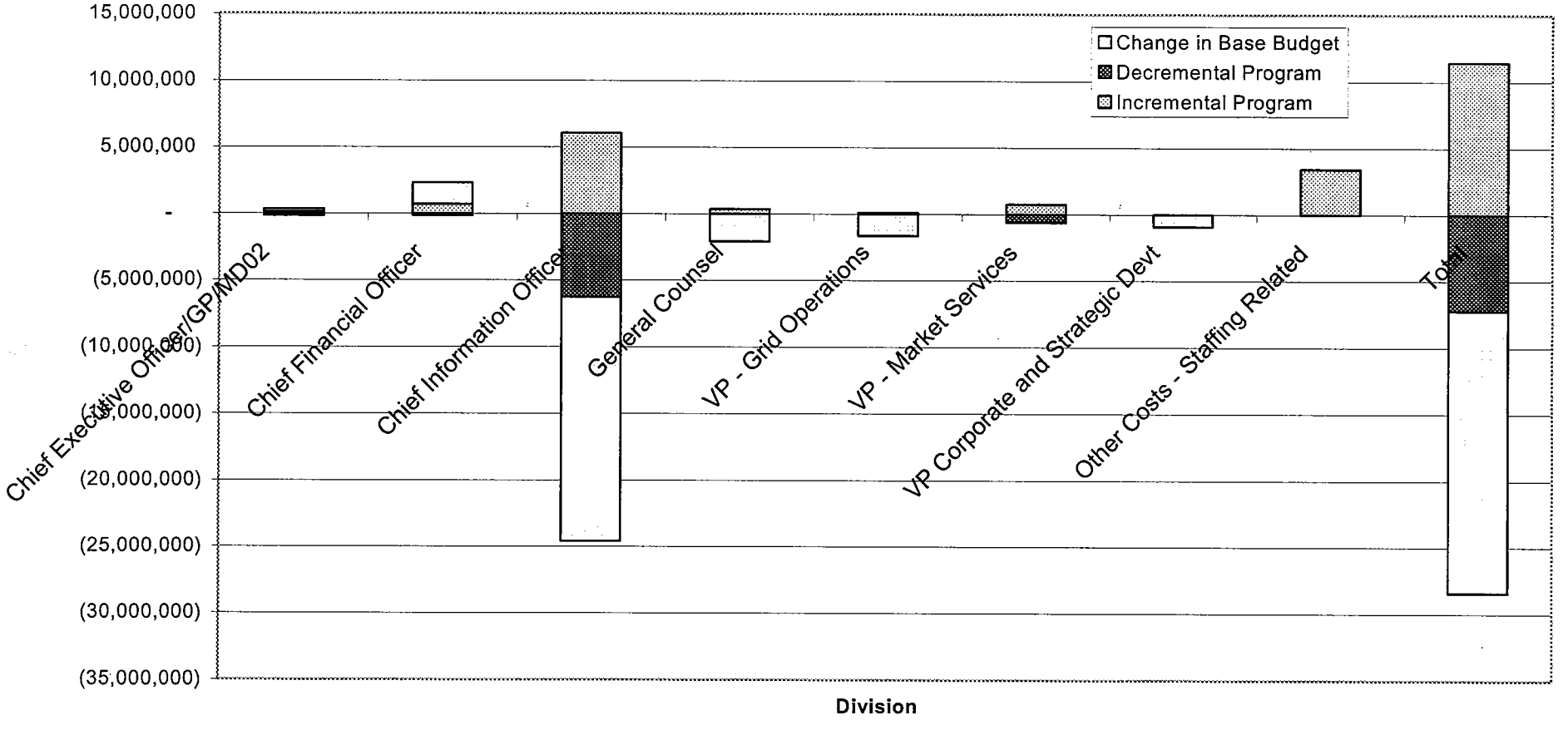
CHANGES IN O&M BUDGET BY DIVISION



- Net change for each Division masks the increases and decreases within that net change. These components are shown on the following page.

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Analysis of Changes in Proposed 2004 Budget: Incremental, Decremental Programs and Reductions in Base Budgets



- **INC and DEC programs represent changes in service levels from 2003 budget to 2004.**

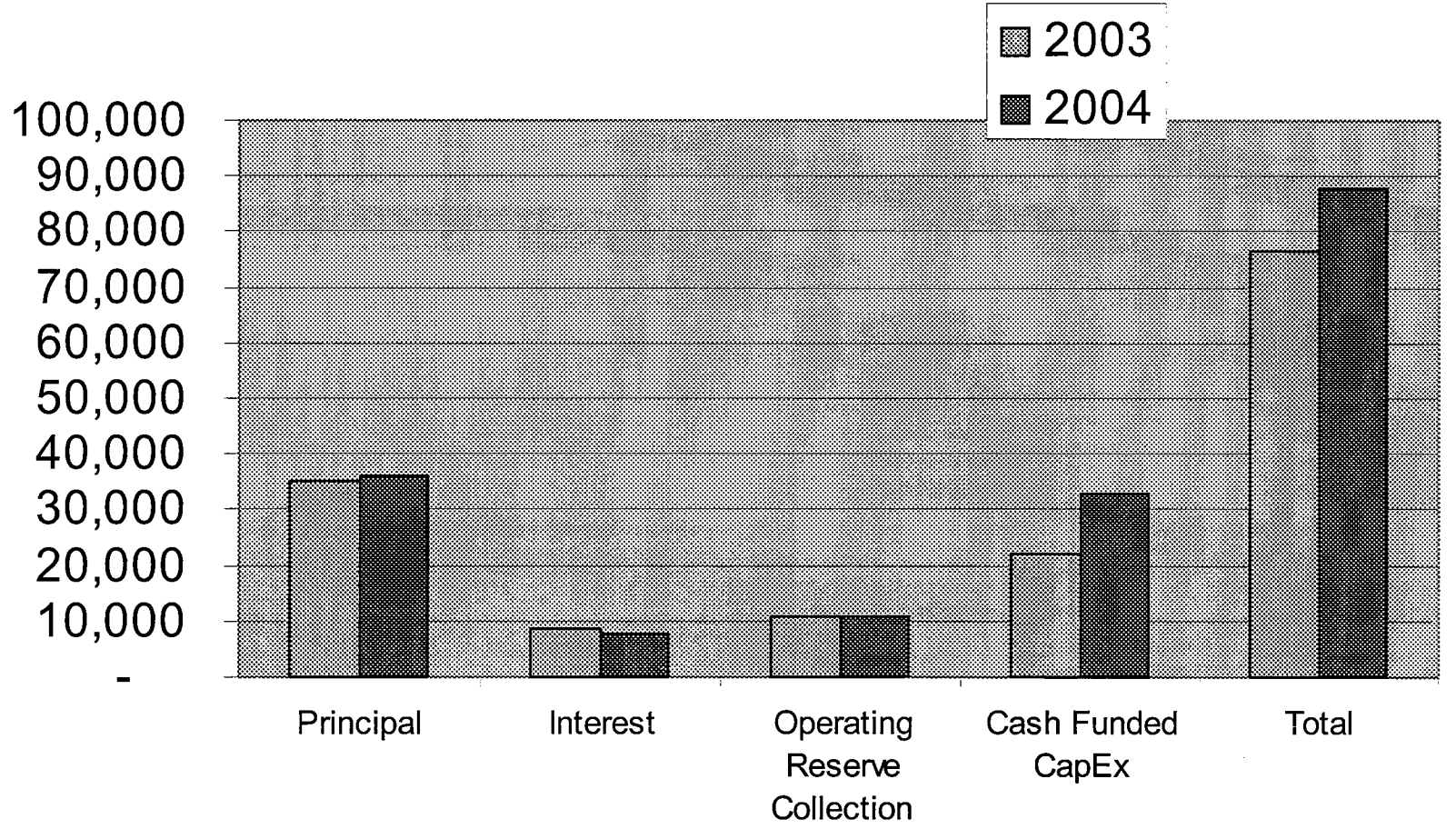
FY2003/ FY2004 STAFFING LEVELS

CAISO Division	FY2003 Budgeted Staffing	Changes	FY2004 Proposed
CEO/MD02/Grid Plng.	23.0	2.0	25.0
CFO	34.5	-	34.5
CIO	144.0	4.0	148.0
VP Grid Ops	187.0	-	187.0
General Counsel	54.0	(1.0)	53.0
Market Services	123.0	(1.0)	122.0
VP Corp & Strat Dev	30.0	-	30.0
Total FTE	**595.5**	**4.0**	**599.5**

- **Changes reflect transfers between divisions, positions added subsequent to approval of 2003 budget.**

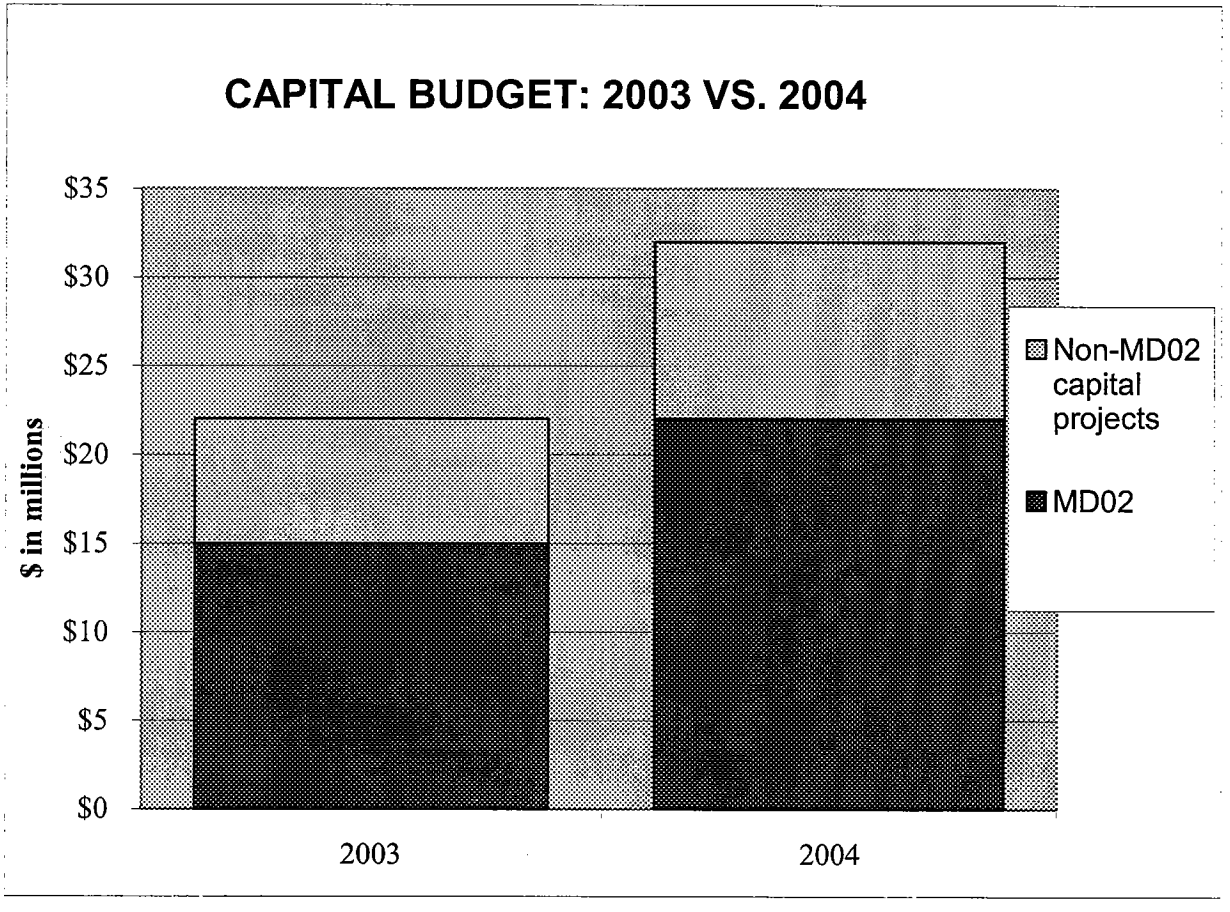
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Debt Service & Cash Funded CapEx



Note: CapEx budget is preliminary, pending completion of MD02 project schedule update and other needs.

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- CapEx budget is preliminary, pending completion of MD02 project schedule update and other needs.
- Size of budget is developed based on indicative project list, but actual projects completed in 2004 may differ. All projects to be funded in 2004 will undergo internal (and if > $1 million, Board) approval process.

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ISO EXPENSE RECOVERY BUDGET

	FY2003 Budget	FY2004 Proposed Budget	Amount Change	% Change
Interest Earned on Operating Funds (1)	$ 1,252	$ 652	$ (600)	-48%
SC Application & Training Fees	120	120	-	0%
WSCC Security Coordinator Fees	1,256	1,313	57	5%
Total O&M Expense Recovery Budget	**$2,628**	**$2,085**	**-$543**	**-21%**

(1) Reduced interest earnings due to lower interest rates. Will monitor interest rates and forecast through date of filing and update as appropriate. Interest rates have increased since Summer 2003.

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ISO OPERATING RESERVE

- **Structure**
  - Each year, ISO collects 125% of required debt service (principal & interest). Excess 25% deposited in the Operating Reserve.
  - If, at year end, the operating reserve contains more than 15% of following year's operating budget, any excess is used as a credit toward that year's revenue requirement.
- **Two Part Calculation**
  - Update the reserve balance at the end of 12/31/2002 (use actual rather than forecasted figures)
  - Detail items affecting the reserve during 2003
- **Factors Affecting the Reserve**
  - Revenues higher/lower than budgeted
  - Expenses higher/lower than budgeted
  - Other uses of the reserve
    - Adjustments to previous year's revenues (GMC rate case results, FERC fines & penalties, billing errors, etc.)
- **Estimated credit for 2004**
  - In excess of 2003 budgeted amount ($10.9 million), likely to range from $16 to 28 million.

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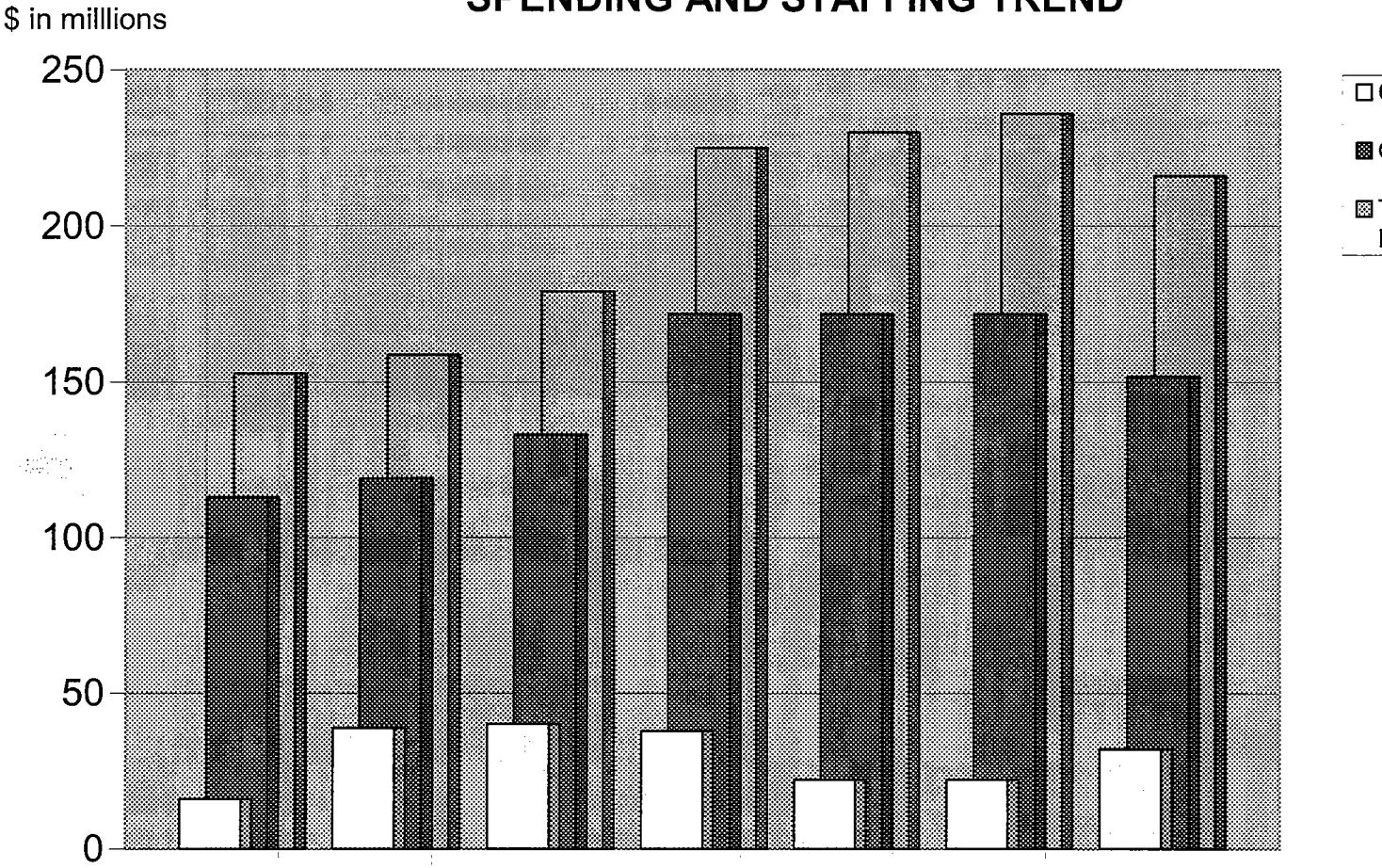
REVENUE REQUIREMENT

	FY2003	FY2004 Proposed Budget	Amount Change	%Change
Total O&M Budget	$ 171,739	$151,735	(20,004)	-12%
Total Debt Service and Reserve Collection Budget	54,746	54,615	(131)	0%
Total Cash Funded Capital Expenditures Budget *	22,000	32,000	10,000	45%
Total Expense Recovery Budget	(2,628)	(2,085)	543	-21%
Available Revenue (Credit) or Deficiency (1)	(8,257)	(16,000) — (28,000)	(7,743 – 19,743)	(194% - 340%)
Revenue Requirement	**$ 237,600**	**$208,265 — $220,265**	**($17,335 - $29,335)**	**(7% - 12%)**

(1) The available revenue credit or deficiency is dependent on 2003 activities, and is subject to revision/update until the October approval of the budget/GMC rates.

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SPENDING AND STAFFING TREND



296	327	452	544	590	595	599

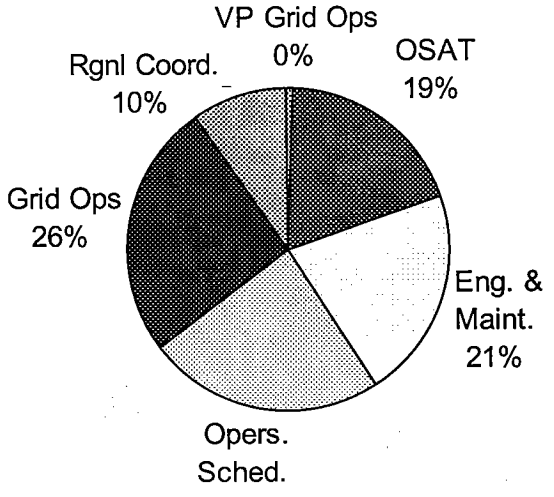
Staff

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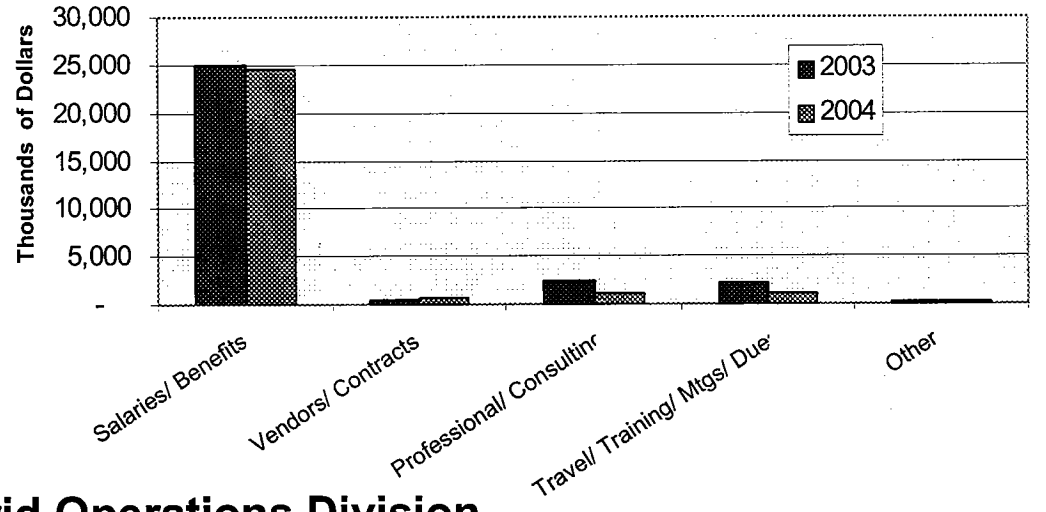
DIVISIONAL O&M BUDGET OVERVIEWS

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FY2004 Grid Ops Operating Budget: $27.5M



Budget Comparison 2003 ($30.2M) to 2004 ($27.5M)
(net decrease of $2.7M)



VP Grid Operations Division

Cost Reductions in Proposed Budget:

$508K - Salary/benefit related: Reduce Callout, Overtime, increase in headcount vacancy factor

$300K – Reduce Professional Dues

$1.1M - Reduce Consulting/contracting expenditures

$492K - Reduce travel

$206K - Reduce Training expenditures

$2706K – TOTAL

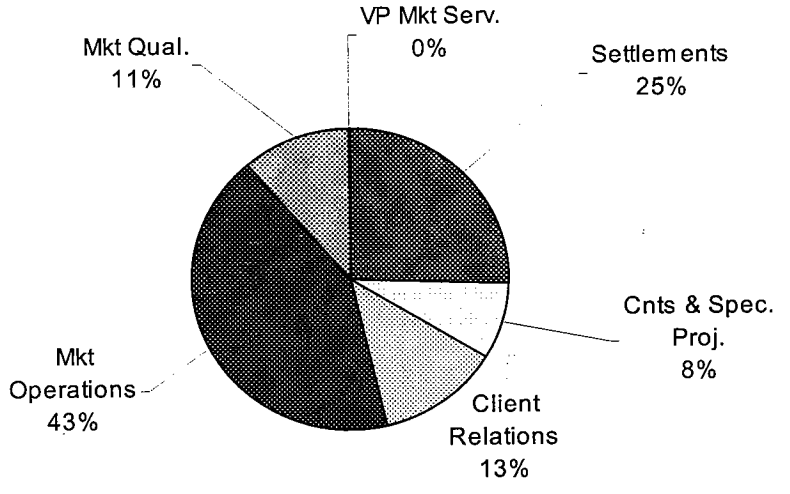
Cost Increases in Proposed Budget:

NONE

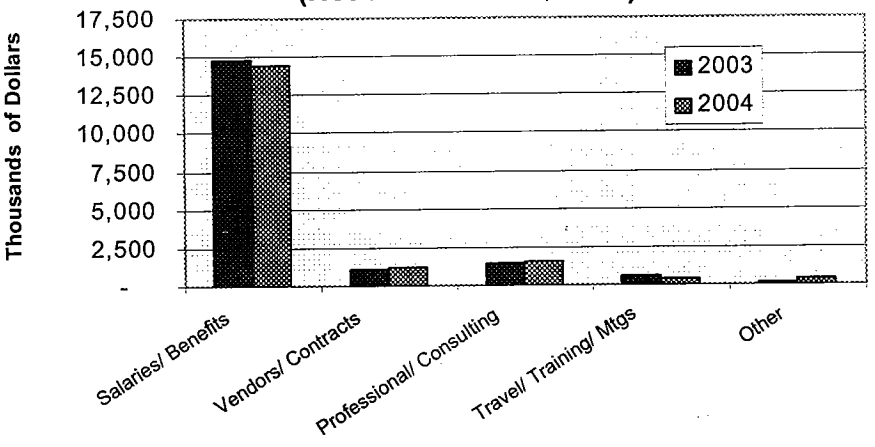
$0K - TOTAL

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FY2004 MS Operating Budget: $17.9M



Budget Comparison 2003 ($18M) to 2004 ($17.9M)
(Net decrease of $148K)



VP Market Services Division

Cost Reductions in Proposed Budget:

$330K – Reductions in O & M Consulting Budget

$115K – Contractor Support

$186K – Training Fees/Supplies, Meetings, Travel, Printing Services

$360K – Increase in headcount vacancy factor and transfer of staff to MD02.

$991K –TOTAL

Cost Increases in Proposed Budget:

$110K – Contractor Support for FERC Mandated Reruns

$350K – ALFS Load Forecasting for 8 Additional Zones

$200K – Intermittent Resources Program

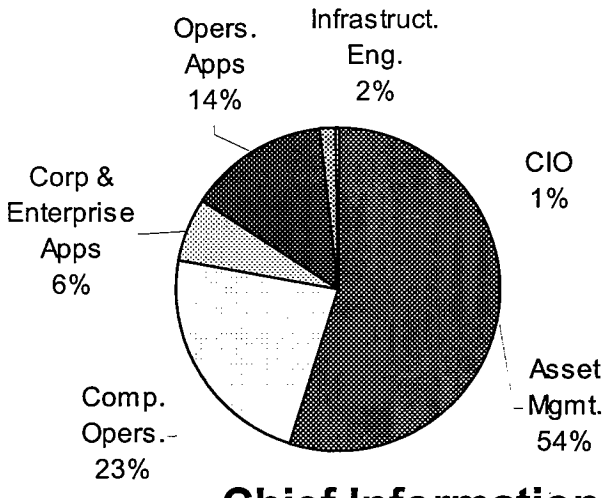
$65K – Placeware Web Based Conferencing

$12K – V.P. Market Services Travel

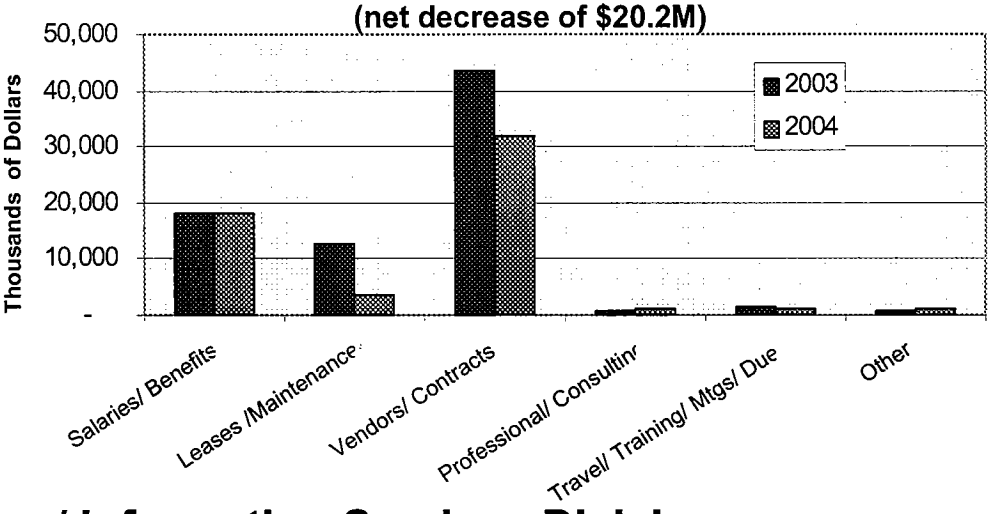
$106K – AMP Reference Price Subscription

$843K - TOTAL

FY2004 CIO Operating Budget: $56.9M



Budget Comparison 2003 ($77.2M) to 2004 ($56.9M) (net decrease of $20.2M)



Chief Information Officer / Information Services Division

Cost Reductions in Proposed Budget:

$15 M– Savings associated with WAN & LAN contract (50%)

$ 450K - Increase in headcount vacancy factor and reduction in other salary related items (2%)

$ 131K – Savings in hardware (20%) and software (30%) expenses

$ 9.04 M– Reduction in lease expenses (70%)

$ 95K– Reduction in consulting (16%)
Elimination of Customer Satisfaction Survey
PKI Replacement study Network monitoring consulting

$ 1.36 M– Reduction in software maintenance expenses (18%)

$ 287 K – Net Reduction in Travel and Training expenditures (21%)

$26.36 million – TOTAL (%'s are reduction from 2003 budget)

Cost Increases in Proposed Budget:

$ 245K– Additional contractor resources (50%)

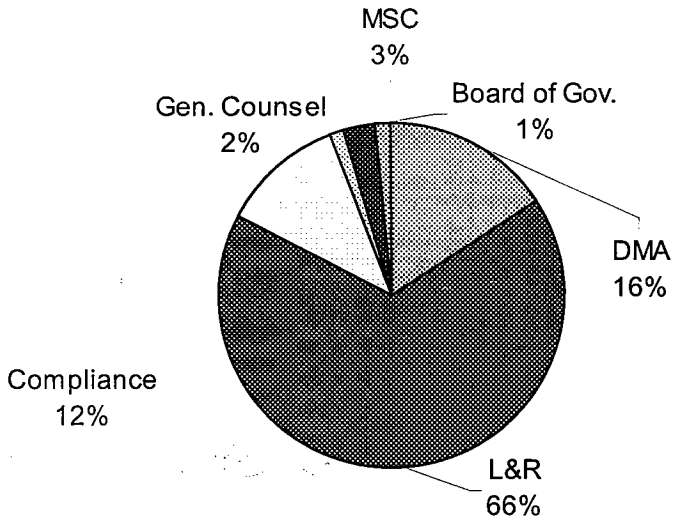
$ 560K –Four staff for Market Support Services (unbudgeted from 2002) (3%)

$ 4.12M– Hardware & software maintenance expense increase (50% increase a resulting from vendor pricing increases and direct impact of Capital Projects)

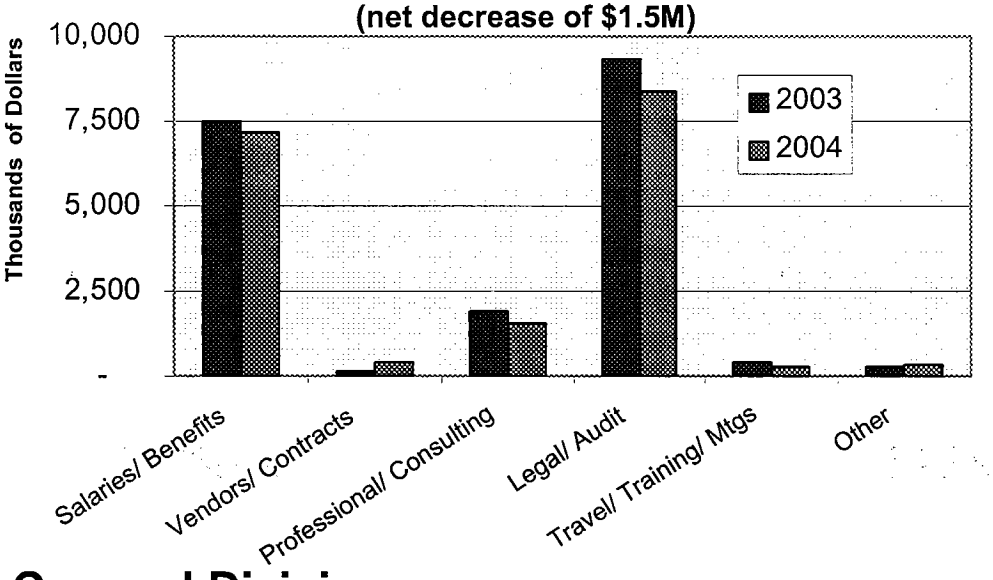
$ 1.2 M – Increase in funds for LAN monitoring, personal property taxes, back-up tapes. (% varies per cost category)

$6.125 million– TOTAL (%'s are increases from 2003 budget)

FY2004 GC Operating Budget: $18.1M



Budget Comparison 2003 ($19.6M) to 2004 ($18.1M)
(net decrease of $1.5M)



General Counsel Division

Cost Reductions in Proposed Budget:

- Reduced external legal expenses ($970K)
- Salary related adjustments of $300K (transfer of one staff to MD02 & increase in headcount vacancy factor)
- Reduced consulting in DMA/ Market Surveillance Committee ($200K), other consulting reductions of $90K.
- Reduction in Other Contracts/Services in DMA, L&R of $50K.
- Other reductions (training, travel, meetings, etc) of $175K

$1.785 million - TOTAL

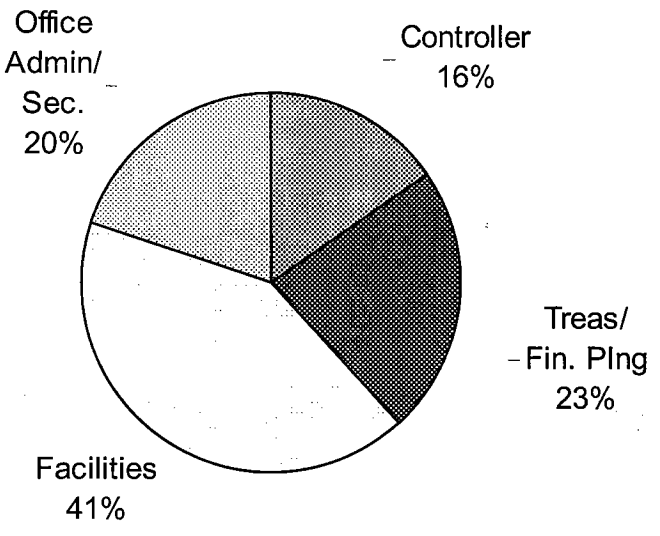
Cost Increases in Proposed Budget:

- Temporary & Contract staff of $265K in Compliance (O&I training, MSS, SC Self Audit continuation of SQMD lessons learned, SAS 70 Type II compliance)
- Board Related items: $80K

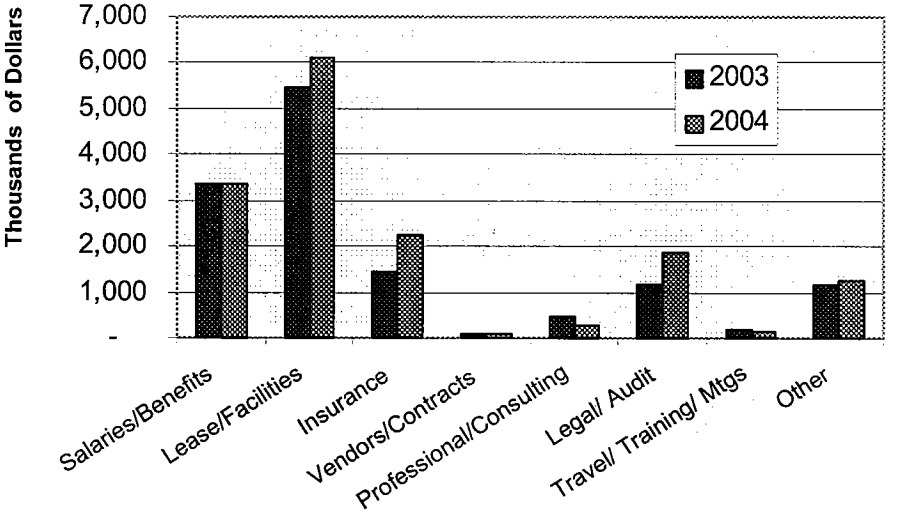
$345K- TOTAL

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FY2004 CFO Budget: $15.4 million



Budget Comparison 2003 ($13.3M) to 2004 ($15.4M) (net increase of $2.1M)



CFO Division

Cost Reductions in Proposed Budget:

- Reduced consulting costs ($158K)
- Misc. Other Reductions including training, travel: ($38K)

$196K – TOTAL

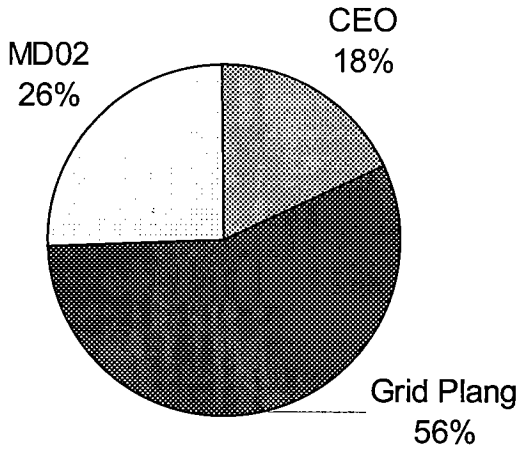
Cost Increases in Proposed Budget:

- Leases / facilities: Increase in lease expenses ($75K) and operating expenses ($260K), and security force ($350K).
- Insurance: Increase in costs for same level of coverage, primarily E&O, D&O policies: $800K. (Savings in workers compensation coverage budgeted elsewhere)
- Increased audits and scope (FERC refund assurance, FERC quarterly reporting, retirement plan audits) $650K
- Increased bank fees-more accounts/activity: $108K
- Misc. Increases ($55K)

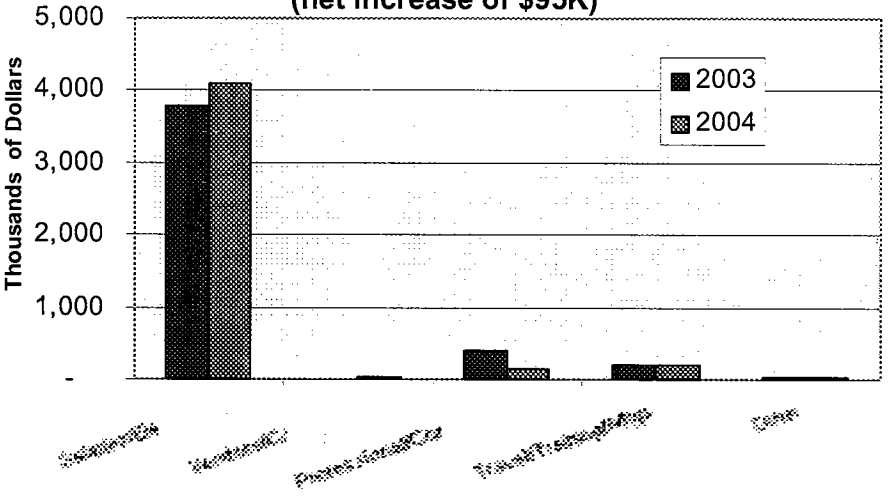
$2,298K- TOTAL

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FY2004 CEO/MD02/Grid Planning Budget: $4.5 million



Budget Comparison 2003 ($4.4M) to 2004 ($4.5M)
(net increase of $95K)



CEO/MD02/Grid Planning Division

Cost Reductions in Proposed Budget:

- Reduced salary & Benefits costs due to increase in headcount vacancy factor ($48K)
- Reduced consulting in grid planning ($250K)
- Other Misc. Reductions, including conferences, meetings ($57K)

$355K– TOTAL

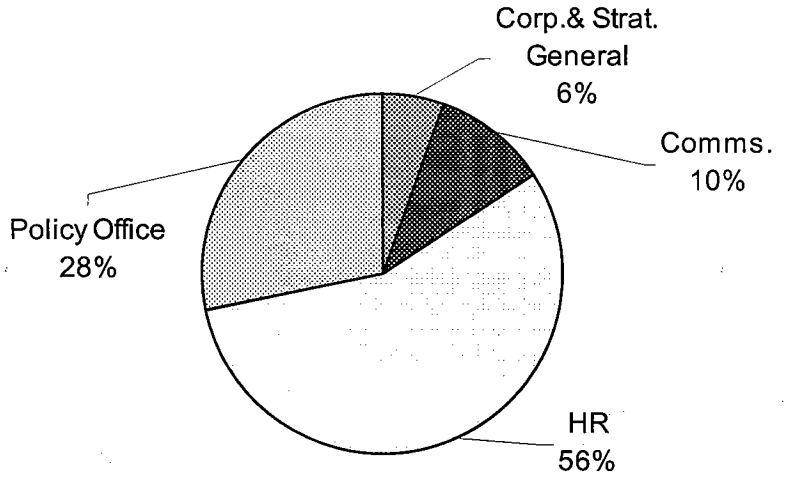
Cost Increases in Proposed Budget:

- Transfer of 1 additional staff to MD02, and one additional grid planning engineer , other compensation related items ($370K)
- Temporary contract staff for MD02 ($35K)
- Other: travel, conferences ($45K)

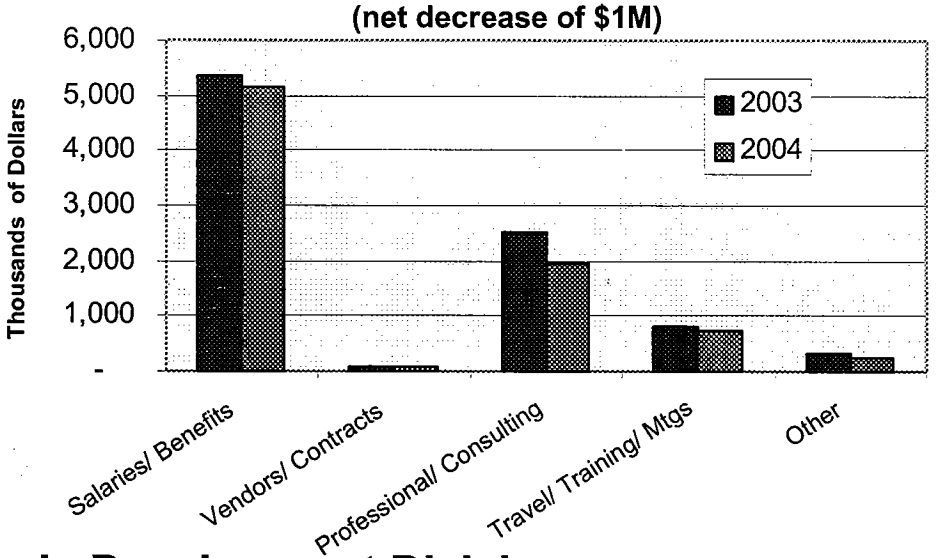
$450K TOTAL

Exh. No. ISO- 31, Page 22 of 65

FY2004 C&SD Budget: $8.1 million



Budget Comparison 2003 ($9.1M) to 2004 ($8.1M)
(net decrease of $1M)



Corporate & Strategic Development Division

Cost Reductions in Proposed Budget:

- Reduced salary & Benefits costs due to increase in headcount vacancy factor ($41K).
- Reduced overall consulting expenses ($360K).
- Reduced relocation expenses ($325K).
- Reduced Recruiting expenses ($100K).
- Reduced Training and Travel ($92K).
- Reduced Advertising expenses ($50K).
- Reduced Printing expenses ($47K).
- Other Reductions ($198K).

$1.223M – TOTAL

Cost Increases in Proposed Budget:

- Increased Legal Audit expenses ($35K).
- Increased Training expenses ($150K).
- Increased Temporary Staffing expenses ($25K).

$210K- TOTAL

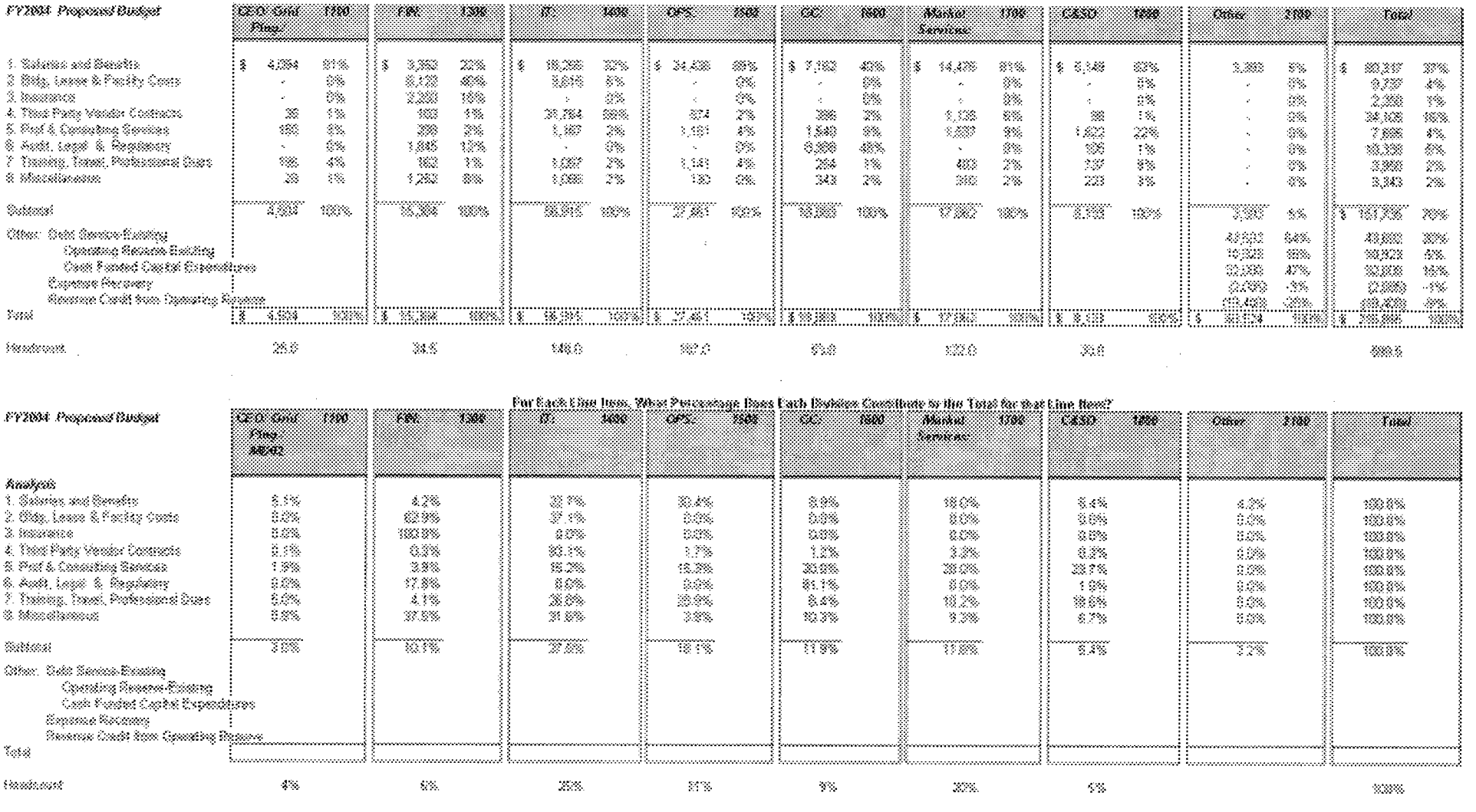
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APPENDIX A
2004 BUDGET COMPOSITION AND COMPARISON

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CALIFORNIA ISO

2004 BUDGET COMPOSITION



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COMPARISON OF 2003 TO 2004

FY2003 Budget	CEO, Gen'l Plng. 1100		FIN. 1300		IT 1400		OPS. 1500		GC 1600		Market Services 1700		CASD 1800		Other 2100		Total	
1. Salaries and Benefits	$ 3,772	85%	$ 3,344	25%	$ 18,691	24%	$ 24,844	80%	$ 7,588	39%	$ 14,638	82%	$ 5,340	68%		0%	$ 77,932	33%
2. Bldg, Leases & Facility Costs	-	0%	5,442	41%	12,856	16%	-	0%	-	0%	-	0%	-	0%		0%	18,297	8%
3. Insurance	-	0%	1,445	11%	-	0%	-	0%	-	0%	-	0%	-	0%		0%	1,445	1%
4. Third Party Vendor Contracts	-	0%	116	1%	43,378	56%	472	2%	188	1%	1,057	6%	69	1%		0%	45,209	19%
5. Prof & Consulting Services	460	5%	488	3%	788	1%	2,488	8%	1,888	10%	1,471	8%	2,488	32%		0%	9,618	4%
6. Audit, Legal & Regulatory	-	0%	1,157	9%	-	0%	-	0%	9,288	48%	-	0%	79	1%		0%	10,524	4%
7. Training, Travel, Professional Dues	288	5%	288	2%	1,346	2%	2,888	7%	388	2%	888	5%	813	9%		0%	6,888	3%
8. Miscellaneous	32	1%	1,190	9%	812	1%	126	0%	288	0%	84	0%	321	4%		0%	2,834	1%
Subtotal	4,410	100%	13,307	100%	77,859	100%	33,178	100%	19,883	100%	18,238	100%	9,083	100%		0%	171,739	72%
Other: Debt Service-Existing															43,297	66%	43,297	19%
Operating Reserve-Existing															10,349	17%	10,349	5%
Cash Funded Capital Expenditures															22,033		22,033	9%
Expense Recovery															(2,528)	4%	(2,528)	-1%
Revenue Credit from Operating Reserve															(6,297)		(6,297)	
Total	$ 4,410	100%	$ 13,307	100%	$ 77,859	100%	$ 33,178	100%	$ 19,883	100%	$ 18,238	100%	$ 9,083	100%	$ 66,854	100%	$ 237,593	100%
Headcount	23		34.5		144		197		84		122		30				595.5	

FY2004 Proposed Budget vs 2003 Budget	CEO, Gen'l Plng. 1100		FIN. 1300		IT 1400		OPS. 1500		GC 1600		Market Services 1700		CASD 1800		Other 2100		Total	
		% Change		% Change		% Change		% Change		% Change		% Change		% Change		% Change		% Change
1. Salaries and Benefits	$ 339	9%	$ 6	0%	$ 76	0%	$ (888)	-3%	$ (344)	-4%	$ (368)	-2%	$ (181)	-4%	$ 3,383		$ 2,388	3%
2. Bldg, Leases & Facility Costs	-		691	13%	(9,041)	-71%	-		-		-		-		-		(8,350)	-46%
3. Insurance	-		888	88%	-		-		-		-		-		-		888	88%
4. Third Party Vendor Contracts	36		(1.2)	-10%	(31,513)	-27%	102	22%	288	14%	638	11%	0	10%	-		(31,134)	-38%
5. Prof & Consulting Services	(288)	-63%	(146)	-33%	178	48%	(1,288)	-52%	(348)	-18%	87	5%	(888)	-38%	-		(2,228)	-32%
6. Audit, Legal & Regulatory	-		888	88%	-		-		(878)	-10%	-		10	48%	-		(852)	-2%
7. Training, Travel, Professional Dues	(88)	-8%	(88)	-8%	(287)	-21%	(1,288)	-47%	(124)	-33%	(158)	-31%	(28)	-9%	-		(1,748)	-31%
8. Miscellaneous	(8)	-11%	82	8%	248	38%	8	4%	88	17%	288	340%	(87)	-38%	-		888	18%
Subtotal	84	2%	2,877	18%	(20,248)	-38%	(2,718)	-8%	(1,888)	-8%	(148)	-1%	(881)	-11%	3,387		(8,188)	-12%
Other: Debt Service-Existing															(888)	0%	(888)	0%
Operating Reserve-Existing															(28)	0%	(28)	0%
Cash Funded Capital Expenditures															8,888	41%	8,888	41%
Expense Recovery															888	-31%	888	0%
Revenue Credit from Operating Reserve															(1,148)	18%	(1,148)	-4%
Total	$ 84	1.0%	$ 2,877	18%	$ (20,248)	-38%	$ (2,718)	-8%	$ (1,888)	-8%	$ (148)	-1%	$ (881)	-11%	$ 10,888	16%	$ (8,188)	-3%
Headcount	2.0		-		4.0		-		(1.0)		(1.0)		-				4.0	1%

APPENDIX B
ADDITIONAL COMMENTARY ON ISO DIVISIONS: ORGANIZATION AND WORKLOAD

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VP Grid Operations (1500)

- Departments:
  - Operations Support And Training (OSAT)
  - Engineering & Maintenance
  - Scheduling & Outage Coordination
  - Grid Operations
  - Regional Coordination

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Operations Support And Training (OSAT)

- **Responsibilities:**
  - Provides operations training to all operations groups, other ISO groups & market participants
  - Update, create & maintain all operating procedures
  - Implement emergency response programs & procedures, including coordinating with state & federal external agencies
  - Final operations approval of revised and new EMS displays as required & requested by control room personnel
- **Staff:** 28
- **Work/Metrics:**
  - Prepare 8 trainees to become ISO, WECC, & NERC Certified Operators
  - Prepare material & provide 8377 hours of training to existing personnel
  - 582 Operating procedures changed
  - Monitor internal operations audits
  - Research & prepare data for investigations and internal reports
  - Interface with multiple external agencies during emergency situations

Exh. No. ISO- 31, Page 29 of 65

Engineering & Maintenance

- **Responsibilities:**
  - Develop ISO operating procedures
  - Administer transmission register & line availability analysis & reporting
  - Develop & administer transmission maintenance program/standards
  - Prepare summer & winter assessments for the local areas
  - Prepare disturbance reports for the local areas
  - Participate in WECC working groups
- **Staff:** 36
- **Work/Metrics:**
  - Performed 32,000 short term operating studies or assessments in 2003
  - Seasonal reliability assessments (bi-annual process)
  - New generation resource interconnections (4790mw from 25 plants/units in 2003)
  - Represents the ISO in WECC Technical Subcommittees
  - System model development & maintenance
  - 1000 Transmission registry changes in 2003

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Scheduling & Outage Coordination

- **Responsibilities:**
  - Schedule real time interchange energy with adjacent control areas
  - Provide control area approval for electronic tagging system in real time
  - Approve or deny outage requests to enable necessary maintenance to preserve reliability of generation & transmission facilities
  - Long-term planning for outage coordination for both generation & transmission facilities
  - Record & maintain data related to outages
  - Ensure accurate path ratings and integrated outages
  - Conduct generator inspections to follow up on forced outages
- **Staff:** 48
- **Work/Metrics:**
  - 144,204 Schedules moved into, out of, and through the ISO control area on 31 interconnections with adjacent control areas in 2002
  - Approved 184,517 e-tags that met the NERC & WECC criteria in 2002
  - Processed & approved 38,000 outage requests in 2002 for work on power system equipment
  - 17 Generating unit outages investigated and inspected this year
  - Provide training to 25 entities on new outage scheduling tool-SLIC, in 2003

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Grid Operations

- **Responsibilities:**
  - Oversee & perform all real time operations of ISO grid & control area
  - Ensure reliable & safe operation of the ISO grid
  - Coordinate load & system restoration after any contingency or major system disturbance in cooperation with WECC Security Coordinator
  - Declare, when appropriate, a Statewide System Emergency as detailed in the dispatch protocol
  - Ensure compliance with all WECC, NERC criteria, and ISO protocols & procedures
  - Procure additional Ancillary Services as necessary
  - Manage operation of regulatory must-take, must-run & RMR generation
  - Dispatch interruptible loads as necessary
  - Coordinate generation resources to meet system load requirements
- **Staff:** 51
- **Work/Metrics:**
  - Performance meeting CPS1 (>100%) and CPS2 (>90%)
  - Performance meeting DCS (100%)
  - Operating within standards, policies, practices, & procedures of NERC & WECC (100%)

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Regional Coordination

- **Responsibilities:**
  - Regional Coordination - Interact with standards setting organizations – NERC, NAESB, WECC
  - Reliability Coordination – monitors real time system conditions, react to system emergencies
  - Research & development for special projects engineering
- **Staff:** 14
- **Work/Metrics:**
  - Coordinate & attend over 50 NERC & WECC committees & subcommittees
  - Participate in NERC technical standards development
  - Participate in development of WECC policies, practices, & procedures
  - Participate in development of NAESB Wholesale Electric Quadrant (WEQ) business standards
  - Participate in research & development of over 20 separate projects with EPRI, CEC, Power Systems Energy Resource Consortium (PSERC) & Consortium for Electric Reliability Technology Solutions (CERTS), such as wind generation, control algorithms, performance assessment, and special display development

Exh. No. ISO- 31, Page 33 of 65

VP Market Services (1700)

- **Departments:**
  - Contracts & Special Projects
  - Client Relations
  - Settlements
  - Market Operations
  - Market Quality

Exh. No. ISO- 31, Page 34 of 65

Contracts & Special Projects

- **Responsibilities:**
  - Develop, negotiate and administer contracts for market participants
  - Develop, negotiate and administer reliability contracts
  - Provide broad-based ISO leadership and support on issues including Transmission Access Charges, Grid Management Charges, Muni issues and FERC proceedings
- **Staff:** 9
- **Work/Metrics:**
  - Contracts in negotiations year-to-date (including RMR): 90
  - Contracts executed year-to-date (including RMR): 33
  - Administers 470 Contracts
  - Currently working on 20 special projects

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Client Relations

- **Responsibilities:**
  - Manages the day-to-day business relationship between the ISO and Grid users in the California energy market
  - Scheduling Coordinator, Participating Generator & Ancillary Services Certification
  - Resolution of Operational and Financial Disputes
  - Managing the Stakeholder process
  - Educating clients on ISO Systems and protocols
- **Staff:** 17
- **Work/Metrics:**
  - 70 Active Scheduling Coordinators
  - Scheduling Coordinator Applicants - 11 Active
  - Participating Generator Certifications – 14 Completed, 12 Active
  - Processed 1,304 settlement disputes
  - Provided 62 hours of settlement training to Scheduling Coordinators

Exh. No. ISO- 31, Page 36 of 65

Settlements

- **Responsibilities:**
  - Billing and financial settlements of all transactions concerning ISO-controlled Grid activity
  - Daily statements and monthly invoices
  - Validate data to the settlement calculations
  - Rerun of Settlements calculations
  - RMR invoicing in accordance with the ISO tariff
- **Staff:** 32
- **Work/Metrics:**
  - Issues over 300 invoices per month
  - 2 Statements daily to over 70 entities
  - 2.5 million entries per month, half of which are generated manually
  - Reruns will require reproducing 70 statements per day for 510 days

Exh. No. ISO- 31, Page 37 of 65

Market Operations

- **Responsibilities:**
  - Design, implement, run and maintain the necessary systems to facilitate California's markets
  - Costs analysis, cost justification and audits on the market-based business systems
  - Operating the various ISO markets, as well as the minute-to-minute control of the Market in accordance with FERC, WECC and ISO guidelines, policies and procedures
- **Staff:** 43
- **Work/Metrics:**
  - Congestion Management: 3689 hours in the Day Ahead Market, 2058 Hours in the Hour Ahead Market
  - Automatic Dispatch System Instructions: 392,877 in 2002
  - Real Time Price Corrections: 420 in 2002

Exh. No. ISO- 31, Page 38 of 65

Market Quality

- **Responsibilities:**
  - Market Quality works to ensure the quality of the "bid to book" market transaction data prior to the settlements process
  - Developing and deploying standards, procedures and controls for new and existing business processes regarding markets, settlements and metering
  - Participates on the design, implementation and testing teams for new market and settlement functionality
- **Staff:** 18
- **Work/Metrics:**
  - Average monthly disputes processed: 97
  - Average monthly data corrections: 50,000
  - Average monthly transaction validations: 30,000

Exh. No. ISO- 31, Page 39 of 65

Chief Information Officer (1400)

- **Departments:**
  - Operations System Services
  - Computer Operations & Infrastructure
  - Corporate & Enterprise Applications
  - IT Planning
  - Asset & Change Management

Exh. No. ISO- 31, Page 40 of 65

Operations Systems Services

- **Responsibilities:**
  - Control Systems
  - Market & Scheduling System Development
  - Market & Scheduling Application Support
  - Settlements System Support
  - Field Data Acquisition System Support
- **Staff:** 60
- **Work/Metrics:**
  - 24/7 support for 25 software applications
  - Manage acquisition of real-time grid information from:
    - 1200 power generators
    - 80,000 telemetered points
    - >600 meters
  - Prepare systems for FERC reruns

Exh. No. ISO- 31, Page 41 of 65

Computer Operations & Infrastructure Services

- **Responsibilities:**
  - Information Security Services
  - Network Services
  - Production Support
  - Systems Engineering
  - User Support Services
- **Staff:** 47, and outsourced resources including IBM (39), MCI (32).
- **Work/Metrics:**
  - 24/7 support for:
    - 132 software applications
    - >400 servers
    - 963 desktop computers
  - Security activity for access, intrusion detection, and virus protection
  - 3500 Help Desk calls (monthly)
  - 300 IT system changes (monthly)

Exh. No. ISO- 31, Page 42 of 65

Corporate & Enterprise Applications

- **Responsibilities:**
  - Corporate Applications
  - Enterprise Applications
  - Analytical & Reporting Applications
- **Staff:** 24
- **Work/Metrics:**
  - Support and development of 40+ software applications
    - Corporate and Market Financials (EDI - ±$7B))
    - HR applications
    - DMA
    - Physical Security systems
    - Settlement Dispute System
  - 24/7 support for CHASE (Help Desk), CAISO.com, Data Warehouse, Documentum

Exh. No. ISO- 31, Page 43 of 65

IT Planning

- **Responsibilities:**
  - IT Strategic Planning
  - IT System Architecture
  - IT System Standards
- **Staff:** 6
- **Work/Metrics:**
  - Annual update of IT Strategic Plan (a 3-year forecast of IT project spending)
  - Architectural evaluations for all major acquisition or development projects
  - Maintenance of: technical standards in 19 major areas; 5 major application architecture patterns; and 30 major application system architectures
  - Participation in technical exchanges sponsored by
    - Seams Steering Group of the Western Interconnection
    - ISO/RTO Council
    - US Agency for International Development

Exh. No. ISO- 31, Page 44 of 65

IT Asset & Change Management

- **Responsibilities:**
  - IT Change & Asset Management
  - IT Contract Management
  - Telecommunications Vendor Management
  - Financial Planning & Budget Management
    - Centralized IT costs of >$30M are contained within the IS division budget to facilitate management of costs and efficiencies for vendor management.
- **Staff**: 10
- **Work/Metrics:**
  - IS Changes Managed Monthly: 300 infrastructure changes (monthly)
  - IS Contracts Managed: >1,200
    - 5 Lease companies
    - 175 Software license and maintenance vendors
    - 10 Hardware vendors
    - 7 Telecom vendors
    - 2 Prime outsource providers (AT&T and IBM)
  - Divisional financial performance management

Exh. No. ISO- 31, Page 45 of 65

General Counsel Division (1600)

Departments:

- Legal & Regulatory
- Compliance
- Market Analysis

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General Counsel: Legal

- **Responsibilities:**
  - Key contracts
    - Vendor agreements, consulting agreements, RFPs, DSOWs, non-disclosure agreements
  - HR counseling:
    - HR policies, benefit plans, investigations, personnel actions
  - Corporate governance
  - Tax, IP, insurance coverage
  - Legal administration
  - Training
  - Corporate Secretary
- **Staff:** 9
- **Work/Metrics:**
  - AT&T conversion
  - Wage & hour trial
  - Settlement systems replacement
  - MD02 contracts

Exh. No. ISO- 31, Page 47 of 65

General Counsel: Regulatory

- **Responsibilities:**
  - FERC, CPUC
  - Tariff administration
  - Tariff compliance
  - Rate cases
  - Regulatory litigation
- **Staff:** 7
- **Work/Metrics:**
  - MD02 implementation
  - Tariff simplification
  - PUC procurement proceeding
  - GMC rate design
  - Interconnection policies
  - 175 FERC filings (a/o 8/31)
  - 23 CPUC filings (a/o 8/31)
  - 80 active FERC dockets (a/o 8/31)
  - 8 active PUC dockets (a/o 8/31)

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General Counsel: Legislative

- **Responsibilities:**
  - State & Federal Government Relations
  - Interests Groups
  - Bill Tracking & Analysis
  - Advocacy
  - Hearings
- **Staff:** 4
- **Work/Metrics:**
  - MD02 legislative strategy
  - SB 72 (Dunn)
  - SB 520 (Sher)
  - SB 888 (Dunn)
  - WAPA
  - Federal energy bill
  - Board confirmations
  - 64 Bills tracked and analyzed (a/o 9/03)
  - 28 hearings attended (a/o 9/03)

Exh. No. ISO- 31, Page 49 of 65

General Counsel: Litigation

- **Responsibilities:**
  - Investigations
  - Court litigation
  - Regulatory litigation
  - "Good Faith" Negotiations"/ADR
  - Data/Information requests
- **Staff:** 2
- **Work/Metrics:**
  - Governance litigation
  - Senate energy committee investigation
  - Refund litigation
  - Madrid litigation
  - FERC OSC cases
  - Williams mediation
  - PG&E, Enron, Mirant bankruptcies
  - 12 active civil cases
  - 14 GFN/Arbitrations
  - 166 sets of data responses (a/o 8/31)

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General Counsel: Compliance

- **Responsibilities:**
  - Enforcement of tariff provisions
  - Automated compliance programs and settlement adjustments
  - Meter data quality
  - Operational investigations
  - Training
- **Staff:** 13
- **Work/Metrics:**
  - Oversight & investigation program
  - "Double Pay" adjustment
  - Enron meter errors
  - MD02 implementation
  - Uninstructed deviation penalties
  - MSS compliance
  - SAS 70 Type 2
  - 169 logged events per month reviewed
  - 2411 declined instructions per month researched

Exh. No. ISO-31, Page 51 of 65

CALIFORNIA ISO

General Counsel: Market Analysis

- **Responsibilities:**
  - Monitoring & analysis of market performance
  - Routine and special reporting
  - Responding to data requests
  - Investigations:
    - anomalous events, market power, gaming, and market manipulation
  - Market design assessment
  - Design market power mitigation measures
  - Market Surveillance Committee
- **Staff:** 16
- **Work/Metrics:**
  - Refund litigation
  - Transmission projects & economic analysis
  - MD02 implementation
  - Monitoring market power mitigation measures
  - O&I
  - Procurement proceeding
  - Must-Offer analysis

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Chief Financial Officer (1300)

- **Departments:**
  - Controller
  - Treasury/Financial Planning
  - Facilities
  - Security / Office Administration

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Controller

- **Responsibilities:**
  - Accounting
  - Audit Coordination
  - Market Clearing
  - A/R, A/P
  - Purchasing
- **Staff:** 9.5
- **Work/Metrics:**
  - Annually:
    - Nearly 40,000 market invoices processed
    - 68 bank accounts
    - 25,000 vendor invoices processed
    - 2,500 purchasing line items processed

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Treasury/Financial Planning

- **Responsibilities:**
  - Budgeting
  - GMC Rates
  - Capital Project Financial Tracking
  - Risk Mgmt./ Insurance
  - Investments
  - SC Security Admin.
  - Benchmarking
- **Staff:** 6.5
- **Work/Metrics:**
  - Annually:
    - Budgets for 73 departments with approximately 70 expense types, 50 + database tables.
    - 500-1500 GMC related discovery questions
    - 350 investment transactions
    - >150 SC security changes

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Facilities

- **Responsibilities:**
  - To provide and manage a highly reliable building infrastructure that supports a safe, efficient and comfortable work environment and contributes to enterprise-wide teamwork and collaboration.
  - Building maintenance
  - Space planning
- **Staff:** 7
- **Work/Metrics:**
  - 182,653 sq. ft. of facilities in two campuses
  - Over 100 facilities action requests per month
  - Over 30 space planning moves per month

Exh. No. ISO- 31, Page 56 of 65

Security/ Office Administration

- **Responsibilities:**
  - Security
  - Safety
  - Administration: mail, room setup, reception
- **Staff:** 10
- **Work/Metrics:**
  - 2003 monthly averages:
    - 16 security incidents
    - 750 visitors to ISO
    - 20 conference room setups

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CEO/MD02/Grid Planning (1100)

- **Departments:**
  - Office of CEO
  - MD02 Implementation Project
  - Grid Planning

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Office of CEO

- **Responsibilities:**
  - Ensures that the ISO fulfills its corporate goals
  - Oversees all ISO departments
  - Represents ISO to external regulatory agencies & public policy decision making bodies
  - Represents ISO to industry organizations
  - Represents ISO in national forums
- **Staff: 2**
- **Work/Metrics:**
  - NERC Stakeholder Committee
  - NERC Steering Group – for NE Blackout Investigation
  - ISO / RTO Council
  - CERTS – Industry Advisory Board
  - WECC Reliability Policy Issues Committee
  - The Conference Board – Executive Council
  - Speeches to industry conferences – IEEE, CMTA, Western Markets Forum, Toronto Energy Summit, Arizona Energy Summit, etc.

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Grid Planning

- **Responsibilities:**
  - Review the PTO 10-year Bulk Power Program & ensure projects are implemented in a timely fashion, such as Jefferson-Martin
  - Review studies by PTOs for connecting new generators or load to the ISO controlled grid
  - Conduct studies to determine RMR/LARS contract requirements
  - Coordinating & establishing the ISO Planning Standards
  - Lead or support several Regional and National technical/engineering groups including WECC, SSG-WI, STEP, NTEP, several NERC Planning groups (including PC Vice-Chair) and SAC (Vice-Chair)
- **Staff:** 16
- **Work/Metrics:**
  - 17 generation projects in que
  - Over 100 base cases reviewed or developed in 2003
  - Chair, Vice-Chair or participate in meetings of: WECC, SSG-WI (Steering Group & Planning Working Group), NERC (Standards Authorization Committee(SAC), Planning Committee (PC))
  - Initiated subregional transmission planning groups for southwest & northwest (STEP, NTEP)
  - Participated in ISO's development of methodology for analysis of economic transmission projects
  - Help facilitate resolution of issues surrounding closure of generation at Hunters Point and Potrero
  - Support PG&E towards goal of successfully completing the CPCN process for Jefferson-Martin and its in-service date of Sept. 2005

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MD02 Implementation Project

- **Responsibilities:**
  - Successful implementation of approved phases of MD02
  - Such implementation necessitates change-out of majority of existing systems and installing open architecture, modular systems, using industry best practices
  - Seek out, negotiate & contract with top vendors to develop new software systems
- **Staff:** 7, with additional resources of IBM & staff from other ISO Depts.
- **Work/Metrics:**
  - Developed scope, schedule and overall budget for project
  - Submitted nine monthly reports to FERC
  - Delivery and implementation of Phase 1A
  - Development and testing of Phase 1B
  - Established disciplined RFP process and have employed it on major IFM/LMP and settlements software development projects

Exh. No. ISO- 31, Page 61 of 65

Corporate & Strategic Development (1800)

- **Departments:**
  - Communications
  - Human Resources
  - Policy Office

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Communications

- **Responsibilities:**
  - Corporate communications policy
  - Media relations
  - External communications coordination
  - Internal communications coordination
  - Inter-and Intra-net coordination
- **Staff:** 4
- **Work/Metrics:**
  - 12-24 public information inquiries per day(including through the website)
  - 10-20 news releases/media advisories
  - Track media coverage – post daily to intranet
  - Publications:
    - Corporate Annual Report
    - Quarterly Employee Newsletter
    - Biweekly Watt's New with MD02
  - Plan and execute Employee monthly events; all/hands; anniversary party; fall family picnic
  - Control room tours: 500+ visitors
  - Developed & distributed 12 Fact Sheets on current issues

Exh. No. ISO- 31, Page 63 of 65

CALIFORNIA ISO

Human Resources

- **Responsibilities:**
  - Recruit, hire and retain employees
  - Benefits and compensation HR Policy
  - Manage Employee Transactions and Records
  - Provide Organization Development and Training
- **Staff:** 13
- **Work/Metrics:**
  - Process employee benefits and payroll for approximately 574 employees
  - New hires: 25
  - Manage on-site Temporary Vendor staffing services – avg. of 70 contractors per month
  - Select & implement new Oracle Human Resources Database to replace in-house payroll system (scheduled within an 8 month timeframe)
  - Promotions, transfers, administrative changes: 107
  - Voluntary/involuntary terminations: 19
  - Training opportunities
    - 67 courses
    - Total Participants: 585
  - Initiated "Manager Seminar Series"

Exh. No. ISO- 31, Page 64 of 65

Policy Office

(Strategic Development; Project Office; Regulatory Policy)

- **Responsibilities:**
  - Facilitate Development of Corporate/Strategic Goals & Objectives
  - Guide Corporate Policy
  - Guide Market Design
  - Lead Policy Interaction with Regional and Regulatory Bodies
  - Project Management Standards & Portfolio Reporting
- **Staff:** 10
- **Work/Metrics:**
  - Developed and tracked corporate goals
  - Lead development of MD02 conceptual design
  - Lead policy witness on such regulatory processes as FERC's interconnection rulemaking, CPUC's resource procurement and transmission planning and expansion efforts
  - Lead representatives on regional outreach and policy coordination efforts
  - Assisted in generation maintenance standards development and establishing inter-agency AB39XX Committee
  - Led in relationships building with CPUC and utilities during final development of MD02
  - Produce monthly POWER report on progress of ISO's major projects
  - Introduced and defined generic process of project management and established intranet coaching site

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CALIFORNIA ISO

Agenda
Budget Workshop Stakeholder Meeting
October 3, 2003
9am-12pm

Conference call-in number:
(800) 374-0087
Confirmation # "3162497"

Time	Topic	Presenters
9:00-9:10	Welcome & Introduction	W. Regan
9:10-9:35	Review of Budget Posting	P. Leiber
9:35-10:45	Departmental Budget Overviews • VP Operations • VP Market Services • CIO • General Counsel • CFO • CEO • VP Corporate & Strategic Development	CAISO Officers
10:45-11:00	Capital Budget Discussion • Overall Level & Project Composition	P. Leiber / E. Schmid S. Gerber
11:00-11:30	GMC Unbundling • Cost Allocation • Rates	B. Arikawa
11:30-12:00	Open Discussion on Budget • Request for Comments on Proposed Budget for Discussion on October 15	P. Leiber

California ISO
October 3, 2003 Public Budget Workshop
Attendance List

	Last Name	First	Company	
1	Arikawa	Ben	ISO	
2	Barkovich	Barbara	Barkovich and Yap	phone
3	Cabrera	Alex	SCE	
4	Cohen	David	Navigant Consulting	
5	Detmers	Jim	ISO	
6	Drummond	Bruce	ISO	
7	Epstein	Mike	ISO	
8	Gage	Tim	ISO Board	
9	Haines	Tim	ISO	
10	Hawkins	David	ISO	
11	Kaplan	Katie	IEP	phone
12	Kolakowski	Victoria	EOB	
13	Lam	Tony	EOB	
14	Leiber	Phil	ISO	
15	Lynn	Liz	WAPA	
16	McGuffin	Mike	ISO	
17	McLean	Chris	EOB	
18	Miremadi	Ali	ISO	
19	Morrison	Stephen	ISO	
20	Olsson	Ray	EOB	
21	Regan	William	ISO	
22	Robinson	Charlie	ISO	
23	Schmid	Elena	ISO	
24	Schneider	Susan	Phoenix Consulting	
25	Shea	Karen	CPUC	
26	Smith	Kevin	Braun and Associates	
27	Terry	Lee	CDWR	
28	Timson	David	ISO	
29	Tran	Nguyet	PG&E	
30	Winter	Terry	ISO	
31	Wright	Susan	ISO	
32	Yakin	Dale	PG&E	
33	Yap	Catherine	Barkovich and Yap	phone
34	Yoho	Allen	ISO	
35	Kirsch	Laurence	Christensen Associates	phone

CALIFORNIA ISO

SUMMARY OF PROPOSED FY2004 BUDGETS

Budget Workshop
October 3, 2003

PRELIMINARY: SUBJECT TO CHANGE PRIOR TO BOARD APPROVAL

Exh. No. ISO- 34, Page 1 of 26

OUTLINE

- **Budget Timeline**
- **GMC Rates Determination Process**
- **Budget Approach / Goal**
- **Components of ISO Revenue Requirement**

	2003	2004
O&M Budget	$171,739	$151,735
Capital Budget	$22,000	$32,000 (*)
Subtotal	$193,739	$183,735
Debt Service	$54,746	$54,615
Expense Recovery	($2,628)	($2,085)
Operating Reserve	($8,257)	($18,102) (tentative)
Total Revenue Requirement	$237,600	$218,163 (tentative)

- **Historical Spending Trend / Comparison of 2003 to 2004**
- **O&M Budget: Divisional Overviews**

Notes:
'000 Omitted
* Final amount may change pending revised MD02 schedule and other issues.

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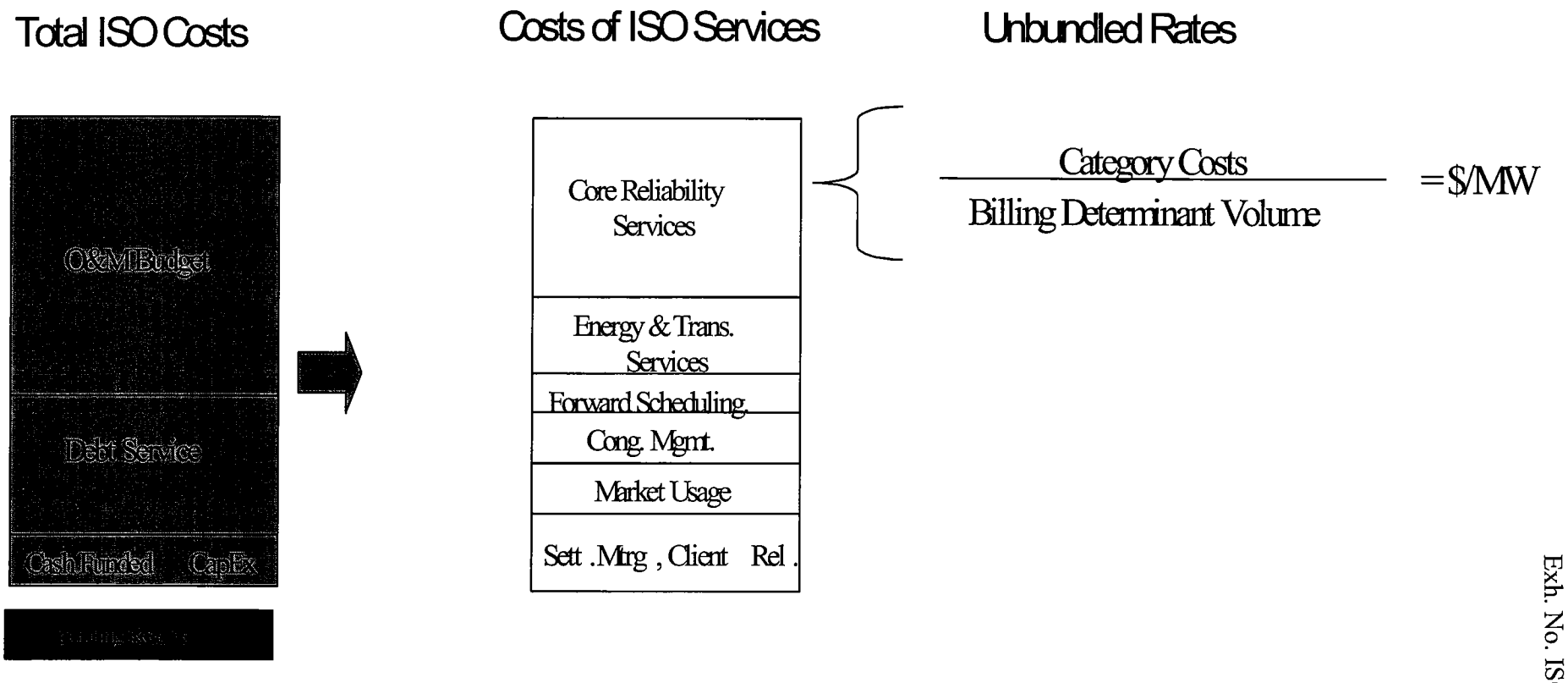
FY2004 BUDGET TIMELINE

1	**Budget Process Timeline Approved by Board**	**26-Jun-2003**
2	Annual Goal Setting Discussion Commences	Early July 2003
3	Budget Process Rollout to CAISO departments	9-Jul-2003
4	**Finance Committee Review of Preliminary Budget (Executive Session)**	**12-Sep-2003**
5	**Board discussion and review of preliminary Budget posting (Open session)**	**25-Sep-2003**
6	Public Budget Workshop	3-Oct-2003
7	Budget Overview to Market Issues Forum	9-Oct-2003
8	Written Comments on Budget Due	13-Oct-2003
9	**Finance Committee meeting to discuss and receive additional public comments on budget and develop recommendation to Board.**	**15-Oct-2003**
10	**Board Approval of Budget and Goals**	**23-Oct-2003**
11	Budget Filing with FERC	31-Oct-2003
12	New Rate Effective	1-Jan-2004

Note:
Board action or report items in **bold.**

Exh. No. ISO- 34, Page 3 of 26

ISO REVENUE REQUIREMENT
(as it affects the GMC rate determination)



- Calculation of GMC Rates is dependent on cost allocations to new GMC service categories, and billing determinant forecasts, which are underway at this time.

ISO BUDGET GOAL / APPROACH

- **Guidance Provided by Terry Winter in Early July**
  - Flat O&M budget less $15 million in savings from new communications contract to be returned to ratepayers.
  - Overall revenue requirement reduced by at least $15 million.

- **Approach**
  - 1. Base budgets: cost for continuation of services budgeted in 2003.
  - 2. Decremental programs: programs in base budget that might be reduced/eliminated with some effect on service levels.

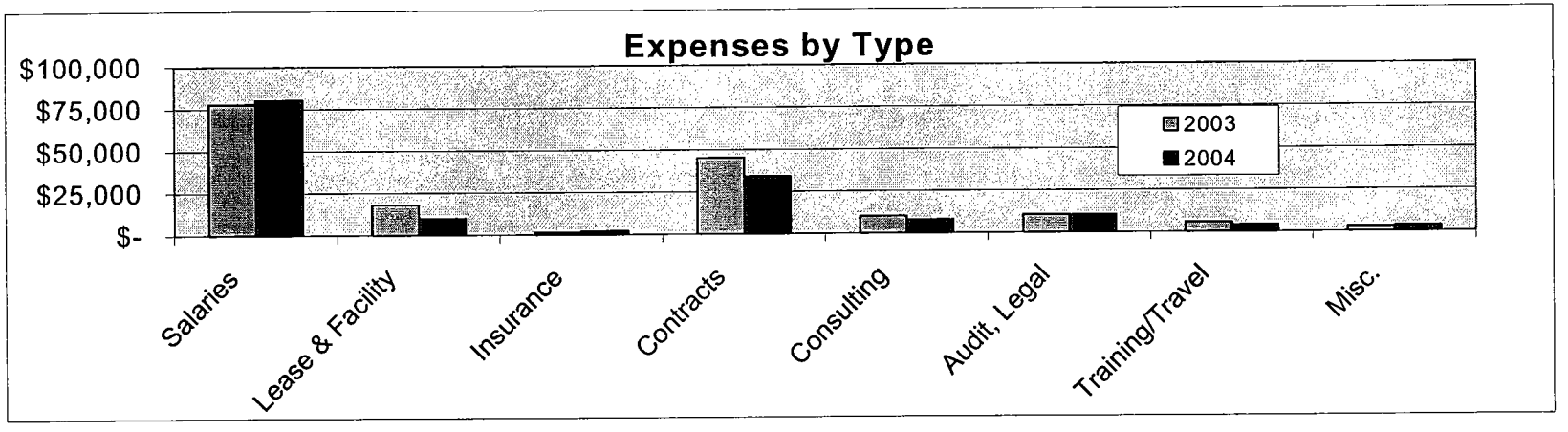
    - Each ISO Division to present the above two components of their proposed O&M budget at a level 7% below the 2003 budget.

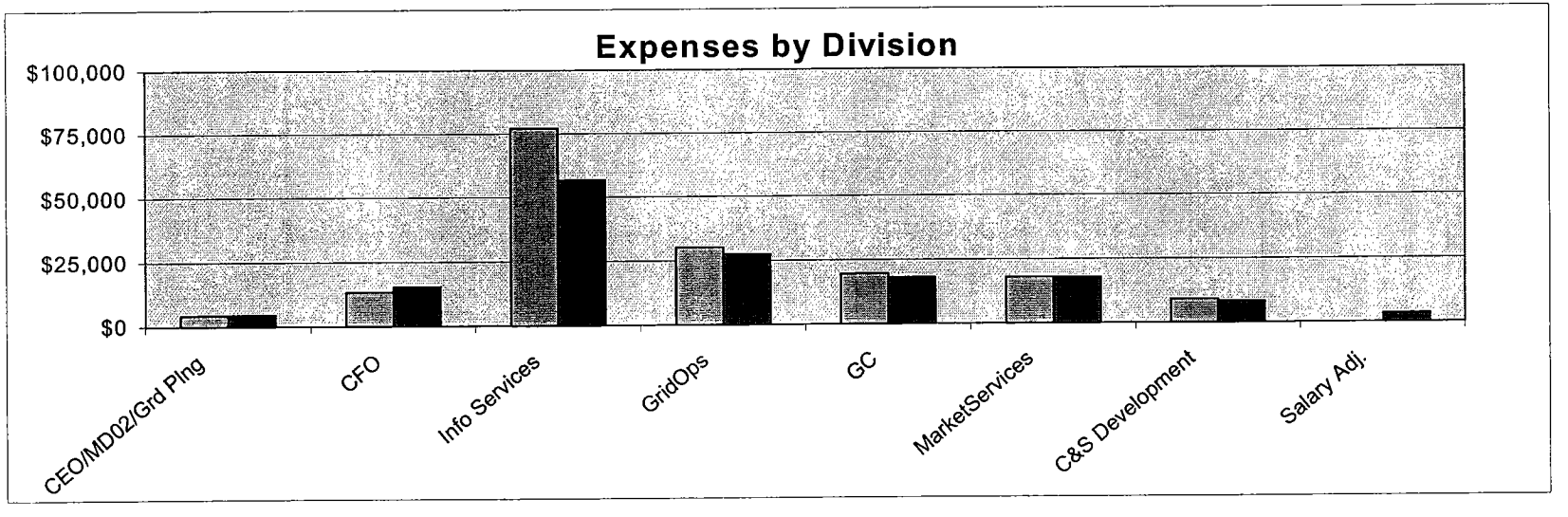
  - 3. Incremental programs: the cost of services provided in 2003 that were unbudgeted, or entirely new services necessary for 2004.

  - Management recommended budget, (INC and DEC programs) is $20 million below the 2003 budget.

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FY2003/ FY2004 OPERATING & MAINTENANCE BUDGET COMPARISONS

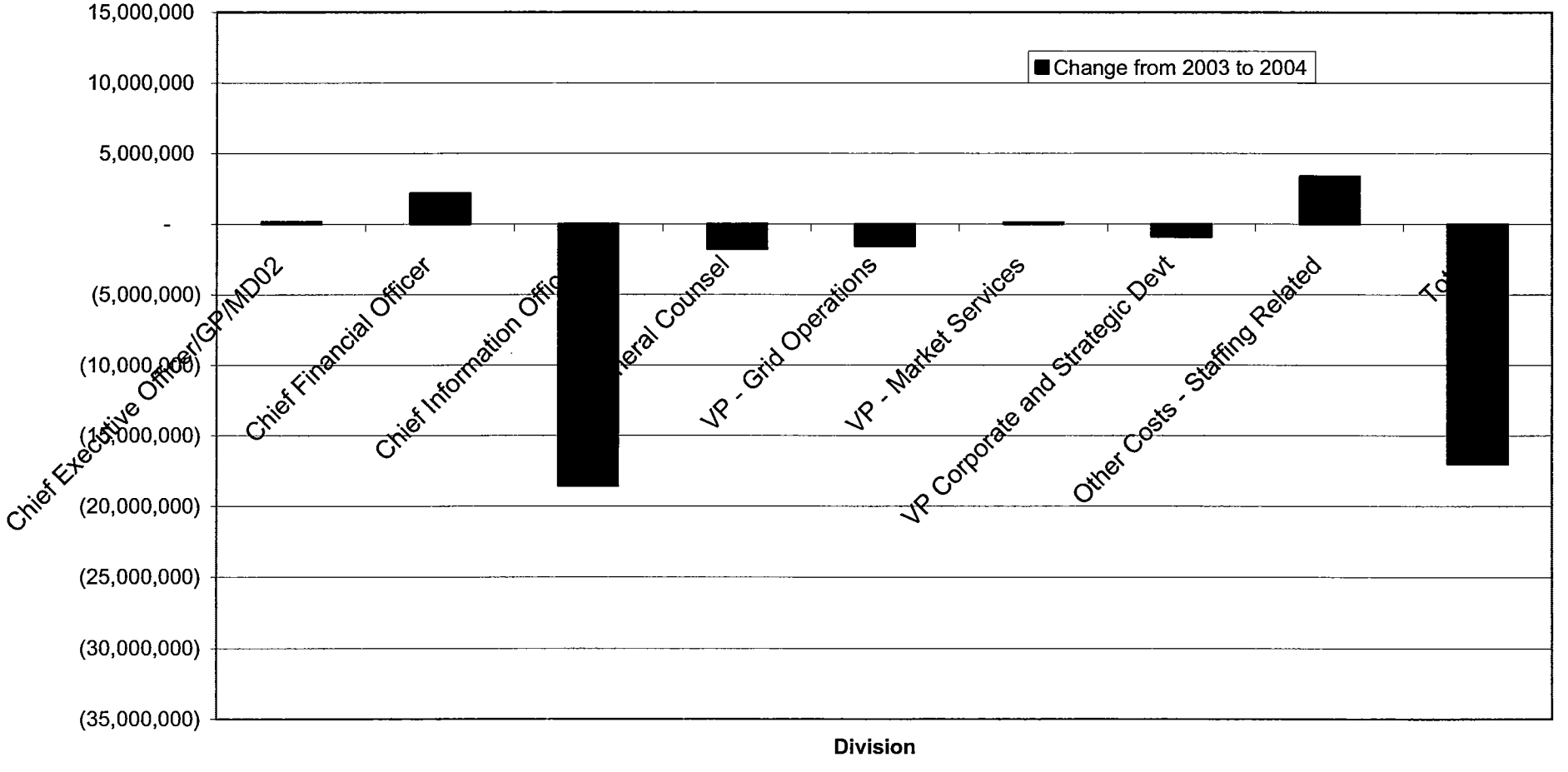




- **Goal**: Reduced budget from 2003 of at least $15 M
- **Results:** Reduction of $20 million

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CHANGES IN O&M BUDGET BY DIVISION

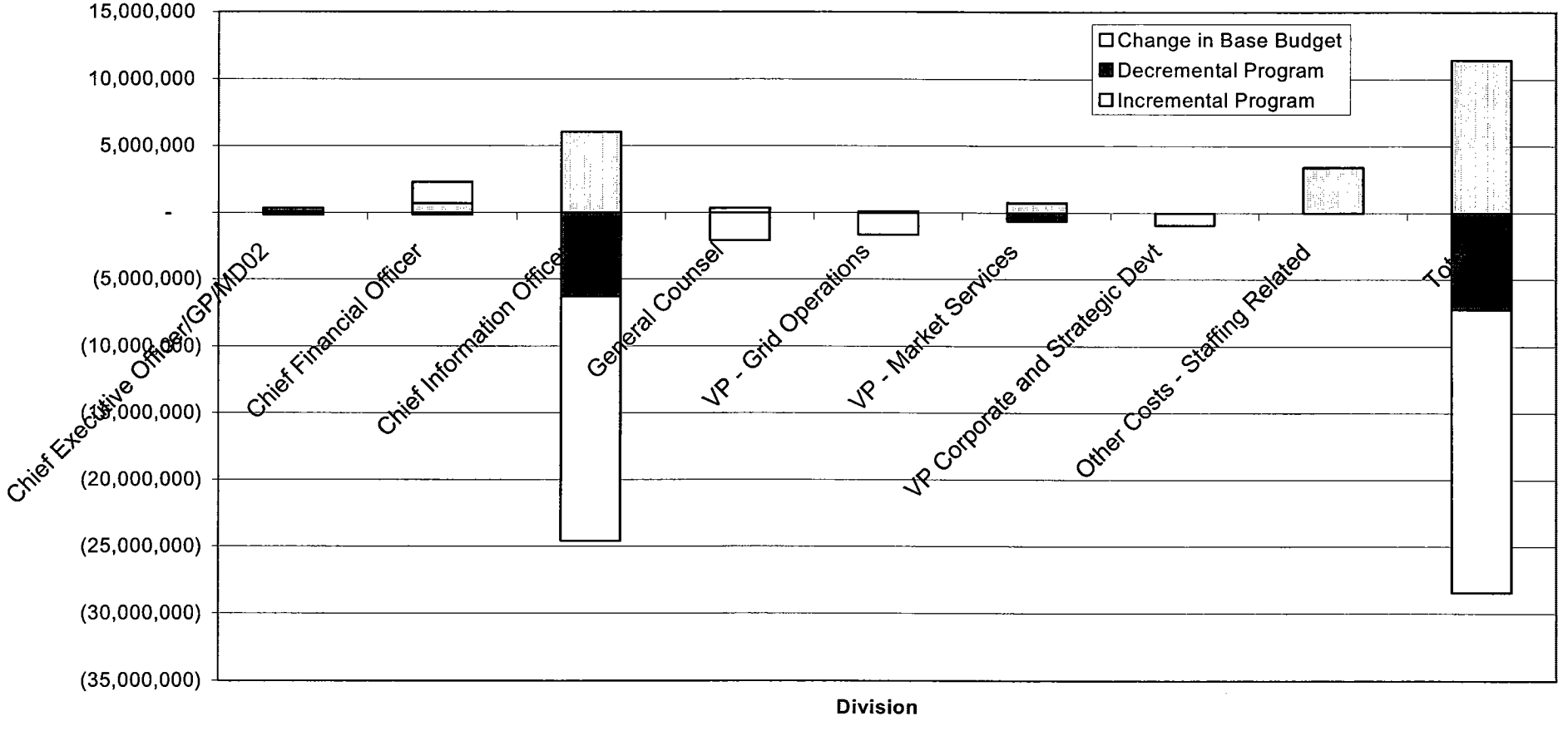


- Net change for each Division masks the increases and decreases within that net change. These components are shown on the following page.

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CALIFORNIA ISO

Analysis of Changes in Proposed 2004 Budget: Incremental, Decremental Programs and Reductions in Base Budgets



- **INC and DEC programs represent changes in service levels from 2003 budget to 2004.**

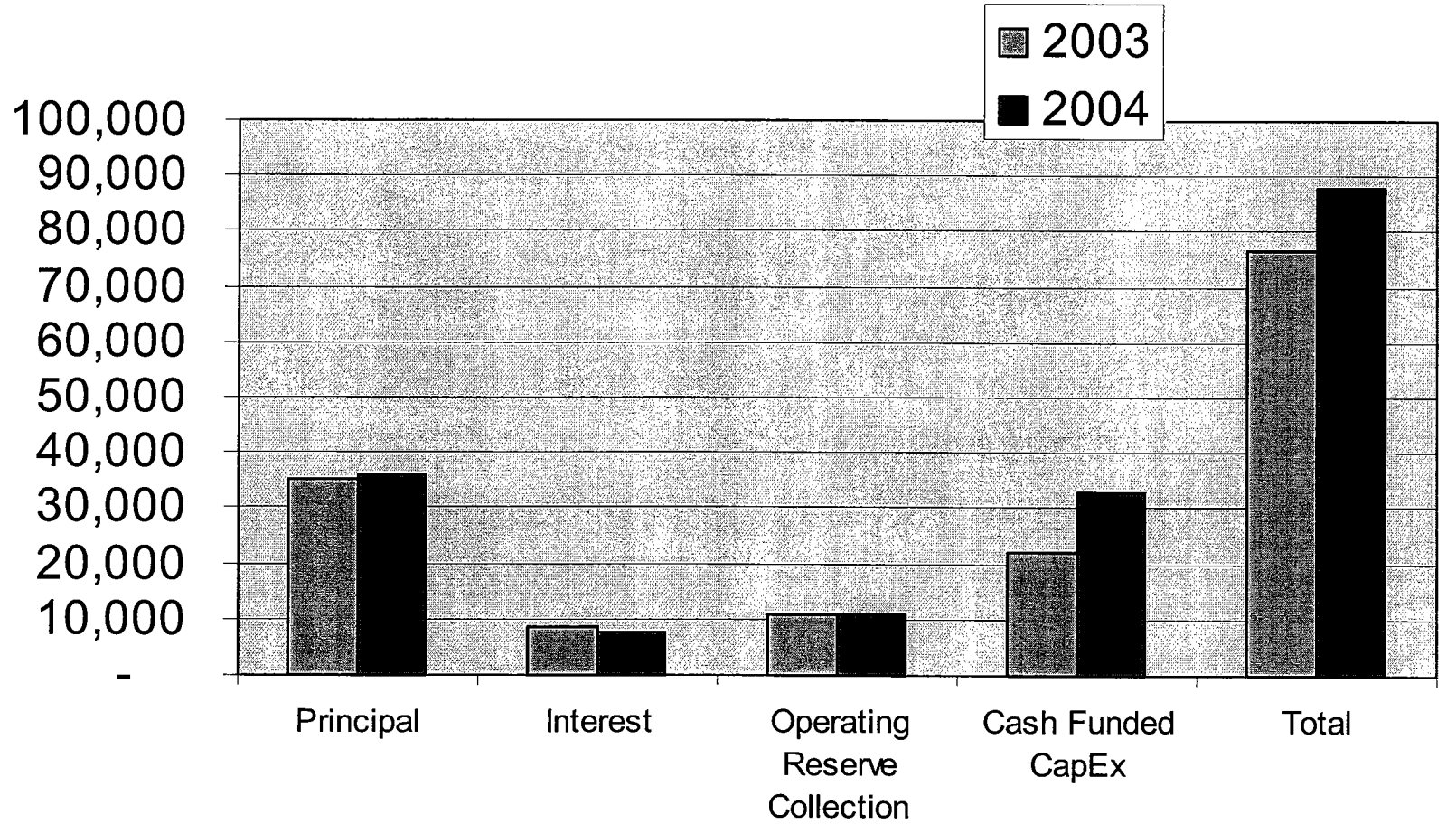
Exh. No. ISO- 34, Page 8 of 26

FY2003/ FY2004 STAFFING LEVELS

CAISO Division	FY2003 Budgeted Staffing	Changes	FY2004 Proposed
CEO/MD02/Grid Plng.	23.0	2.0	25.0
CFO	34.5	-	34.5
CIO	144.0	4.0	148.0
VP Grid Ops	187.0	-	187.0
General Counsel	54.0	(1.0)	53.0
Market Services	123.0	(1.0)	122.0
VP Corp & Strat Dev	30.0	-	30.0
Total FTE	**595.5**	**4.0**	**599.5**

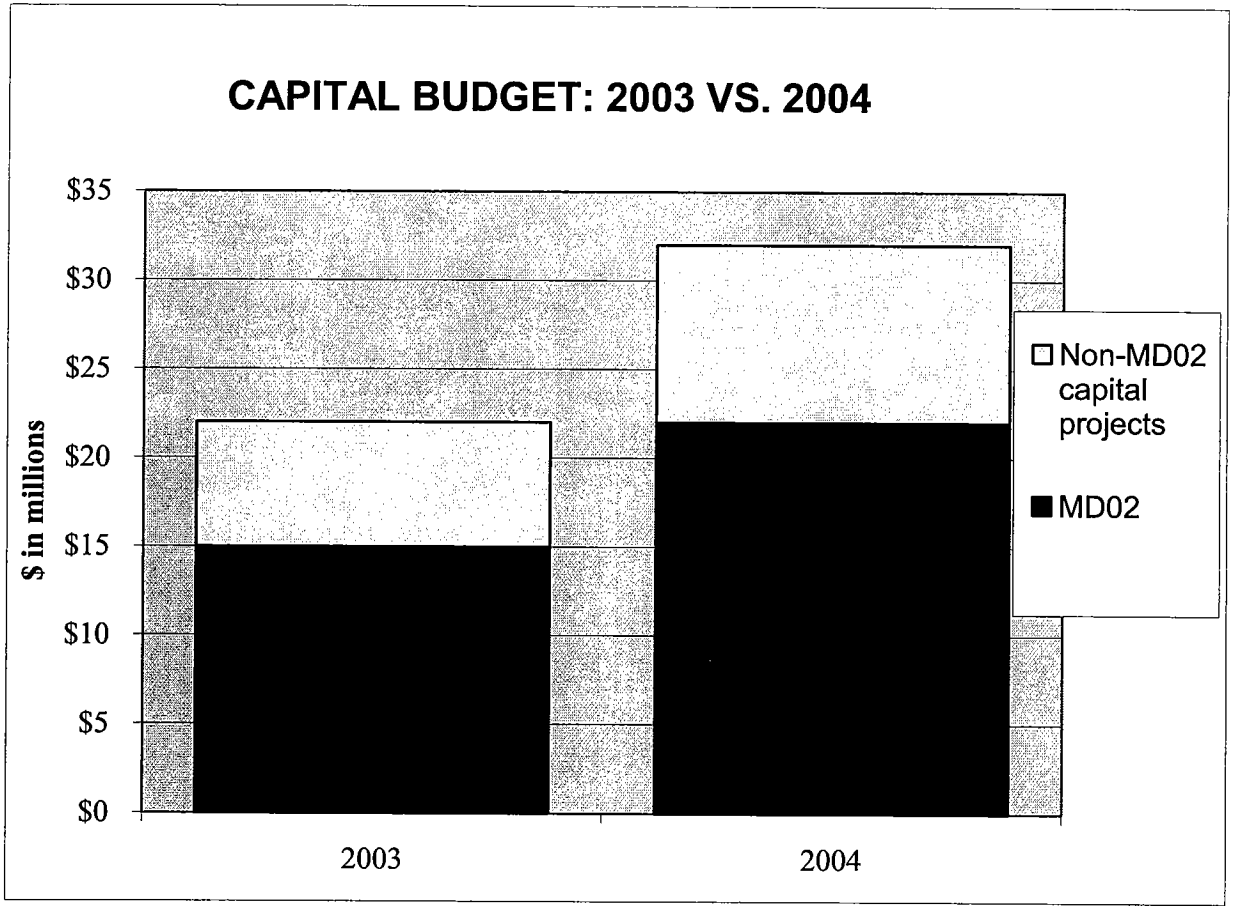
- **Changes reflect transfers between divisions, positions added subsequent to approval of 2003 budget.**

Debt Service & Cash Funded CapEx



Note: CapEx budget is preliminary, pending completion of MD02 project schedule update and other needs.

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- CapEx budget is preliminary, pending completion of MD02 project schedule update and other needs.
- Size of budget is developed based on indicative project list, but actual projects completed in 2004 may differ. All projects to be funded in 2004 will undergo internal (and if > $1 million, Board) approval process.

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ISO EXPENSE RECOVERY BUDGET

	FY2003 Budget	FY2004 Proposed Budget	Amount Change	% Change
Interest Earned on Operating Funds (1)	$ 1,252	$ 652	$ (600)	-48%
SC Application & Training Fees	120	120	-	0%
WSCC Security Coordinator Fees	1,256	1,313	57	5%
Total O&M Expense Recovery Budget	**$2,628**	**$2,085**	**-$543**	**-21%**

(1) Reduced interest earnings due to lower interest rates. Will monitor interest rates and forecast through date of filing and update as appropriate. Interest rates have increased since Summer 2003.

ISO OPERATING RESERVE

- **Structure**
  - Each year, ISO collects 125% of required debt service (principal & interest). Excess 25% deposited in the Operating Reserve.
  - If, at year end, the operating reserve contains more than 15% of following year's operating budget, any excess is used as a credit toward that year's revenue requirement.
- **Two Part Calculation**
  - Update the reserve balance at the end of 12/31/2002 (use actual rather than forecasted figures)
  - Detail items affecting the reserve during 2003
- **Factors Affecting the Reserve**
  - Revenues higher/lower than budgeted
  - Expenses higher/lower than budgeted
  - Other uses of the reserve
    - Adjustments to previous year's revenues (GMC rate case results, FERC fines & penalties, billing errors, etc.)
- **Estimated credit for 2004**
  - In excess of 2003 budgeted amount ($10.9 million), likely to range from $16 to 28 million.

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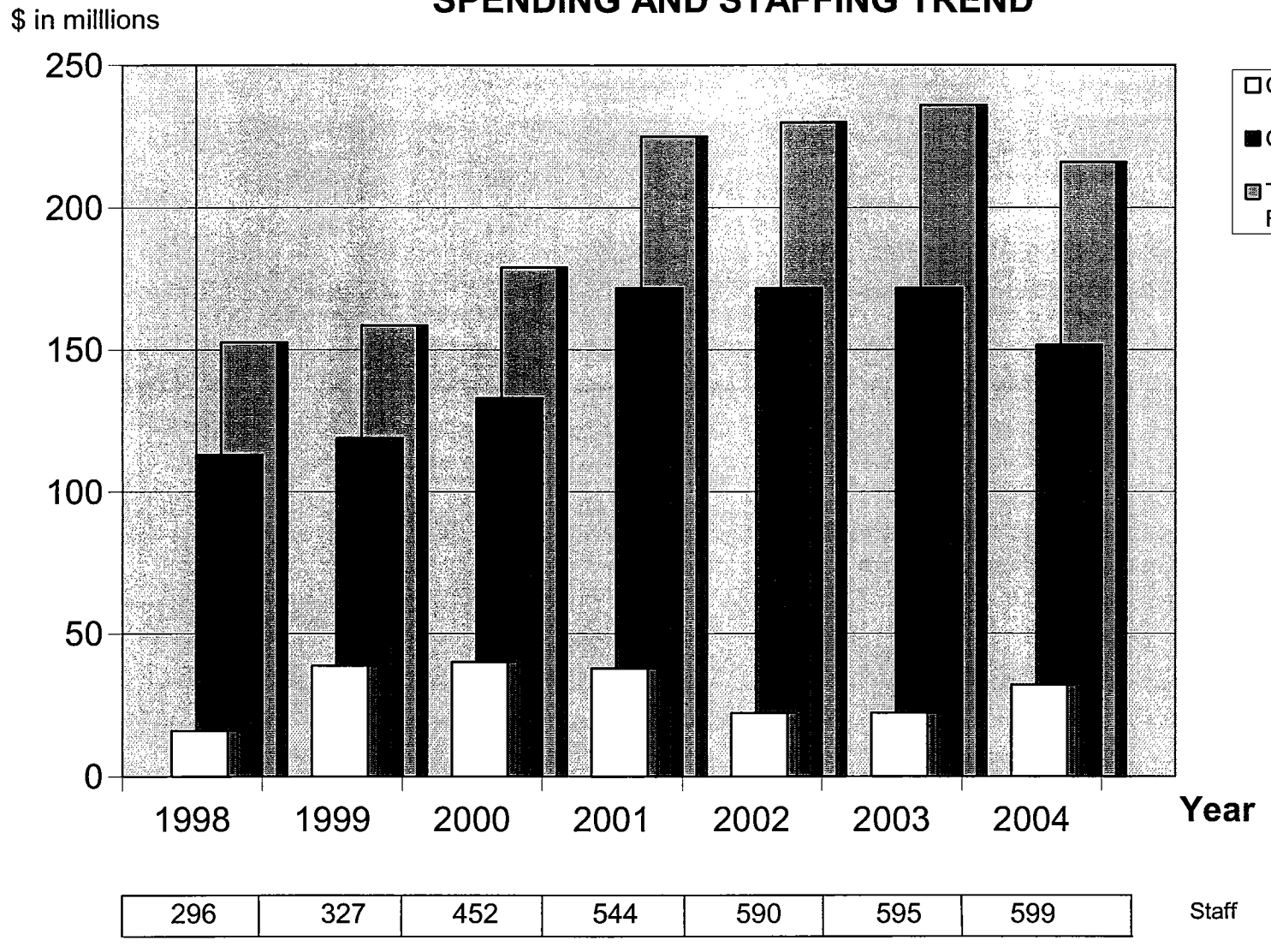
REVENUE REQUIREMENT

	FY2003	FY2004 Proposed Budget	Amount Change	% Change
Total O&M Budget	$ 171,739	$ 151,735	(20,004)	-12%
Total Finance and Cash Funded CapEx Budget	$ 76,746	$ 86,615	9,869	13%
Total Expense Recovery Budget	$ (2,628)	$ (2,085)	543	-21%
Available Revenue (Credit) or Deficiency	$ (8,257)	$ (18,102)	(9,845)	119%
Revenue Requirement	**$ 237,600**	**$ 218,163**	**$ (19,437)**	**-8%**

(1) The available revenue credit or deficiency is dependent on 2003 activities, and is subject to revision/update until the October approval of the budget/GMC rates.

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SPENDING AND STAFFING TREND

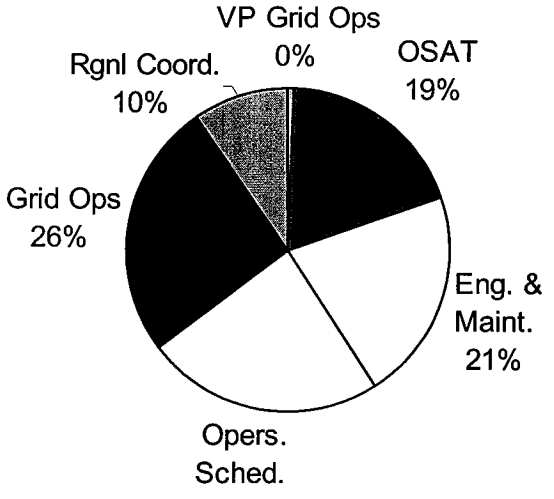


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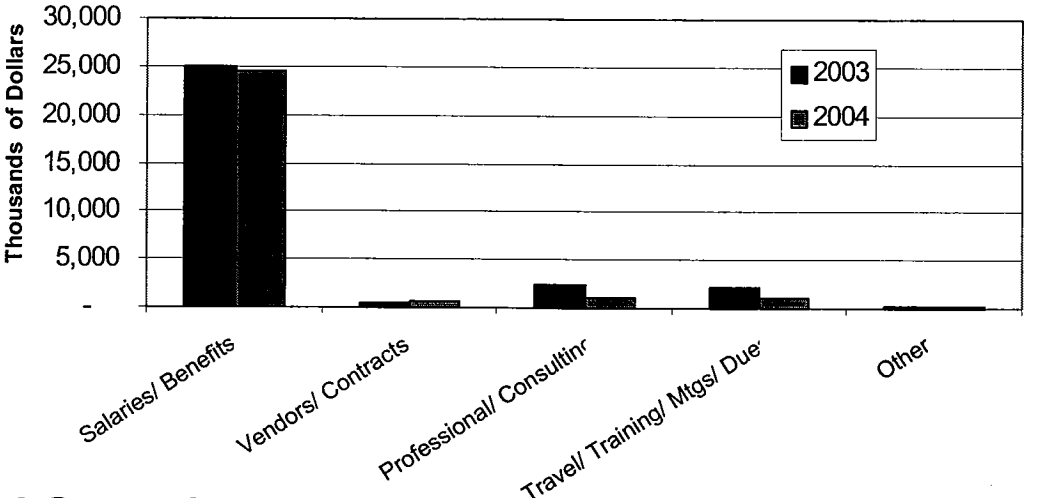
DIVISIONAL O&M BUDGET OVERVIEWS

Exh. No. ISO- 34, Page 16 of 26

FY2004 Grid Ops Operating Budget: $27.5M



Budget Comparison 2003 ($30.2M) to 2004 ($27.5M)
(net decrease of $2.7M)



VP Grid Operations Division

Cost Reductions in Proposed Budget:

$508K - Salary/benefit related: Reduce Callout, Overtime, increase in headcount vacancy factor

$300K – Reduce Professional Dues

$1.1M - Reduce Consulting/contracting expenditures

$492K - Reduce travel

$206K - Reduce Training expenditures

$2706K – TOTAL

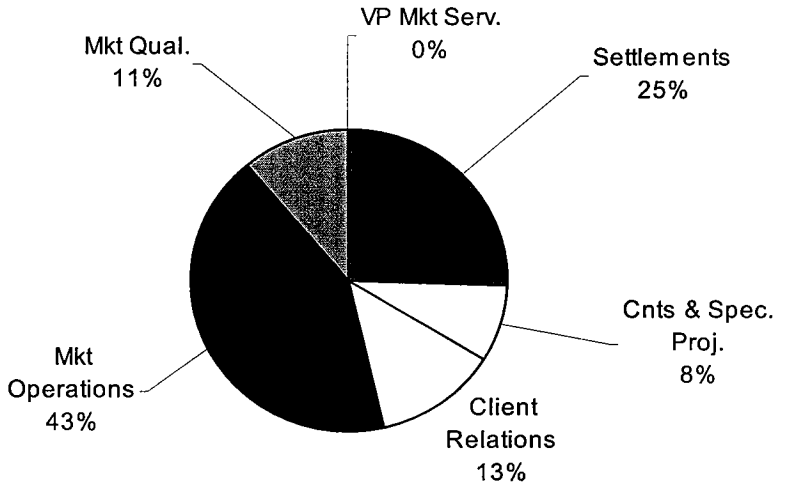
Cost Increases in Proposed Budget:

NONE

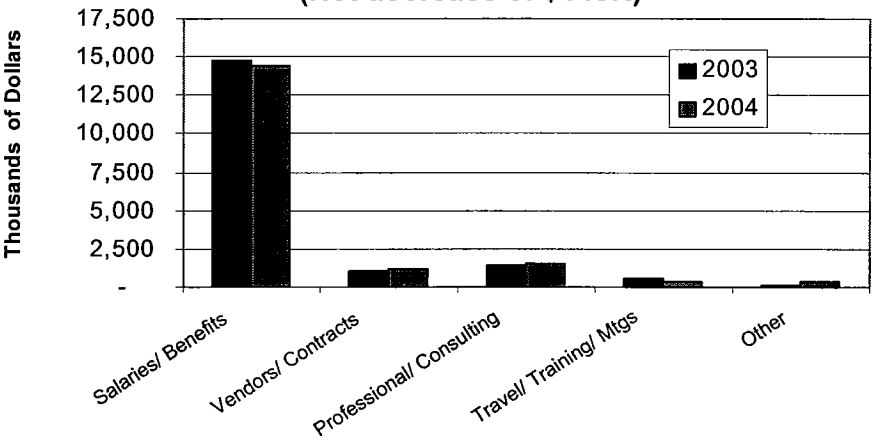
$0K - TOTAL

Exh. No. ISO- 34, Page 17 of 26

FY2004 MS Operating Budget: $17.9M



Budget Comparison 2003 ($18M) to 2004 ($17.9M)
(Net decrease of $148K)



VP Market Services Division

Cost Reductions in Proposed Budget:

$330K – Reductions in O & M Consulting Budget

$115K – Contractor Support

$186K – Training Fees/Supplies, Meetings, Travel, Printing Services

$360K – Increase in headcount vacancy factor and transfer of staff to MD02.

$991K –TOTAL

Cost Increases in Proposed Budget:

$110K – Contractor Support for FERC Mandated Reruns

$350K – ALFS Load Forecasting for 8 Additional Zones

$200K – Intermittent Resources Program

$65K – Placeware Web Based Conferencing

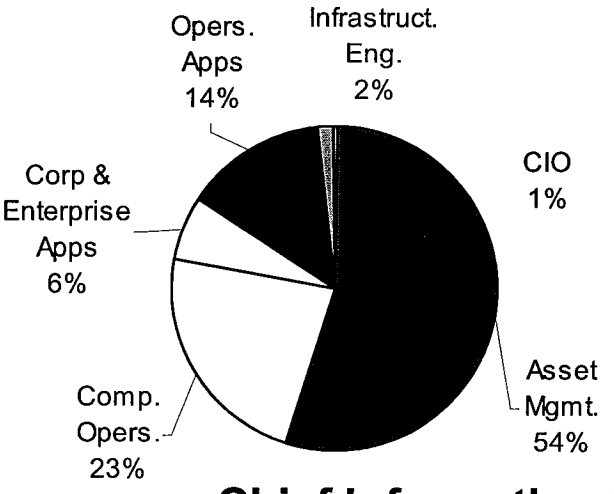
$12K – V.P. Market Services Travel

$106K – AMP Reference Price Subscription

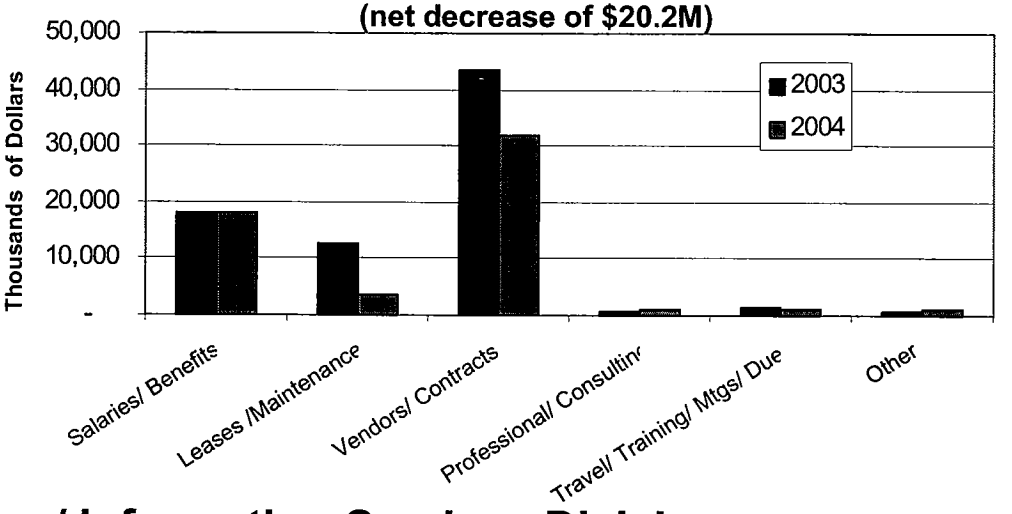
$843K - TOTAL

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FY2004 CIO Operating Budget: $56.9M



Budget Comparison 2003 ($77.2M) to 2004 ($56.9M) (net decrease of $20.2M)



Chief Information Officer / Information Services Division

Cost Reductions in Proposed Budget:

$15 M– Savings associated with WAN & LAN contract (50%)

$ 450K - Increase in headcount vacancy factor and reduction in other salary related items (2%)

$ 131K – Savings in hardware (20%) and software (30%) expenses

$ 9.04 M– Reduction in lease expenses (70%)

$ 95K– Reduction in consulting (16%)
Elimination of Customer Satisfaction Survey
PKI Replacement study Network monitoring consulting

$ 1.36 M– Reduction in software maintenance expenses (18%)

$ 287 K – Net Reduction in Travel and Training expenditures (21%)

$26.36 million – TOTAL (%'s are reduction from 2003 budget)

Cost Increases in Proposed Budget:

$ 245K– Additional contractor resources (50%)

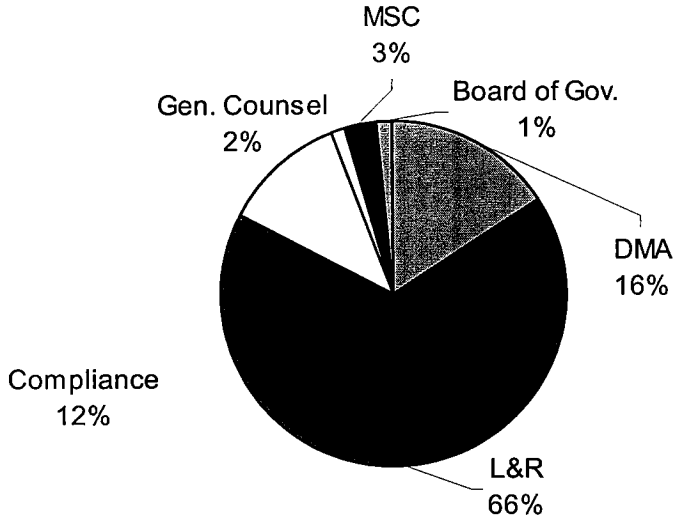
$ 560K –Four staff for Market Support Services (unbudgeted from 2002) (3%)

$ 4.12M– Hardware & software maintenance expense increase (50% increase a resulting from vendor pricing increases and direct impact of Capital Projects)

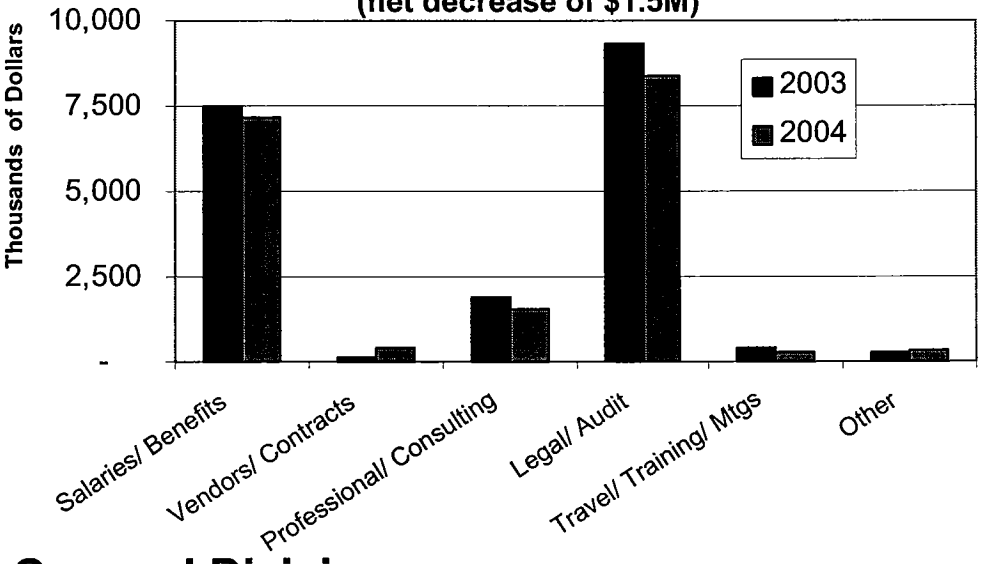
$ 1.2 M – Increase in funds for LAN monitoring, personal property taxes, back-up tapes. (% varies per cost category)

$6.125 million– TOTAL (%'s are increases from 2003 budget)

FY2004 GC Operating Budget: $18.1M



Budget Comparison 2003 ($19.6M) to 2004 ($18.1M)
(net decrease of $1.5M)



General Counsel Division

Cost Reductions in Proposed Budget:

- Reduced external legal expenses ($970K)
- Salary related adjustments of $300K (transfer of one staff to MD02 & increase in headcount vacancy factor)
- Reduced consulting in DMA/ Market Surveillance Committee ($200K), other consulting reductions of $90K.
- Reduction in Other Contracts/Services in DMA, L&R of $50K.
- Other reductions (training, travel, meetings, etc) of $175K

$1.785 million - TOTAL

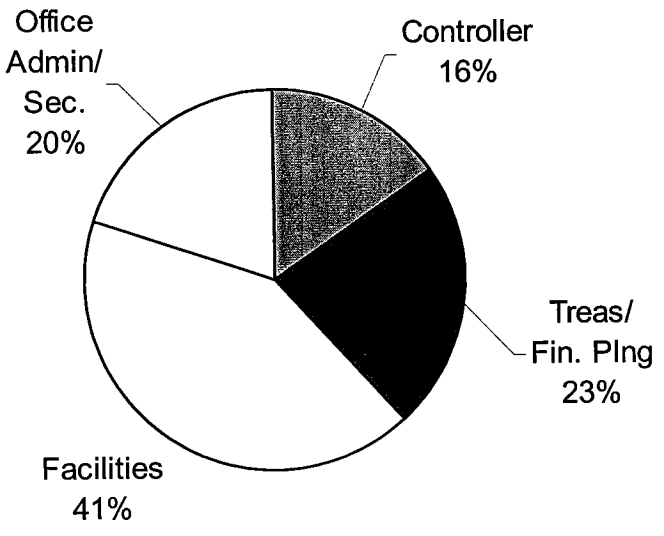
Cost Increases in Proposed Budget:

- Temporary & Contract staff of $265K in Compliance (O&I training, MSS, SC Self Audit continuation of SQMD lessons learned, SAS 70 Type II compliance)
- Board Related items: $80K

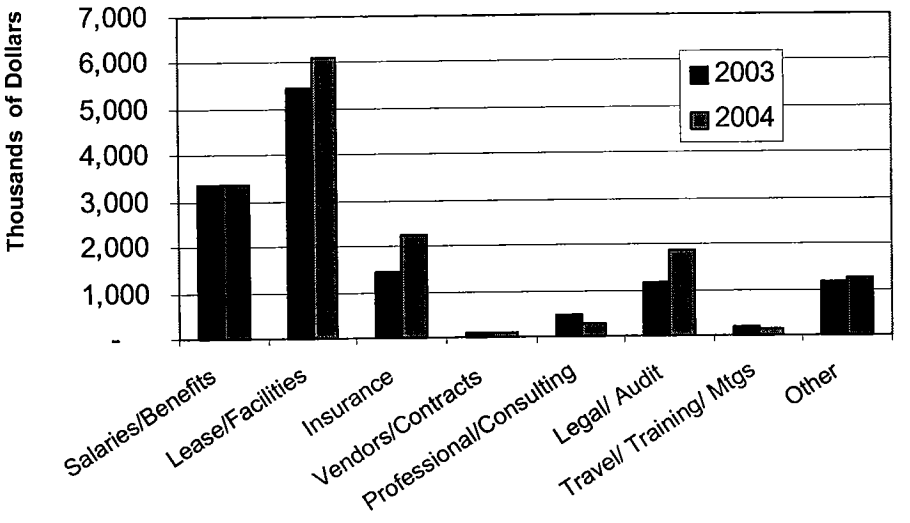
$345K- TOTAL

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FY2004 CFO Budget: $15.4 million



Budget Comparison 2003 ($13.3M) to 2004 ($15.4M) (net increase of $2.1M)



CFO Division

Cost Reductions in Proposed Budget:

- Reduced consulting costs ($158K)
- Misc. Other Reductions including training, travel: ($38K)

$196K – TOTAL

Cost Increases in Proposed Budget:

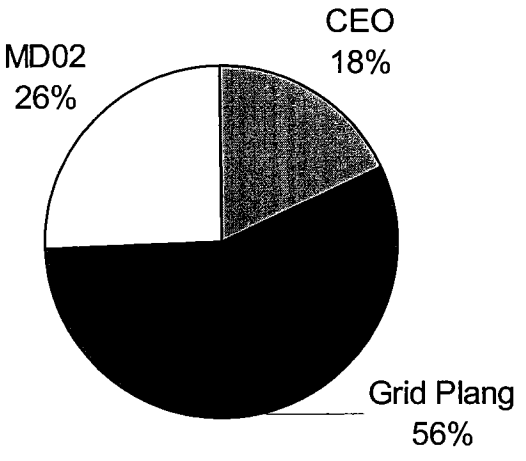
- Leases / facilities: Increase in lease expenses ($75K) and operating expenses ($260K), and security force ($350K).
- Insurance: Increase in costs for same level of coverage, primarily E&O, D&O policies: $800K. (Savings in workers compensation coverage budgeted elsewhere)
- Increased audits and scope (FERC refund assurance, FERC quarterly reporting, retirement plan audits) $650K
- Increased bank fees-more accounts/activity: $108K
- Misc. Increases ($55K)

$2,298K- TOTAL

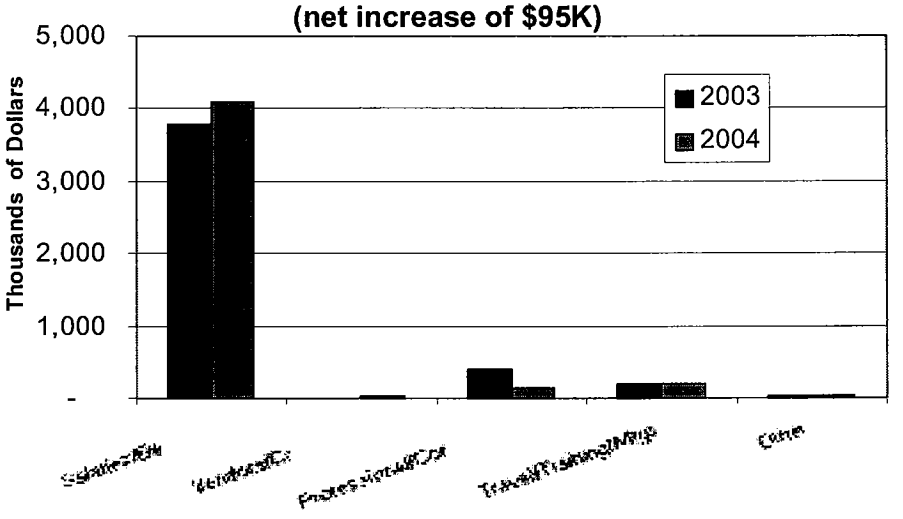
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FY2004 CEO/MD02/Grid Planning Budget: $4.5 million



Budget Comparison 2003 ($4.4M) to 2004 ($4.5M)
(net increase of $95K)



CEO/MD02/Grid Planning Division

Cost Reductions in Proposed Budget:

- Reduced salary & Benefits costs due to increase in headcount vacancy factor ($48K)
- Reduced consulting in grid planning ($250K)
- Other Misc. Reductions, including conferences, meetings ($57K)

$355K– TOTAL

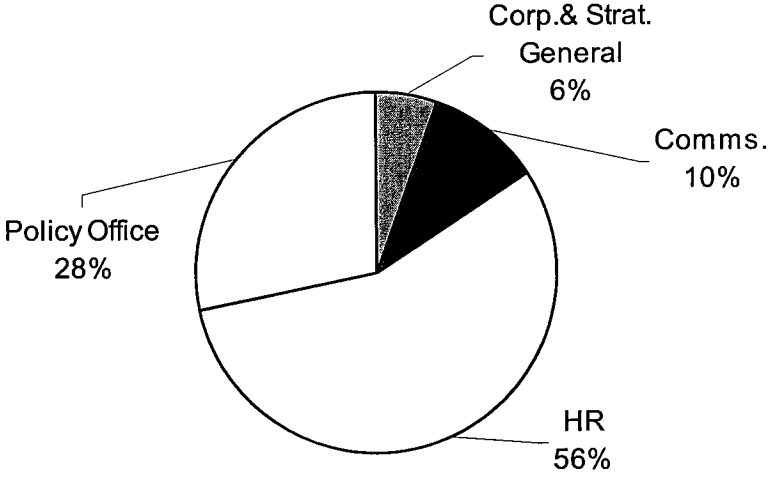
Cost Increases in Proposed Budget:

- Transfer of 1 additional staff to MD02, and one additional grid planning engineer , other compensation related items ($370K)
- Temporary contract staff for MD02 ($35K)
- Other: travel, conferences ($45K)

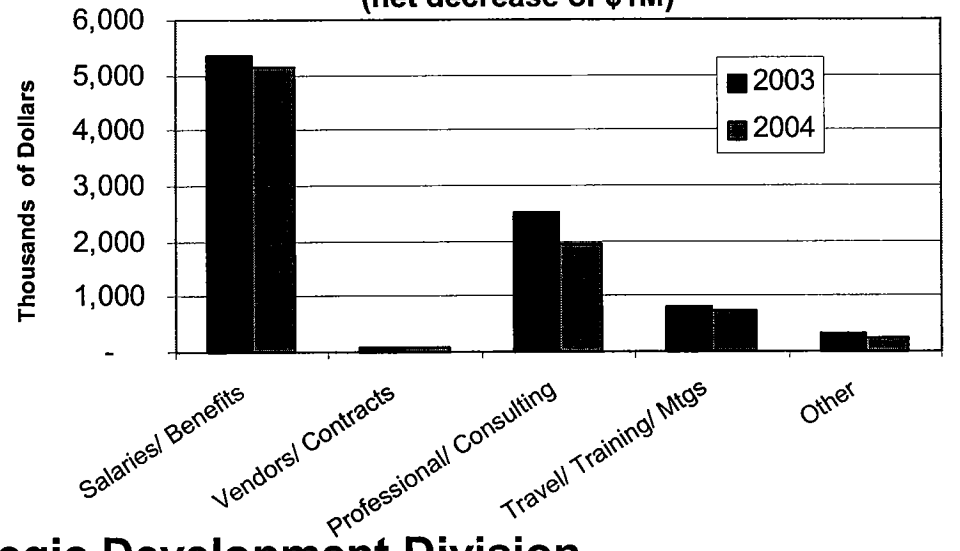
$450K TOTAL

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FY2004 C&SD Budget: $8.1 million



Budget Comparison 2003 ($9.1M) to 2004 ($8.1M)
(net decrease of $1M)



Corporate & Strategic Development Division

Cost Reductions in Proposed Budget:

- Reduced salary & Benefits costs due to increase in headcount vacancy factor ($41K).
- Reduced overall consulting expenses ($360K).
- Reduced relocation expenses ($325K).
- Reduced Recruiting expenses ($100K).
- Reduced Training and Travel ($92K).
- Reduced Advertising expenses ($50K).
- Reduced Printing expenses ($47K).
- Other Reductions ($198K).

$1.223M – TOTAL

Cost Increases in Proposed Budget:

- Increased Legal Audit expenses ($35K).
- Increased Training expenses ($150K).
- Increased Temporary Staffing expenses ($25K).

$210K- TOTAL

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APPENDIX A
2004 BUDGET COMPOSITION AND COMPARISON

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CALIFORNIA ISO

2004 BUDGET COMPOSITION

FY2004 Proposed Budget	CEO/ Grid Mktg/	1100		FIN:	1300		IT:	1400		OPS:	1500		GC:	1600		Market Services	1700		CESD	1800		Other	2100		Total	
1 Salaries and Benefits	$	4,094	91%	$	3,352	22%	$	18,255	32%	$	24,436	89%	$	7,162	40%	$	14,476	81%	$	5,149	63%		3,393	5%	$	80,317	37%
2 Bldg, Lease & Facility Costs		-	0%		6,122	40%		3,615	6%		-	0%		-	0%		-	0%		-	0%		-	0%		9,737	4%
3 Insurance		-	0%		2,250	15%		-	0%		-	0%		-	0%		-	0%		-	0%		-	0%		2,250	1%
4 Third Party Vendor Contracts		35	1%		103	1%		31,784	56%		574	2%		396	2%		1,135	6%		98	1%		-	0%		34,106	16%
5 Prof & Consulting Services		192	3%		298	2%		1,167	2%		1,181	4%		1,540	9%		1,537	9%		1,922	22%		-	0%		7,896	4%
6 Audit, Legal & Regulatory		-	0%		1,845	12%		-	0%		-	0%		8,368	46%		-	0%		126	1%		-	0%		10,338	5%
7 Training, Travel, Professional Dues		196	4%		162	1%		1,067	2%		1,141	4%		254	1%		403	2%		737	9%		-	0%		3,960	2%
8 Miscellaneous		28	1%		1,252	8%		1,066	2%		130	0%		343	2%		310	2%		223	3%		-	0%		3,343	2%
Subtotal		4,504	100%		15,384	100%		56,915	100%		27,461	100%		18,063	100%		17,862	100%		8,133	100%		3,393	5%	$	151,736	70%
Other: Debt Service-Existing																							43,692	64%		43,692	20%
Operating Reserve-Existing																							10,923	16%		10,923	5%
Cash Funded Capital Expenditures																							32,000	47%		32,000	15%
Expense Recovery																							(2,065)	-3%		(2,065)	-1%
Revenue Credit from Operating Reserve																							(19,400)	-28%		(19,400)	-9%
Total	$	4,504	100%	$	15,384	100%	$	56,915	100%	$	27,461	100%	$	18,063	100%	$	17,862	100%	$	8,133	100%	$	68,524	100%	$	216,866	100%
Headcount		25.0			34.5			140.0			187.0			55.0			122.0			30.0						593.5	

For Each Line Item, What Percentage Does Each Division Contribute to the Total for that Line Item?

FY2004 Proposed Budget	CEO/ Grid Mktg/ MD02	1100	FIN:	1300	IT:	1400	OPS:	1500	GC:	1600	Market Services	1700	CESD	1800	Other	2100	Total
Analysis																	
1 Salaries and Benefits	5.1%		4.2%		22.7%		30.4%		8.9%		18.0%		6.4%		4.2%		100.0%
2 Bldg, Lease & Facility Costs	0.0%		62.9%		37.1%		0.0%		0.0%		0.0%		0.0%		0.0%		100.0%
3 Insurance	0.0%		100.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		100.0%
4 Third Party Vendor Contracts	0.1%		0.3%		93.1%		1.7%		1.2%		3.3%		0.3%		0.0%		100.0%
5 Prof & Consulting Services	1.5%		3.8%		15.2%		15.3%		20.0%		20.0%		23.7%		0.0%		100.0%
6 Audit, Legal & Regulatory	0.0%		17.8%		0.0%		0.0%		81.1%		0.0%		1.0%		0.0%		100.0%
7 Training, Travel, Professional Dues	5.0%		4.1%		26.8%		28.9%		6.4%		10.2%		18.6%		0.0%		100.0%
8 Miscellaneous	0.9%		37.5%		31.6%		3.9%		10.3%		9.3%		6.7%		0.0%		100.0%
Subtotal	3.0%		10.1%		37.5%		18.1%		11.9%		11.8%		5.4%		2.3%		100.0%
Other: Debt Service-Existing																	
Operating Reserve-Existing																	
Cash Funded Capital Expenditures																	
Expense Recovery																	
Revenue Credit from Operating Reserve																	
Total																	
Headcount	4%		6%		25%		31%		9%		20%		5%				100%

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COMPARISON OF 2003 TO 2004

FY2003 Budget	CEO/ Grid Plng. 1100		FIN: 1300		IT: 1400		OPS: 1500		GC: 1600		Market Services: 1700		C&SD 1800		Other 2100		Total	
1 Salaries and Benefits	$ 3,772	86%	$ 3,344	25%	$ 18,181	24%	$ 24,944	83%	$ 7,506	38%	$ 14,836	82%	$ 5,340	59%		0%	$ 77,922	33%
2 Bldg, Lease & Facility Costs	-	0%	5,442	41%	12,656	16%	-	0%	-	0%	-	0%	-	0%		0%	18,097	8%
3 Insurance	-	0%	1,445	11%	-	0%	-	0%	-	0%	-	0%	-	0%		0%	1,445	1%
4 Third Party Vendor Contracts	-	0%	115	1%	43,376	56%	472	2%	160	1%	1,027	6%	89	1%		0%	45,239	19%
5 Prof & Consulting Services	400	9%	444	3%	789	1%	2,469	8%	1,889	10%	1,471	8%	2,456	27%		0%	9,918	4%
6 Audit, Legal & Regulatory	-	0%	1,157	9%	-	0%	-	0%	9,358	48%	-	0%	75	1%		0%	10,589	4%
7 Training, Travel, Professional Dues	206	5%	200	2%	1,345	2%	2,168	7%	378	2%	585	3%	813	9%		0%	5,695	2%
8 Miscellaneous	32	1%	1,160	9%	612	1%	125	0%	283	1%	91	1%	321	4%		0%	2,834	1%
Subtotal	4,410	100%	13,307	100%	77,159	100%	30,178	100%	19,583	100%	18,010	100%	9,093	100%		0%	171,739	72%
Other: Debt Service-Existing															43,797	66%	43,797	18%
Operating Reserve-Existing															10,949	17%	10,949	5%
Cash Funded Capital Expenditures															22,000		22,000	9%
Expense Recovery															(2,528)	-4%	(2,528)	-1%
Revenue Credit from Operating Reserve															(8,257)		(8,257)	
Total	$ 4,410	100%	$ 13,307	100%	$ 77,159	100%	$ 30,178	100%	$ 19,583	100%	$ 18,010	100%	$ 9,093	100%	$ 65,961	100%	$ 237,600	100%
Headcount	23		34.5		144		187		54		123		30				595.5	

FY2004 Proposed Budget vs.2003 Budget	CEO/ Grid Plng./ MD02 1100		FIN: 1300		IT: 1400		OPS: 1500		GC: 1600		Market Services: 1700		C&SD 1800		Other 2100		Total	
		% Change		% Change		% Change		% Change		% Change		% Change		% Change		% Change		% Change
1 Salaries and Benefits	$ 323	9%	$ 8	0%	$ 75	0%	$ (508)	-2%	$ (344)	-5%	$ (360)	-2%	$ (191)	-4%	$ 3,393		$ 2,396	3%
2 Bldg, Lease & Facility Costs	-		681	13%	(9,041)	-71%	-		-		-		-		-		(8,360)	-46%
3 Insurance	-		805	56%	-		-		-		-		-		-		805	56%
4 Third Party Vendor Contracts	35		(12)	-10%	(11,612)	-27%	102	22%	236	148%	108	11%	9	10%	-		(11,134)	-25%
5 Prof & Consulting Services	(250)	-63%	(146)	-33%	378	48%	(1,289)	-52%	(348)	-18%	87	5%	(635)	-26%	-		(2,223)	-22%
6 Audit, Legal & Regulatory	-		688	59%	-		-		(970)	-10%	-		30	40%	-		(252)	-2%
7 Training, Travel, Professional Dues	(10)	-5%	(38)	-19%	(287)	-21%	(1,026)	-47%	(124)	-33%	(182)	-31%	(76)	-9%	-		(1,744)	-31%
8 Miscellaneous	(4)	-11%	92	8%	243	38%	5	4%	50	17%	219	240%	(97)	-30%	-		509	18%
Subtotal	94	2%	2,077	16%	(20,244)	-26%	(2,716)	-9%	(1,500)	-8%	(148)	-1%	(960)	-11%	3,393		(20,004)	-12%
Other: Debt Service-Existing															(105)	0%	(105)	0%
Operating Reserve-Existing															(26)	0%	(26)	0%
Cash Funded Capital Expenditures															10,000	45%	10,000	4%
Expense Recovery															543	-21%	543	0%
Revenue Credit from Operating Reserve															(11,143)	135%	(11,143)	-5%
Total	$ 94	100%	$ 2,077	100%	$ (20,244)	100%	$ (2,716)	100%	$ (1,500)	100%	$ (148)	100%	$ (960)	100%	$ 2,663	100%	$ (20,735)	100%
Headcount	2.0		-		4.0		-		(1.0)		(1.0)		-				4.0	1%

CALIFORNIA ISO

California Independent System Operator

Memorandum

To: ISO Board of Governors

From: William J. Regan, Jr., Chief Financial Officer

Philip Leiber, Director of Financial Planning and Treasurer

CC: ISO Board Assistants; ISO Officers

Date: September 19, 2003

Re: Discussion of Proposed FY2004 Budget

This memorandum is for information only.

At its October meeting, the Board will be asked to approve the ISO's 2004 Operating & Maintenance and Capital Budgets, and the resulting Grid Management Charges[1] that will be effective in January 2004. This preliminary proposed budget package provides management's current view as to the level and composition of the budgets that will be submitted for approval next month.

We are projecting a recommended O&M budget of $151.7 million, $20 million below the 2003 budget of $171.7 million. The reduction reflects savings from the change to a new communications system and other cost reductions, including reduced travel and training expenditures. The proposed budget also provides for 2004 capital expenditures of $32 million. However, this estimate may be further revised pending availability of an updated MD02 schedule and analysis of certain other needs. In terms of the overall revenue requirement, we anticipate a reduction of approximately $20 million from the $237.6 million level in 2003. The ultimate reduction is dependent on the finalization of the capital budget, and the amount of the operating reserve credit available for 2004.

Between now and late October when the budget will be submitted for approval, the ISO will provide for public input on the proposed budget consistent with the budget process calendar approved by the Board in June (and consistent with last year). In addition to the attached summary of the budget proposal, additional departmental budget details will be made available to stakeholders who sign a confidentiality agreement[2]. Additionally, prior to the October 3 budget workshop, we expect to finalize the proposed capital budget, complete the forecast of the ISO's financial & capital operating reserve and complete the work necessary to develop proposed GMC rates for 2004. We anticipate releasing information on these matters during the week of September 29.

The ISO does not anticipate the need for substantive changes to the level of the O&M budget between now and the October Board meeting, but changes related to the above noted items will affect the proposed GMC rates that have been shown as placeholders in the attached report. Should the Board direct changes to the budget proposal, there will be adequate time to incorporate revisions prior to the final approval in October. This schedule will enable us to submit a FERC filing on October 31 for rates to be effective January 1, 2004.

We look forward to your questions and guidance on this important matter.

---

[1] GMC charges will be consistent with the GMC rate structure approved by the Board on June 26, with a change to the billing determinant for one category as recommended by the Finance Committee on September 5.

[2] Certain budget detail is held confidential and summarized in the attached report to avoid release to potential vendors.



CALIFORNIA ISO

Proposed FY2004 Operating & Maintenance Budget and Capital Budget

ABRIDGED VERSION

(Certain budget details redacted to avoid potential release of sensitive information to vendors)

Date:
9/18/2003

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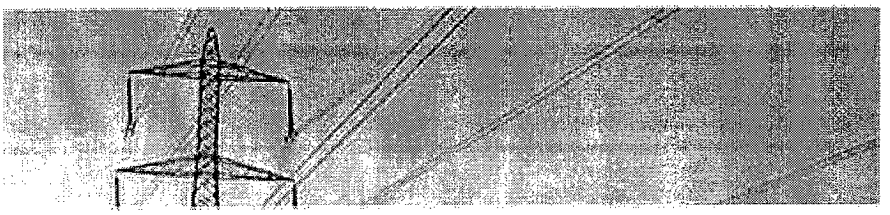
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I. CAISO Vision & Mission



ISO Vision:

'Preferred provider of superior electric transmission services for the benefit of our customers in California and the West.'

ISO Mission:

For the benefit of our customers in California and the West, we:

- ***plan and operate a safe and reliable electric system***
- ***provide open and non-discriminatory electric transmission services***
- ***facilitate appropriate investment in electric transmission and generation infrastructure***

We achieve this:

- ***through efficient wholesale electric markets***
- ***with a responsive organization that fosters innovation, collaboration and transparency***
- ***at a reasonable cost***

II. Introduction

This document presents and explains the financial basis for the ISO's current and proposed operations and services for FY2004.

In the following sections, we will:

- Show the guidance that was provided to CAISO departments in preparation of the their proposed budgets,
- Provide an overview of the structure of the ISO's budget.
- Provide an overview of the challenges faced and responses reflected in the preparation of a FY2004 budget,
- Present in summary form the proposed FY2004 Budget, indicating the costs of services anticipated in the 2003 budget, and the costs for those services that we provided as the need arose through 2003.
- Identify in summary form the incremental and decremental programs that have been developed by ISO Staff and recommended by ISO Officers in the proposed budget for FY2004.
- Present detailed discussions by ISO division of the specific components of the proposed FY2004 Budget.
- Provide an overview of the proposed FY2004 Capital Budget.
- Provide a discussion of how the GMC rates for 2004 will be calculated.

The primary emphasis of this document is the ISO's proposed 2004 O&M and capital budgets. Other topics discussed, such as the operating reserve, cost allocations and discussion of rates are preliminary and are indicative only. They will be modified as additional data becomes available and is included in the analysis.

III. Budget Guidance

CEO Terry Winter gave the ISO Officers and staff the following guidance to develop their proposed O&M budgets:

Summer brings with it vacations, hot weather, high energy demands.....and the start of the ISO budget process. The 2004 ISO Budget, once again to be coordinated with development of the ISO 2004 performance goals, will be a key element of communicating the ISO commitment to serve the energy needs of the people of California and the West, as reflected in our updated mission statement. While this commitment to serve is key, we are also committed to continued cost control at the ISO. Further, the ISO budget is not just a financial plan. Rather, it is the basis for establishing the ISO Grid Management Charge for our various services, to be filed with the FERC. We can expect both the FERC and our stakeholders to subject our GMC request to intense review.

Challenge. Change. Connections. This was the theme of our recently released 2002 Annual Report. This report emphasizes our challenge of providing safe and reliable power in an open and non-discriminatory manner. It notes the need to facilitate additional investment in the energy infrastructure, to foster innovation and collaboration, and to do so in an economic manner. This is essential if we are to effectively coordinate and connect with our regional neighbors, for the benefit of the people of California and the West.

With the 2004 budget, we have the opportunity to pay an immediate "dividend" to the people of California. At the start of the new year, we will be initiating a new communications network, one that is not only more technically advanced, but far more cost effective. Indeed, we are projecting annual operating savings of some 15 million dollars compared to the current system, and I believe it is incumbent upon us to pass these savings through to our customers. Since our startup in 1998, the services we have provided to our markets have increased geometrically. To provide these services, however, has necessitated increases in both our annual budget and our staffing levels. We have recognized the need for constraint: from 2001 to 2003 our operations and maintenance (O&M) budget has remained unchanged, and our capital funding requirements have been reduced. Perhaps even more indicative of our fiduciary responsibility, we have actually held our O&M expenditures well below the budgeted level for the past two years. Our performance last year was extraordinary....actual O&M spending was 9% less than the adjusted budget of $171.8 million.

I want to continue our downward spending trend. For the 2004 budget process (as detailed in the attached 2004 Budget Guidelines), I charge each division to review its many ongoing programs, services, projects and processes; establish key priorities; and identify opportunities for further "stakeholder dividends"—enhanced services with no increase in cost, or perhaps more relevant in these times of economic uncertainty, identification of cost savings, perhaps through reduction or elimination of programs, services, projects and processes that have "run the course" or which could be eliminated at minimal impact to our core mission. As the residents of the state and the nation must deal with a slowed economy and ever increasing debt, it is incumbent upon us to reduce costs where possible and appropriate.

Over the past several years, with the ongoing growth of services and demands placed on the ISO, we have looked to the concept of "conversion" of contract employees to ISO employees to "lock-in" operational savings, but last year I felt compelled to limit FTE growth. Accordingly, I challenge us all to seek out opportunities to better serve the people of California, both operationally and economically, within the constraints of our existing overall

headcount and financial resources. We must hold our FTE count to 600 or less, take advantage of the realized savings and reduce our costs wherever possible.

To do this, we will use the framework we have used in the past--to accommodate any new spending requirements that some departments will undoubtedly face in 2004, we will all need to identify *potential* cost savings opportunities to fund them. Officers will review all proposed spending plans and proceed with those of highest priority.

You have always risen to every challenge we have faced and performed admirably. I know asking you to rise to this economic challenge will be met with the same success. Thank you for your support as we move through the budget process.

Terry

IV. Budget Structure and Preparation

Budget Structure

The proposed 2004 budget provides for a total net revenue requirement of between $208 to $220 million (tentative), compared with $237.6 million in 2003. The net revenue requirement includes an anticipated credit from the Financial & Capital Operating Reserve, as that reserve is funded beyond the required 15% level[1]. The size of the credit is affected by many factors, including 2003 financial results, and the outcome of pending matters from previous years (including matters in the 2001 GMC rate case, and billing issues). The amount of the credit to be included in ISO's October rate filing will be finalized over the next two months as additional information is available on these matters.

The net revenue requirement is recovered through the unbundled grid management charges ("GMC") charges that will be in effect for 2004. These will change as a result of the new structure approved by the Board in July 2003, resulting from the stakeholder process held on this issue from 2002/2003.

Each unbundled service offering has its own rate, paid by users of that service. These rates are calculated by determining the costs associated with each of these services, and then dividing those figures by the forecasted billing determinant volume for each service. The result is a rate per unit of use. The calculation of proposed rates for 2004 has not yet been completed, as the forecast of billing determinant volumes for 2004 and cost allocations are in process.

Accordingly, this budget package provides an overview and detail of the ISO's cost of service. The proposed rates for these services will be released later in September.

The ISO's cost of service (or "revenue requirement") for 2004 consists of:

- ⇒ Operating & maintenance (O&M) budget;
- ⇒ Debt service costs
- ⇒ Cash funded capital expenditures
- ⇒ Other revenues and expense recoveries
- ⇒ Revenue Credit from Financial & Capital Operating Reserve

The O&M budget is the largest of these components and the focus of this report. The O&M budget consists of the costs necessary for the ongoing operation of the ISO. The O&M budget can be viewed from several perspectives including:

- ⇒ By Division, group or department (cost center) (such as "VP Grid Operations", or "Accounting")
- ⇒ By Expense Type (such as "Salaries & Benefits", or "Professional & Consulting Fees")

[1] To the extent the reserve is funded in excess of 15% of the subsequent year's O&M budget, any excess is returned as a credit toward the subsequent year's revenue requirement.

Debt service costs are the principal and interest payments related to repayment of the ISO's 2000 bond issuance. Until 2002, the ISO anticipated funding all or a portion of its planned capital expenditure budget from the proceeds of bond offerings. As capital expenditures provide benefits over several years, bond financing allows the recovery of the costs of such programs over an extended period, consistent with the benefits of the programs. In recent years, due to the turmoil in the California energy markets and the deterioration of the ISO credit rating, the ISO has funded its capital requirements on a current basis. While one credit rating agency has recently restored the ISO to investment grade, a bond offering is not contemplated in the 2004 budget. Accordingly, debt service funds in the 2004 revenue requirement are only those related repayment of the 2000 bond offering.

Funding for the 2004 capital expenditures budget is included in the 2004 revenue requirement, i.e. no debt issuance is planned to fund capital needs in 2004. About 70% of the tentative 2004 capital expenditure budget (discussed in Section X of this report) relates to MD02, the major market redesign effort scheduled over years 2002 through 2005. Total capital projects to be proposed for inclusion in the 2004 revenue requirement are $32 million but this number could change prior to the approval of the budget in October, depending on an updated MD02 plan (which is currently under development at this time), and additional internal discussions on other capital projects deemed necessary for 2004.

Other revenue and expense recoveries are minor offsets to the revenue requirement from other revenue sources, or reimbursement the ISO receives for certain costs apart from the grid management charge.

The revenue credit is a reduction or offset to the ISO's revenue requirement. In any year that the ISO's Financial & Capital operating reserve is expected to exceed 15% of prospective year's O&M budget, such excess is to be used as a reduction in the revenue requirement of that prospective year. In 2004, the ISO anticipates that the revenue credit will exceed that available in 2003, resulting in a lower revenue requirement in 2004. This is due to a variety of factors, including strong revenue collections in 2003, and lower than budgeted spending. An estimated revenue credit is included in these budget figures, but will be revised to reflect the variety of factors that affect the Financial & Capital operating reserve as of December 31, 2003.

Budget Preparation

ISO staff prepared and the ISO Officers reviewed this proposed budget during the July-September 2003 period. The proposed budget was constructed following the guidance given by Terry Winter in the memorandum in the previous section of this report.

The budget was prepared in significantly more detail than is presented in this package. The detailed information has been aggregated for discussion purposes in this document.

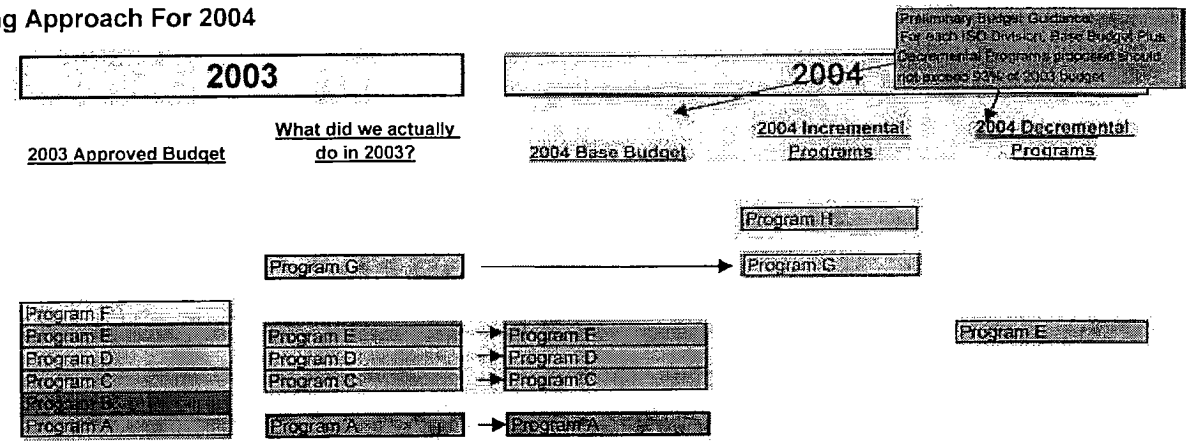
Each ISO department constructed its proposed O&M budget on the foundation of its base budget, and possible incremental and decremental programs. The base budget was constructed to include those programs included in the 2003 budget, and necessary for 2004. Incremental programs were spending needs necessary in 2004 but not contemplated in the

2003 budget. Decremental programs were defined as spending included in the 2004 base budget, but which could be eliminated, with some detrimental effect on ISO service. The proposed 2004 budget presented in this package reflects the results, recommendations and ISO decisions regarding such various programs.

The diagram on the following page illustrates these components of the budget.

Exhibit: Budget Preparation Illustration

Budgeting Approach For 2004



Explanation	Programs we contemplated in the approved 2003 budget	During 2003, we actually performed most of the functions we contemplated in the 2003 budget. However, some such as Program B & F, we did not perform, due to changed circumstances. Others, such as Program G, were unanticipated expenditures, which we now believe will be necessary in 2004.	The base budget proposal for 2004 should include only those Programs which were included in the 2003 budget, and we actually will need for 2004.	Program G: New programs/services that were not included in the 2003 budget, but we had to perform in 2003, and we will have to continue providing in 2004. Program H is a new proposal for 2004 that we have not provided in 2003.	Program E is a program we contemplated in the 2003 budget, have provided during 2003, but could eliminate in 2004, with some impact on the quality of ISO services.

Comments	Base Budget represents a continuation of only those services which were contemplated in the 2003 budget. All others should be shown separately.	+ Cost increases for performing the same program in 2004 as in 2003 are NOT shown as an INC program. For example, due to inflation, we have to pay 5% more for the same contractor services. The 5% increase is not shown as an INC program.
	+ Will result in a lower base budget proposal.	
	+ The costs of new services required during 2004 are explicitly shown as an incremental program.	

V. Overview of Budgeting Process and Results

The proposed 2004 budget provides for a continuation of the essential services in the 2003 budget, and includes resources needed to meet the new challenges not covered by the 2003 budget. Most importantly, it changes the direction of the ISO's O&M budget trend. From 1998 until 2001, the O&M budget increased, ultimately to $171.8 million. In 2002 and 2003, the O&M budget was held at $171.8 million[2], and in 2004 is to decline by approximately $20 million. The successful transition from the original MCI network to the AT&T communication network has contributed significantly to this substantial reduction in O&M costs in 2004[3], along with a continued emphasis on cost control in other areas.

For 2004, Management used a budgeting process that has worked effectively in past years. All CAISO divisions have performed a comprehensive bottom to top review of all activities performed, and identified and implemented more efficient and/or more cost effective ways of meeting their responsibilities, and eliminated work when possible (displaced to allow for new recommended tasks).

The budget guidance provided to all ISO Divisions was that cost reduction opportunities in their O&M budget of at least 7% should be identified. These reductions could be direct reductions in their proposed base budget, or through possible "decremental programs". The ISO Officers reviewed all of these decremental programs and a subset of those programs has been included in this management recommended budget. A careful balancing of the potential impact on ISO service levels versus cost savings had to be considered for each program. These reductions provided the funding for new requirements in 2004 without an overall increase in the O&M budget. Some ISO Divisions made reduced costs directly in their base budgets rather than presenting such reductions as "decremental" programs.

While new funding needs are somewhat less than in past years, the 2004 budget had to accommodate certain new incremental efforts. However, funding for these requirements has been accomplished not by increasing the O&M budget, but through the identification of cost savings and cost avoidance measures, as well as reallocations of resources to meet the most pressing needs. Incremental 2004 efforts include:

- Oversight & Investigations Program Audit
- Assurance of ISO Controls over FERC Refund Reruns, and resources for support of FERC Refund
- Continued Implementation of MD02[4]
- MD02 related market changes including changes to automated load forecasting
- Funding for intermittent resources program
- Direct funding of capital expenditures

---

[2] For 2002, the original filed budget was $177 million, while targeted spending was held at $171.8 million. The revenue requirement, and the O&M budget was subsequently reduced through a settlement with stakeholders.

[3] During 2003, both networks had to be supported to allow for this transition, so costs were higher than budgeted in this area, but offset by savings elsewhere.

[4] Funding for implementation of MD02 is primarily in the capital budget.

- Continued response to and support of regulatory investigations
- Conversion to a SAS 70 Type 2 Audit for the ISO Market

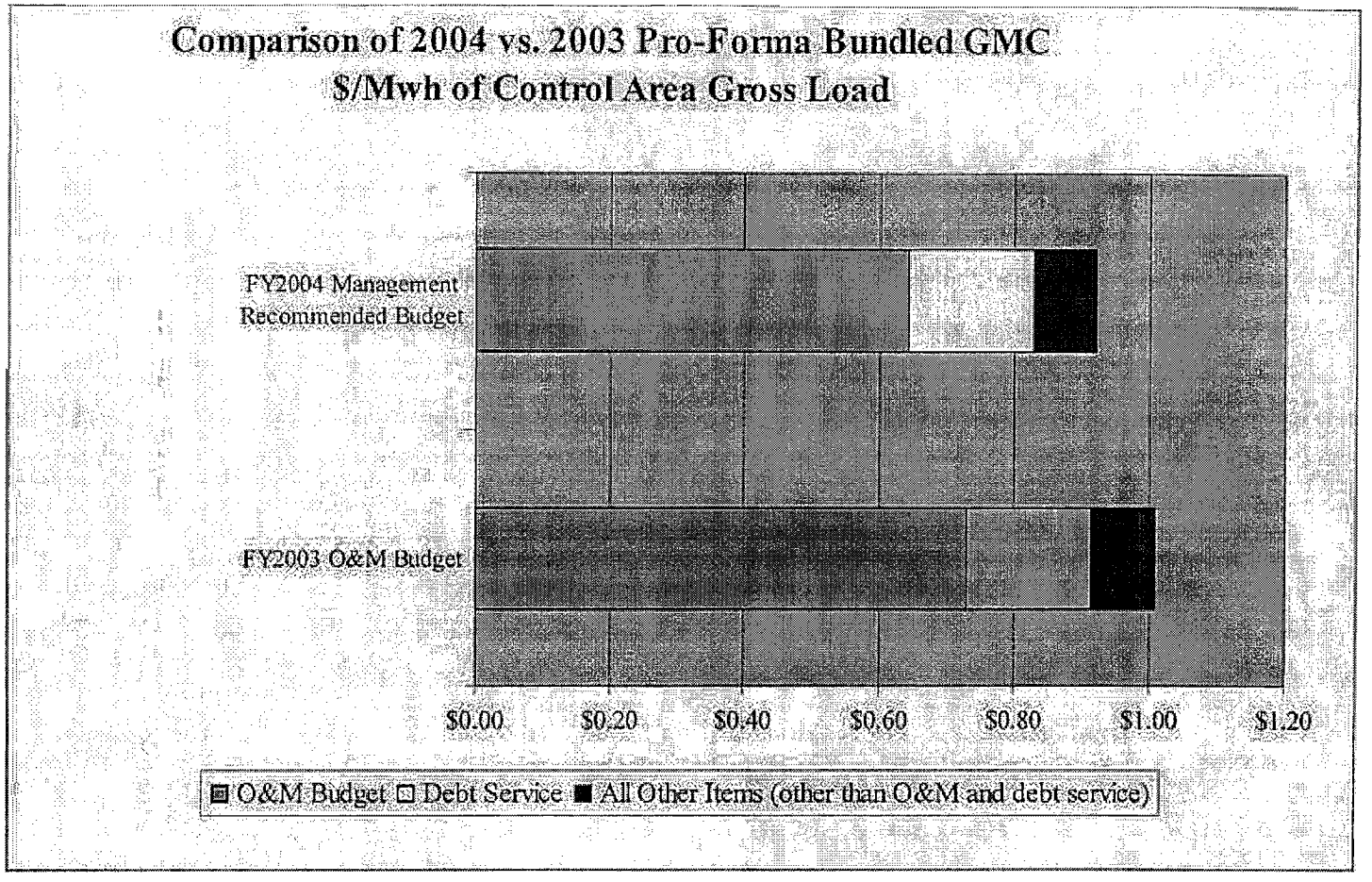
The major effort for 2004 will be the continued implementation of MD02. At this time, the schedule for Phase II and III of MD02 is dependant on the timing and content of FERC's Order, and the timing and development of major software systems. However, it is expected that most of the spending on MD02 will take place in 2004. As in 2003, a majority of the capital budget for 2004 will be related to MD02.

VI. Budget Overview

The Exhibits in this section provide a high level overview of the outcome of the budgeting process, including a summary of the overall revenue requirement, summaries of departmental budgets, and explanations of changes in expenses from 2003 to 2004.

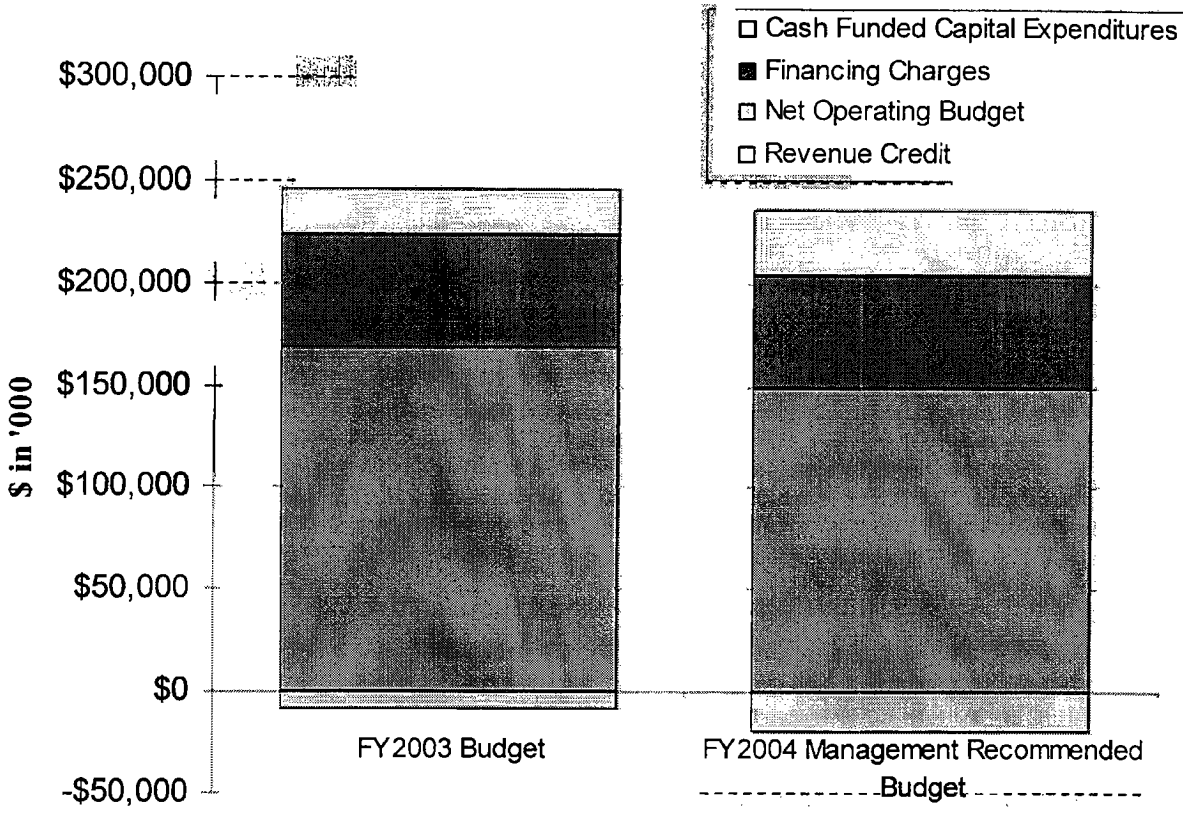
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Note: 2004 illustration assumes Capital Spending at $32 million and an operating reserve credit of approximately $19 million. The operating reserve credit could range from $15 to $28 million.

Revenue Requirement Comparison: FY2003 vs. FY2004



Note: 2004 illustration assumes Capital Spending at $32 million and an operating reserve credit of approximately $19 million. The operating reserve credit could range from $15 to $28 million.

Exhibit: Summary Table of the Proposed FY2004 Revenue Requirement

FY2004 Revenue Requirement Summary

$ in 000's

	FY2003 Budget	FY2004 Base Budget (Costs for Continuation of FY2003 Budgeted Service Level)	FY2004 Management Recommended Budget
Revenue Requirement			
Operating & Maintenance Budget	$171,739	$148,638	$151,735
Difference from FY2003		(23,101)	(20,004)
		-13%	-12%
Financing Budget:			
Principal-Existing Debt	$35,300	$36,167	$36,167
Interest-Existing Debt	8,497	7,525	7,525
Operating Reserve (25% of Principal & Interest)	10,949	10,923	10,923
Subtotal, Financing Collection	54,746	54,615	54,615
Capital Project Funding (Direct from Rates)	22,000		32,000
(App. Midpoint of anticipated range of $26 to $39 million in 2004)			
Less: Expense Recovery Budget:			
Interest Earnings	($1,252)	(652)	(652)
SC Application & Training Fees	(120)	(120)	(120)
Training Fees (reduced O&M budget $40K)			
WECC Reimbursement/NERC Reimbursement	(1,256)	(1,313)	(1,313)
Subtotal, Expense Recovery Budget	(2,628)	(2,085)	(2,085)
Subtotal, Revenue Requirement before Revenue Credit	$245,857	$201,168	$236,265
Revenue Credit From Operating Reserve	(8,256)	(19,400)	(19,400)
(Expected range of $15 to $28 million in 2004)			
Total Revenue Requirement	$237,601	$181,768	$216,865
Divided by:			
Transmission Volume in Gwh: GCAL	236,000		240,720
Equals:			
Grid Management Charge ("GMC")			
Pro-forma Bundled GMC	$1.007		$0.901

Notes:

1 GMC is unbundled. The above is for comparative purposes only, prior to the availability of information necessary to calculate unbundled GMC rates.

2 Revenue credit estimate is preliminary and is **subject to change.** The availability of a revenue credit is dependent on the level of the Financial & Capital Operating Reserve, which is affected by 2003 financial results and other factors. The projected reserve balance is anticipated to be between: 38,086 to 51,086

3 Volume forecasts for 2004 have not been completed. Placeholder is 2003 forecast inflated at 2%.

4 GCAL: Gross control area load and exports.

CALIFORNIA ISO

FY2004 Budget Summary

Detailed Table of the Proposed O&M Budget

Cost Center	Area	FY2003 O&M Budget	FY2003 Budgeted Headcount	FY2004 Costs for Continuation of BUDGETED FY2003 Service Level	FY2004 Headcount for Continuation of BUDGETED FY2003 Service Level	FY2004 Incremental Programs	FY2004 Incremental Program FTEs	FY2004 Decremental Programs	FY2004 Decremental Program FTEs	FY2004 Proposed Budget (with All Incs, Decs Approved)	FY2004 Proposed Budget FTEs	FY2004 Proposed Budget vs.2003 Budget	% Chg.
1100	Chief Executive Officer	$ 4,409,755	23.0	$ 4,639,002	24.0	$ 135,377	1.0	$ (170,500)	-	$ 4,503,879	25.0	$ 94,124	2%
1111	CEO - General	944,765	2.0	877,537	2.0	-		-		877,537	2.0	(67,228)	-7%
1241	MD02	945,482	6.0	1,232,611	7.0	-		-		1,232,611	7.0	287,129	30%
1521	Grid Planning	2,519,508	15.0	2,428,854	15.0	135,377	1.0	(170,500)		2,393,731	16.0	(125,777)	-5%
1300	Chief Financial Officer	$ 13,306,926	34.5	$ 14,843,100	34.5	$ 685,000	-	$ (144,000)	-	$ 15,384,100	34.5	$ 2,077,174	16%
1311	CFO - General	458,722	1.5	384,728	1.5	-		(65,000)		319,728	1.5	(138,994)	-30%
1321	Accounting	2,206,419	9.5	2,416,592	9.5	475,000				2,891,592	9.5	685,173	31%
1331	Financial Planning and Treasury	2,543,980	6.5	3,438,051	6.5	-				3,438,051	6.5	894,071	35%
1361	Office Administration	2,256,429	10.0	2,418,787	10.0	210,000				2,628,787	10.0	372,358	17%
1351	Facilities	5,841,376	7.0	6,184,942	7.0	-		(79,000)		6,105,942	7.0	264,566	5%
1400	VP Information Services	$ 77,158,879	144.0	$ 58,282,033	144.0	$ 4,925,063	4.0	$ (6,272,500)	-	$ 56,914,596	148.0	$ (20,244,283)	-26%
1411	VP - Information Services General	238,412	2.0	(311,780)	2.0			-		(311,780)	2.0	(550,192)	-231%
1471	Infrastructure Engineering	799,108	5.0	920,751	5.0			-		920,751	5.0	121,643	15%
1420	Asset Management Group	$ 51,228,325	10.0	$ 32,887,368	10.0	$ 4,364,350		$ (5,175,000)		$ 31,076,718	$ 10	$ (20,151,607)	-39%
1424	Asset Management	21,537,457	8.0	21,710,268	8.0	4,279,350		(5,575,000)		20,414,618	8.0	(1,122,839)	-5%
1441	Outsourced Contracts	29,690,868	2.0	11,177,100	2.0	85,000		(600,000)		10,662,100	2.0	(19,028,768)	-64%
1430	Computer Operations Center	$ 12,734,008	46.0	$ 13,381,323	47.0	$ -		$ (57,500)		$ 13,323,823	$ 47	$ 589,815	5%
1432	Computer Operations-General	449,225	3.0	942,638	6.0			-		942,638	6.0	493,413	110%
1431	End User Support	6,332,143	4.0	6,639,682	4.0			-		6,639,682	4.0	307,539	5%
1433	Network Operations	1,701,287	12.0	1,582,948	11.0			(27,500)		1,555,448	11.0	(145,839)	-9%
1442	Product Support	2,694,675	18.0	2,536,085	17.0			-		2,536,085	17.0	(156,590)	-6%
1451	Information Security	1,556,678	9.0	1,677,970	9.0			(30,000)		1,647,970	9.0	91,292	6%
1460	Corporate & Enterprise Applications	$ 3,599,123	25.0	$ 3,641,462	25.0	$ -		$ -		$ 3,641,462	$ 25	$ 42,339	1%
1422	Corporate & Enterprise Apps-General	258,972	2.0	261,872	2.0			-		261,872	2.0	2,900	1%
1466	Enterprise Apps	1,417,436	10.0	1,550,354	10.0			-		1,550,354	10.0	132,918	9%
1468	Corporate Application Support	662,920	4.0	584,523	4.0			-		584,523	4.0	(78,397)	-12%
1469	Analytical and Reporting	1,259,795	9.0	1,244,713	9.0			-		1,244,713	9.0	(15,082)	-1%
1480	Operations Applications	$ 8,559,903	58.0	$ 7,742,909	65.0	$ 560,713	4.0	$ (40,000)		$ 8,263,622	$ 59	$ (296,281)	-3%
1463	Operations Applications-General	336,981	3.0	373,896	3.0			(40,000)		333,896	3.0	(3,085)	-1%
1461	Control Systems	2,422,480	18.0	2,291,444	19.0			-		2,291,444	19.0	(131,036)	-5%
1462	Field Data Acquisition Systems (FDAS)	2,591,796	16.0	2,460,663	15.0			-		2,460,663	15.0	(131,133)	-5%
1467	Settlement Systems Services	1,108,594	9.0	1,123,694	9.0			-		1,123,694	9.0	15,100	1%
1481	Markets and Scheduling	1,578,888	10.0	1,461,712	9.0			-		1,461,712	9.0	(117,176)	-7%
1482	Market Support Services	521,164		31,500		560,713	4.0	-		592,213	4.0	71,049	14%
1500	VP Grid Operations	$ 30,177,716	187.0	$ 27,372,113	186.0	$ 89,307	-	$ -	-	$ 27,461,420	187.0	$ (2,716,296)	-9%
1511	VP Grid Operations General	847,247	1.5	(137,696)	1.5					(137,696)	1.5	(984,943)	-116%
1580	OSAT Group	$ 5,679,080	37.0	$ 5,378,309	38.0	$ -		$ -		$ 5,378,309	$ 38	$ (300,771)	-5%
1548	OSAT Group General	276,186	1.0	283,212	2.0					283,212	2.0	7,026	3%
1549	Operations Training	3,144,452	19.0	2,791,756	18.0					2,791,756	18.0	(352,696)	-11%
1555	Operations Support Group	1,070,104	9.0	1,065,814	9.0					1,065,814	9.0	(4,290)	0%
1559	Operations Application Support	483,163	4.0	559,892	5.0					559,892	5.0	76,729	16%
1563	Coordinated Operations	705,175	4.0	677,635	4.0					677,635	4.0	(27,540)	-4%
1540	Engineering and Maintenance Grp	6,643,622	34.5	5,676,798	34.5	89,307		-		5,766,105	35.5	(877,517)	-13%
1547	Engineering and Maintenance	1,166,945	3.0	562,442	3.0					562,442	3.0	(604,503)	-52%
1543	Loads and Resources	1,050,444	7.0	1,144,050	7.0					1,144,050	7.0	93,606	9%
1561	Operations Engineering South	1,288,949	7.5	1,194,570	7.5					1,194,570	7.5	(94,379)	-7%
1562	Operations Engineering North	1,278,890	9.0	1,299,176	9.0					1,299,176	9.0	20,286	2%
1558	Transmission Maintenance	1,858,394	8.0	1,476,560	8.0	89,307	1.0			1,565,867	9.0	(292,527)	-16%
1530	Operations Scheduling Group	$ 6,761,917	48.0	$ 6,546,780	47.0	$ -		$ -		$ 6,546,780	47.0	$ (215,137)	-3%
1564	Operations Scheduling	335,665	3.0	284,207	2.0					284,207	2.0	(51,458)	-15%
1544	Real-Time Scheduling	2,796,358	20.0	2,671,336	20.0					2,671,336	20.0	(125,022)	-4%
1542	Outage Coordination	1,855,062	12.0	1,835,110	12.0					1,835,110	12.0	(19,952)	-1%
1565	Pre-Scheduling and Support	1,774,832	13.0	1,756,127	13.0					1,756,127	13.0	(18,705)	-1%
1570	Grid Operations Group	$ 7,472,189	51.0	$ 7,241,970	50.0	$ -		$ -		$ 7,241,970	50.0	$ (230,219)	-3%
1545	Grid Operations	7,472,189	51.0	7,241,970	50.0					7,241,970	50.0	(230,219)	-3%
1550	Regional Coordination Group	$ 2,773,661	15.0	$ 2,665,952	15.0	$ -		$ -		$ 2,665,952	15.0	$ (107,709)	-4%
1566	Regional Coordination	574,056	3.0	528,077	3.0					528,077	3.0	(45,979)	-8%
1554	Special Projects Engineering	889,030	4.0	825,342	4.0					825,342	4.0	(63,688)	-7%
1546	Security Coordination	1,310,575	8.0	1,312,533	8.0					1,312,533	8.0	1,958	0%

CALIFORNIA ISO
FY2004 Budget Summary
Detailed Table of the Proposed O&M Budget

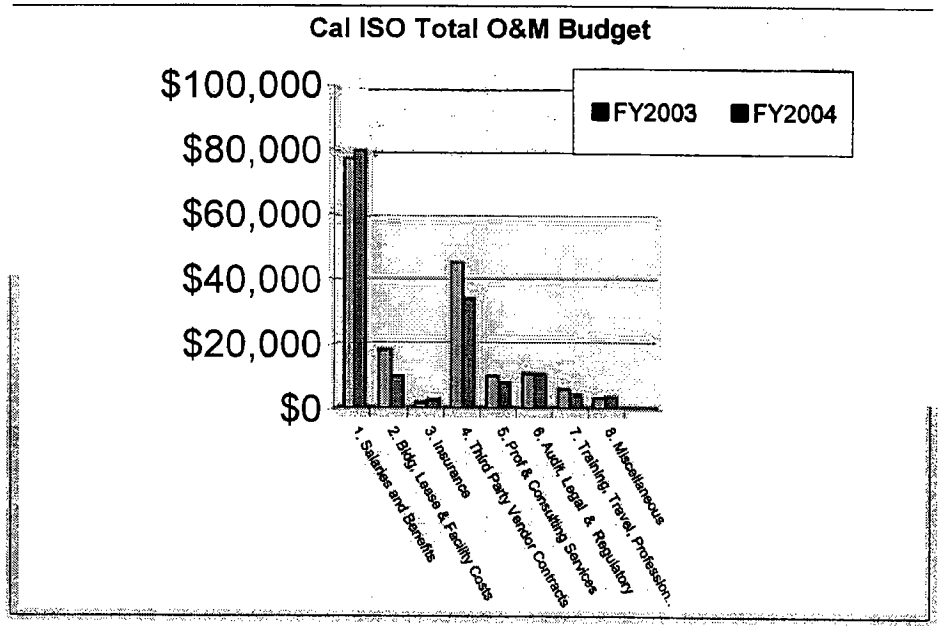
Cost Center	Area	FY2003 O&M Budget	FY2003 Budgeted Headcount	FY2004 Costs for Continuation of BUDGETED FY2003 Service Level	FY2004 Headcount for Continuation of BUDGETED FY2003 Service Level	FY2004 Incremental Programs	FY2004 Incremental Program FTEs	FY2004 Decremental Programs	FY2004 Decremental Program FTEs	FY2004 Proposed Budget (with All Incs, Decs Approved)	FY2004 Proposed Budget FTEs	FY2004 Proposed Budget vs.2003 Budget	% Chg.
1600	General Counsel	$ 19,582,667	64.0	$ 17,777,551	53.0	$ 305,400	-	$ -	-	$ 18,082,951	53.0	$ (1,499,716)	-8%
1611	VP General Counsel	423,729	2.0	275,638	2.0	-		-		275,638	2.0	(148,091)	-35%
1631	Legal and Regulatory	13,267,127	23.0	11,925,202	22.0	145,000		-		12,070,202	22.0	(1,196,925)	-9%
1641	Market Analysis	3,145,412	16.0	2,860,248	16.0	-		-		2,860,248	16.0	(285,164)	-9%
1642	Market Surveillance Committee	640,750	-	561,750	-	-		-		561,750	-	(79,000)	-12%
1651	Board of Governors	163,100	-	151,000	-	80,400		-		231,400	-	68,300	42%
1660	Compliance Group	$ 1,942,649	13.0	$ 2,003,713	13.0	$ 80,000		$ -		$ 2,083,713	13.0	$ 141,164	7%
1661	Compliance - Gen	1,509,798	10.0	1,587,162	10.0	80,000		-		1,667,162	10.0	157,364	10%
1662	Compliance Audits	432,751	3.0	416,551	3.0	-		-		416,551	3.0	(16,200)	-4%
1700	VP Market Services	$ 18,009,733	123.0	$ 17,753,412	122.0	$ 737,160	-	$ (629,000)	-	$ 17,861,572	122.0	$ (148,161)	-1%
1711	VP- Market Services General	176,692	2.0	(77,098)	2.0	12,160		(2,000)		(66,938)	2.0	(243,630)	-138%
1731	Contracts and Special Projects	1,493,113	9.0	1,471,832	9.0	-		-		1,471,832	9.0	(21,281)	-1%
1741	Client Relations	2,394,835	19.0	2,223,105	17.0	65,000		(12,000)		2,276,105	17.0	(118,730)	-5%
1720	Settlements	$ 4,348,075	32.0	$ 4,452,633	33.0	$ 85,000		$ -		$ 4,537,633	33.0	$ 189,558	4%
1721	Billing and Settlements	389,933	2.0	432,329	3.0					432,329	3.0	62,396	17%
1722	Business Development Support	529,686	4.0	674,329	5.0					674,329	5.0	144,643	27%
1723	Tariff and Contract Implementation	927,739	7.0	958,715	7.0					958,715	7.0	30,976	3%
1724	BBS - PSS	1,192,483	9.0	1,232,710	9.0					1,232,710	9.0	40,227	3%
1725	BBS - FSS	1,328,234	10.0	1,154,550	9.0	85,000				1,239,550	9.0	(88,684)	-7%
1750	Market Operations Group	$ 7,405,157	43.0	$ 7,579,017	43.0	$ 550,000		$ (500,000)		$ 7,629,017	43.0	$ 223,860	3%
1751	Market Operations	975,087	3.0	1,063,496	3.0	-		(100,000)		963,496	3.0	(11,591)	-1%
1752	Manager of Markets	2,452,724	17.0	2,384,160	17.0	350,000		(60,000)		2,674,160	17.0	221,435	9%
1753	Market Engineering	2,139,608	13.0	1,846,260	10.0	200,000		(150,000)		1,896,260	10.0	(243,348)	-11%
1755	Business Solutions	975,449	5.0	1,184,296	7.0			(50,000)		1,134,296	7.0	158,847	16%
1757	Market Integration	862,289	5.0	1,100,805	6.0			(140,000)		960,805	6.0	98,516	11%
1760	Market Quality Group	$ 2,191,881	18.0	$ 2,103,923	18.0	$ 25,000		$ (115,000)		$ 2,013,923	18.0	$ (177,938)	-8%
1756	Market Quality	2,191,881	18.0	2,103,923	18.0	25,000		(115,000)		2,013,923	18.0	(177,938)	-8%
1800	VP Corp. & Strategic Development	$ 9,093,453	31.0	$ 8,090,754	30.0	$ 42,374	-	$ -	-	$ 8,133,128	30.0	$ (960,325)	-11%
1811	VP Corp. & Strategic Development-General	482,954	2.0	456,066	2.0					456,066	2.0	(26,888)	-6%
1821	Communications	886,662	4.0	825,635	4.0					825,635	4.0	(61,027)	-7%
1841	Human Resources	4,866,084	13.0	4,543,963	13.0					4,543,963	13.0	(322,121)	-7%
1830	Regulatory Policy Group	$ 2,857,753	12.0	$ 2,265,090	11.0	$ 42,374		$ -		$ 2,307,464	11.0	$ (550,289)	-19%
1831	Strategic Development	715,600	3.0	670,932	3.0	42,374				713,306	3.0	(2,294)	0%
1851	Project Office Group	684,605	5.0	669,517	4.0					669,517	4.0	(15,088)	-2%
1861	Regulatory Policy	1,457,548	4.0	924,641	4.0					924,641	4.0	(532,907)	-37%
2100	Other	$ -	-	$ -	-	$ 3,393,412	-	$ -	-	$ 3,393,412	-	$ 3,393,412	
2111	Other: Staffing Related Compensation	-	-	-	-	3,393,412	-	-	-	3,393,412	-	3,393,412	
	Total Expected O&M Budget	$ 171,739,129	596.5	$ 148,637,965	593.5	$ 10,313,093	6.0	$ (7,218,000)	-	$ 151,735,058	599.5	$ (20,004,071)	-12%
	Debt Service												
	Debt Service-Current	43,692,060		43,692,060						43,692,060			
	Debt Service-New	-				-				-			
	Operating Reserve (25% debt Service)	10,923,015		10,923,015		-				10,923,015			
	Cash Funded CapEx	22,000,000				$ 32,000,000	See note			32,000,000			
	Expense Recovery	(2,828,400)		(2,084,933)						(2,084,933)			
	Subtotal	$ 245,725,804		$ 201,168,107		$ 42,313,093		$ (7,218,000)		$ 236,265,200			
	Financial & Capital Operating Reserve Credit	$ (8,257,000)		$ (19,400,000)						(19,400,000)			
	Revenue Requirement after Revenue Credit	$ 237,468,804		181,768,107						216,865,200			
	/ Transmission Volume	236,000,000		240,720,000						240,720,000			
	=Bundled GMC Rate	$ 1.006		$ 0.755						$ 0.901	INDICATIVE ONLY		

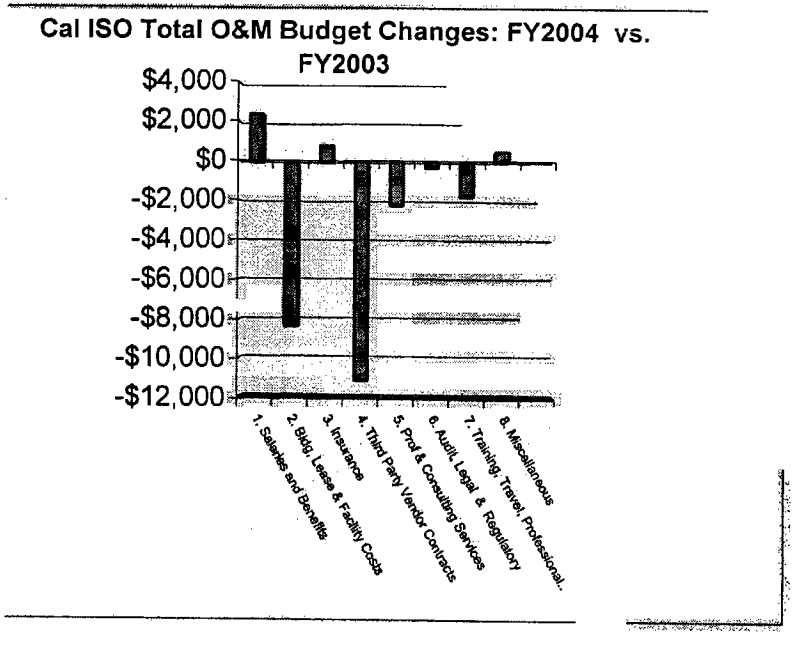
Note: Final capital budget for 2004 is dependent on the updated the MD02 project plan, available in late September/early October 2003.

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Exhibit: Chart-Expenses By Category

FY2004 Budget Overview
$ in 000's



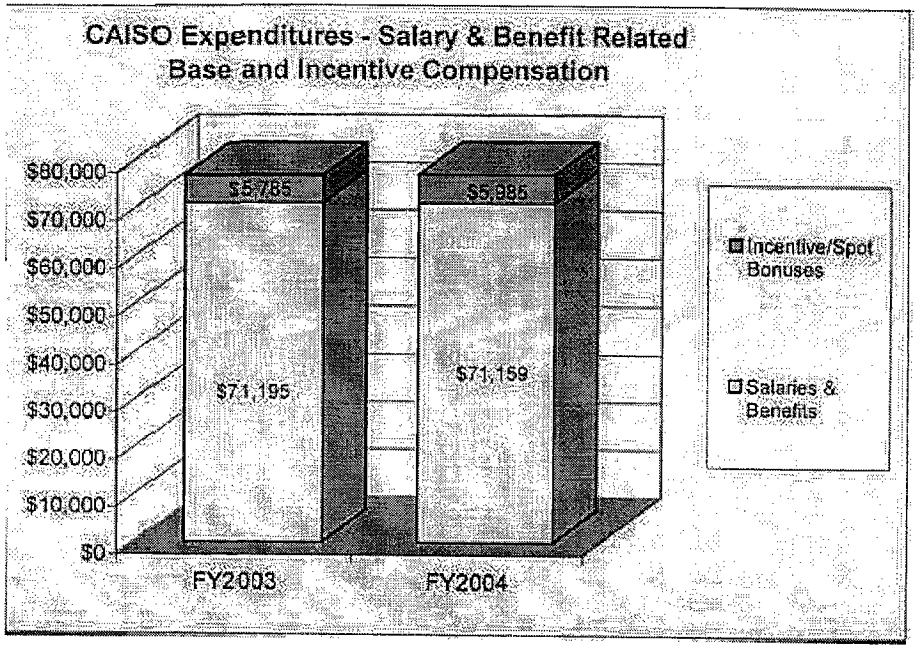


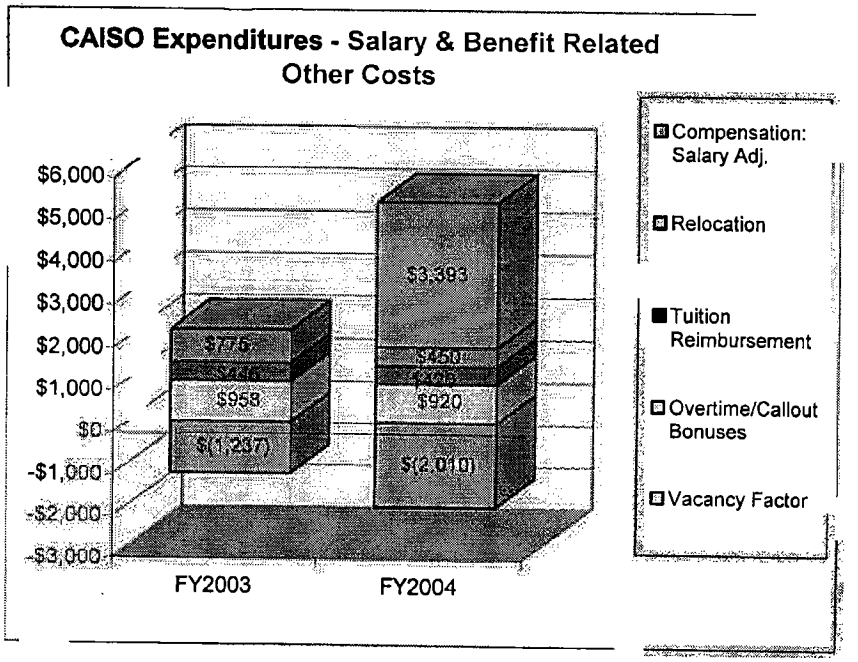
- Detailed explanatory charts follow.

Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's



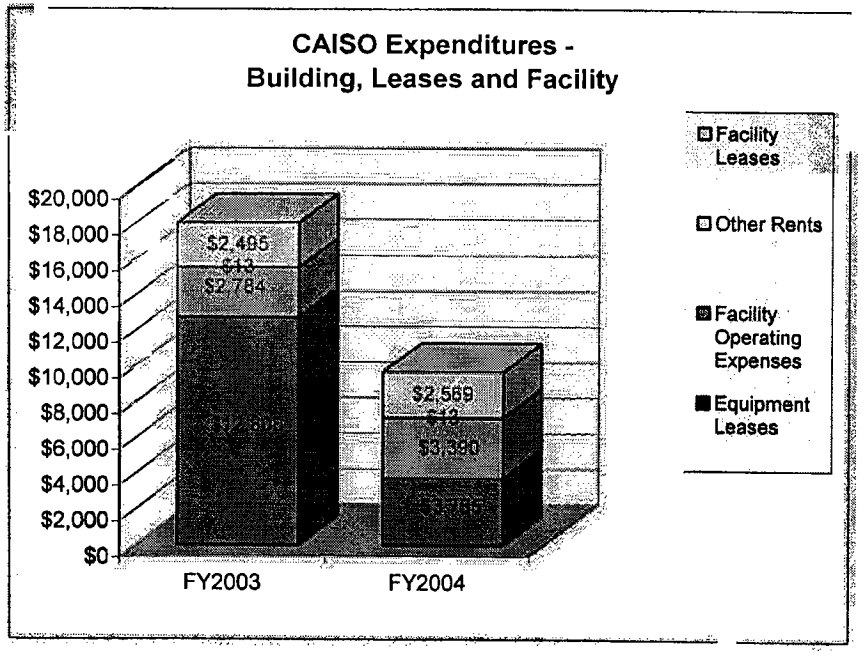


-Adjustment for 2004 salary increases.
-Lower relocation costs due to full staffing, lower turnover.
-Increase in headcount vacancy factor to reflect savings from not having all

Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's



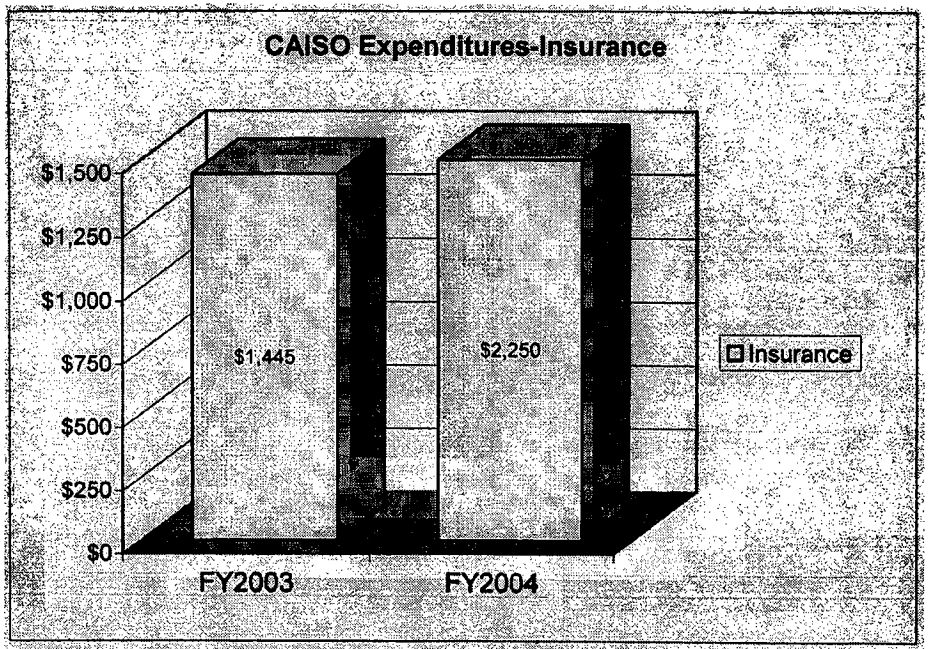
- Lease costs increase per lease terms.
- Higher facility operating costs
- Reduced leasing costs related to shift from leasing to buying equipment.

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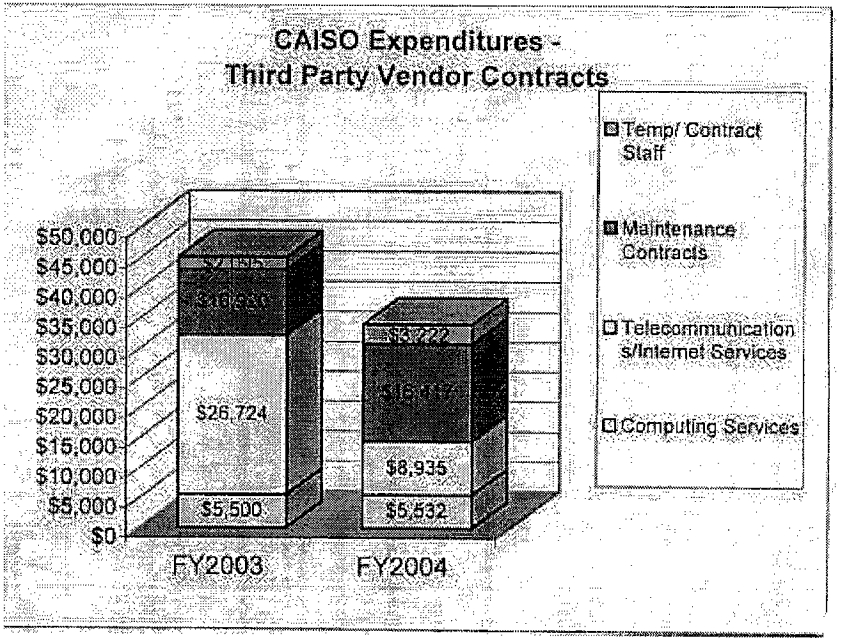
Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's



-Insurance costs in 2003 were significantly above budget and are anticipated to further increase in 2004.

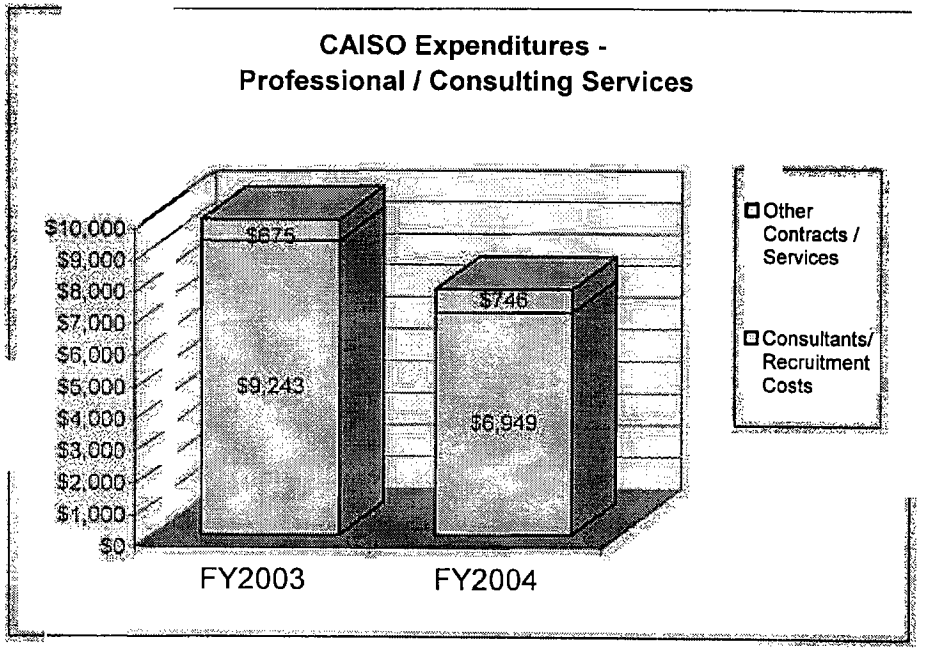


-Higher maintenance costs due to increased equipment, and purchase of three year maintenance agreements in 2004.
-Savings from end of MCI contract, switchover to AT&T

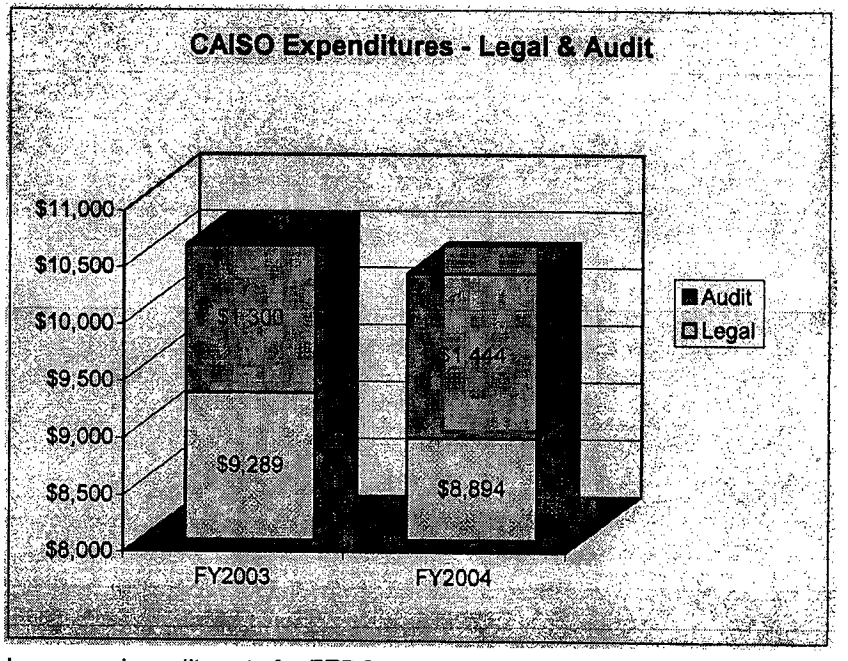
Exhibit: Chart-Expenses By Category

CALIFORNIA ISO

FY2004 Budget Overview: by Expense Type
$ in 000's



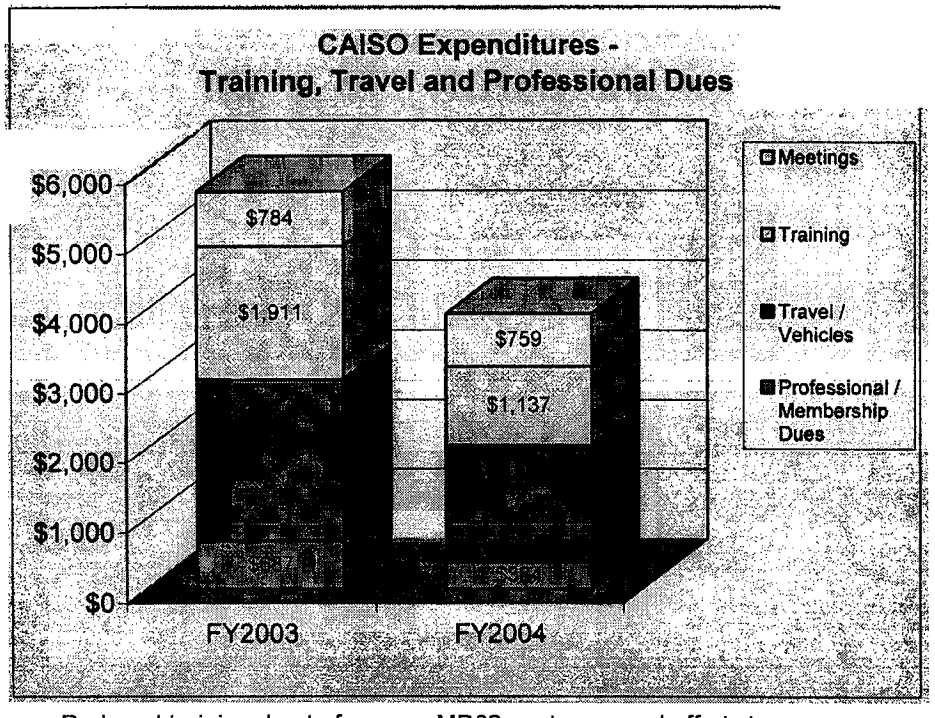
-Consulting reductions in Operations and CS&D offset in part by increases in Market Ops, IS.



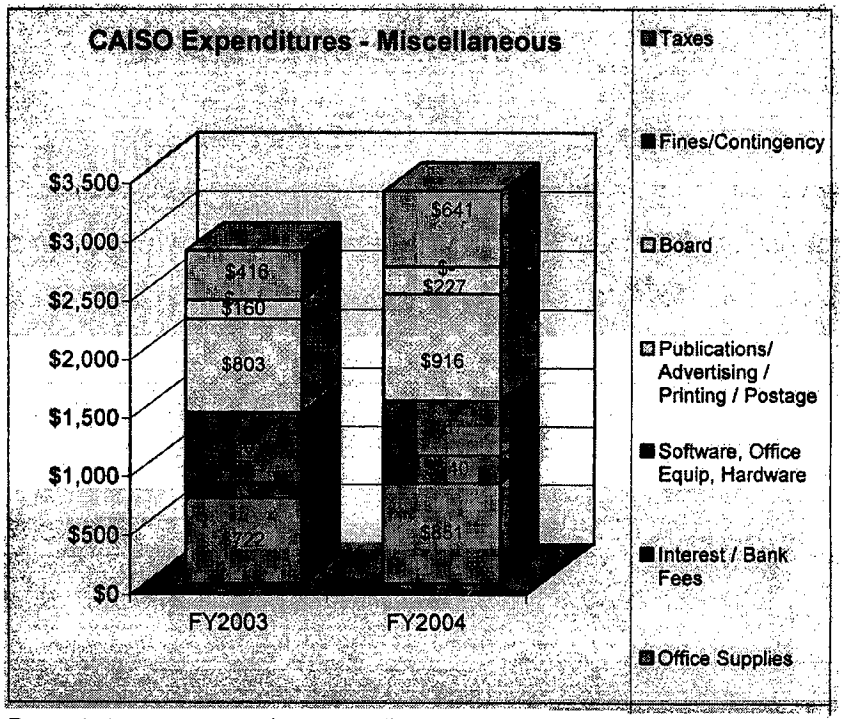
-Increases in audit costs for FERC rerun processing assurance.
-Reductions in External legal costs due to tapering off of energy crisis related legal costs.

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Exhibit: Chart-Expenses By Category



-Reduced training due to focus on MD02 next year, and efforts to reduce costs / align budget with actual spending in 2002/2003.
-Reduced dues of $300K due to lower EPRI funding from $550K to $250K.



-Property tax on personal property (leased equipment) unbudgeted in 2003 for $216K.
-Subscription fees of $225K for AMP pricing service subscription.
-Higher bank fees due to more ISO bank accounts for Tariff requirements.
-Office supplies increases by $150K for backup tapes, offset by small increase elsewhere.

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VII. Incremental and "Decremental" Programs in the Proposed FY2004 Budget

The proposed O&M budget contains funding for programs which management believes are necessary and appropriate, and represent additions beyond the services originally contemplated in the 2003 budget. In order to highlight these proposed changes in ISO services from those budgeted in FY2003 as well as the associated costs, ISO staff developed numerous proposed incremental programs for consideration by ISO Officers. The Officers reviewed these programs, and selected a portion of them for inclusion into the management recommended budget. These programs are discussed in the Divisional budget summaries which follow, and presented in summary form here.

A sample of the type of program justification collected for each of these programs during the budgeting process is included as an Exhibit in this section. Details about each program are available for review upon request, but have not been provided in this package.

Also highlighted in this section are the "Decremental" programs which in large part enabled the funding of incremental programs without an overall increase in the O&M budget. It should be noted that several reductions to the budget were made directly, without the reduction being noted as a Decremental program. This was appropriate where cost reductions were possible without an impact on service levels that needed to be considered by ISO Officers.

Charts and tables of incremental and decremental programs included in the proposed FY2004 budget follow:

	Page
Exhibit: Summary Table of Incremental/Decremental Programs in Budget..... ***(Individual amounts redacted for publication)***	...26
Exhibit: Detailed Table of Incremental/Decremental Programs in Budget ***(Individual amounts redacted for publication)***	27
Exhibit: Incremental/Decremental Program Template.	33

Exhibit: Summary Table of Incremental/Decremental Programs

FY2004 Budget Summary
Incremental/Decremental Program Summary

INCREMENTAL PROGRAMS INCLUDED IN PROPOSED BUDGET

	CAISO Division	1 Unclassified		Regulatory and Tariff Compliance		Reliability/ Operating Support		Market & Internal Information Provision		Internal Cost Saving or Productivity Enhancements		Communications and Stakeholder Support		ISO Intrastructure		Other	
		$	Staff	$	Staff	$	Staff	$	Staff	$	Staff	$	Staff	$	Staff	$	Staff
1100-INC	Chief Executive Officer/GP/MD02																
1300-INC	Chief Financial Officer																
1400-INC	Chief Information Officer																
1600-INC	General Counsel																
1500-INC	VP - Grid Operations																
1700-INC	VP - Market Services																
1800-INC	VP Corporate and Strategic Devt																
2100-INC	Other Costs - Staffing Related																
	Total	$		$ 653,400		$ 574,684	2	$ 1,002,873				$ 65,000		$ 4,279,350		$ 3,737,786	
	# Programs	0		8		3		5								6	

DECREMENTAL PROGRAMS INCORPORATED IN PROPOSED BUDGET

1100-DEC	Chief Executive Officer/GP/MD02																
1300-DEC	Chief Financial Officer																
1400-DEC	Chief Information Officer																
1600-DEC	General Counsel																
1500-DEC	VP - Grid Operations																
1700-DEC	VP - Market Services																
1800-DEC	VP Corporate and Strategic Devt																
2100-DEC	Other Costs - Staffing Related																
	Total	$		$		(170,500)		(115,000)		$ (65,000)		$ (12,000)		$ (6,230,000)		$ (523,500)	
	# Programs																

Notes:
Incremental programs are for services not included in the 2003 budget.

Decremental programs are cost saving measures representing reductions from the base budgets proposed by ISO departments.

Exhibit: Detailed Table of All Incremental/Decremental Programs

FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1311 CFO - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Reduction of consulting	($		Internal Cost Saving or Productivity
	Departmental	($		

1321 Accounting

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Market Participant Assurance of ISO controls over FERC preparatory and refund reruns	$		Market & Internal Infomation Provision
Inc - 2	O&I Program Review	$		Market & Internal Infomation Provision
Inc - 3	Officer Certification	$		Regulatory and Tariff Compliance
Inc - 5	PwC Officer Retirement Benefit Audit	$		Regulatory and Tariff Compliance
	Departmental	$		

1351 Facilities

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 5	Workstation changes and reconfigurations	($		ISO Infrastructure
Dec - 8	Consultants	($		Other
	Departmental	($	)	

1361 Office Adminstration

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Security Patrol Services budget adjustment (Alhambra)	$		Other
Inc - 2	Workplace Violence Assesment	$		Other
	Departmental	$		

1424 Asset Management

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Contractors (2) for IT Change Management Functions	$		ISO Infrastructure

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FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

Inc - 3	Hardware maintenance: End-of-lease, and end-of-life	$		ISO Infrastructure
Inc - 4	Software & Hardware maintenance: New, approved	$		ISO Infrastructure
Dec - 1	Lease expense savings due to capital buyout of all expiring 2004 schedules	($	)	ISO Infrastructure
Dec - 3	Potential Software Maintenance Reductions	($		ISO Infrastructure
	Departmental	($	)	

1433 Network Operations

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Elimination of Network Management Third Party Audit	($		Other
	Departmental	($		

1441 Outsourced Contracts

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Contracts Analyst position	$		Other
Dec - 2	PBX/Telephony Equipment lease expense - Capital alternative	($		ISO Infrastructure
	Departmental	($		

1451 Information Security

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 2	Elimination of PKI Replacement Study	($	)	ISO Infrastructure
	Departmental	($		

1463 Operations Applications - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Elimination of IS Customer Satisfaction Survey	($		Other
	Departmental	($		

Exh. No. ISO- 36, Page 29 of 108

FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1482 Market Systems Support Services

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Funding of Positions Authorized in 2002 after 2003 budget completed	$	4	Market & Internal Infomation Provision
	Departmental	$	4	

1521 Grid Planning

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Funding for Position Authorized in 2003	$	1	Reliability/ Operating Support
Dec - 1	Various reductions in Consulting, Travel, etc.	($		Reliability/ Operating Support
	Departmental	($)	1	

1558 Transmission Maintenance

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	New Position-Transmission Project Analyst	$	1	Reliability/ Operating Support
	Departmental	$	1	

1631 Legal and Regulatory

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Overtime Lawsuits-- Additional Trials	$		Regulatory and Tariff Compliance
	Departmental	$		

1651 Board of Governors

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Board Strategic Planning Retreat	$		Other
Inc - 2	Increase in Board Size - Governance Compromise	$		Regulatory and Tariff Compliance
	Departmental	$		

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FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1661 Compliance - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	O&I Training Program	$		Market & Internal Infomation Provision
Inc - 6	New MSS Support	$		Regulatory and Tariff Compliance
Inc - 7	Continuation of SQMD Lessons Learned Reporting	$		Regulatory and Tariff Compliance
	Departmental	$		

1711 VP Market Services - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Additional VP Market Services Travel	$		Market & Internal Infomation Provision
Dec - 1	Training Budget Reduction	($		Other
	Departmental	$		

1725 BBS - FSS

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	2004 FERC Mandated Re-run Compliance	$		Regulatory and Tariff Compliance
	Departmental	$		

1741 Client Relations

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Placeware web based conferencing	$		Communications and Stakeholder Support
Dec - 2	Reduced stakeholder meetings expenditures	($		Communications and Stakeholder Support
	Departmental	$		

1751 Market Operations - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 2	Reduce O&M Consulting Budget	($		Other
	Departmental	($		

Exh. No. ISO- 36, Page 31 of 108

FY2004 Budget
Incremental/ Decremental Program Listing

Additional detail for individual programs is available upon request

CostCenter#

1752 Manager of Markets

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	ALFS-Load Forecasting	$		Reliability/ Operating Support
Dec - 1	Reduce O&M Consulting Budget - CC 1752	($		Other
	Departmental	$		

1753 Market Engineering

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Intermittent Resources Program	$		Regulatory and Tariff Compliance
Dec - 4	Reduce O&M Consulting Budget CC 1753	($		Other
	Departmental	$		

1755 Business Solutions

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Reduce O&M Consulting Budget CC 1755	($		Other
	Departmental	($		

1756 Market Quality - General

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Contractor for daily support and FERC re-run	$		Regulatory and Tariff Compliance
Dec - 1	Eliminate Contractor Support	($	)	Market & Internal Infomation Provision
	Departmental	($		

1757 Market Integration

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Dec - 1	Reduce O&M Consulting Budget CC 1757	($		Other
	Departmental	($		

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FY2004 Budget
Incremental/ Decremental Program Listing

CostCenter#

Additional detail for individual programs is available upon request

1831 Strategic Development

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Incremental Funding for Board Administration	$		Other
	Departmental	$		

2111 Other

Program #	*Program Name*	*Amount*	*# Employees*	*Benefit/Classification*
Inc - 1	Salary adjustments for 2004	$		Other
	Departmental	$		

Total, All INCS& DECS	$3,097,093	6
Total INCS:	***10,313,093***	
Total DECS:	***(7,216,000)***	

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Exhibit: Incremental/ Decremental Program Request Template

Cost Center: *[Click here and type Cost Center]*
Department Name: *[Click here and type department name]*
Program Title: *[Click here and type program name]*
Estimated Cost: *[Click here and type total estimated program cost]*
Estimated Additional Staffing: *[Click here and type number of additional staff]*

Program Description and Detail:

- **Description of the proposed program/expenditure/opportunity.**
- **Description of departmental services/functionality/output before and after the proposed change.**
- **Impact on market effectiveness and efficiency**
- **Potential risks from implementing/not implementing the proposed program:**

A. Reliability of Grid Management and Dispatch Operation	
B. Compliance with Protocols, Regulations, & Contract Provisions	
C. Change Management / Operational Risks	
D. Technology Risks	
E. Financial Risks & Implications	
F. Strategic Risks	
G. Introducing Potential Exposure to ISO for Litigation	

Program Costs for the Cost Center:

Category	Proposed Cost	Proposed # of additional Staff
Salaries (including base salaries plus 40% burden)		
Building, Leases & Facility		
Insurance		
Third Party Vendor Contracts		
Professional & Consluting Services		
Lega/Audit Expenses		
Travel, Training & Professional		
Other		
Total	0	

- **Impact of the proposed program on other CAISO departments.**

VIII. CAISO Staffing Overview

The following Exhibits summarize CAISO staffing composition and changes. The explanation of these changes is detailed in the Divisional budget discussions. Note that these staffing overviews provide a snapshot of only CAISO full-time employees, and do not provide the full view of all resources used by CAISO to fulfill its responsibilities, including consultants and contractors.

The proposed budget includes a staffing cost adjustment of $3.3 million to provide for merit, equity and market adjustments to employee base salaries. A funding pool of 4.4% of compensation related costs (exclusive of this amount), is provided for this purpose. This would provide for merit increases of roughly 3.5% (consistent with market forecasts), and a pool of approximately 1% for other adjustments. In order to allow for a comparison of staffing costs on a consistent basis from FY2003 to FY2004, these salary and benefit related costs have not been distributed to the ISO Divisions. Rather, the $3.3 million has been shown as a separate item in the proposed budget.

ISO employee benefits are budgeted at 33% of base salary costs (consistent with the 2003 budget). Holding benefits costs at this level was a challenge given the increases in health insurance coverage and other benefit program increases in the current market.

Other benefits include (along with other minor items) employer matching FICA contributions, matching 401K plan contributions, medicare contributions, payroll taxes, workers' compensation coverage, unemployment coverage costs, health benefits (medical,dental & vision), life insurance, etc. The total compensation package provided to ISO employees also includes incentive compensation (at up to 12% of base pay for most employees, up to 20% for managers/directors, and up to 60% for Officers, with actual payouts based on overall Corporate performance[5]), and a tuition reimbursement program for qualifying educational expenses.

Staffing costs incorporate a vacancy rate of approximately 2.4% during 2004. As a result, a provision for vacant positions reduces staffing costs by $2,010,000, compared with a provision of $1,236,000 included in the 2003 budget.

The following Exhibits are provided

	Page
Exhibit: Table-Staffing Changes in Proposed FY2004 Budget	35
Exhibit: Chart-Staffing-FY2003 to FY2004	36
Exhibit: Table-Staffing by Department	37

[5] The budget assumes a 73% payout ratio, consistent with that budgeted in previous years.

Exhibit: Table-Staffing Changes in the Proposed FY2004 Budget

CAISO Division	FY2003 Budgeted Staffing	Changes during 2004	FY2004 Base Budget	FY2004 Changes	FY2004 Proposed Budget
CEO/MD02/Grid Plng.	23.0	1.0	24.0	1.0	25.0
CFO	34.5	-	34.5	-	34.5
CIO	144.0	-	144.0	4.0	148.0
VP Grid Ops	187.0	(1.0)	186.0	1.0	187.0
General Counsel	54.0	(1.0)	53.0	-	53.0
Market Services *	123.0	(1.0)	122.0	-	122.0
VP Corp & Strat Dev	30.0	-	30.0	-	30.0
Total FTE	**595.5**	**(2.0)**	**593.5**	**6.0**	**599.5**

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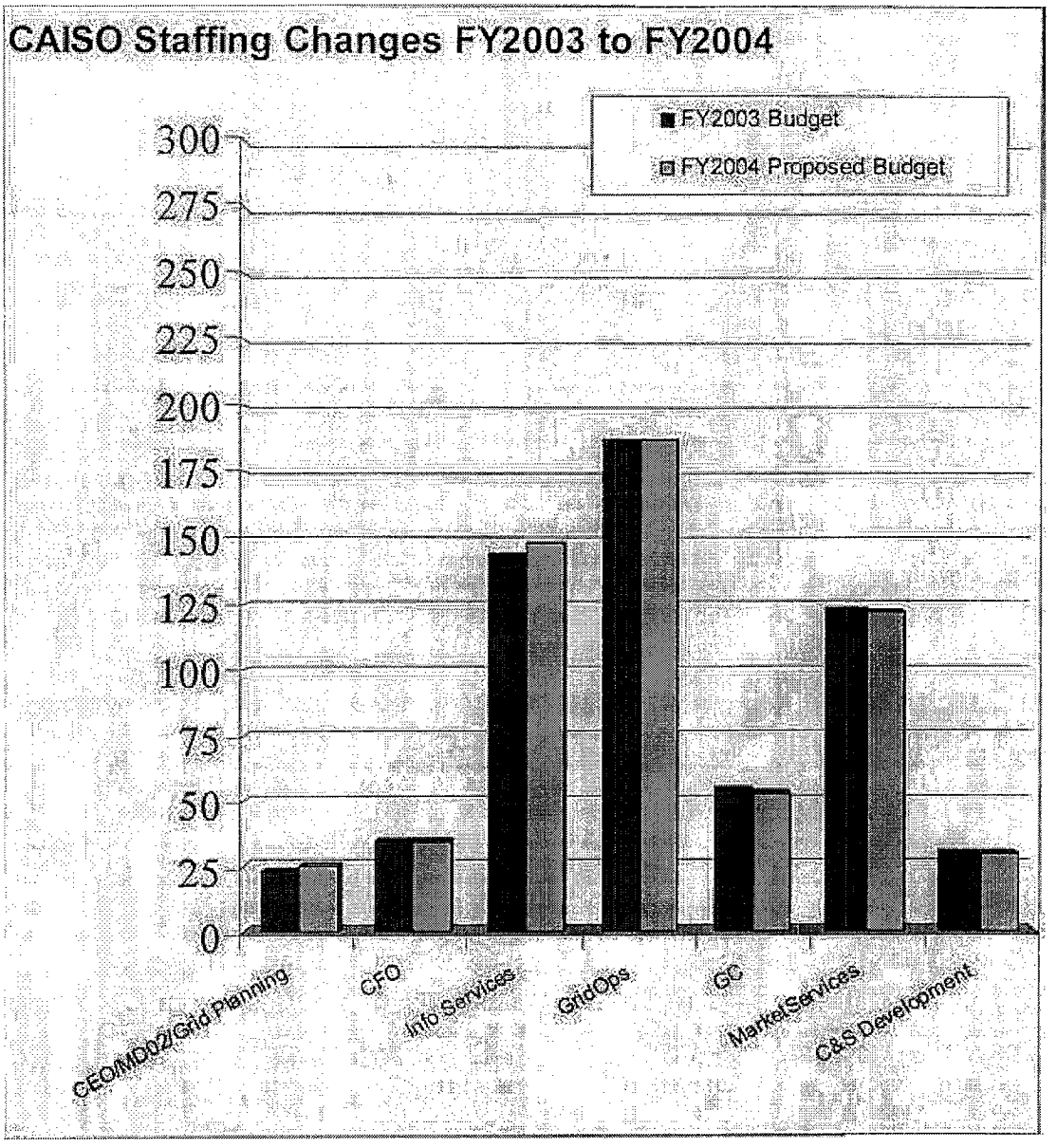

CAISO Staffing Changes FY2003 to FY2004
FY2003 Budget
FY2004 Proposed Budget
300
275
250
225
200
175
150
125
100
75
50
25
0
CEO/MD02/Grid Planning
CFO
Info Services
GridOps
GC
MarketServices
C&S Development

Exhibit: Table-Staffing FY2003 to FY2004

CALIFORNIA ISO

FY2004 Budget Summary
Staffing Detail

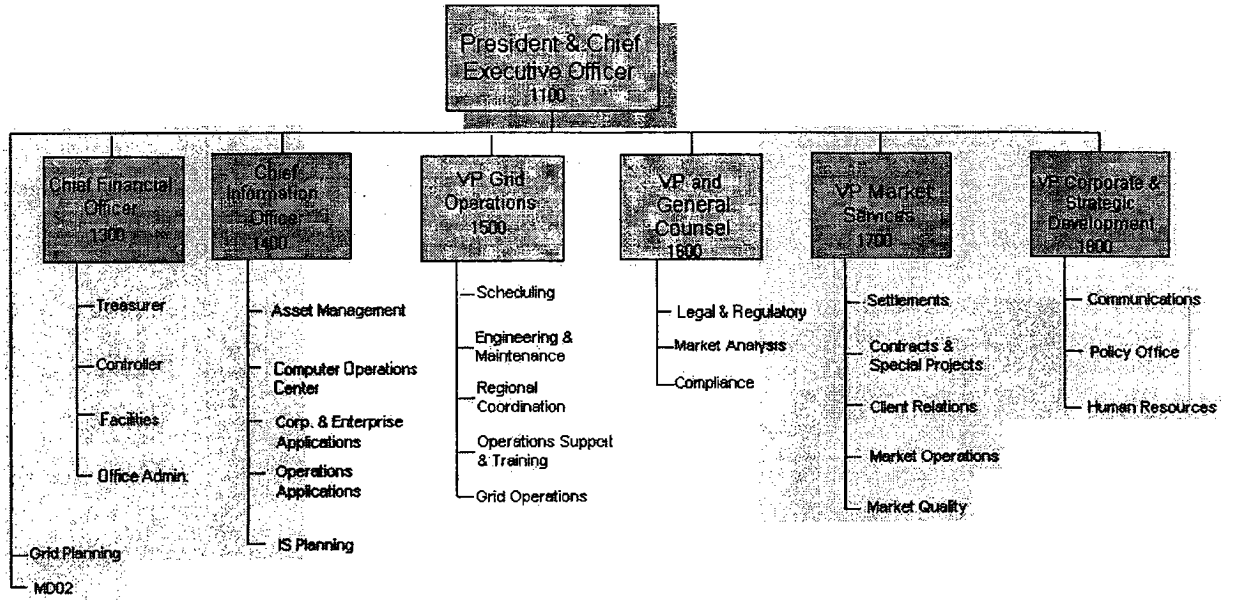
Cost Center	Area	FY2003 Headcount, Approved Budget	FY2004 Headcount Base Budget	2004 Incremental Program FTEs Management Recommended Budget	2004 Total Proposed FTE Headcount
1100	Chief Executive Officer	3.0	3.0	-	3.0
1111	CEO - General	2.0	2.0	-	2.0
1241	MD02	6.0	7.0	-	7.0
1521	Grid Planning	15.0	15.0	1.0	16.0
1300	Chief Financial Officer	33.0	33.0	-	33.0
1311	CFO - General	1.5	1.5	-	1.5
1321	Accounting	9.5	9.5	-	9.5
1331	Financial Planning and Treasury	6.5	6.5	-	6.5
1361	Office Administration	10.0	10.0	-	10.0
1351	Facilities	7.0	7.0	-	7.0
1400	VP Information Services	4.0	4.0	4.0	148.0
1411	VP - Information Services General	2.0	2.0	-	2.0
1471	Infrastructure Engineering	5.0	5.0	-	5.0
1420	Asset Management Group	10.0	10.0	-	10.0
1424	Asset Management	8.0	8.0	-	8.0
1441	Outsourced Contracts	2.0	2.0	-	2.0
1430	Computer Operations Center	46.0	47.0	-	47.0
1432	Computer Operations-General	3.0	6.0	-	6.0
1431	End User Support	4.0	4.0	-	4.0
1433	Network Operations	12.0	11.0	-	11.0
1442	Product Support	18.0	17.0	-	17.0
1451	Information Security	9.0	9.0	-	9.0
1460	Corporate & Enterprise Applications	25.0	25.0	-	25.0
1422	Corporate & Enterprise Apps-General	2.0	2.0	-	2.0
1468	Enterprise Apps	10.0	10.0	-	10.0
1469	Corporate Application Support	4.0	4.0	-	4.0
1459	Analytical and Reporting	9.0	9.0	-	9.0
1480	Operations Applications	58.0	55.0	4.0	59.0
1463	Operations Applications-General	3.0	3.0	-	3.0
1461	Control Systems	19.0	19.0	-	19.0
1462	Field Data Acquisition Systems (FDAS)	15.0	15.0	-	15.0
1467	Settlement Systems Services	9.0	9.0	-	9.0
1481	Markets and Scheduling	10.0	9.0	-	9.0
1482	Market Support Services		-	4.0	4.0
1500	VP Grid Operations	2.0	2.0	-	2.0
1511	VP Grid Operations General	1.5	1.5	-	1.5
1560	OSAT Group	37.0	38.0	-	38.0
1548	OSAT Group General	1.0	2.0	-	2.0
1549	Operations Training	19.0	18.0	-	18.0
1555	Operations Support Group	9.0	9.0	-	9.0
1559	Operations Application Support	4.0	5.0	-	5.0
1553	Coordinated Operations	4.0	4.0	-	4.0
1540	Engineering and Maintenance Grp	34.5	34.5	1.0	35.5
1547	Engineering and Maintenance	3.0	3.0	-	3.0
1543	Loads and Resources	7.0	7.0	-	7.0
1561	Operations Engineering South	7.5	7.5	-	7.5
1562	Operations Engineering North	9.0	9.0	-	9.0
1558	Transmission Maintenance	8.0	8.0	1.0	9.0

FY2004 Budget Summary
Staffing Detail

Cost Center	Area	Headcount, Approved Budget	Headcount Base Budget	Incremental Program FTEs Management Recommended Budget	Total Proposed FTE Headcount
1540	Operations Scheduling Group	14.0	12.0		12.0
1564	Operations Scheduling	3.0	2.0	-	2.0
1544	Real- Time Scheduling	20.0	20.0	-	20.0
1542	Outage Coordination	12.0	12.0	-	12.0
1565	Pre-Scheduling and Support	13.0	13.0	-	13.0
1570	Grid Operations Group	51.0	50.0	-	50.0
1545	Grid Operations	51.0	50.0	-	50.0
1550	Regional Coordination Group	15.0	15.0	-	15.0
1566	Regional Coordination	3.0	3.0	-	3.0
1554	Special Projects Engineering	4.0	4.0	-	4.0
1546	Security Coordination	8.0	8.0	-	8.0
1600	VP General Counsel	54.0	53.0	-	53.0
1611	VP General Counsel	2.0	2.0	-	2.0
1631	Legal and Regulatory	23.0	22.0	-	22.0
1641	Market Analysis	16.0	16.0	-	16.0
1642	Market Surveillance Committee	-	-	-	-
1651	Board of Governors	-	-	-	-
1660	Compliance Group	13.0	13.0	-	13.0
1661	Compliance - Gen	10.0	10.0	-	10.0
1662	Compliance Audits	3.0	3.0	-	3.0
1700	VP Client Relations	12.0	12.0	-	12.0
1711	Client Services - General	2.0	2.0	-	2.0
1731	Contracts and Special Projects	9.0	9.0	-	9.0
1741	Client Relations	19.0	17.0	-	17.0
1720	Settlements	32.0	33.0	-	33.0
1721	Billing and Settlements	2.0	3.0	-	3.0
1722	Business Development Support	4.0	5.0	-	5.0
1723	Tariff and Contract Implementation	7.0	7.0	-	7.0
1724	BBS - PSS	9.0	9.0	-	9.0
1725	BBS - FSS	10.0	9.0	-	9.0
1750	Market Operations Group	43.0	43.0	-	43.0
1751	Market Operations	3.0	3.0	-	3.0
1752	Manager of Markets	17.0	17.0	-	17.0
1753	Market Engineering	13.0	10.0	-	10.0
1755	Business Solutions	5.0	7.0	-	7.0
1757	Market Integration	5.0	6.0	-	6.0
1760	Market Quality Group	18.0	18.0	-	18.0
1756	Market Quality	18.0	18.0	-	18.0
1800	VP Corp. & Strategic Development	30.0	30.0	-	30.0
1811	VP Corp. & Strategic Development-General	2.0	2.0	-	2.0
1821	Communications	4.0	4.0	-	4.0
1841	Human Resources	13.0	13.0	-	13.0
1830	Regulatory Policy Group	11.0	11.0	-	11.0
1831	Strategic Development	3.0	3.0	-	3.0
1851	Project Office Group	4.0	4.0	-	4.0
1861	Regulatory Policy	4.0	4.0	-	4.0
	Totals	595.5	593.5	6.0	599.5

IX. CAISO Divisional Budget Overviews

The following section provides detailed information on the proposed budgets for each CAISO division, as shown on the organization chart below.

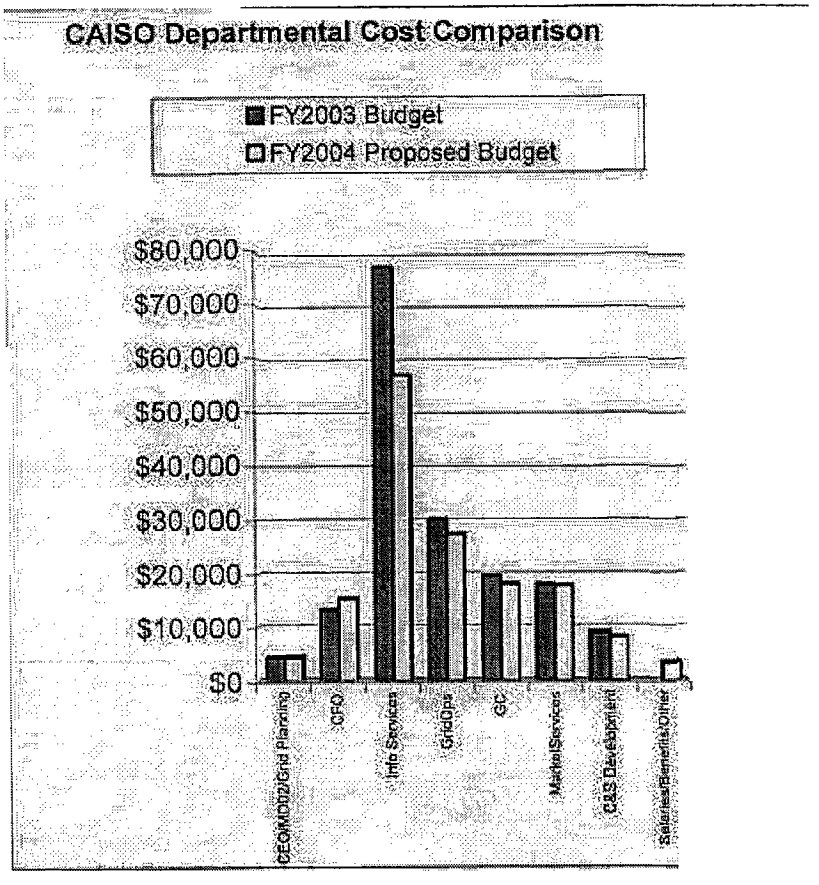


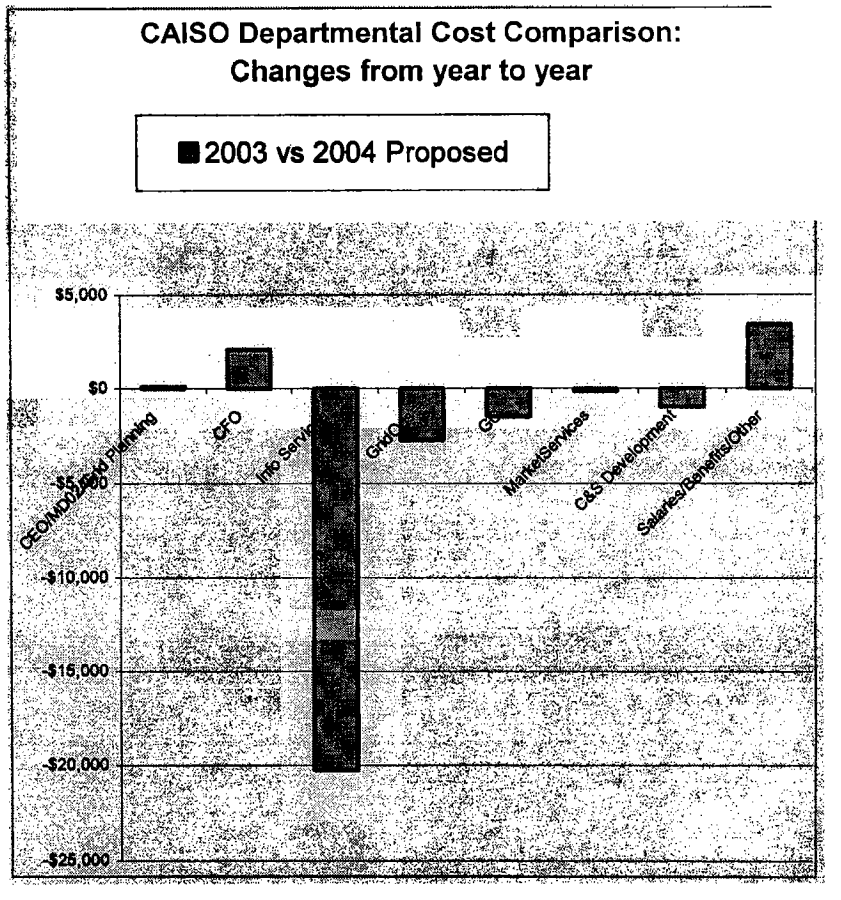
Each ISO Division provides a description of their departments, functions, staffing, and proposed budget, and incremental & decremental programs included in the proposed budget. Each discussion is prefaced by a chart providing an overview of the proposed budget. Substantial additional budget detail supports the figures shown in this document. ***The departmental discussions have been omitted from this version of the budget report to maintain confidentiality of detailed budget information.*** This section begins with a chart which overviews departmental costs and changes from FY2003.

Exhibit: Chart-Departmental Cost Comparison....40
Section: 1100 Chief Executive Officer (including MD02 & Grid Planning)....42
Section: 1300 Chief Financial Officer Division....45
Section: 1400 Chief Information Officer Division....48
Section: 1500 Grid Operations Division....52
Section: 1600 General Counsel Division....55
Section: 1700 Market Services Division....58
Section: 1800 Corporate & Strategic Development Division....61
Section: 2100 Salary Adjustments for 2004....64

Exhibit: Chart-Departmental Cost Comparison

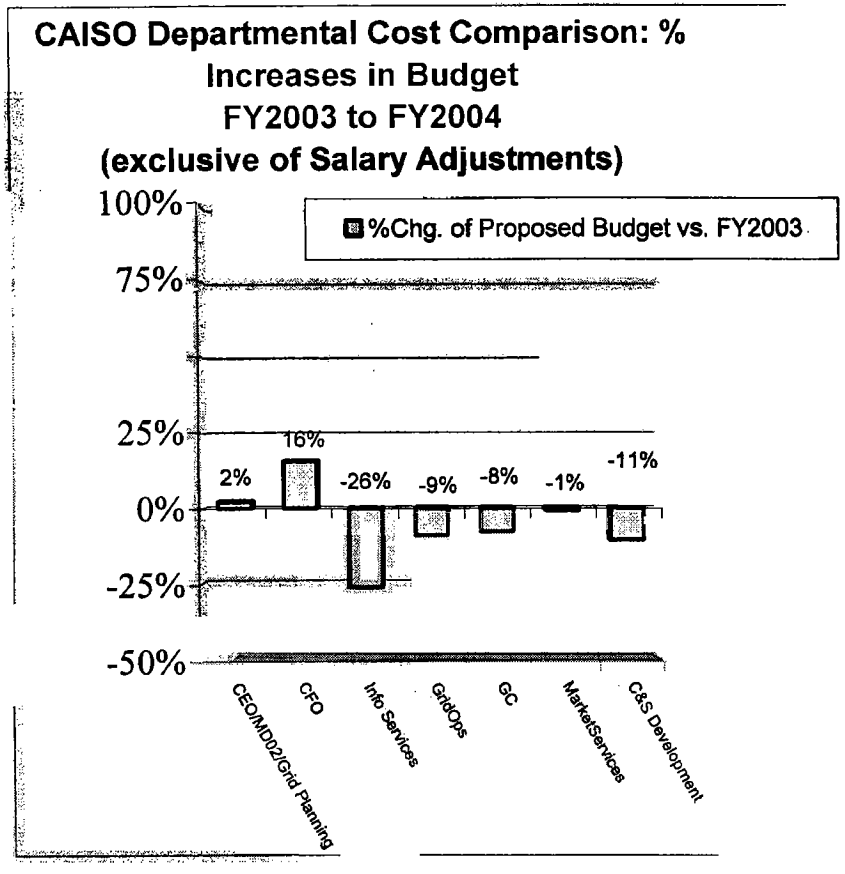
FY2004 Budget Overview
$ in 000's

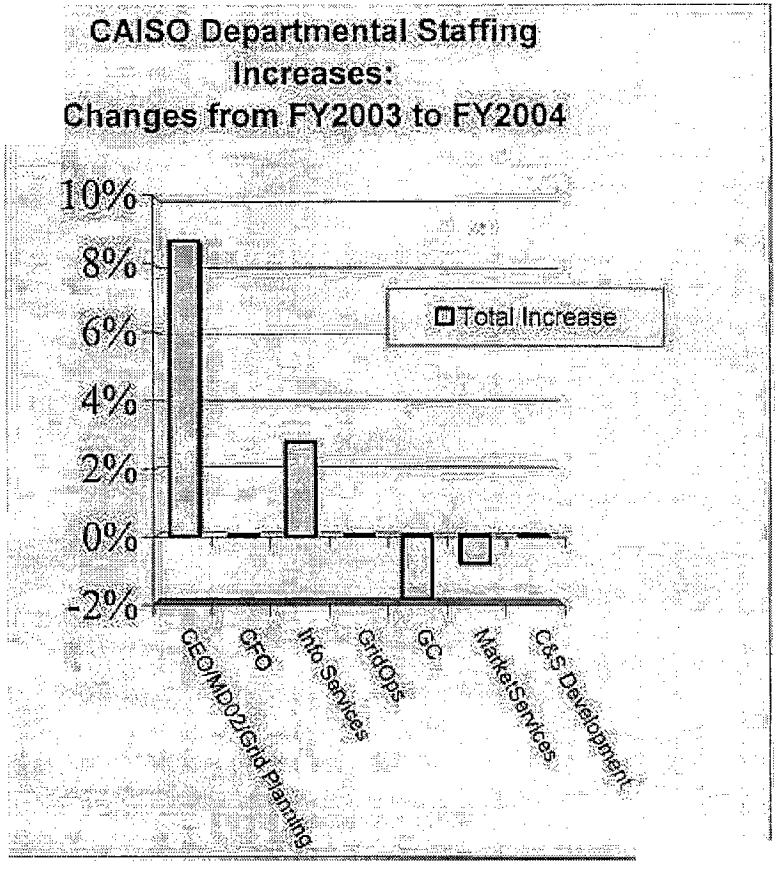




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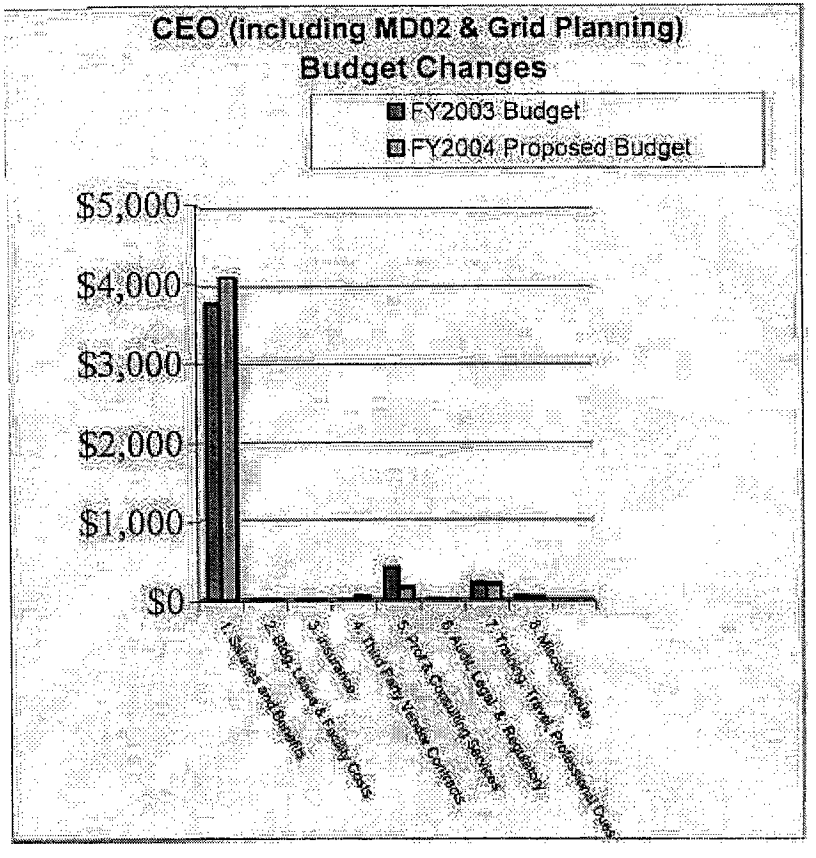
Exhibit: Chart-Departmental Cost/Staffing Comparison

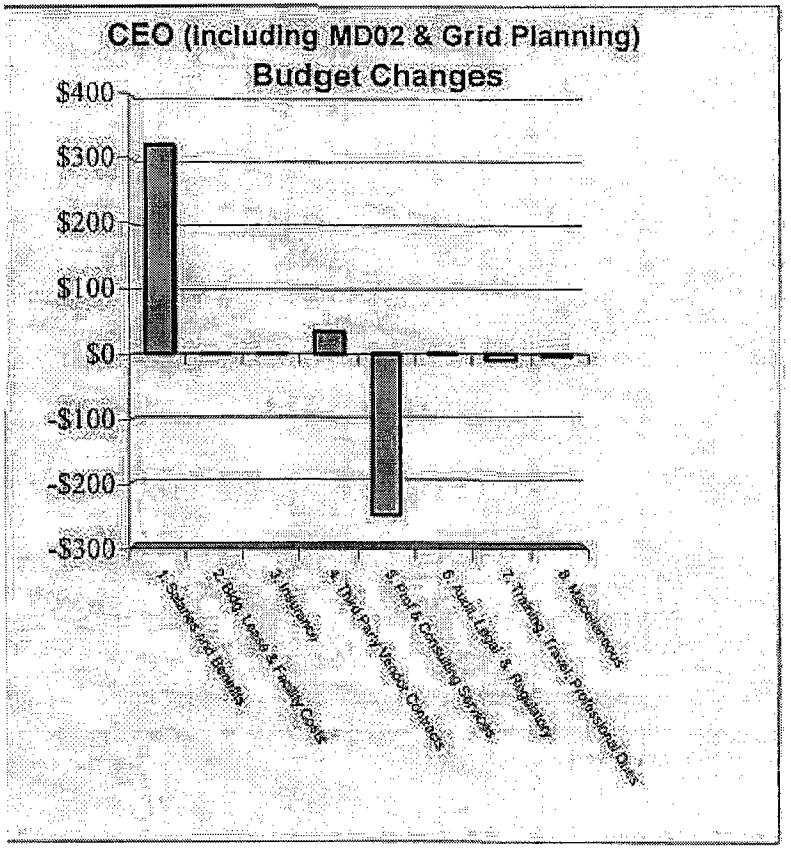




Section: 1100 Chief Executive Officer (including MD02 & Grid Planning)

FY2004 Budget Overview
$ in 000's





1 Transfer of one staff person to MD02 cost center.
One new staff for transmission planning.
5 Reduction in consulting fees budgeted in Transmission Planning.

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Divisional Budget Overview

1100 Chief Executive Officer

Rollup Overview

Division Description

Cost center 1100 is the roll-up cost center for cost center 1111 (consisting of the CEO and administrative support), 1521 (Grid Planning) and 1241 (MD02).

Division Changes and Workload

During 2002 an MD02 department was created. The MD02 department is cost center 1241, and for reporting purposes is associated with the CEO (Cost center 1100).

Discussion of Management Recommended Budget

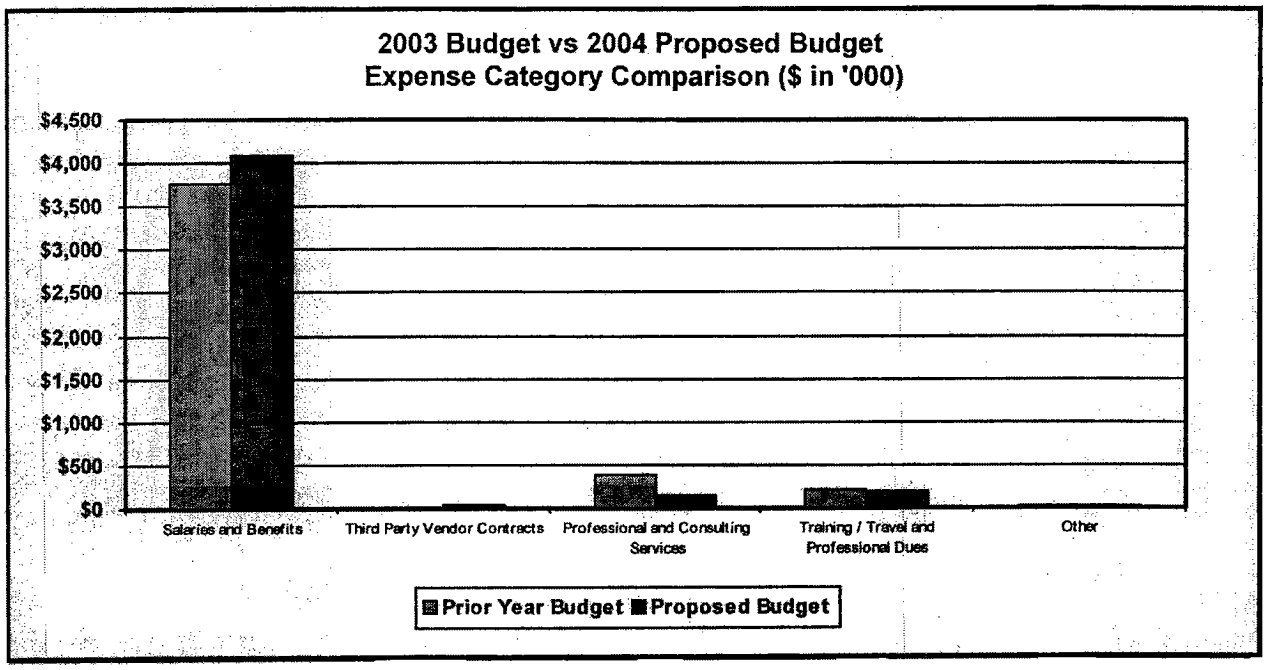
The budget for the CEO group increases by 2% from $4.4 to $4.5 million due to increased staffing in the MD02 cost center (transferred from other ISO departments), offset by reductions in Grid Planning.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1111	CEO - General	2	2	0	0	2
1241	MD02	6	7	0	0	7
1521	Grid Planning	15	15	1	0	16
	Total	23	24	1	0	25

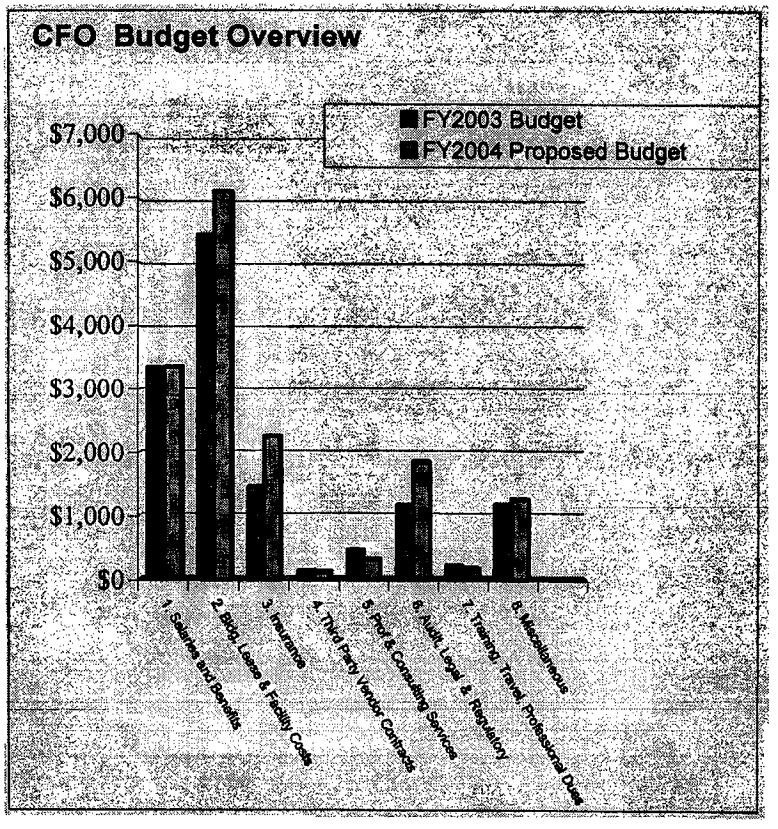
Operations and Maintenance Budget

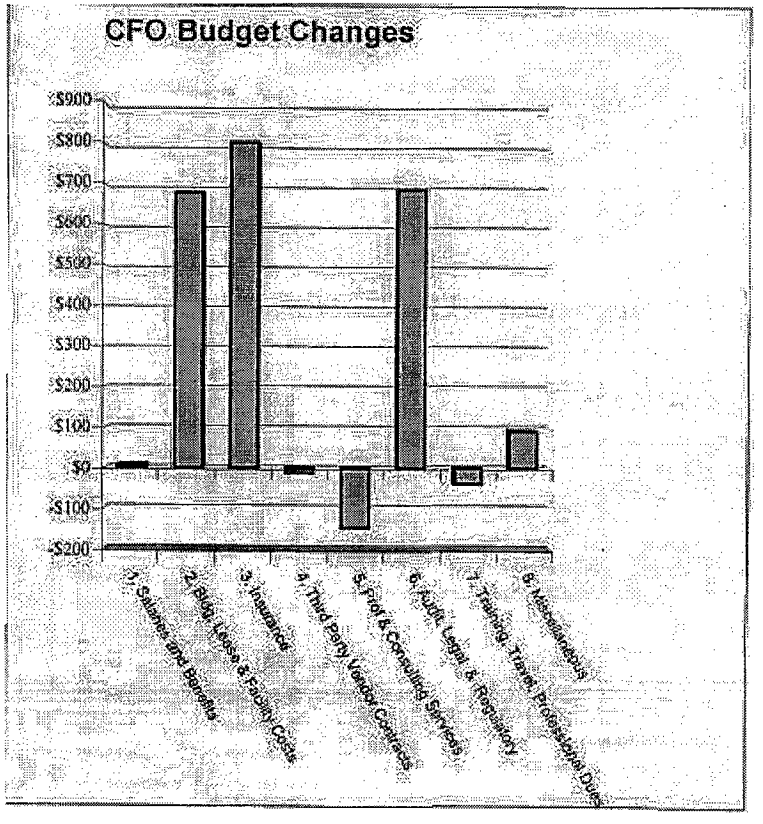
2004 Base Budget	$4,539,002
2004 Management Recommended Incremental / Decremental Programs	($35,123)
Total Proposed 2004 Budget	$4,503,879
2003 Budget	$4,409,755


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$4,500
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Salaries and Benefits
Third Party Vendor Contracts
Professional and Consulting Services
Training / Travel and Professional Dues
Other
Prior Year Budget
Proposed Budget

Section: 1300 Chief Financial Officer Division

FY2004 Budget Overview
$ in 000's





2. Standard increases in lease and building operating expenses.
3. Insurance premium increases: primarily D&O and E&O in 2003.
5. Reduction in consulting costs budgeted for CFO, facilities.
6. Higher auditor fees related to increased scope / new projects.

Divisional Budget Overview

1300 Chief Financial Officer

Rollup Overview

Division Description

The CFO group consists of the following cost centers:

1311 CFO-General
1321 Accounting
1331 Treasury and Financial Planning
1351 Facilities
1361 Office Administration

Division Changes and Workload

The CFO group has remained unchanged in structure and overall staffing from 2002/2003.

The Finance Division addressed several issues in 2003 that are likely to continue to be challenges into 2004, including:

1) Grid management charge administration and change;
2) Aftermath of 2000/2001 energy crisis including changes to ISO tariff for credit and payments, FERC reruns, participant bankruptcies, market defaults;
3) Increased emphasis on physical security;
4) Preparing ISO business controls for SAS 70 Type II audit and other regulatory requirements, including Sarbanes/Oxley, and proposed FERC requirements including quarterly reporting.
5) Accommodating ISO staff and contractors in facilities with insufficient space and aging and inadequate infrastructure, and development of an achievable long-term facilities plan.

Discussion of Management Recommended Budget

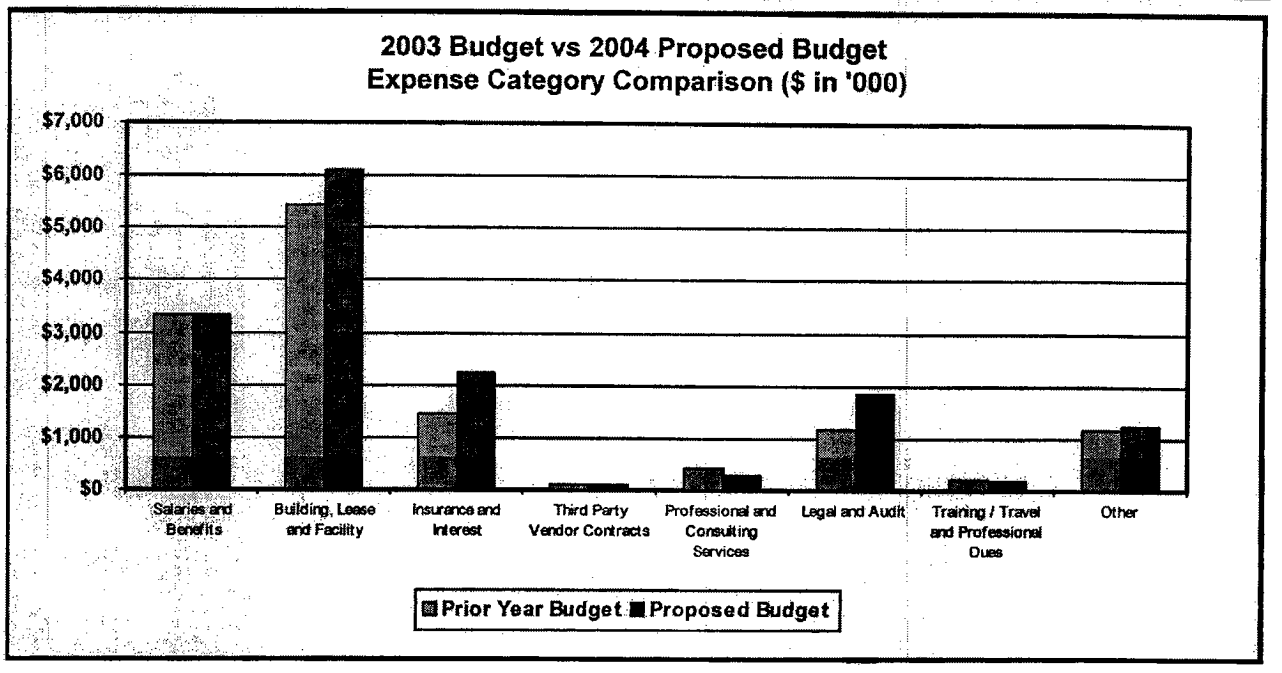
For the Division as a whole, the proposed budget increases approximately 15% from $13.3 million to $15.4 million (excluding 2004 salary adjustments, which are budgeted elsewhere for the company as a whole). Changes in costs include increased insurance premium expenses (2003 costs exceeded budgeted amounts for a continuation of coverage levels maintained in 2002), bank fees, professional services costs (increased audit costs), higher security costs than were budgeted in 2003 (costs were under-budgeted), and increased Facilities costs of $400K (increases in Leases and operating expenses).

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1311	CFO - General	1.5	1.5	0	0	1.5
1321	Accounting	9.5	9.5	0	0	9.5
1331	Financial Planning and Treasury	6.5	6.5	0	0	6.5
1351	Facilities	7	7	0	0	7
1361	Office Administration	10	10	0	0	10
	Total	34.5	34.5	0	0	34.5

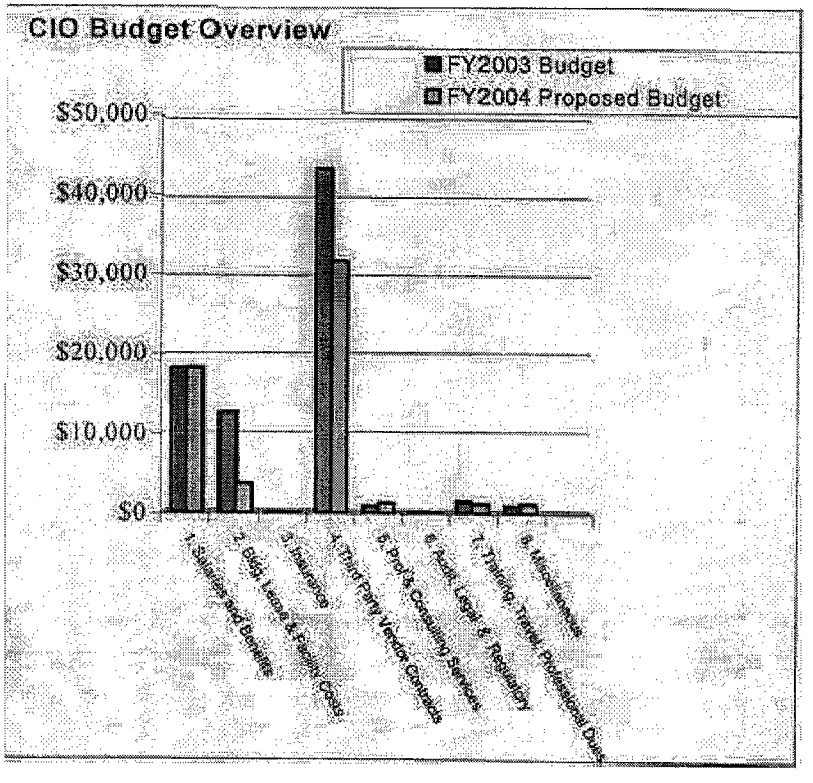
Operations and Maintenance Budget

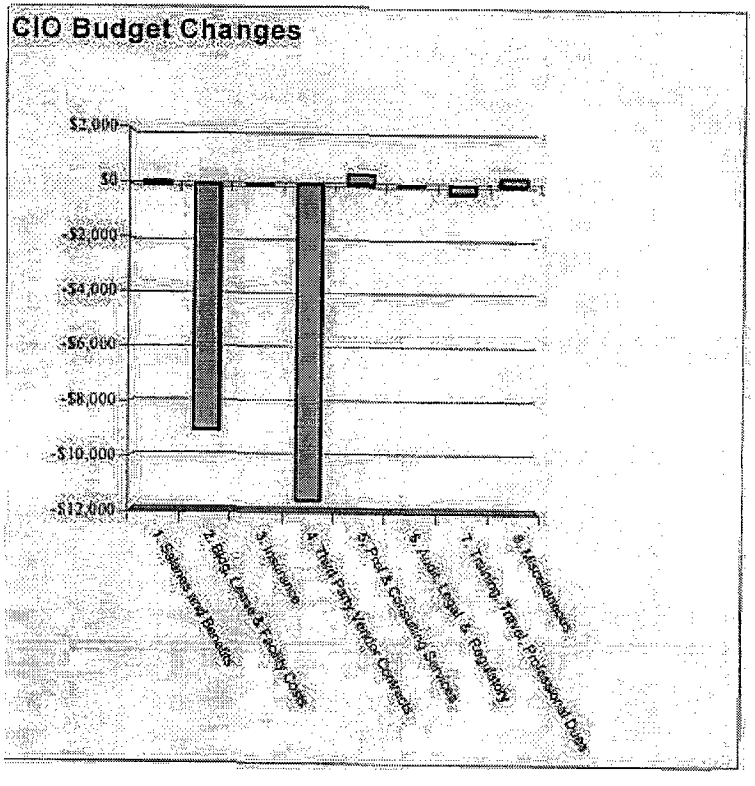
2004 Base Budget	$14,843,100
2004 Management Recommended Incremental / Decremental Programs	$541,000
Total Proposed 2004 Budget	$15,384,100
2003 Budget	$13,306,926



Section: 1400 Chief Information Officer Division

FY2004 Budget Overview
$ in 000's





1. Four new staff authorized during 2003.
   Costs offset by increase in headcount vacancy factor in 2004.
2. Reduced equipment lease expenses due to purchase of equipment.
4. Reduced telecommunications costs due to new contract.
8. Increased backup tapes.

Divisional Budget Overview

1400 Chief Information Officer

Rollup Overview

Division Description

The Information Services Division (IS) ensures the availability, reliability and security of the technology infrastructure and provides application development and support services to the ISO. Within this division are centralized IT costs to support the entire ISO. As such the majority of costs fall under the General service category.

IS objectives are summarized as follows:

- Provide strategic direction and leadership for information technology;
- Partner and consult with other business units and market participants to address their needs with information technology solutions;
- Ensure continuous availability of the information technology environment;
- Establish information technology architecture and standards;
- Secure the information technology environment; and
- Provide reliable and timely communication and office automation services.

The IS Division is divided into Operations System Services, Corporate and Enterprise Systems, Computer Operations, Infrastructure Engineering and IT Asset Management. The cost centers related to these primary functions are:

1411 VP Information Services General
1422 Corporate & Enterprise Applications-General
1424 Asset Management
1431 End User Support
1432 Computer Operations-General
1433 Network Services
1441 Outsourced Contracts
1442 Production Support
1451 Information Security
1461 Control Systems
1462 Field Data Acquisition System (FDAS)
1463 Operations Applications-General
1466 Enterprise Applications
1467 Settlement Systems Services
1468 Corporate Application Support
1469 Analytical and Reporting
1471 Infrastructure Engineering (IS Planning)
1481 Markets and Scheduling
1482 Market System Support Services

Division Changes and Workload

A major change will occur this year as the MCI telecommunications contract is expiring resulting in an opportunity to review services and minimize costs for all areas of services provided by MCI including the Wide Area Network ("WAN", the Local Area Network ("LAN") and Telephony ("Voice").

A new contract was consummated with AT&T for the WAN services providing a substantial decrease in costs while maintaining the high demands for availability, reliability, and security required to run the California Electricity Market.

LAN services will be performed by IS Division personnel expanding their current responsibilities to include the portion of the LAN previously managed by MCI. These services will also be provided at a substantial savings over the prior MCI contract.

Voice services are forecast to be outsourced in early 2004 with expenses projected at a reduction over the current MCI agreement.

Cost savings generated from the AT&T contract, insourcing the LAN services, and outsourcing Telephony have provided a cost reduction within this division of at least $15,000,000.

IS is proposing specific cost reductions for the 2004 budget in the amount of approximately $19 million as discussed within each cost center. These reductions were generated from the savings associated with the new telecommunications contracts, lower demand for leasing expenses, and other cost savings effort within the division.

Discussion of Management Recommended Budget

The IS Division's recommended budget of $56.9M for FY2004 represents a substantial reduction from FY2003 ($77.2M). This reduction was accomplished through lower telecommunications costs, reduced leasing costs (shifting some costs to the ISO capital budget due to purchasing rather than leasing equipment), and other cost savings efforts. ISO's IT infrastructure is stabilizing, allowing financial resources to be redirected from supporting tremendous growth to programs promoting efficiencies and effectiveness of the ISO's investment in IT. IS will continue to deliver a high level of service and is positioned to be flexible to respond to new activities and market changes.

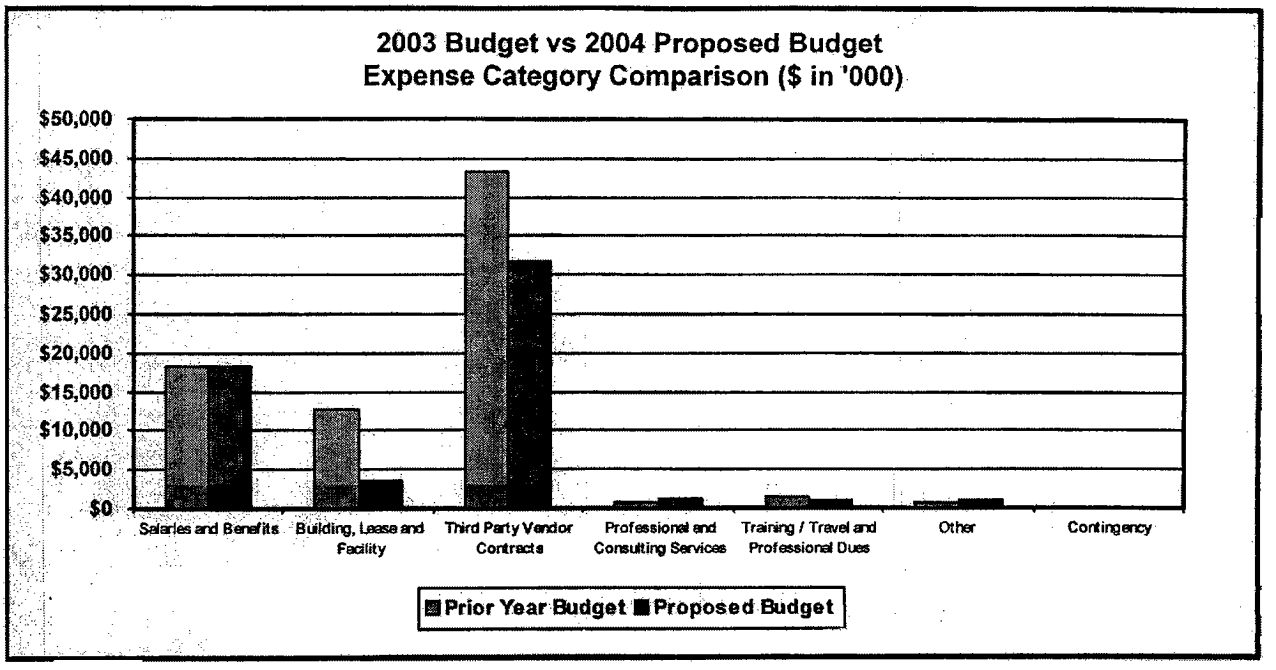
In addition to the reduction of the base budget to $58.2M, Decremental reductions are proposed in the amount of $6.3M. Incremental programs for $5M are for new services and/or programs, including those not provided for in the FY2003 budget, and discussed within individual cost centers.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1411	Chief Information Officer- General	2	2	0	0	2
1420	Asset Management Group	10	10	0	0	10
1430	Computer Operations Center	46	47	0	0	47
1460	Corporate & Enterprise Applications	25	25	0	0	25
1471	IT Planning	5	5	0	0	5
1480	Operations Applications	56	55	4	0	59
	Total	144	144	4	0	148

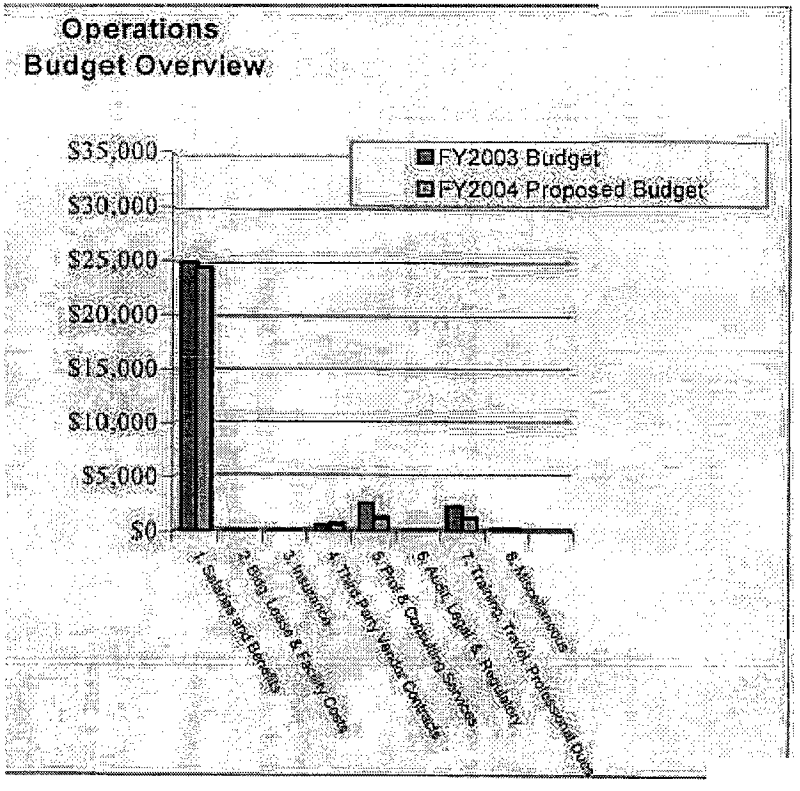
Operations and Maintenance Budget

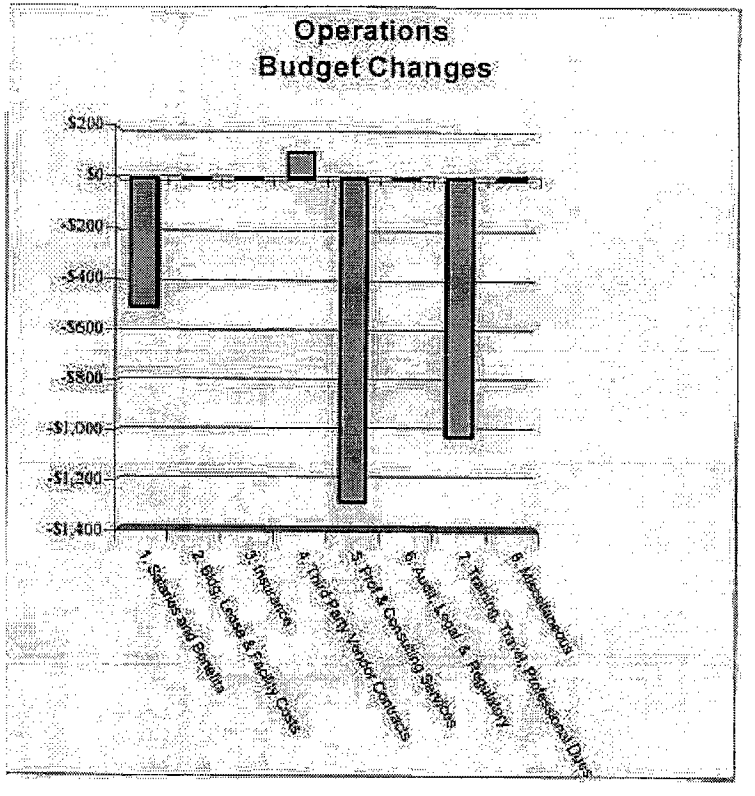
2004 Base Budget	$58,262,033
2004 Management Recommended Incremental / Decremental Programs	($1,347,437)
Total Proposed 2004 Budget	$56,914,596
2003 Budget	$77,158,879


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$50,000
$45,000
$40,000
$35,000
$30,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
Salaries and Benefits
Building, Lease and Facility
Third Party Vendor Contracts
Professional and Consulting Services
Training / Travel and Professional Dues
Other
Contingency
Prior Year Budget
Proposed Budget

Section: 1500 Grid Operations Division

FY2004 Budget Overview
$ in 000's





1. No change in staffing. 2003 actual salary costs somewhat lower than budgeted, and increase in headcount vacancy factor in 2004.
5. Consulting projects reduced in OSAT, transmission maintenance, Engineering & Maintenance
7. Reduced travel, training, aligning with actual spending in 2002/2003.

Divisional Budget Overview

1500 VP Grid Operations

Rollup Overview

Division Description

The Division has the following departments reporting to the VP Grid Operations:

1511 VP- Grid Operations- General
1560 Operations Support and Training (and subsidiary cost centers)
1540 Engineering and Maintenance Group (and subsidiary cost centers)
1530 Operations Scheduling Group (and subsidiary cost centers)
1570 Grid Operations Group (and subsidiary cost centers)
1550 Regional Coordination Group (and subsidiary cost centers)

Division Changes and Workload

Grid Operations reduced its number of positions by 4 in 2003, however its workload and responsibilities have continued to increase. The main mission of the department is reliable operation of the power grid and support for real-time operations. The department is devoting considerable resources to the design, development and implementation of the new market design system (MD02). In 2004, we expect to implement MD02 Phase 1B, and this will have some impact on the workflow in real-time operations. The extent of the impact is impossible to forecast at this time. This new work will be done by the existing workforce as much as possible by temporarily deferring or postponing other work.

Discussion of Management Recommended Budget

The FY2004 management recommended budget for Operations is $27.5 million which is $2.7 million or 9% less than the $30.2 million FY2003 budget. Numerous cost saving measures are included such as reductions in consulting services, EPRI membership, travel and training. In 2003, Grid Operations eliminated four positions (two in Transmission Dispatch and two in Real-time scheduling) to reduce labor costs. Also, other budget expense items were reduced. Ongoing operations were streamlined as much as possible so the elimination of these four positions resulted in a minimum increase in overtime costs.

The FY2004 budget includes one incremental program which funds an FY2003 Transmission Maintenance department authorized position. All decreases to the FY2004 budget are reflected in the base budget.

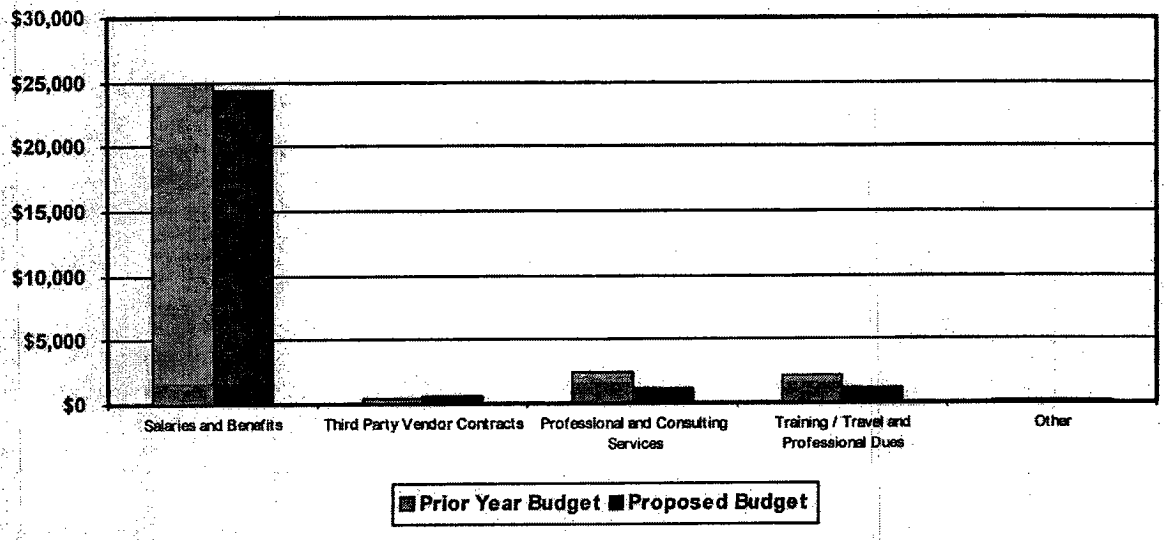
Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1511	VP Grid Operations - General	1.5	1.5	0	0	1.5
1530	Operations Scheduling Group	48	47	0	0	47
1540	Engineering and Maintenance Group	34.5	34.5	1	0	35.5
1550	Regional Coordination Group	15	15	0	0	15
1560	OSAT Group	37	38	0	0	38
1570	Grid Operations Group	51	50	0	0	50

	Total	187	186	1	0	187

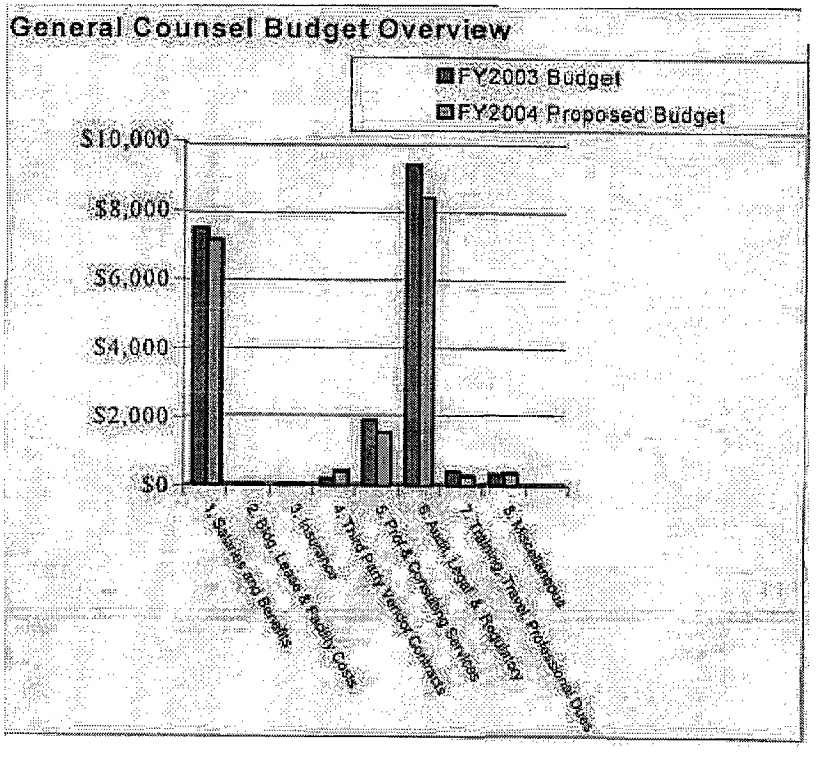
Operations and Maintenance Budget

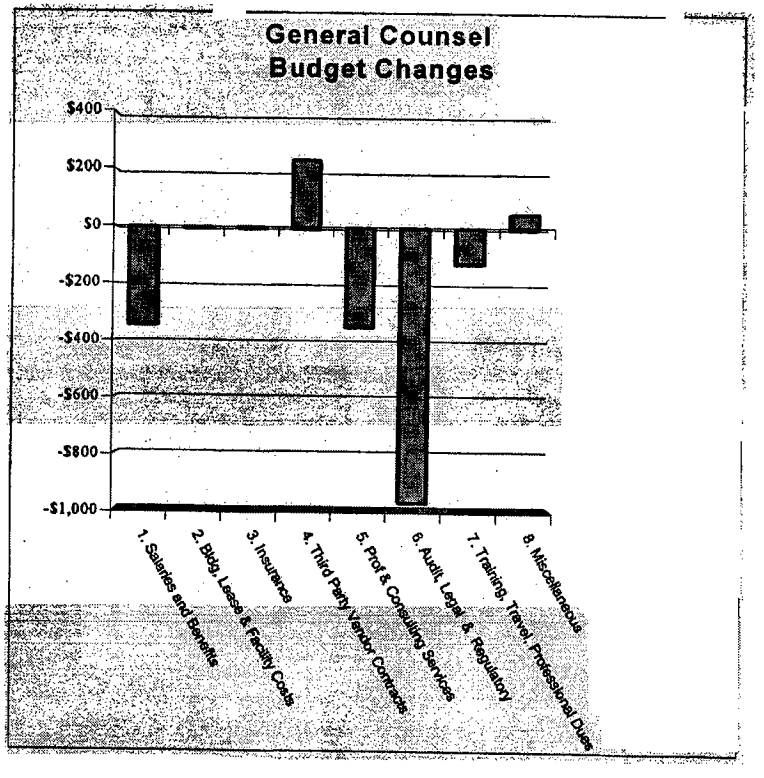
2004 Base Budget	$27,372,113
2004 Management Recommended Incremental / Decremental Programs	$89,307
Total Proposed 2004 Budget	$27,461,420
2003 Budget	$30,177,716



Section: 1600 General Counsel Division

FY2004 Budget Overview
$ in 000's





1. Transfer of one staff to CEO/MD02 Division.
5. Consulting: reduced in DMA, Market Surveillance, Compliance.
6. Legal/Regulatory Costs: reduction related to completion of crisis related matters.

Divisional Budget Overview

1600 - VP General Counsel

Rollup Overview

Division Description

The General Counsel Group includes the Compliance and Data Quality Departments, the Legal & Regulatory Department, the Department of Market Analysis (DMA) and the Board of Governors. The responsibilities of each of those departments are described within their respective cost centers.

1611 General Counsel-General
1631 Legal & Regulatory
1641 Market Analysis
1642 Market Surveillance Committee
1651 Board of Governors
1660 Compliance (and subsidiary cost centers)

Division Changes and Workload

The structure of the GC group remains unchanged from the 2003 to 2004 budget, with the same cost centers contained in the 1600 roll-up group.

Discussion of Management Recommended Budget

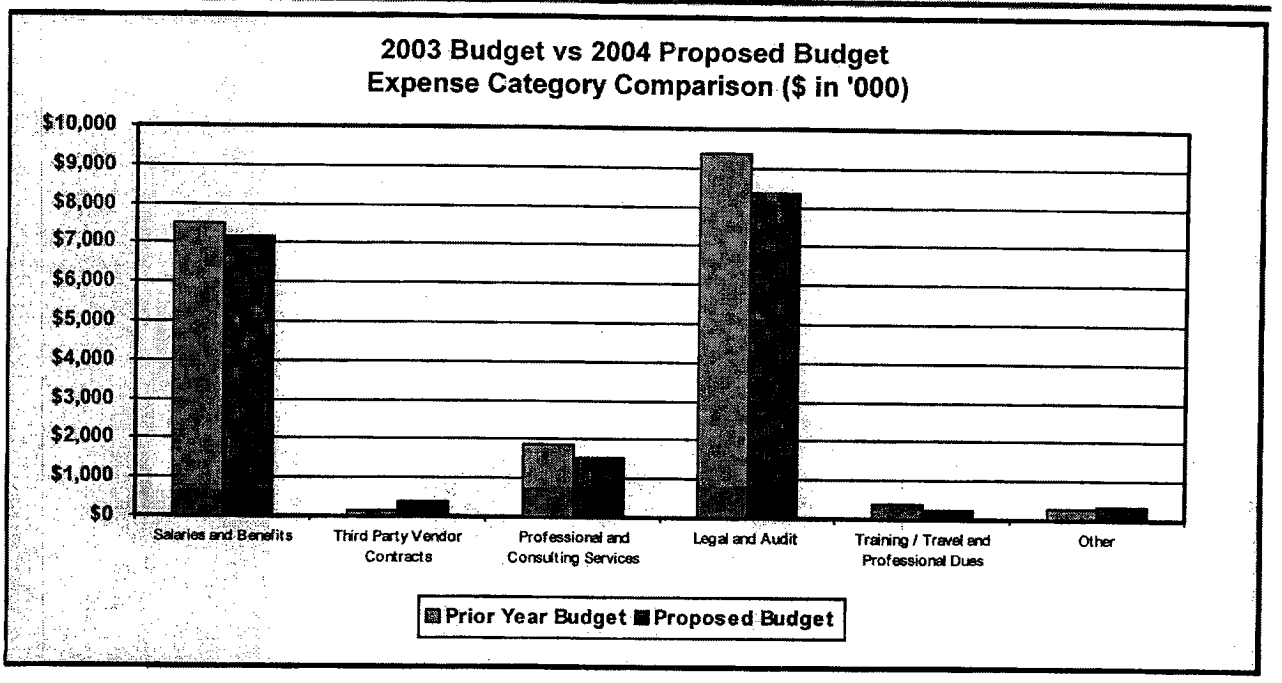
The FY2004 management recommended budget of $18.1 million represents a $1.5 million or 8% decrease from the $19.6 million FY2003 budget. Discussions of the managment recommended budgets for individual departments are included under the respective cost centers.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1611	VP General Counsel - General	2	2	0	0	2
1631	Legal and Regulatory	23	22	0	0	22
1640	DMA Group	16	16	0	0	16
1660	Compliance Group	13	13	0	0	13
	Total	54	53	0	0	53

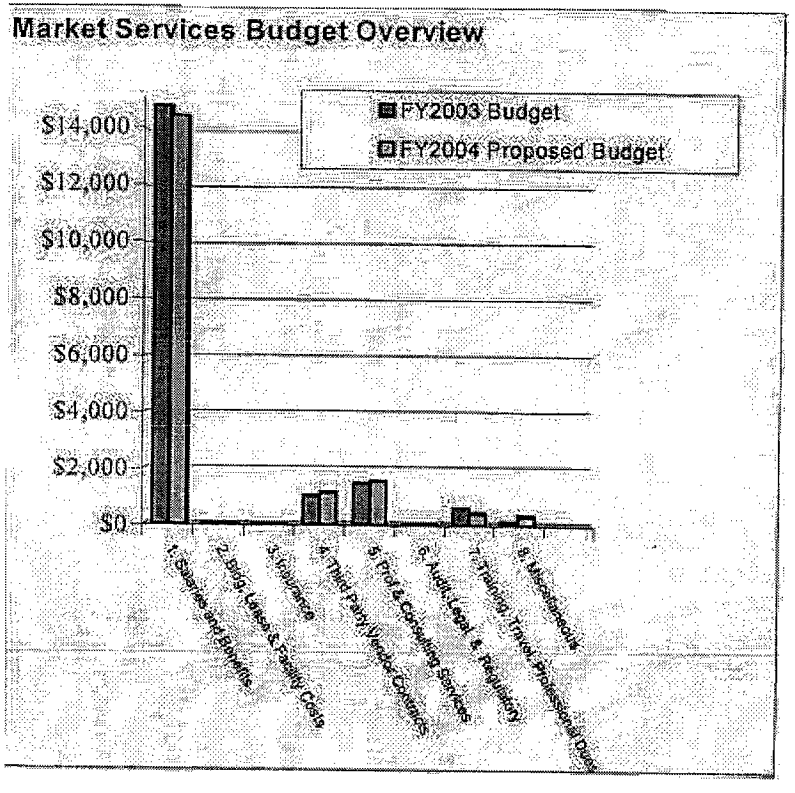
Operations and Maintenance Budget

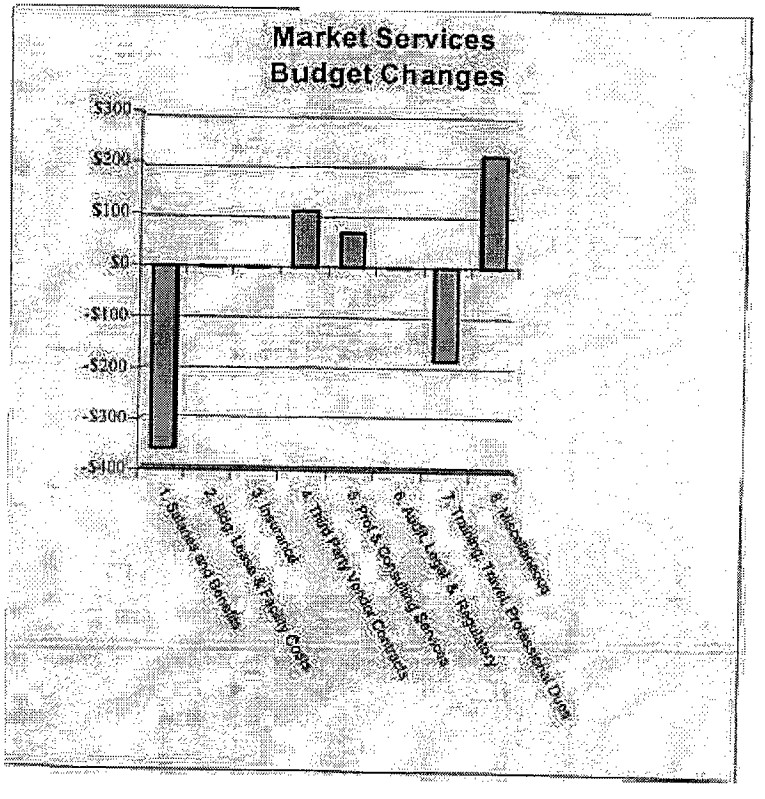
2004 Base Budget	$17,777,551
2004 Management Recommended Incremental / Decremental Programs	$305,400
Total Proposed 2004 Budget	$18,082,951
2003 Budget	$19,582,667


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$10,000
$9,000
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
Salaries and Benefits
Third Party Vendor Contracts
Professional and Consulting Services
Legal and Audit
Training / Travel and Professional Dues
Other
Prior Year Budget
Proposed Budget

Section: 1700 Market Services Division

FY2004 Budget Overview
$ in 000's





1. Transfer of staff to MD02 dept.
7. Reduced travel/training, aligned with actual spending in 2002/2003.
8. Subscription to pricing service for AMP.

Divisional Budget Overview

1700 VP Market Services

Rollup Overview

Division Description

Cost center 1700 is the roll-up cost center for the following departments:

1711 Market Services-General
1731 Contracts and Special Projects
1741 Client Relations
1720 Settlements (including subsidiary cost centers)
1750 Market Operations Group (including subsidiary cost centers)
1756 Market Quality

Division Changes and Workload

In 2003 we saw many changes in the external environment which altered the workload and focus of this group. There were a number of major events in 2003 that have significantly impacted the workload of the Market Services Group. These events include:

- Multiple regulatory filings at and orders from FERC on MD02,
- Support of the refund activities,
- FERC re-run and discovery requests,
- Development of a framework for the participation of Intermittent Resources, and
- Multiple control area issues.

All of these activities have required leadership and support by the Market Services group and will continue into 2004.

Discussion of Management Recommended Budget

The FY2004 management recommended budget of $17.9 million is reduced slightly from the FY2003 budget of $18 million. The proposed budget largely reflects the costs associated with our people as well as third party vendor contracts and professional and consulting services. Included in the Management Recommended budget are certain incremental programs designed to further enhance the breadth and depth of services the ISO provides to the Market along with a number of decremental programs which could potentially decrease the level of service that the ISO provides to the Market Participants.

One incremental program includes hiring contractors for project related functions to provide the support required for the expected FERC mitigated price case compliance re-run. Workers will be released upon completion of the re-run and fulfillment of subsequent data requests.

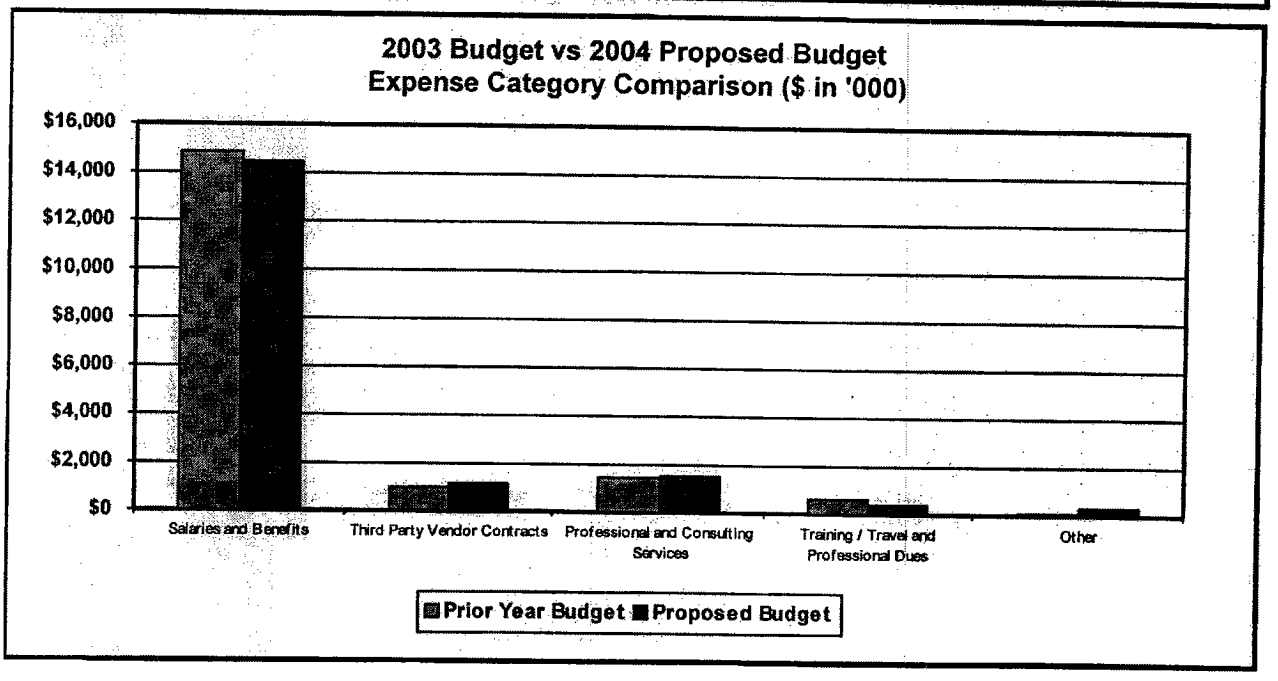
Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1711	VP Market Services - General	2	2	0	0	2
1720	Settlements	32	33	0	0	33
1731	Contracts and Special Projects	9	9	0	0	9

1741	Client Relations	19	17	0	0	17
1750	Market Operations Group	43	43	0	0	43
1760	Market Quality Group	18	18	0	0	18
	Total	123	122	0	0	122

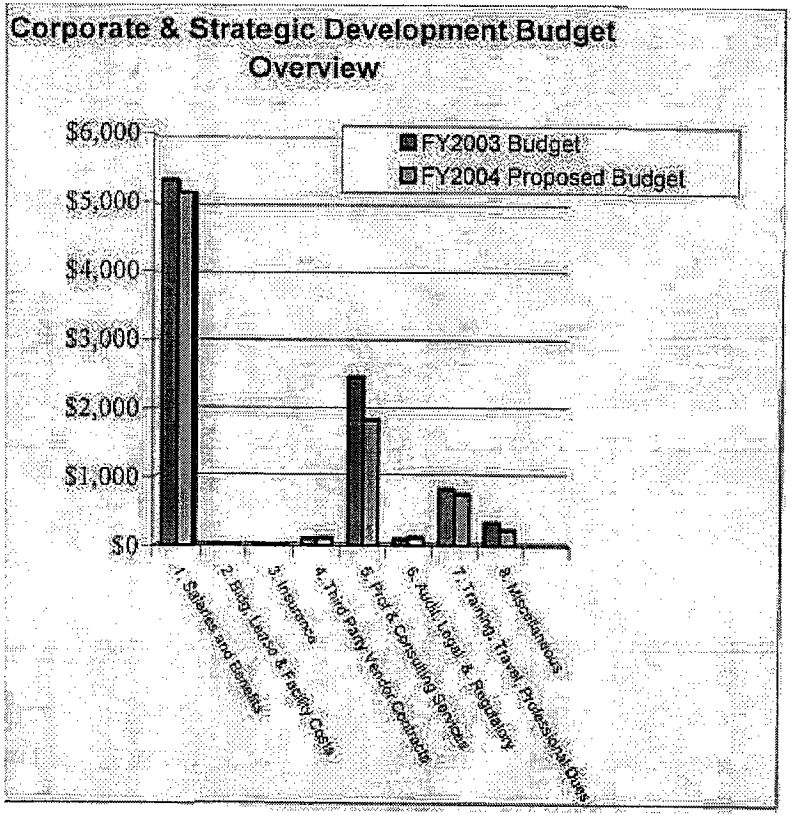
Operations and Maintenance Budget

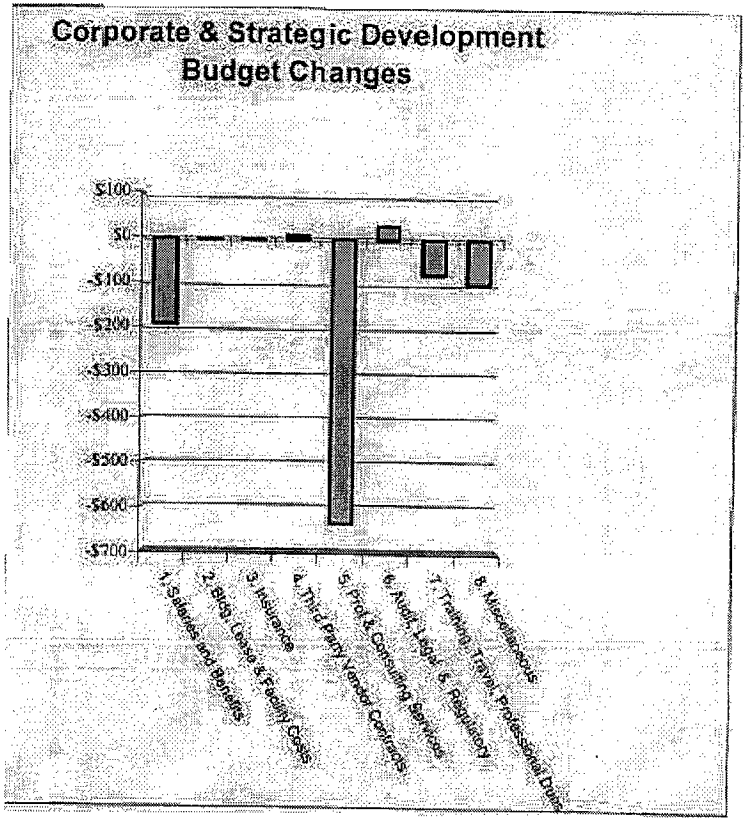
2004 Base Budget	$17,753,412
2004 Management Recommended Incremental / Decremental Programs	$108,160
Total Proposed 2004 Budget	$17,861,572
2003 Budget	$18,009,733



Section: 1800 Corporate & Strategic Development Division

FY2004 Budget Overview
$ in 000's





5. Consulting: Reduced consulting Expenses for Regulatory Policy Matters related to FERC SMD and SSG-WI efforts.

Divisional Budget Overview

1800 VP Corporate and Strategic Development

Rollup Overview

Division Description

Corporate and Strategic Development is an overhead department responsible for ensuring that both current and long-term initiatives conform to long-term objectives. Corporate and Strategic Development includes Corporate Communications, Strategic Development, Human Resources, Regulatory Policy and the Project Office. Collectively, Strategic Development, Regulatory Policy and the Project Office comprise the Policy Office. Corporate and Strategic Development is comprised of the following cost centers:

1811 VP, Corporate and Strategic Development
1821 Corporate Communications
1830 Policy Office (Roll up of Strategic Development, Regulatory Policy and Project Office)
1831 Strategic Development
1841 Human Resources
1851 Project Office
1861 Regulatory Policy

The Human Resources office is responsible for payroll, recruitment, employee retention, employee benefits and other activities. During this budget period, significant emphasis will be placed on the .

The Communications department is responsible for ensuring clear and consistent external (media) and internal communications. During this budget period, Communications' focus will be to provide clear and consistent messages regarding the implications of the market design changes in accordance with the FERC directives, rate structure and governance.

The Policy Office (Strategic Development, Regulatory Policy, and Project Office) is the focal point for articulating the long-term strategy of the CAISO and leading the development of CAISO policy positions that are consistent with the business and regulatory strategy. Their focus for 2004 will be MD02 market design issues, regional coordination, and establishing an integrated and comprehensive business planning process.

The Policy Office was created to ensure that the corporations daily activities were aligned with long-term objectives and strategies. In addition, the Policy Office was created to ensure that corporate-wide initiatives and projects appropriately reflect cross-functional objectives and concerns. The Policy Office should provide considered, steady policy guidance for daily operations as well as a foundation for responding to unexpected events and developments. In addition to leading the development of policy positions, the office will be active in ensuring that these positions are consistently communicated internally and externally in all forums (across CAISO departments, Board of Governors, regulatory and legislative environs, and engineering venues such as the WSCC, stakeholder forums).

Division Changes and Workload

Minor shifts in the organization have occurred since the development of the 2003 budget. For 2004, the Corporate and Strategic Development division contributing significant staff effort toward the successful implementation of the Market Design effort (MD02) while continuing their on-going responsibility.

Headcount will remain flat for 2004, and no organizational vacancies are anticipated.

Discussion of Management Recommended Budget

The management recommended budget of $8.1 million is a reduction from $9.1 million in 2003. The base budget

reflects the same core functions as the previous year. Corporate and Strategic Development has realized a net base budget savings of approximately 11% primarily by reducing consultant expenses, travel and training.

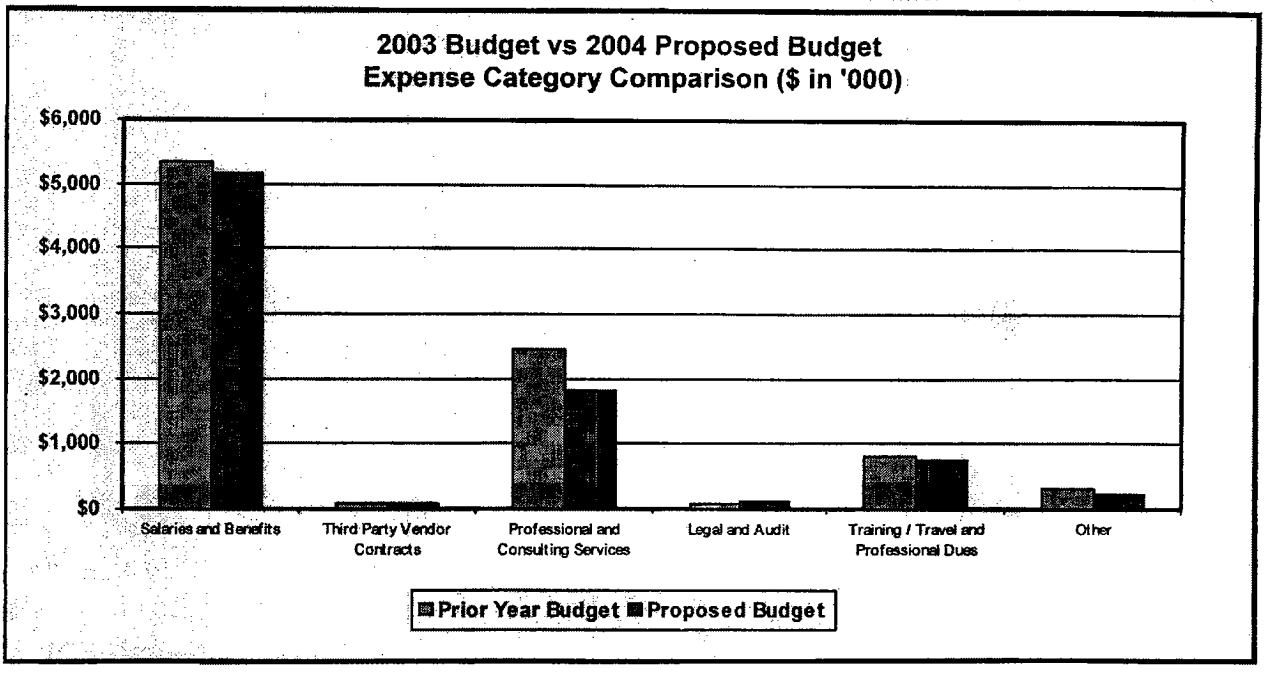
No incremental or decremental programs are proposed. Net reductions in budgetary expenses are reflected in the base budget proposal.

Staffing

Group		2003 Budget	2004 Base Budget	2004 Incremental	2004 Decremental	Total 2004 Mgmt Recommended Budget
1811	VP Corporate and Strategic Development - General	2	2	0	0	2
1821	Communications	4	4	0	0	4
1830	Regulatory Policy Group	11	11	0	0	11
1841	Human Resources	13	13	0	0	13
	Total	30	30	0	0	30

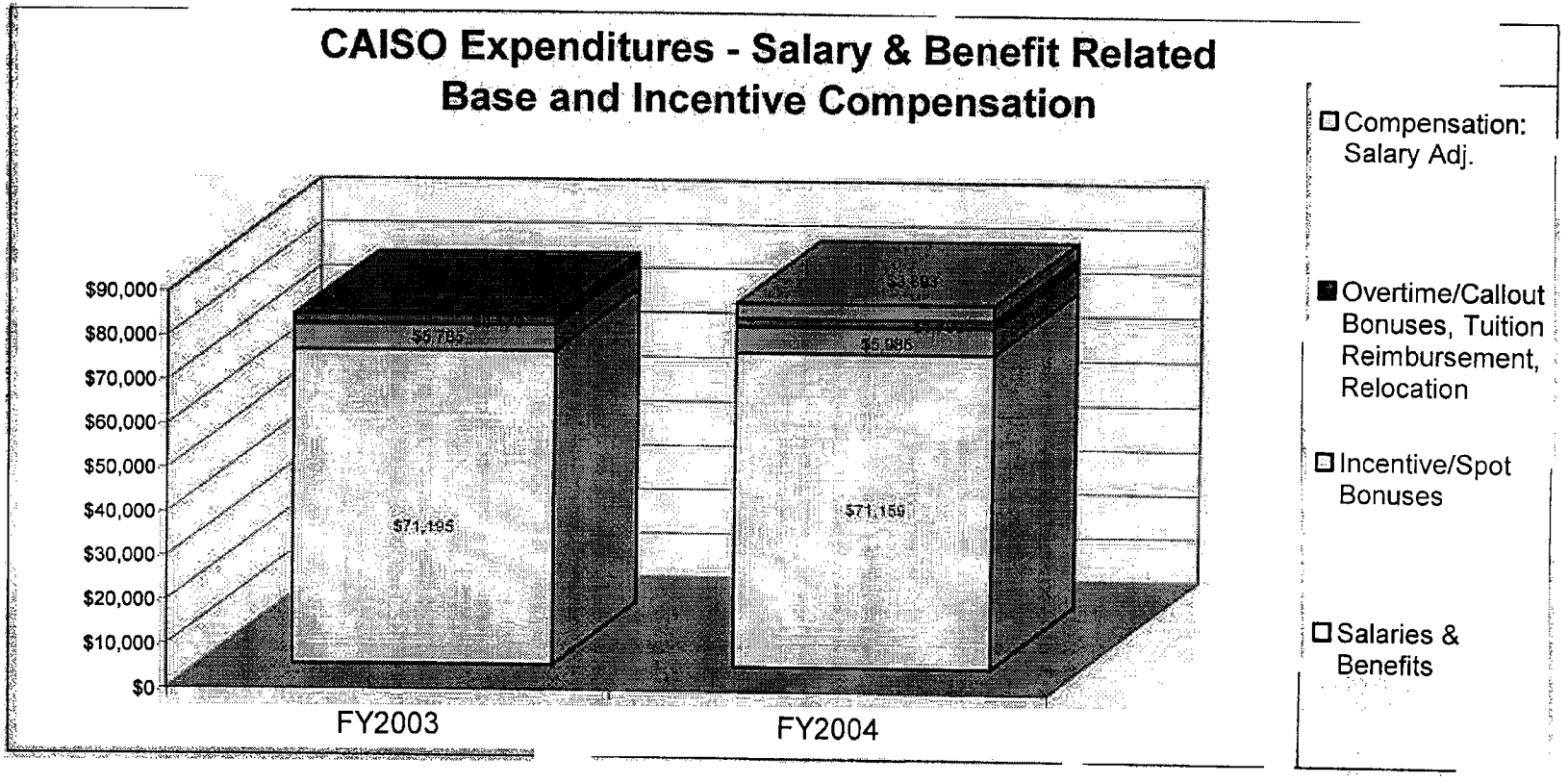
Operations and Maintenance Budget

2004 Base Budget	$8,090,754
2004 Management Recommended Incremental / Decremental Programs	$42,374
Total Proposed 2004 Budget	$8,133,128
2003 Budget	$9,093,453



Section: 2100 Salary Adjustments for 2004

FY2004 Budget Overview
$ in 000's



Exh. No. ISO- 36, Page 65 of 108

Divisional Budget Overview

2100 Other Group

Rollup Overview

Division Description

This Division exists for budgeting purposes only.

Division Changes and Workload

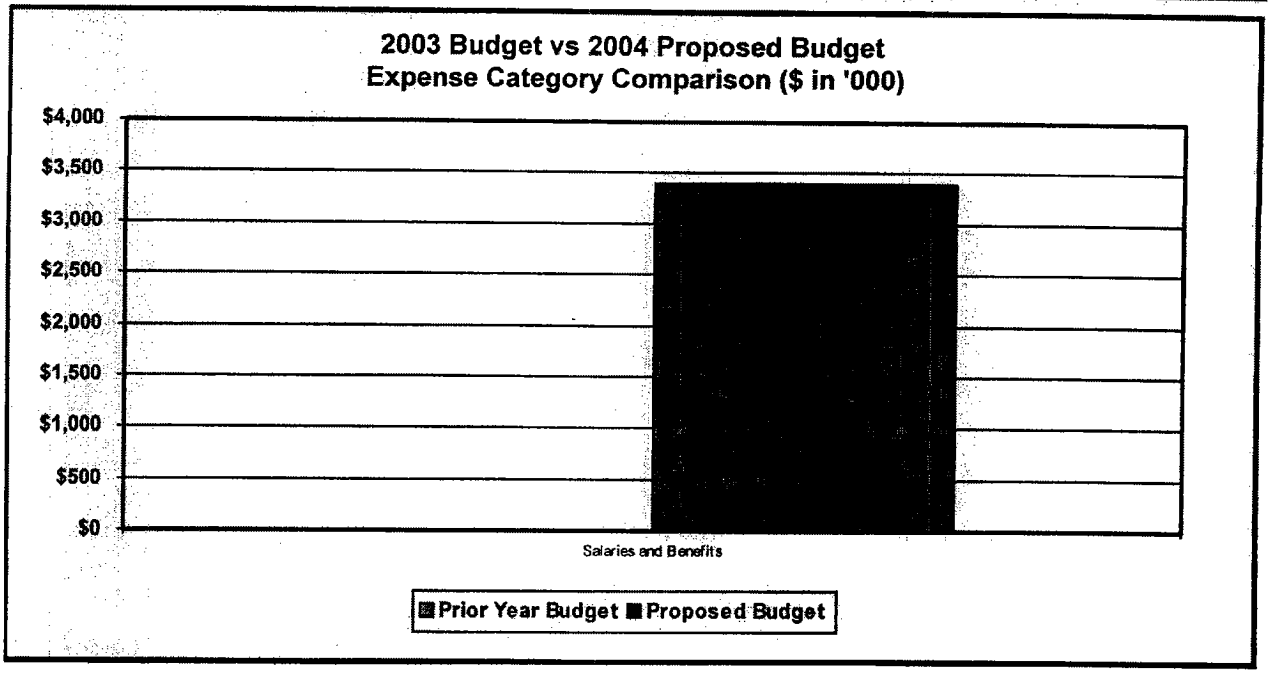
This Division exists for budgeting purposes only.

Discussion of Management Recommended Budget

This Division contains the funds related to staffing cost increases for the coming year.

Operations and Maintenance Budget

2004 Base Budget	$0
2004 Management Recommended Incremental / Decremental Programs	$3,393,412
Total Proposed 2004 Budget	$3,393,412
2003 Budget	$0



2111 Other

Departmental Description

This department exists for budgeting purposes only, and contains the funds related to changes in staff costs for the upcoming year.

Workload / Workload Changes Discussion

Management Recommended Budget Discussion

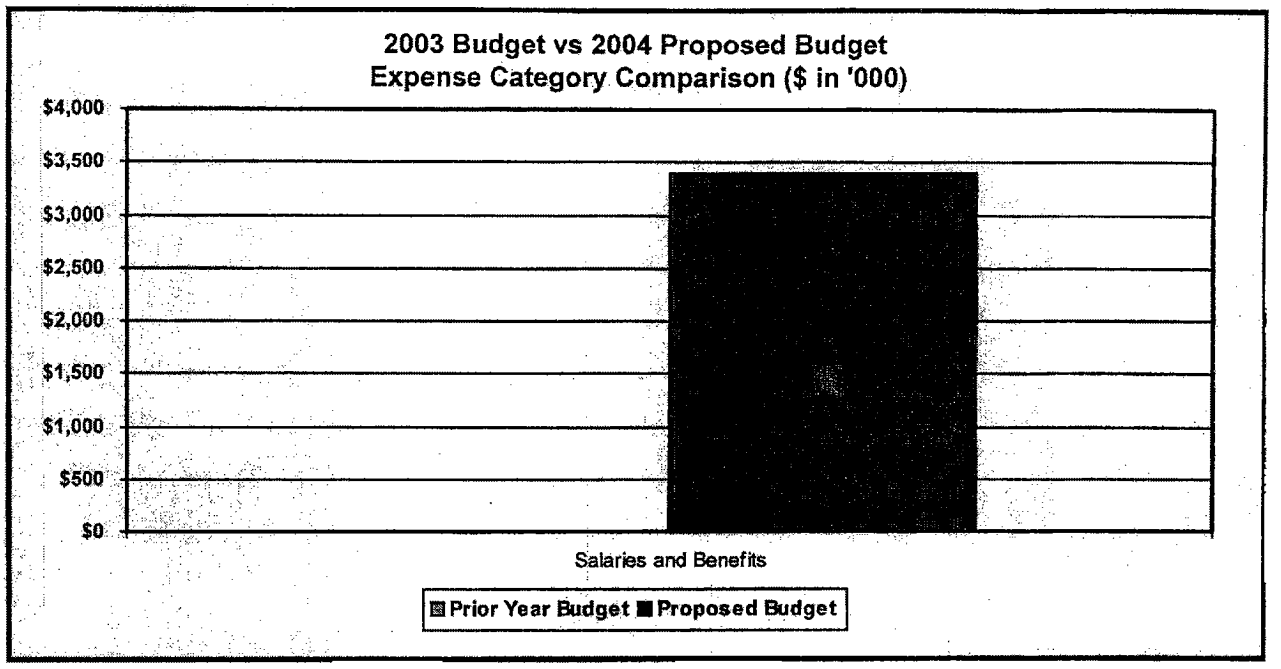
A total of 4.4% of 2004 compensation costs (excluding this item) is included here to fund employee merit pay increases, equity and other adjustments for 2003. The amount provides for a merit increase of 3.4%, plus a fund of 1% for other compensation related adjustments, including promotions, and equity adjustments (to align compensation among individuals within a job category). ISO Human Resources department retains the Hay Group as compensation consultants to determine an appropriate salary adjustment percentage annually. The recommendation is consistent with other sources, including Mercer Human Resource Consulting, and WorldatWork (a not-for-profit professional association for the compensation and benefits discipline.)

Operations and Maintenance Budget

2004 Base Budget	$0
2004 Management Recommended Incremental / Decremental Programs	$3,393,412
Total Proposed 2004 Budget	$3,393,412
2003 Budget	$0

Incremental/ Decremental Program Listing

	Program Name	Disposition	Amount	# Employees
Incremental - 1	Salary adjustments for 2004	Management Recommended	$3,393,412	
		Total	$3,393,412	


2003 Budget vs 2004 Proposed Budget
Expense Category Comparison ($ in '000)
$4,000
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
Salaries and Benefits
Prior Year Budget
Proposed Budget

X. FY2004 Capital Budget

The CAISO recommended 2004 Capital Budget is not yet finalized, but is currently projected to total $32 million. An intensive, interactive process, surveying ISO departments for potential capital projects and prioritizing projects continues. To date in this process, proposed projects were classified as priority 1, 2 and 3. Priority 1 projects were presented to the Project Steering Committee (the group responsible for reviewing all new projects at the ISO and recommending whether or not a project moves forward in the approval process to the Officers and the Board.) Priority 1 projects reviewed and initially recommended by this group totaled $14-16 million, and were later further prioritized to approximately $10 million. The $10 million in proposed funding for FY2004 for non-MD02 projects would fund a subset of Priority 1 projects listed on the subsequent pages. In addition, projected MD02 spending in 2004 will likely range from $17-25 million. Pending completion of an updated MD02 project plan, $22 million has been budgeted for MD02 in 2004. The recommended capital expenditure budget at this time is $32 million. While total expenditures could be further restricted, this will likely result in deferral of essential projects into 2005. An aggressive MD02 effort could accelerate 2004 investment to higher in the $30 million range. Management expects to finalize the recommended level prior to the September Board meeting.

The proposed capital budget will not be put forward as a request for approval of individual projects, but rather for approval as to an overall spending level. During FY2004, individual projects will be subjected to a review and approval process. In past years, the projects recommended for inclusion in the budget have not necessarily been the undertaken in the subsequent year. Priorities change, and projects are sometimes deferred. As in past years, Board approval is required for all projects proposed in excess of $1 million. Funding for the capital budget will come entirely from GMC revenues in 2004. The following pages contain additional detail on anticipated 2004 capital expenditures:

1. Exhibit: Table: 2004 Capital Budget-Indicative Project Listing
2. Exhibit: Detail regarding Priority 1 Capital Projects to be considered for funding from the 2004 Capital Budget

Effect of Capital Projects on the Revenue Requirement and Grid Management Charge

In past years, management has estimated that, as a rule of thumb, each dollar of capital expenditures has as much as a $.50 cent per year impact on subsequent year revenue requirements: $.25 for O&M[1], and an additional $.12 - $.25 for debt service costs. Unlike previous years, the 2004 capital expenditures will be funded directly from the GMC rates, and as a result, there is a dollar for dollar impact on the revenue requirement for that spending. Each dollar spent in the capital expenditure budget must be collected directly from the GMC.

Apart from the direct costs of the capital expenditures, O&M costs are typically necessary to support the capital spending. In 2004, these costs are anticipated to be significantly less than the rule of thumb of $.25 for every capital dollar spent, due to the nature and timing of the expenditures in 2004. Accordingly, only $2.63 million has been included in the O&M budget in FY2004 for these impacts.

Page #	Project ID	Project Name	Priority	Amount
		Corporate Applications and Hardware Support Systems		
70	014	Data Center Infrastructure	1	
71	124	Software - Server consolidations, system redesigns and new major project purchases	1	
72	173	Computer Direct Purchases	1	
73	175	Authentication Management Infrastructure	1	
74	198	Telephony Technology Pilot	1	
76	199	Private Branch Exchange (PBX) Replacement	1	
78	213	HR/Payroll System	1	
79	218	Enterprise storage solution	1	
80	219	Enterprise Testing Infrastructure	1	
81	221	Backup library replacement	1	
	104	Web Based Training Programs	2	
	134	Implement Corporate Library	2	
	177	Token-Based Authentication	2	
	187	Centralized Security Monitoring	2	
	188	Wireless Security Toolkit	2	
	212	Corporate Information Search, Categorization, and Retrieval System	2	
	220	Console Management Software	2	
	222	Backup software replacement	2	
	176	Enterprise Directory Services	3	
	179	Information Security Risk Analysis Software	3	
	202	On-Line Analytical Processing Functionality	3	
		Sub Total - Priority 1		$5,160,000.00
		Facilities/ Building Security		
82	013	Facilities Leasehold Improvements/Furniture Purchase	1	
83	128	Remodel 101 B Storage Area for Workstations	1	
84	216	Security Vehicle Replacement	1	
85	217	Access Control Enhancements	1	
	163	Re-design building 110 workstations	3	
		Sub Total - Priority 1		$150,000.00

Page #	Project ID	Project Name	Priority	Amount
		Main Operations Systems - Non MD02		
86	139	EMS Network Applications	1	
87	140	EMS Grid Operations Training Simulator (COTS)	1	
88	142	EMS AGC Tuning Tool	1	
89	160	EMS User Interface Upgrade	1	
90	172	Market Rules	1	
91	183	Accelerated or early market payments (Payment Acceleration)	1	
92	201	Must Offer Waiver	1	
93	203	Reference Price Calculation - Internal Calculation	1	
94	210	Upgrade Tie-Line Metering and Real-Time data	1	
	035	reserves	2	
	039	Price Response to Dynamic Demand	2	
	049	Develop Market Simulation Tools	2	
	141	EMS System Enhancements	2	
	168	The Communicator!	2	
	190	PI Process Template Upgrades	2	
	205	Market Operations O&I Implementation	2	
	033	Calculation of Ex-post GMMs	3	
		Sub Total - Priority 1		$3,990,000.00
		Operations Support Systems		
96	073	Oversight and Investigation	1	
98	191	Field Data Acquisition replacement Vehicles	1	
99	193	WAPA MSS	1	
100	200	RAVE Test & Development Server	1	
101	208	RAVE Fallback Server	1	
	206	Implementation of Additional MSS Agreements	2	
	209	RMR Secure Server	2	
	211	Dynamic System Monitoring	2	
	105	Grid Restoration tool for recovery from a Blackout	3	
		Sub Total - Priority 1		$700,000.00
		Total Funding for Non MD02 Projects Priority 1		$10,000,000.00
		MD02		
95	181	**MD02 Implementation Consolidated Projects**	1	$22,000,000.00
		Grand Total Proposed 2004 Capital Projects		$32,000,000.00

The $10 million in funding for non-MD02 projects would fund a subset of the projects denoted as priority "1"

DRAFT- For Discussion Purposes Only.

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Data Center Infrastructure

Reference Number 014 ***Priority*** 1 Essential

Overview

To meet infrastructure build out for raised floor, including the purchase of computer equipment racks and mount for system equipment, seismic bracing, under floor receptacles and rack mounted static switches.

Other - Issues

This project provides capital funds for data center infrastructure installations on projects that are O & M funded. No funds from this project will be used for installations on other projects with approved Capital funds. Direct allocation by manager.

Impacts if Project is Not Implemented

Approved projects will not be implemented or delayed

Expenditure Justification

CAISO infrastructure requirement

Continuation of started project

DRAFT - For Discussion Purposes Only

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Software - Server consolidations, system redesigns and new major project purchases

Reference Number 124 ***Priority*** 1 Essential

Overview

Third party software required to providing applications not covered under individual projects or expansion for growth (additional licenses) for applications currently used. Future needs are projected to include Veritas, Vitria, Compaq, and Talarian middleware providing support for the major production ISO application set.

This total capital request is made up of the following four attributes:

To support server/system consolidations,

To support the redesign/repurchase of software at end of life for both ISO owned and leased servers,

For non-project hardware and software purchases for all of FY2004.

Other - Issues

Business Impacts:
Software purchases are required for transactions described above to ensure compliance with license terms, continuation of programs, and operating existing leased and owned systems/ servers. It would also halt the installation and operation of software for our new, non-MD02 and end-of-life systems in FY2004. Allows for proper accounting by capitalizing computing software purchases consistent with ISO accounting guidelines.

O&M Impact will include initial and ongoing maintenance of approximately 30% or $231,000.

Impacts if Project is Not Implemented

If these software applications were not purchased support for the real-time production applications running the Markets and Scheduling activities may be impacted.

Expenditure Justification

CAISO infrastructure requirement

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Computer Direct Purchases

Reference Number 173 ***Priority*** 1 Essential

Overview

This proposed program for FY2004 will to allow the ISO to determine the best financial decision on its equipment acquisitions. Traditionally the ISO has determined that leasing equipment for a term of 3 years allowed for technology changes, determination of a steady-state for applications, and retention of capital funds. Currently each acquisition is evaluated for the best benefit for the ISO. If the decision is made to purchase this is the funding that will be required.

The proposed funds will provide:

1) For hardware purchases at end-of-lease (87 leases expire in 2004, including EMS and EMC Symmetrix.

2) For end-of-life projects and programs, where we already own the systems, (replacement of at least 15% of owned hardware)

3) For purchases of Non-MD02 hardware.

Other - Issues

Business Impact:
Hardware purchases are required for transactions described above to provide new, replacement, or modifications to existing IT platforms that support the applications to operate the Electricity Grid and Market. Without these funds the ISO could not go forward with replacement, modification, or operating existing leased and owned systems/ servers. Allows for proper accounting by capitalizing computing software purchases consistent with ISO accounting guidelines.

Business Benefit:
Provides funding for hardware based on the current corporate directive to buy assets where useful life exceeds 2-3 years.

Additional O&M impact could be approximately $3.6M for purchasing maintenance and support for purchased equipment.

Impacts if Project is Not Implemented

If Leasing activity continues, the cost effectiveness of IT investments decreases generating an increase in O&M costs.

Expenditure Justification

CAISO infrastructure requirement

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Authentication Management Infrastructure

Reference Number 175 ***Priority*** 1 Essential

Overview

AMI will provide the CAISO with a single "authentication gateway" to all target systems. AMI enables single password authentication, but does not provide Secure Single Sign-on (SSSO). Single password authentication allows users to use a single password across multiply application, however, the user must log in to each system, where SSSO means that you authenticate one time and your credentials are passed across multiple environments. AMI makes both end users and IT administrators more productive by providing users with transparent access to multiple applications while reducing help desk request for password resets. Studies show that cost associated with traditional authentication mechanisms (e.g. support necessary to get new passwords to absentminded users costs as much as $300.00 per year per employee).

Other - Issues

Additional O&M impact could be approximately $35K for purchasing maintenance and support for purchased equipment if needed.

Impacts if Project is Not Implemented

The impact of not doing this project will result in continued high cost associated with access management on systems, insufficient auditing of access to systems, less secure systems, and continued audit findings resulting from having to perform access management in a decentralized fashion.

Expenditure Justification

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Telephony Technology Pilot

Reference Number 198 ***Priority*** 1 Essential

Overview

The installed Siemens PBX is end of life, and expected to be at end of support within three to five years. The Rolm Phone handsets that are installed on CA ISO desktops are no longer manufactured. These handsets are only available through vendors that refurbish them. Toll charges for connectivity between the PBX's in Folsom 151, Folsom 110, and Alhambra are $120K annually. Maintenance of the PBX and execution of required Moves, Adds, and Changes (MACs) is $500K annually. Conference calling through the use of dedicated phone bridges costs $20K per month. These ongoing costs can be reduced, if not eliminated, through the implementation of IP telephony.

The Purpose of this request is to initiate pilot projects to test the integration and implementation of enhanced telephony services for CA ISO. The organization has three basic options for future telephony services: 1) purchase additional components to enhance the existing PBX, 2) migrate to a completely IP based platform, or 3) migrate to an integrated Private Communications Exchange (PCX). The pilot testing will provide the Network Services group with integration information that will assist in the develop of a migration plan for the replacement of the installed PBX. The following enhanced services and systems will be tested within the CA ISO environment:

IP Based System (PCX or server based Call Management Service)
Unified Messaging
IP phones / PC Based Phones
Toll Bypass over IP
Automated Personal Attendant
Conference Call Hosting
Integrated XML applications (software added to IP phones to support additional features such as displaying the email address book on the phone, etc...)
Centralized LAN and Telephony System Management

Other - Issues

Business Benefit: This project supports the corporate strategic direction and vision by helping to sustain high availability and reliability of key information systems. Additionally, the cost savings incurred as a result of the project will help to manage O&M spending within the budget of 157 million dollars. The intended replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO. There is a moderate risk of business impact during a migration from one technology to another, however this is mitigated by the maintenance of the existing PBX system during migration should there be a need to fall back. There will be economic benefits to this project as CA ISO begins to take advantage of a single infrastructure to support voice and data, reducing expenses by eliminating redundant systems and circuits. A pilot test of IP telephony services will help determine the best strategy for replacing the installed PBX system. Pilot testing will be part of the CA ISO SDLC process and will ensure the immediate involvement of all groups that will require participation in a telephony migration. In addition to financial benefits, the expected business benefit of an IP telephony system and enhanced telephony services are defined below. Unified Messaging - Email and voicemail become integrated, eliminating the need for a dedicated, proprietary phone mail system and it's associated management costs. Features include the ability for a CA ISO employee to preview all messages received without having to listen to all of them in succession. Additionally, a CA ISO employee would be able to call in to the messaging system and have email read to them by an automated attendant. Toll Bypass - Toll Bypass utilizes the existing IP network to connect calls between CA ISO facilities and bypass toll charges associated with long distance calls. This also allows for a smaller number of WAN circuits required for the Telephony system, reducing the circuit inventory and monthly circuit lease and management costs. Moves/Adds/Changes

for IP Phones and soft phones - IP based phones can be moved and plugged into any network connection without system configuration activities. The existing telephony system requires approximately 20 minutes of system configuration activities per phone moved. Conference Call Hosting - Conference Call Hosting allows the CA ISO to host conference calls within the phone system, eliminating the need to outsource this service. Currently, outsourced conference call hosting costs the CA ISO 20K a month. A conference call hosting system large enough to support the CA ISO will cost 60-80K as a one time cost. Cable System and Management - IP based Systems use the existing LAN cabling infrastructure, eliminating the need for a dedicated cable infrastructure for the Telephony system. End User productivity - IP telephony industry audits report up to 10% increased productivity in call processing. Centralized LAN and Telephony System Management - Existing LAN management tools can be used to manage the IP telephony system, eliminating the need for dedicated telephony system management software and hardware (approximately 50K year). Single support staff for IP telephony system and LAN - The existing CA ISO Network Service staff can be leveraged to support an IP telephony system with minimal training. IP based telephony systems utilize existing LAN based technologies for phone call routing. This would eliminate the need for outsourced Telephony system management. Pilot test hardware and software - Once testing is completed, and a direction determined, most piloted hardware and software can be deployed as part of the overall solution.

Impacts if Project is Not Implemented

The intended replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Private Branch Exchange (PBX) Replacement

Reference Number 199 ***Priority*** 1 Essential

Overview

The installed Siemens PBX is end of life, and expected to be at end of support within three to five years. The Rolm Phone handsets that are installed on CA ISO desktops are no longer manufactured. These handsets are only available through vendors that refurbish them. Toll charges for connectivity between the PBX's in Folsom 151, Folsom 110, and Alhambra are $120K annually. Maintenance of the PBX and execution of required Moves, Adds, and Changes (MACs) is $500K annually. Conference calling through the use of dedicated phone bridges costs $20K per month. These ongoing costs can be reduced, if not eliminated, through the implementation of IP telephony.

The Purpose of this project is to replace the installed Siemens PBX's in Folsom and Alhambra. The following enhanced services and systems will be implemented within the CA ISO environment:

IP Based System (PCX or server based Call Management Service)
Unified Messaging
IP phones / PC Based Phones
Toll Bypass over IP
Automated Personal Attendant
Conference Call Hosting
Integrated XML applications (software added to IP phones to support additional features such as displaying the email address book on the phone, etc...)
Centralized LAN and Telephony System Management

Other - Issues

Business Benefit: This project supports the corporate strategic direction and vision by helping to sustain high availability and reliability of key information systems. Additionally, the cost savings incurred as a result of the project will help to manage O&M spending within the budget of 157 million dollars. The replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO. There is a moderate risk of business impact during a migration from one technology to another, however this is mitigated by the maintenance of the existing PBX system during migration should there be a need to fall back. There will be economic benefits to this project as CA ISO begins to take advantage of a single infrastructure to support voice and data, reducing expenses by eliminating redundant systems and circuits. In addition to financial benefits, the expected business benefit of an IP telephony system and enhanced telephony services are defined below. Unified Messaging - Email and voicemail become integrated, eliminating the need for a dedicated, proprietary phone mail system and it's associated management costs. Features include the ability for a CA ISO employee to preview all messages received without having to listen to all of them in succession. Additionally, a CA ISO employee would be able to call in to the messaging system and have email read to them by an automated attendant. Toll Bypass - Toll Bypass utilizes the existing IP network to connect calls between CA ISO facilities and bypass toll charges associated with long distance calls. This also allows for a smaller number of WAN circuits required for the Telephony system, reducing the circuit inventory and monthly circuit lease and management costs. Moves/Adds/Changes for IP Phones and soft phones - IP based phones can be moved and plugged into any network connection without system configuration activities. The existing telephony system requires approximately 20 minutes of system configuration activities per phone moved. Conference Call Hosting - Conference Call Hosting allows the CA ISO to host conference calls within the phone system, eliminating the need to outsource this service. Currently, outsourced conference call hosting costs the CA ISO 20K a month. A conference call hosting system large enough to support the CA ISO will cost 60-80K as a one time cost. Cable System and Management - IP based Systems use the existing LAN cabling infrastructure, eliminating the need for a dedicated cable infrastructure for the Telephony system. End User productivity - IP telephony industry

2004 Proposed Capital Projects

audits report up to 10% increased productivity in call processing. Centralized LAN and Telephony System Management - Existing LAN management tools can be used to manage the IP telephony system, eliminating the need for dedicated telephony system management software and hardware (approximately 50K year). Single support staff for IP telephony system and LAN - The existing CA ISO Network Service staff can be leveraged to support an IP telephony system with minimal training. IP based telephony systems utilize existing LAN based technologies for phone call routing. This would eliminate the need for outsourced Telephony system management.

Impacts if Project is Not Implemented

The intended replacement of this end of life system mitigates the possibility of a catastrophic failure of the PBX and/or voicemail system that could seriously impact the business functions of CA ISO.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name HR/Payroll System

Reference Number 213 ***Priority*** 1 Essential

Overview

In 2003, the ISO under took a project to implement Oracle Human Resources Management System and to outsource payroll to Ceridian. That project is on budget and on schedule to implement in the 4th Quarter of 2003. We are requesting additional funding to complete the Benefits implementation and the Recruiting and Training modules in Oracle. The benefits carriers were not able to meet our aggressive schedule for implementing electronic interfaces. All file transfers for enrollments, and changes on a monthly basis are manual today. Certifications are also manual. The Recruitment and Training modules we purchased in 2003 have not been implemented. The "iRecruiting" module allows us to date track and audit our hiring processes. This enables us to be in compliance with federal EEO reporting guidelines. In addition, EEO and other employment investigations routinely depend on accurate, auditable hiring process. Today, our hiring process is completely manual. The "iLearning" module in Oracle will also give us the ability to track & report on employee training as well as provide training certifications and the platform for web-based content delivery. This will replace the "Power to Learn" system used today.

No additional hardware or software is required for this project. The software licenses were purchased with the Oracle HRMS suite in 2003. Implementation services is all that is required.

Other - Issues

Impacts if Project is Not Implemented

Due to the aggressive nature of our timeline, we were not able to include all of the necessary Life Events in Benefits Phase I. A typical benefits implementation takes 8 to 12 months and we are doing it in 4 months. Additional Life Events still need to implemented into Benefits Self Service during Phase II . Examples include, Adding a child, Adding a spouse, Divorce, and Children aging out of benefits coverage. These changes are manual and will continue to be manual unless we implement Phase II.

Benefits will have to provide manual interfaces to all of our carriers. Certifications will be manual. Requires more clerical support in benefits. Employees will not be able to take advantage of the Self Service features. Employment related investigations will continue to be manual paper trail, open to dispute and interpretation.

Implementing iRecruitment give a the competitive edge we will need to attract and quickly identify and hire talent when we need it. We will have the ability to maintain a database of qualified candidates. The iLearning module gives us the ability to retain our employees by providing the training tools they need to keep their skills sharp and support their continued growth and development.

Expenditure Justification

Continuation of started project

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Enterprise storage solution

Reference Number 218 ***Priority*** 1 Essential

Overview

Replace by returning the EMC Symmetrix 3930s, 3830s, and 8830s at end of lease in 2004. Return the EMC Clarion 4700 and consolidate it with the soon to be purchased EMC Clarion CSX600s. Purchase a new storage solution to replace all the Symmetrix frames and migrate all data to the new storage.
Business Problem:
The lease for our enterprise storage solution will expire on 10/04. In addition, the capacity of our existing EMC solution is projected to be exceeded prior to the lease expiration. The alternatives are to buy-out the existing equipment and purchase additional storage or replace it with a new solution that provides enough scalability for the next 3 years.
Business Impact:
Not addressing the projected capacity issues would affect the reliability of our mission critical systems, impair our ability to store historical data and cause potential delays to Phase II MD02 projects.

Other - Issues

Business Benefit:
It is expected that the new solution will lower our storage costs over a 3-year period while providing enough scalability for the following 3 years. In addition, this solution would reduce existing computer space and power requirements

Maintenance for 3 years is estimated at: $600,000.

Impacts if Project is Not Implemented

With the lease expiring in 10/04, we have to make some decision. We can buy out equipment at estimated $855K, or continue lease with O & M impacts, not determined at this time. However, doesn't appear that there would be enough storage under this solution.

Expenditure Justification

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

Grid reliability

MD02/system redesign

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Enterprise Testing Infrastructure

Reference Number 219 ***Priority*** 1 Essential

Overview

Buy or relocate existing equipment to fill the gaps in staging, testing, development environments to comply with our Enterprise Testing Strategy which bases the number of environments required for a specific subsystem on its criticality and availability requirements as well as whether is internally developed or not. Server consolidation will be applied where possible to reduce costs. This infrastructure does not include testing environments for MD02 Phase II and III projects as these will be budgeted through MD02.
Business Problem:
Many application subsystems do not have appropriate testing infrastructure to ensure application upgrades and patches are tested according to best practices and our recently developed Enterprise Testing Strategy. This strategy calls for four separate environments for our core mission critical applications: production, staging, test and development. The subsystems affected are: SCED, SI, BITS, ADS, SLIC, and GRRMA.

Other - Issues

Business Benefit:
Increased reliability of our systems. Enhanced quality controls. Improved customer satisfaction. Reduced ongoing support.

Impacts if Project is Not Implemented

Without this testing infrastructure, existing SLAs for availability may not be met due to performance, availability, and application issues not captured through the code promotion process practiced to date in today's testing environment. Market simulation may not be feasible or could suffer due to multiple testing scheduling conflicts.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Corporate Applications and Hardware Support Systems

Project Name Backup library replacement

Reference Number 221 ***Priority*** 1 Essential

Overview

Return the existing ATL libraries ,both in Folsom and Alhambra, and replace it with a new solution with higher capacity and faster drives. New solution would enable the coexistence of new and old drives to ensure backward compatibility.

The lease for our enterprise backup solution in Folsom will expire on 8/04. In addition, its capacity is projected to be exceeded prior to the lease expiration due to new testing environments, MD02 projects, and normal growth. The alternatives are to buy-out the existing equipment and purchase additional backup drives or replace it with a new solution that provides enough scalability for the next 3 years and higher performance.

Other - Issues

Business Benefit:
Backup windows would be maintained or reduced, higher capacity would ensure adequate resources for the following 3 years, lower cost of ownership over a 3 year period. Will ensure solutions in both Folsom and Alhambra are compatible.

Impacts if Project is Not Implemented

Not addressing the projected capacity issues would prevent us from meeting our SLAs. It would also increase our backup windows and force us to backup during high periods of activity causing a performance degradation of our critical systems. In addition, our ability to restore data would be greatly compromised.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Facilities

Project Name Facilities Leasehold Improvements/Furniture Purchase

Reference Number 013 ***Priority*** 1 Essential

Overview

Provide for various leasehold improvement projects and furniture requirements, as needed, to support ISO staff residing in our Folsom and Alhambra locations. The projects include 1) Ergonomic chair purchases, 2) Workstation enhancements 3) Filing Cabinets 4) Active sound masking for open office area 151 5) misc. installations for small projects

Other - Issues

Impacts if Project is Not Implemented

Operational efficiency, employee safety and/ or reliability will be impaired if needed improvements are not made to the physical facility as needed.

Expenditure Justification

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Facilities

Project Name Remodel 101 B Storage Area for Workstations

Reference Number 128 ***Priority*** 1 Essential

Overview

Build out the rest of the 101B space. The remodeled space would be used for workstations to support additional personnel. This would add about 60 workstations.

Other - Issues

Additional Janitorial and maintenance would be required. Also storage would also cost more.

Impacts if Project is Not Implemented

Expenditure Justification

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Facilities

Project Name Securtiy Patrol Vehicle Replacement

Reference Number 216 ***Priority*** 1 Essential

Overview

Replace security patrol vehicle

The existing security patrol vehicle has logged over 60,000 miles in the last two years. The miles were accumulated patrolling the 1.2 mile perimeter loop around the ISO campus. This type of short length, stop and goal driving his very rough on the vehicle. Maintenance costs are increasing and availability and reliability have been significantly diminished. The patrol vehicle allows a single officer to cover an area that would normally require a total of 3 officers. The costs of two additional shifts of security officers would run about $275 annually.

Other - Issues

Impacts if Project is Not Implemented

The lack of any type of exterior perimeter controls presents numerous physical security challenges. Given the open nature of the ISO campus the only effective method for providing a secure perimeter is by utilizing manned patrols. The lack of these patrols would significantly downgrade the ISO's level of protection and security.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Facilities

Project Name Access Control Enhancements

Reference Number 217 ***Priority*** 1 Essential

Overview

Installation of "revolving type doors" on critical entry points to main ISO facility and "hardening" of main ISO reception area.

The open nature of the ISO campus and lack of any type of positive controls present numerous physical security challenges. The ISO has been identified by several agencies and reports as being a "critical facility". The ability to provide highly effective access control measures is extremely. The current access control configuration has been in place since start-up and does not address the increased threat environment or elevated access control requirements. "Tailgating" or the practice of allowing more than one person to enter critical ISO facilities on one "badge swipe" is an ongoing problem. While this is considered a minor security infraction when committed by two authorized individuals, there is nothing to prevent "tailgating" by an unauthorized person with less than noble intentions. Additionally, these security measures were incorporated into the design of the "new campus". There is nothing that decreases their necessity at the current facility.

Other - Issues

Impacts if Project is Not Implemented

The installation of revolving type doors with "badge in and out" affords a major increase in access control for a high traffic, critical ISO operation. The inability to complete this project allows an identified security vulnerability to remain unaddressed.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS Network Applications

Reference Number 139 ***Priority*** 1 Essential

Overview

To provide funding for changes identified in 2004 as the Network Application systems become Production ready.

The Network Application system that is being implemented as part of EMS phase 2 has many new attributes that were developed by ABB specifically for CAISO. It is anticipated that over the course of the next few years, enhancements and incremental changes will need to be accomplished for the many users of the Real Time State Estimator, Outage Scheduler, Power Flow etc. applications within this are of the EMS. Some of these immediate needs may be addressed within MDO2 design but others will be unique to the Net Apps functionality.

Other - Issues

The Network Application system will have a great impact on our organization as we begin to rely on its functions in 2004. It is expected we will discover required functionality to help maintain the system. There are many discussions on what parts of data are required from other potential systems (SLIC, TR, TCOS etc.). Although some may be included in the MD02 effort there is expected to needs exposed by the realities of maintaining the data and changes.

Network Applications is a huge effort that will expand into many areas of value to our organization. New discussions ranging from settlements using State Estimator data to create billing to Market issues, changes in how we run the system etc. The maintenance of the real time system will include Outage, Grid Ops, Operations Engineering, Market Ops, EMS and Data Acquisition groups.

We anticipate there will be required changes that, although not yet specific, will require medium levels of effort with our ABB vendor to develop, test and implement. To identify and resolve functions within the Network Applications area that help with the administration and upkeep of data will be a big benefit to the impact this system will have with its supporting staff.

Impacts if Project is Not Implemented

Specific Impacts are unknown at this time. Depending on the next years changes in Operations, Security Coordinators, OE requirements; impacts of not budgeting for potential changes could be significant.

Expenditure Justification

Grid reliability

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS Grid Operations Training Simulator (GOTS)

Reference Number 140 ***Priority*** 1 Essential

Overview

Provide the recognized budget to plan for changes with the GOTS system as our use and reliance on this tool begins to grow. The expectation is that we will have to make functional changes to compensate for the lack of a Market Simulator as well new functions required to complete real time operators training.

The Grid Operations Training Simulator system that is being implemented as part of EMS phase 2 has many new attributes that were developed by ABB specifically for CAISO. It is anticipated that over the course of the next few years, enhancements and incremental changes will need to be accomplished for the many users in support Real Time Operations and OSAT. This PIR is for funds in 2004 to address the anticipated changes required as OSAT begins full use of the Grid Operations Training Simulator in earnest.
Business Impact:
To realize the full use of the Training Simulator will require us to provide incremental code changes to emerging criteria to bring our simulator to as close to our real time operations as possible.

Other - Issues

Business Benefit:
The value of the GOTS in general is expected to be extremely high in advanced training of our Grid Operations workforce. Many attributes were accounted for such as play back of real disturbance events from PI, ability to set up a variety of scenarios, tracking operators actions with the GOTS PI system etc.

Impacts if Project is Not Implemented

Specific Impacts are unknown at this time. Depending on the next years experiences of beginning the training programs on the GOTS system there could be small to large changes requested.

Expenditure Justification

Grid reliability

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS AGC Tuning Tool

Reference Number 142 ***Priority*** 1 Essential

Overview

This is a proposed project to develop an automatic tuning and testing system within EMS.

Currently, Generating units providing AGC functionality are tested once, then certified and allowed to participate in the market. There are many tuning parameters in the EMS system to maximize each units performance and contribution to optimizing the grid performance as a whole. Also there is a need for Real Time Operations to test units in an ad hoc manner to ensure they comply with their bids and capacity. This is a proposed project to develop an automatic tuning and testing system within EMS.

Business Impact:
This tool would be used by EMS staff to individually tune both the units response to control signals as well as set up parameters within AGC specific to each generators characteristics. It would also be used by OSAT in the Certification of units (AGC as well as Spin) in an automatic mode. Real Time Operations would periodically use it to verify units ability to provide the Ancillary Service they bid.

Other - Issues

Business Benefit: The value of this project would be in several areas. To have a standard testing system that allows the generators to be tuned to the same criteria would be a great benefit. The EMS teams initial tuning would be enhanced. The certification testing would also be standardized and allow OSAT personnel to run the testing all from the same format. Additionally, any questionable unit could be ad hoc tested to validate performance degradation away from their certification performance.

A potential exists to partner with another client of ABB's that is interested in this same function. Commonwealth Edison is discussing this as well as other enhancement issues with us.

Impacts if Project is Not Implemented

The time and effort tuning units in a manual mode takes is impact both on EMS staff as well as Generating plant personnel. This would be considered an enhancement and not directly an impact to Operations other than not realizing a performance gain in grid operations.

Expenditure Justification

Grid reliability

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name EMS User Interface Upgrade

Reference Number 160 ***Priority*** 1 Essential

Overview

This project will be to replace our EMS User Interface workstations from the HP DS10 devices we are currently running with Windows workstations. There will be a software upgrade to Release 2004 that includes all the necessary functionality. The work will be done primarily by ABB Network Management along with the EMS and other IS staff.

The majority of shortcomings in the Ranger system have been in their current HMI implementation. The Ranger EMS implementation project has anticipated that the vendor will make significant improvements in their HMI software shortly after ISO's implementation. The new HMI software has been scheduled for release in September of 2003, which presents an opportunity for CALISO to address the current HMI shortcomings. The HMI project will also provide a hardware opportunity where 45 DS10"s and 18 MMC's are coming up on their lease refresh date (March 2004). Rather than refresh we will be purchasing/leasing new hardware to replace the DS10's and MMC's are a retired concept.

Other - Issues

The schedule for March to take advantage of the hardware opportunity appears too aggressive for the vendor. They are working to provide us an alternative plan that includes a combined partnership with HP on a strategy to keep us hardware neutral.

The change with the HMI is to a Windows environment that has many features unavailable in our current True 64 environment. Attributes such as data replay, ad hoc trending, exporting data locally to a .csv file (excel), messaging etc. plus the extremely upgraded look and feel of the interface all have great appeal to the Operations groups.

Impacts if Project is Not Implemented

Operations has concerns with the User Interface and the lack of functionality they have had to live with since Ranger was implemented. They continue to develop PI into a real time solution to make up the gaps however PI as a real time tool is problematic (core function as an archive tool). Additionally, there are concerns with the stability of the platform as our system exceeds 16,000 individual displays. We are by far the largest display numbers customer this vendor has ever had. We continually find areas of performance with regards to display issues. All of these issues are removed with the new HMI.

Expenditure Justification

Grid reliability

Supports corporate goal/strategic plan

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Market Rules

Reference Number 172 ***Priority*** 1 Essential

Overview

Implement market rules as directed by FERC or requested of FERC. This is a blanket project to cover unforeseen but reasonably expected costs associated with the implementation of required changes. These funds would primarily be used to modify market operations core software as well as the post-processing tools used by Market Quality.

Other - Issues

In absence of these funds being available in the event that they are needed, substantial O&M impacts would result.

Impacts if Project is Not Implemented

In the event this project is not initiated, there will be an inability to comply with mandated orders if capital dollars are not available for this project.

Expenditure Justification

Market-savings/efficiency/accuracy/analysis

FERC/NERC/WECC mandate

Market participant request/mandate/requirement

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Accelerated or early market payments (Payment Acceleration)

Reference Number 183 ***Priority*** 1 Essential

Overview

The payment acceleration project is a project designed to reduce the period of time in which payments are outstanding from between 70 - 90 days to approximately 45 days. In order to successfully implement payment acceleration, measurement file data must be compiled, analyzed and validated, and the settlement system must be upgraded to handle moving the settlement calculation, statement and invoice distribution dates substantially closer to the actual trade date. The project will include the following scope:

1. Creation of the "Measurement File Development Tool" - This tool will compile Generation, Load and Intertie MWh data from various places (such as MDAS, Data Warehouse, SI, State Estimator, SCs and PI). The MWh data will be analyzed and verified as to its level of accuracy, and then it will store the data for settlement calculations.

2. Settlement System Upgrades - Upgrades to the current settlement system include: 1. Moving the existing prelim invoicing up to the 15th of the month, 2. Importing the measurement file into settlements, 3. Providing an additional preliminary and final statement to SCs and 4. Moving the final invoicing further back to 90 or 120 days.

Other - Issues

Implementation of this project will have the added benefit of facilitating estimated aggregate liability calculations, which directly affects the amount of financial security participants have to post with the ISO. Successful project implementation will include moving the preliminary statements and invoice closer to the trade date. No substantial impact on O/M costs is expected. This project assumes O&M support from Compliance, Market Operations, Market Quality, FDA, Settlement System Support and Settlements departments.

Impacts if Project is Not Implemented

If the project is not implemented, then the ISO will continue to encounter the following:
1. Participant credit worthiness issues,
2. Market liquidity problems,
3. Utilization of settlement practices that are not considered best practices compared to other ISOs, and
4. Complaints from Scheduling Coordinators about the lengthy payment cycle.

Expenditure Justification

Market-savings/efficiency/accuracy/analysis

Supports corporate goal/strategic plan

Grid reliability

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Must Offer Waiver

Reference Number 201 ***Priority*** 1 Essential

Overview

This program will replace the first come-first served Must Offer Waiver process with an automated transmission constrained unit commitment application.

Other - Issues

Implementation of this program will increase market efficiency and will lower costs to the market as a result of using economic criteria in unit commitment.

Impacts if Project is Not Implemented

Absence of this program would require continued reliance on current practice of first come-first served and operator judgment in revoking Must Offer Waivers. Additionally, the ISO will continue to be exposed to the consequences of a non-uniform process of committing resources under the Must Offer Requirement.

Expenditure Justification

Market-savings/efficiency/accuracy/analysis

Grid reliability

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Reference Price Calculation - Internal Calculation

Reference Number 203 ***Priority*** 1 Essential

Overview

This project encompasses the costs associated with the development of an application that will internally calculating reference pricing so that the ISO could eliminate the annual subscription costs for Potomac Economics, as proposed in a decremental O&M program for 2004.

Other - Issues

None.

Impacts if Project is Not Implemented

The impacts to the O&M budget will be a progressively increasing cost for subscription expenses for Potomac Economics. This project is contingent upon the acceptance of the proposed decremental program in CC 1751

Expenditure Justification

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Main Operations Systems - Non MD02

Project Name Upgrade Tie-Line Metering and Real-Time data

Reference Number 210 ***Priority*** 1 Essential

Overview

Review the accuracy of Tie-Line data from each of the 32 points of interconnection. Upgrade the metering systems where major data accuracy and reliability problems are evident. Insure the 4 second data transmitted to the EMS can be integrated to same hour energy data number used for revenue metering and inadvertent energy calculations and the automatic payback system. Upgrade the communications links to these metering locations so the data is DIRECTLY transmitted to the CAISO. This will eliminate some of the points of failure from the availability of a direct link instead of having the data pass through the PTO's system and the ICCP links. The data would still be transmitted to the PTO's and the adjacent control areas but the ISO will finally have a direct link to the data.

Other - Issues

Impacts if Project is Not Implemented

Reliability problems when we have bad data or no data on tie-line flows. The ACE calculation is directly affected by the accuracy and availability of this data. The State Estimator model is directly impacted by this data . When the PTO systems fail, we are missing data on many tie lines, not just one or two. There are potential financial impacts due to inaccurate billing and settlement of inadvertent energy payback accounts.

Expenditure Justification

CAISO infrastructure requirement

2004 Proposed Capital Projects

Category MD02

Project Name MD02 Implementation Costs

Reference Number 181 ***Priority*** 1 Essential

Overview

2004 sections of ISO Market Redesign that will impact the following areas.
Integrated Forward Energy Markets (IFM)
AMP Mods 2
Settlements and Market Financial System Replacement
Compliance Mod 2
Residual Unit Commitment (RUC) -
Load Forecast Augmentation -
Market Transactions System (MTS)
LMP Studies -
Locational Marginal Pricing (LMP) using Full Network Model (FNM)
DMA Mods
Meter Data Acquisition System (MDAS)
Energy Management System (EMS)
Congestion Revenue Rights (CRR)
Scheduling Infrastructure Graphical User Interface (SIGUI)
Master File Re-Design (MFRD)

Other - Issues

Impacts if Project is Not Implemented

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name Oversight and Investigation

Reference Number 073 ***Priority*** 1 Essential

Overview

Efficient and effective implementation of the O&I program will require development of several automated systems, including: (1) an incident and investigation tracking system, (2) various monitoring systems, (3) various penalty administration systems, (4) a regulatory server system, and (5) an Information Release Program System. Implementation will utilize the CAISO architecture and application framework. Implementation of the of penalty programs will be an extension of Compliance Systems (CAP) This PIR will investigate and recommend a solution for the regulatory server system and incident and investigation tracking system.

Business Problem:
ISO is required to implement the Oversight & Investigation (O&I) proposal approved by ISO Board on January 23, 2003. The O & I filling is concurrent with MD02. The O&I proposal is comprised of several components including: (1) a proposed Enforcement Protocol, which will be an amendment to the ISO Tariff, that is comprised of various "Market Rules" and associated penalties; (2) a "Regulatory Server," with which the ISO would share market information with regulatory and enforcement agencies; and (3) the Information Release Program, which is comprised of the ISO publishing Market Participant performance information on the ISO web site. The ISO will implement the Enforcement Protocol and the Regulatory Server after receiving FERC approval of the O&I proposal Tariff amendments - this approval is anticipated by late September 2003. The ISO is currently implementing the Information Release Program.
This estimate includes changes to the settlement system.

Other - Issues

Business Impact:
Implementation of O & I and MD02 will require additional resources in Compliance. MD02 and O & I will cause a need for an increase in FTE's in Compliance in order to support the new production work.
Implementation of the Enforcement Protocol will require tracking numerous incidents, screening them for potential tariff violations, and conducting in-depth investigations of potential tariff violations. All of these steps will require extensive documentaion. Implementation of the Enforcement Protocol will also include administration of more than a dozen different penalties, all with different penalty amounts and billing determinants. The ISO will need to determine penalty amounts based on numerous predetermined penalty determination factors and consistently apply them to all instances. Penalty descriptions and amounts need to be transmitted to the Settlement system to be included on Settlement Statements. Administration of several of the penalties will entail extensive monitoring of market activities including comparing scheduled load to metered load and evaluating schedules to determine whether they are "circular." The regulatory server will entail providing extensive market information in a format that outside agencies can understand and properly interpret in a secure manner. As the information the ISO will provide on the regulatory server will potentially be used for litigation, the ISO must be able to reproduce and verify the information on it. The Information Release Program involves extensive analysis and reporting on Market Participant Performance regarding ancillary services performance, scheduling accuracy, and penalties incurred.
Business Benefit:
Implementation of O & I will benefit the CAISO, Market Participants and California Consumers. The O & I program is designed to bring stability and fair market prices to the California electrical market. Implementation of O & I reduces risk from the market by making governing rules transparent
Other:
Implementation of O & I and MD02 will require additional resources in Compliance. MD02 and O & I will cause a need for an increase in FTE's in Compliance in order to support the new production work.

Impacts if Project is Not Implemented

2004 Proposed Capital Projects

Compliance will not be able to develop the necessary programs that are needed to monitor the compliance with the tariff and implement FERC orders

Expenditure Justification

MD02/system redesign

FERC/NERC/WECC mandate

Market-savings/efficiency/accuracy/analysis

Supports corporate goal/strategic plan

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name Field Data Acquisition replacement Vehicles

Reference Number 191 ***Priority*** 1 Essential

Overview

Replacement of the two 1997 CA-ISO vehicles in Alhambra with newer models. The current vehicles have high mileage and are a risk of maintenance failures while our field engineering staff metering, RIG's etc) at remote locations.

The vehicle replacement will ensure the ability of the Field Data Acquisition group to perform Metering field audits and perform assistance to RIG and DPG real-time ISO generation SCADA device project and maintenance personnel. RIG and DPG site project meetings are required during the installation and commissioning of the RIG and DPG devices requiring travel to and from the customers facility.

Other - Issues

Many remote locations have to be visited and often 4 Wheel Drive is required.

Impacts if Project is Not Implemented

It is not a reasonable expectation at these vehicles will remain in service without significant maintenance issues possibly while at remote locations. They need to be replace to maintain the following functions.
1) Maintaining the current level of reliability of CAISO Metering field communication and RIG and DPG real-time ISO generation controlled SCADA equipment.
2) Maintaining the current level of accessibility to CAISO Metering, RIG and DPG sites.
3) Proactive approach to increase probability of vehicular repairs and breakdowns.
4) Maintain the level of safety and reliability that newer vehicles could provide.

Expenditure Justification

FERC/NERC/WECC mandate

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name WAPA MSS

Reference Number 193 ***Priority*** 1 Essential

Overview

This project would implement the negotiated contract for WAPA to become a MSS.

Other - Issues

It is unknown when this project will be required, due to the uncertainty of current negotiations with WAPA

Impacts if Project is Not Implemented

WAPA will leave the ISO control grid and become their own control area. Potential negative impacts on grid reliability and higher cost would result.

Expenditure Justification

CAISO infrastructure requirement

Continuation of started project

Supports corporate goal/strategic plan

MD02/system redesign

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name RAVE Test & Development Server

Reference Number 200 ***Priority*** 1 Essential

Overview

Set up Development and Test Databases similar to other ISO systems. RAVE currently does not have a database to use as the test environment. Currently the RAVE development database resides on a data warehouse production server. The server was a development server when the RAVE development database was originally installed but has since become a production server. RAVE needs to be moved to a development server.

Other - Issues

Business Benefit: 1. Ability to develop enhancements to RAVE without affecting other production databases. 2. Ability to fully test all changes prior to implementation.

Impacts if Project is Not Implemented

Without a test environment all testing must be done in production and can have a significant impact on performance of production database. When a development database is housed on a production server your development activities may cause performance issues for both the development and production databases housed there.

Expenditure Justification

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

2004 Proposed Capital Projects

Category Operations Support Systems

Project Name RAVE Fallback Server

Reference Number 208 ***Priority*** 1 Essential

Overview

Purchase and Setup Fallback server in Alhambra similar to other ISO systems.

There is no fallback server for the RAVE application. GRRMA is currently the contingency plan in case of RAVE server outage. GRRMA is no longer supported; therefore validation enhancements are not added to GRRMA. The new validations added since 4th Qtr 2001 are not included in GRRMA and must be done manually or not at all. Any changes for MD02 will also not be added, so in the future GRRMA becomes less and less of a viable contingency mechanism.

Other - Issues

Business Benefit: In the event of a server failure the RMR settlements group can recover quickly and ensure timely and accurate validations of RMR invoices.

Impacts if Project is Not Implemented

The RAVE Server (RMRP) has crashed Five (5) times so far in 2003. Three (3) of those times the server was out for more than 4 days. These types of outages have a significant impact on the RMR Settlement group's ability to provide timely validation to RMR Owners/PTO's. Due to the current complexity of the invoice validation, the RMR Settlements group has to depend more heavily on RAVE to perform timely & accurate validation. In the past, RMR Settlements could rely on manual methods to validate invoices when RAVE was not available. As new validations are added and manual validations automated the impact of a RAVE outage becomes more and more severe.

Expenditure Justification

CAISO infrastructure requirement

Internal productivity, cost savings, avoided costs

Supports corporate goal/strategic plan

XI. Unbundled Grid Management Charge ("GMC") Calculation

The costs of the ISO are not recovered from a single charge, but through separate charges to the users of the services provided by the ISO. The unbundled rate structure in place from 2001 to 2004 consisted of three charges: Control Area Services, Congestion Management, and Ancillary Services & Real Time Energy Operations (ASREO). For 2004 the unbundled rate structure will change, to consist of six charges:

Core Reliability Services = $\frac{\text{ISO Costs Allocable to Core Reliability Services}}{\text{Non-coincident metered peak demand in MW}}$

Energy & Transmission Services (ETS)[6]= $\frac{\text{ISO Costs Allocable to ETS}}{\text{Grid usage in MWh and net uninstructed deviations}}$

Forward Scheduling Charge= $\frac{\text{ISO Costs Allocable to Forward Scheduling}}{\text{Number of Schedules submitted}}$

Congestion Management Charge= $\frac{\text{ISO Costs Allocable to Congestion Management}}{\text{Net Interzonal Scheduled Load}}$

Market Usage Charge= $\frac{\text{ISO Costs Allocable to Market Usage}}{\text{Market Purchases \& Sales}}$

Settlements, Metering & Client Relations= $500 per month per SC ID.

The numerators for each equation will be determined by assigning or allocating all ISO costs into one of the service categories listed above. This will be done for operating & maintenance costs, debt service costs (to recover past capital & startup costs), cash funded capital expenditures, and other items. The appropriate amounts to allocate to each service are determined by the managers and directors of the ISO, who assign their costs to the service categories. This process was performed on a preliminary basis during the development of these new service categories during Spring 2003, and updated allocations will be developed during August/September 2003.

[6] ETS has two subcomponents, and costs are recovered over separate billing determinants: net grid usage, and net uninstructed deviations.

The determination of the denominators for these equations is discussed in Section XII of this report.

The indicative GMC rates that result from the budget and other assumptions in this document follow on the two subsequent pages.

THE COST ALLOCATION FACTORS FOR 2004 ARE UNDER DEVELOPMENT, AND WILL BE RELEASED PRIOR TO THE OCTOBER BUDGET APPROVAL.

COST ALLOCATION FACTORS DEVELOPED DURING THE 2004 GMC STAKEHOLDER PROCESS HAVE BEEN USED AS PLACEHOLDERS.

FY2004 GMC Summary
$ in 000's

	FY2003 Budget	FY2004 Costs for Continuation of Budgeted FY2003 Service Level	FY2004 Management Recommended Budget
Revenue Requirement			
Operating & Maintenance Budget	$ 171,739	$ 148,638	$ 151,735
Difference from FY2003		(23,101)	(20,004)
		-13%	-12%
Financing Budget:			
Principal-Existing Debt	35,300	36,167	36,167
Interest-Existing Debt	8,497	7,525	7,525
Operating Reserve (25% of Principal & Interest)	10,949	10,923	10,923
Subtotal, Financing Collection	54,746	54,615	54,615
Capital Project Funding	22,000	-	32,000
(App. Midpoint of anticipated range of $26 to $39 million in 2004)			
Less: Expense Recovery Budget:			
Interest Earnings	(1,252)	(652)	(652)
SC Application & Training Fees	(120)	(120)	(120)
WECC Reimbursement/NERC Reimbursement	(1,256)	(1,313)	(1,313)
Subtotal, Expense Recovery Budget	(2,628)	(2,085)	(2,085)
Subtotal, Revenue Requirement before Revenue Credit	$ 245,857	$ 201,168	$ 236,265
Revenue (Credit)/Deficiency From Operating Reserve	(8,257)	(19,400)	(19,400)
(Expected range of $15 to $28 million in 2004)			
Total Revenue Requirement	$ 237,600	$ 181,768	$ 216,865
Difference from FY2003 Filed Revenue Requirement			(20,735)
			-9%

Revenue Requirements by Service: Prior to Reserve Credit (see note 2)		
Core Reliability Services	$ 97,309	$ 93,513
Energy & Transmission Services- Energy	58,021	55,757
Energy & Transmission Services- Deviations	14,842	14,263
Forward Scheduling	19,833	19,059
Congestion Management	14,630	14,060
Market Usage	40,409	38,833
Settlements, Metering, Client Relations	812	781
Total	$ 245,857	$ 236,265

Financial & Capital Operating Reserve (Credit)/Shortfall Allocable to Each Service		
Core Reliability Services	$ (3,268)	$ (7,678)
Energy & Transmission Services- Energy	(1,949)	(4,578)
Energy & Transmission Services- Deviations	(498)	(1,171)
Forward Scheduling	(666)	(1,565)
Congestion Management	(491)	(1,154)
Market Usage	(1,357)	(3,189)
Settlements, Metering, Client Relations	(27)	(64)
Total	$ (8,257)	$ (19,400)

FY2004 GMC Summary (Continued)
$ in 000's

	FY2003 Budget	FY2004 Costs for Continuation of Budgeted FY2003 Service Level	FY2004 Management Recommended Budget
Net Revenue Requirements by Service (see note 1)			
Core Reliability Services	$ 94,041		$ 85,834
Energy & Transmission Services- Energy	56,072		51,179
Energy & Transmission Services- Deviations	14,344		13,092
Forward Scheduling	19,167		17,494
Congestion Management	14,139		12,905
Market Usage	39,052		35,644
Settlements, Metering, Client Relations	785		717
	$ 237,600		$ 216,865
Divided By:			
Billing Determinant Volume Forecast			
Core Reliability Services: NCP Demand in MW	532,612		532,612
Energy & Transmission Services-: Energy in MWh	240,786,893		240,786,893
Energy & Transmission Services: Deviations in MWh	16,722,610		16,722,610
Forward Scheduling: # of schedules	12,680,795		12,680,795
Congestion Management: Net Interzonal Flows in MWh	91,533,351		91,533,351
Market Usage: Purchases & Sales of RT & A/S in MWh	43,048,955		43,048,955
Settlements, Metering, Client Relations: Customer Months	1,542		1,542
Equals:			
Net Grid Management Charge ("GMC") (see note 1)			
Core Reliability Services: $ / NCP Demand in MW	$ 177		$ 161
Energy & Transmission Services-: $ / Energy in MWh	$ 0.23		$ 0.21
Energy & Transmission Services: $ / Deviations in MWh	$ 0.86		$ 0.78
Forward Scheduling: $ per schedule	$ 1.51		$ 1.38
Congestion Management: $ / Net Interzonal Flows in MWh	$ 0.15		$ 0.14
Market Usage: $/ Purchases & Sales of RT & A/S in MWh	$ 0.91		$ 0.83
Settlements, Metering, Client Relations: $ / Customer Month	$ 500.00		$ 500.00

Notes:

1. GMC Service Categories are those approved for 2004.
2. Costs are allocated using the ratios from the 2003 budget. Cost allocations are underway for 2004.
3. Volume forecast for 2004 is incomplete, 2002 volumes are used as placeholders.
4. The projected reserve balance is anticipated to be between: 38,086 to 51,086

XII. GMC Billing Determinant Forecast

To calculate the grid management charge, costs are divided by a billing determinant to arrive at a rate per GMC service category. The billing determinants for the 2004 GMC service categories are as follows:

GMC Service Category	Billing Determinant[7]
1. Core Reliability Services =	Non-coincident metered peak demand in MW
2. Energy & Transmission Services (ETS) =	Grid usage in MWh and net uninstructed deviations
3. Forward Scheduling Charge=	Number of Schedules submitted
4. Congestion Management Charge=	Net Interzonal Scheduled Load
5. Market Usage Charge=	Market Purchases & Sales

Forecasts of these values have not been finalized for 2004. For purposes of indicative rates in this report, 2002 values are used.

[7] The Billing Determinants for the 2003 GMC categories of Control Area Services, Congestion and Ancillary Services & Real Time Energy Operations are Gross Load, Interzonal Net Scheduled Load (INSL) and Market Purchases & Sales of A/S & RT Energy (PSE) respectively.

CALIFORNIA ISO

SUMMARY OF PROPOSED FY2004 BUDGETS

Presentation to Board of Governors September 25, 2003

PRELIMINARY: SUBJECT TO CHANGE

THE FOLLOWING ITEMS ARE INCOMPLETE AND REQUIRE ADDITIONAL CONSIDERATION

- **BILLING DETERMINANT VOLUMES**
- **COST ALLOCATION FACTORS**
- **OPERATING RESERVE FORECAST**
- **RATES**

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OUTLINE

- **Budget Timeline**
- **GMC Rates Determination Process**
- **Budget Approach / Goal**
- **Components of ISO Revenue Requirement**

	2003	2004
O&M Budget	$171,739	$151,735
Capital Budget	$22,000	$32,000 (*)
Subtotal	$193,739	$183,735
Debt Service	$54,746	$54,615
Expense Recovery	($2,628)	($2,085)
Operating Reserve	($8,257)	($16,000 - $28,000)
Total Revenue Requirement	$237,600	$208,265 - $220,265

- **Historical Spending Trend / Comparison of 2003 to 2004**
- **O&M Budget: Divisional Overviews**

Notes:
'000 Omitted
* Final amount may change pending revised MD02 schedule and other issues.

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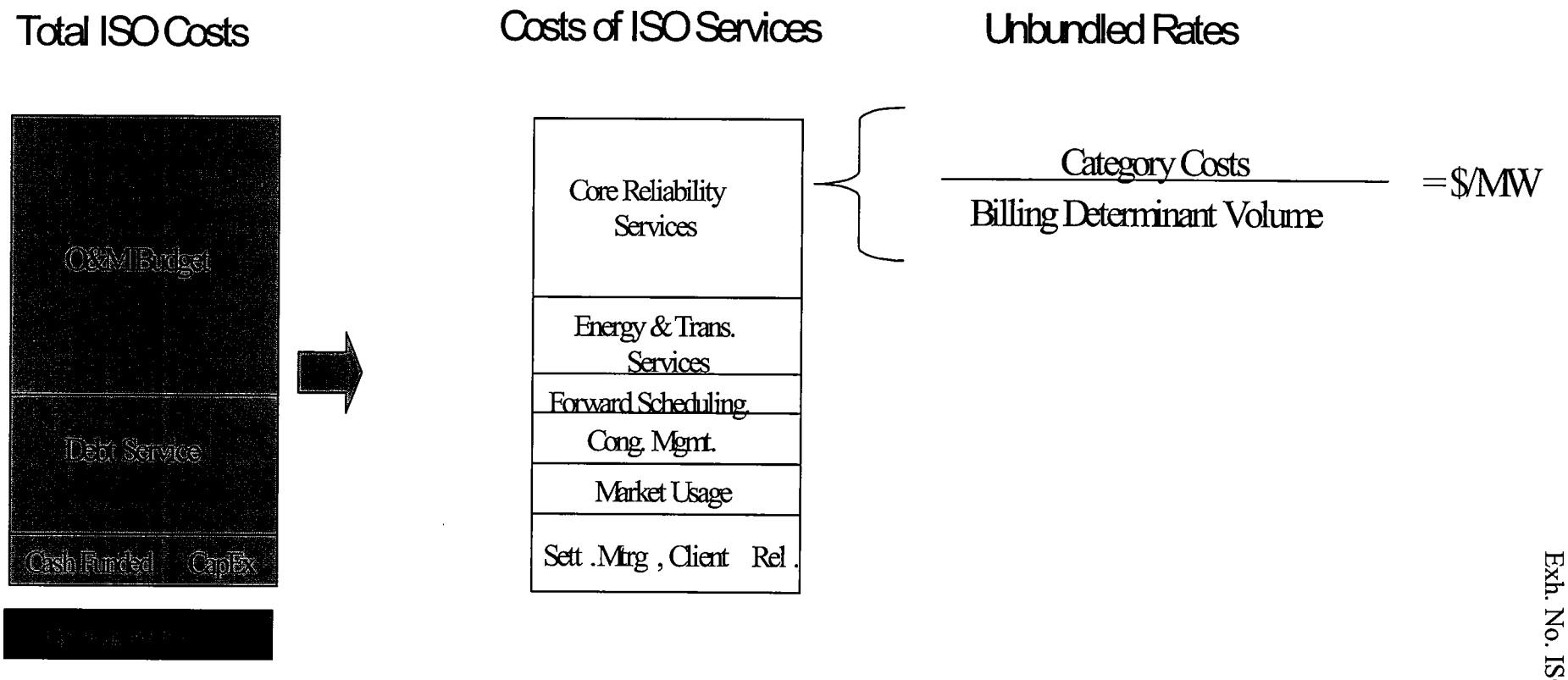
FY2004 BUDGET TIMELINE

1	**Budget Process Timeline Approved by Board**	**26-Jun-2003**
2	Annual Goal Setting Discussion Commences	Early July 2003
3	Budget Process Rollout to CAISO departments	9-Jul-2003
4	**Finance Committee Review of Preliminary Budget (Executive Session)**	**12-Sep-2003**
5	**Board discussion and review of preliminary Budget posting (Open session)**	**25-Sep-2003**
6	Public Budget Workshop	3-Oct-2003
7	Budget Overview to Market Issues Forum	9-Oct-2003
8	Written Comments on Budget Due	13-Oct-2003
9	**Finance Committee meeting to discuss and receive additional public comments on budget and develop recommendation to Board.**	**15-Oct-2003**
10	**Board Approval of Budget and Goals**	**23-Oct-2003**
11	Budget Filing with FERC	31-Oct-2003
12	New Rate Effective	1-Jan-2004

Note:
Board action or report items in **bold.**

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ISO REVENUE REQUIREMENT
(as it affects the GMC rate determination)



- Calculation of GMC Rates is dependent on cost allocations to new GMC service categories, and billing determinant forecasts, which are underway at this time.

ISO BUDGET GOAL / APPROACH

- **Guidance Provided by Terry Winter in Early July**
  - Flat O&M budget less $15 million in savings from new communications contract to be returned to ratepayers.
  - Overall revenue requirement reduced by at least $15 million.

- **Approach**
  - 1. Base budgets: cost for continuation of services budgeted in 2003.
  - 2. Decremental programs: programs in base budget that might be reduced/eliminated with some effect on service levels.

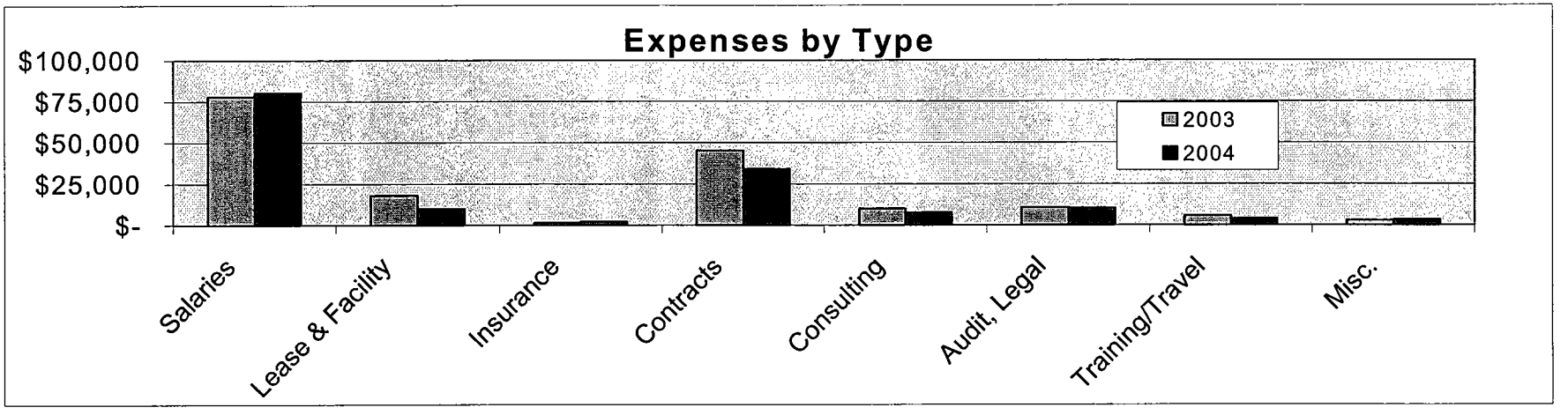
    - Each ISO Division to present the above two components of their proposed O&M budget at a level 7% below the 2003 budget.

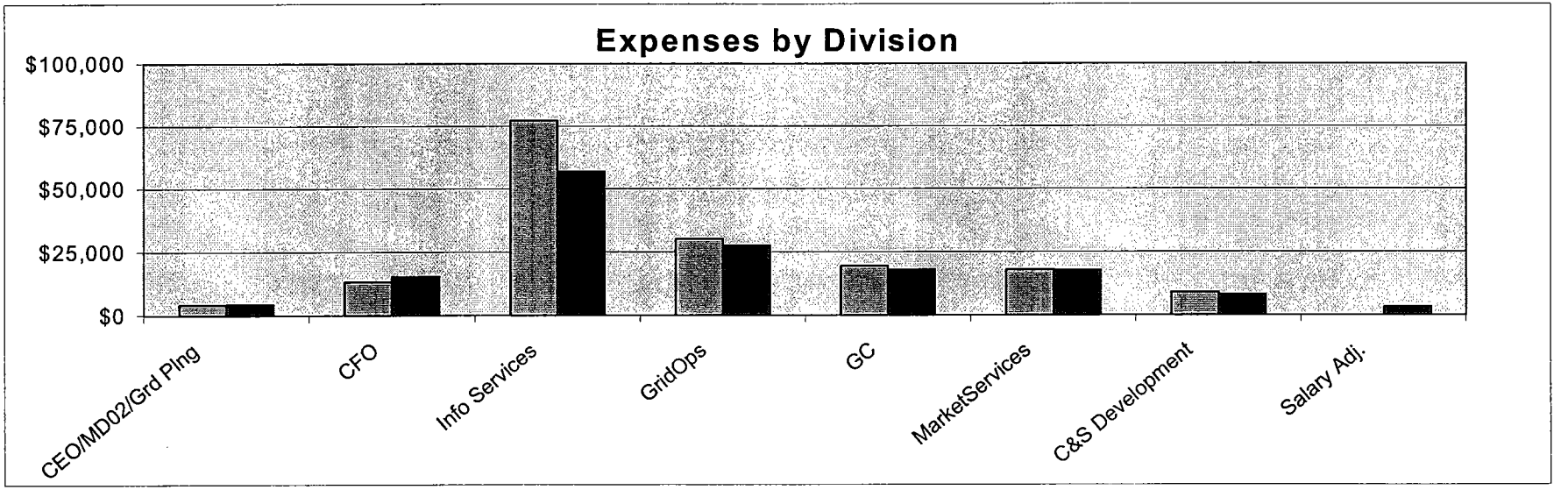
  - 3. Incremental programs: the cost of services provided in 2003 that were unbudgeted, or entirely new services necessary for 2004.

- Management recommended budget, (INC and DEC programs) is $20 million below the 2003 budget.

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FY2003/ FY2004 OPERATING & MAINTENANCE BUDGET COMPARISONS



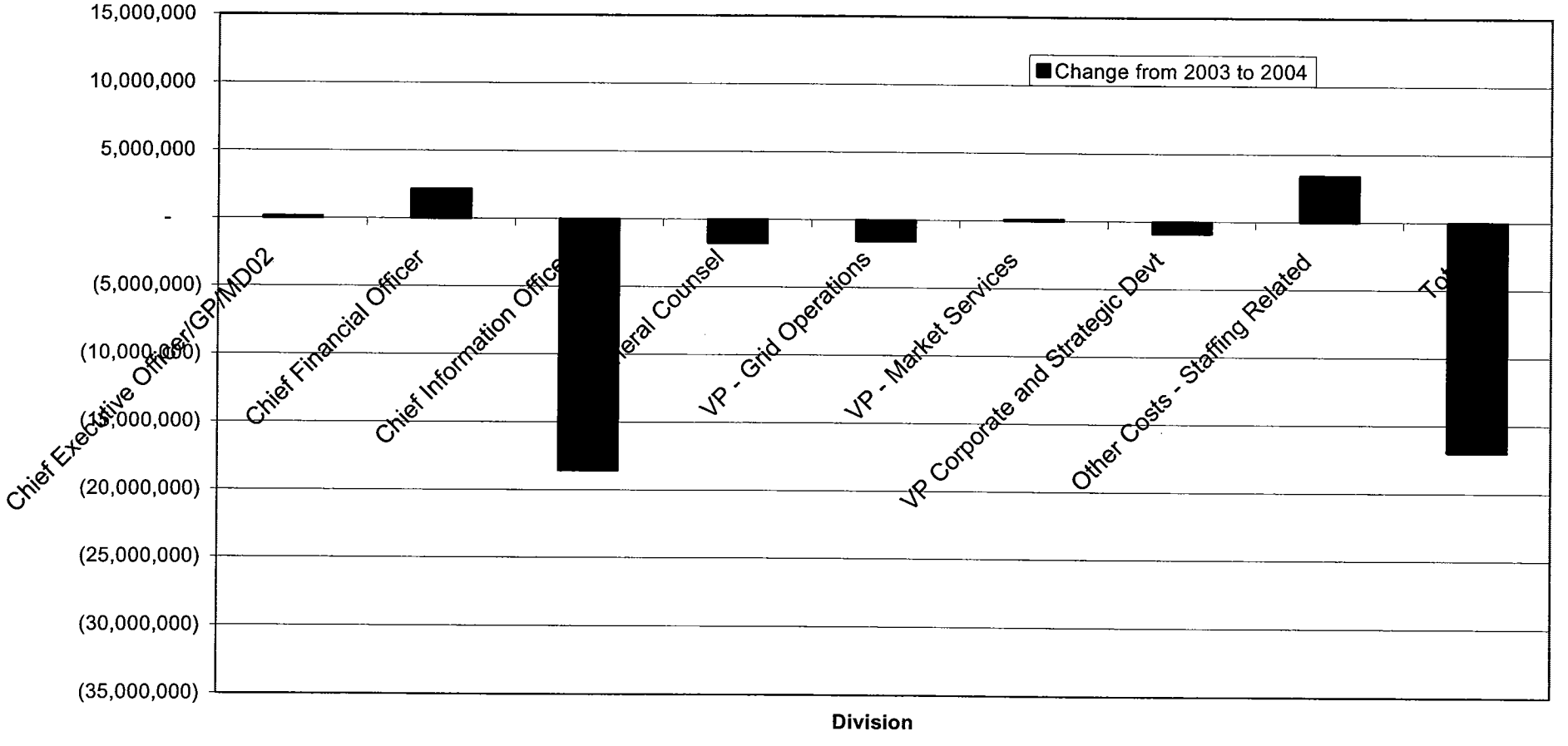


- **Goal:** Reduced budget from 2003 of at least $15 M
- **Results:** Reduction of $20 million

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CALIFORNIA ISO

CHANGES IN O&M BUDGET BY DIVISION

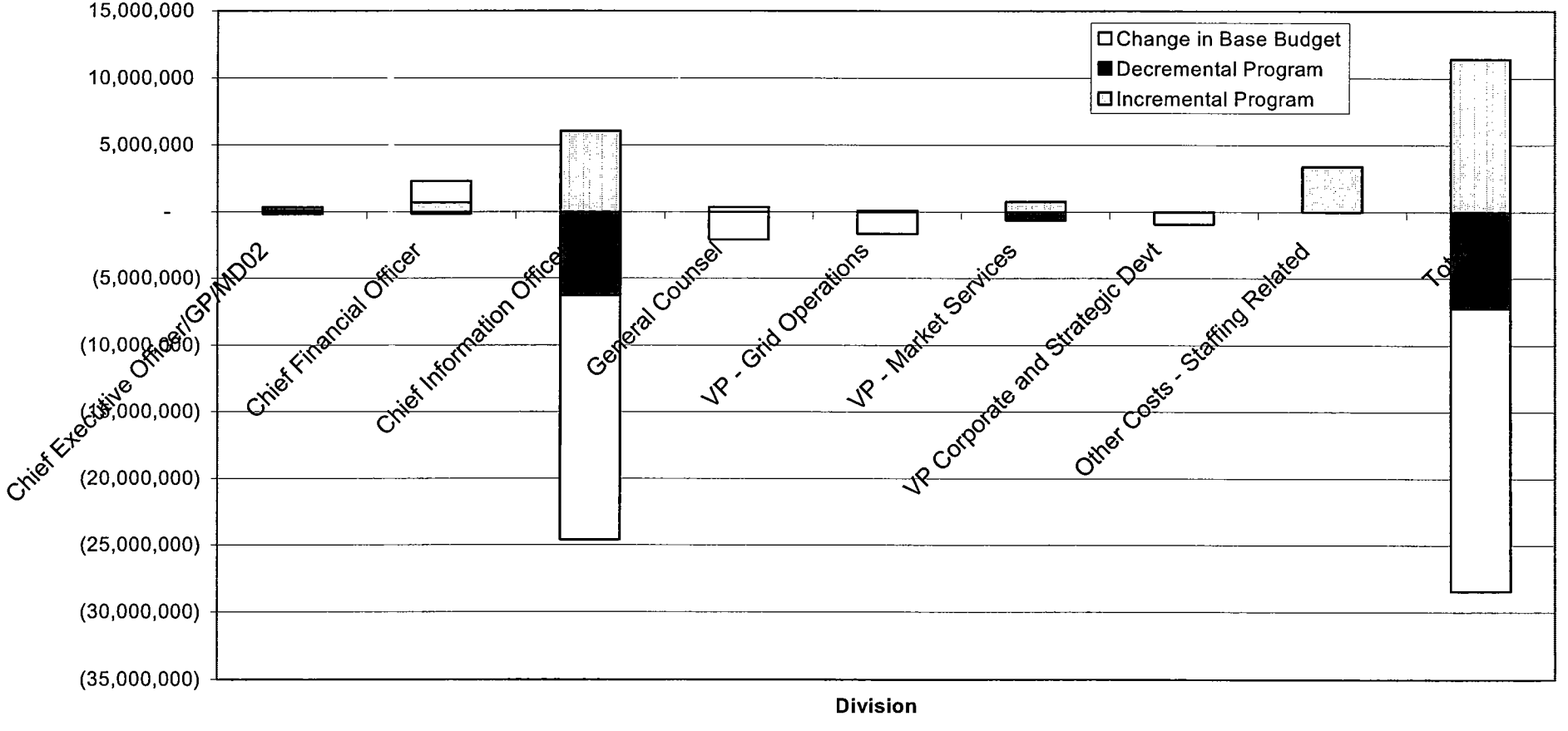


- Net change for each Division masks the increases and decreases within that net change. These components are shown on the following page.

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CALIFORNIA ISO

Analysis of Changes in Proposed 2004 Budget: Incremental, Decremental Programs and Reductions in Base Budgets



- **INC and DEC programs represent changes in service levels from 2003 budget to 2004.**

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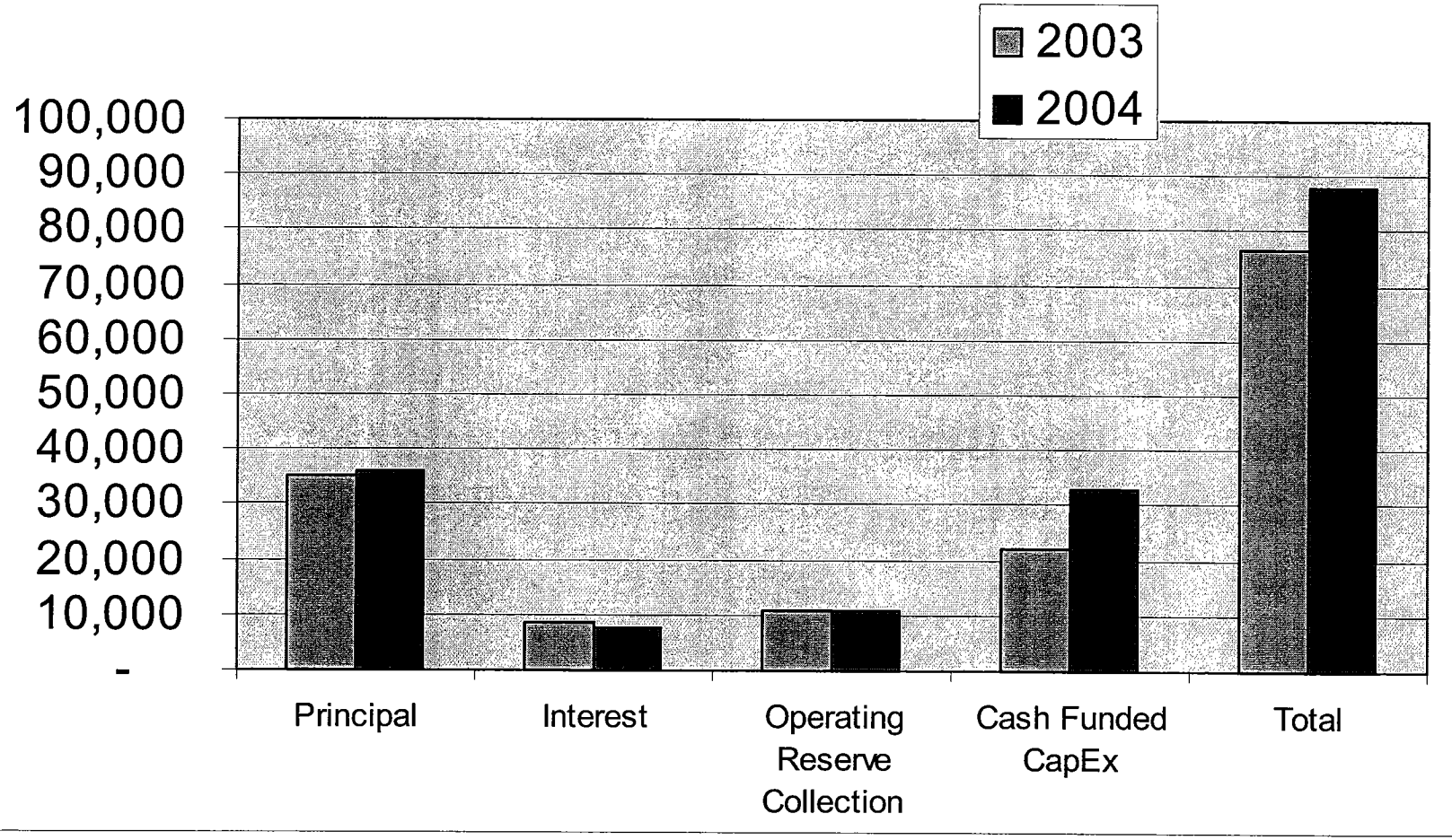
FY2003/ FY2004 STAFFING LEVELS

CAISO Division	FY2003 Budgeted Staffing	Changes	FY2004 Proposed
CEO/MD02/Grid Plng.	23.0	2.0	25.0
CFO	34.5	-	34.5
CIO	144.0	4.0	148.0
VP Grid Ops	187.0	-	187.0
General Counsel	54.0	(1.0)	53.0
Market Services	123.0	(1.0)	122.0
VP Corp & Strat Dev	30.0	-	30.0
Total FTE	**595.5**	**4.0**	**599.5**

- **Changes reflect transfers between divisions, positions added subsequent to approval of 2003 budget.**

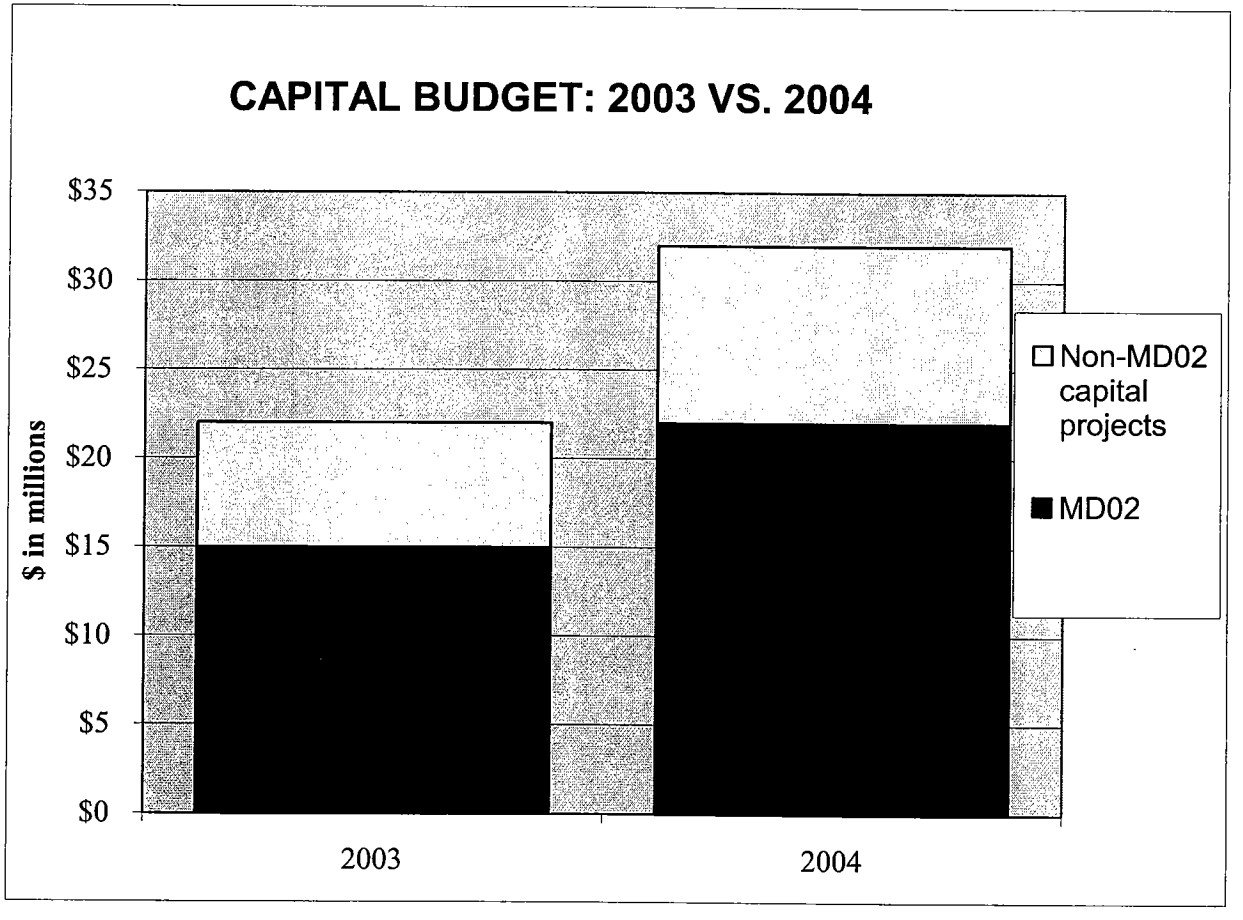
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Debt Service & Cash Funded CapEx



Note: CapEx budget is preliminary, pending completion of MD02 project schedule update and other needs.

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- CapEx budget is preliminary, pending completion of MD02 project schedule update and other needs.
- Size of budget is developed based on indicative project list, but actual projects completed in 2004 may differ. All projects to be funded in 2004 will undergo internal (and if > $1 million, Board) approval process.

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ISO EXPENSE RECOVERY BUDGET

	FY2003 Budget	FY2004 Proposed Budget	Amount Change	% Change
Interest Earned on Operating Funds (1)	$ 1,252	$ 652	$ (600)	-48%
SC Application & Training Fees	120	120	-	0%
WSCC Security Coordinator Fees	1,256	1,313	57	5%
Total O&M Expense Recovery Budget	**$2,628**	**$2,085**	**-$543**	**-21%**

(1) Reduced interest earnings due to lower interest rates. Will monitor interest rates and forecast through date of filing and update as appropriate. Interest rates have increased since Summer 2003.

ISO OPERATING RESERVE

- **Structure**
  - Each year, ISO collects 125% of required debt service (principal & interest). Excess 25% deposited in the Operating Reserve.
  - If, at year end, the operating reserve contains more than 15% of following year's operating budget, any excess is used as a credit toward that year's revenue requirement.
- **Two Part Calculation**
  - Update the reserve balance at the end of 12/31/2002 (use actual rather than forecasted figures)
  - Detail items affecting the reserve during 2003
- **Factors Affecting the Reserve**
  - Revenues higher/lower than budgeted
  - Expenses higher/lower than budgeted
  - Other uses of the reserve
    - Adjustments to previous year's revenues (GMC rate case results, FERC fines & penalties, billing errors, etc.)
- **Estimated credit for 2004**
  - In excess of 2003 budgeted amount ($10.9 million), likely to range from $16 to 28 million.

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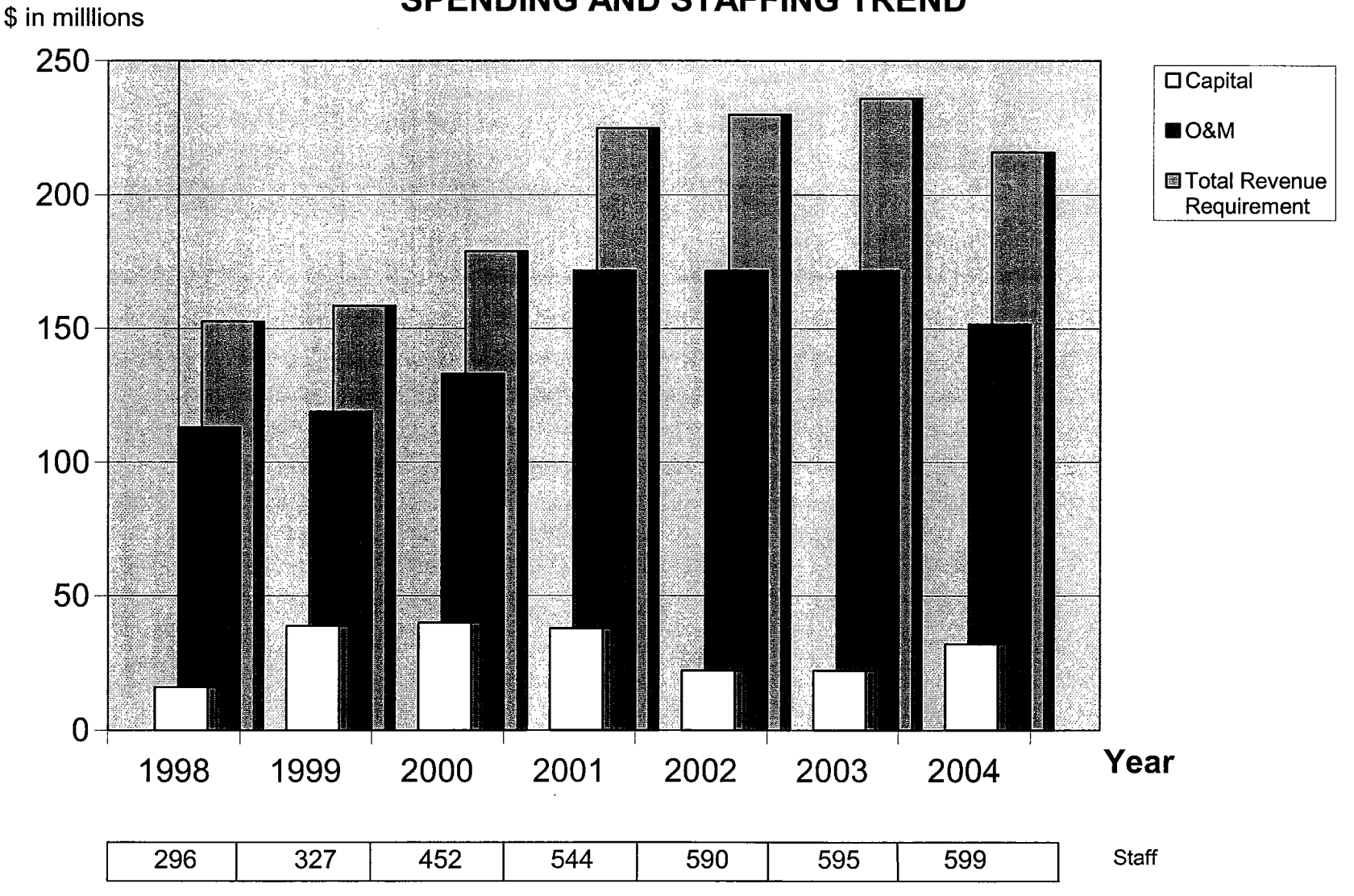
REVENUE REQUIREMENT

	FY2003	FY2004 Proposed Budget	Amount Change	%Change
Total O&M Budget	$ 171,739	$151,735	(20,004)	-12%
Total Debt Service and Reserve Collection Budget	54,746	54,615	(131)	0%
Total Cash Funded Capital Expenditures Budget *	22,000	32,000	10,000	45%
Total Expense Recovery Budget	(2,628)	(2,085)	543	-21%
Available Revenue (Credit) or Deficiency (1)	(8,257)	(16,000) — (28,000)	(7,743 – 19,743)	(194% - 340%)
Revenue Requirement	**$ 237,600**	**$208,265 — $220,265**	**($17,335 - $29,335)**	**(7% - 12%)**

(1) The available revenue credit or deficiency is dependent on 2003 activities, and is subject to revision/update until the October approval of the budget/GMC rates.

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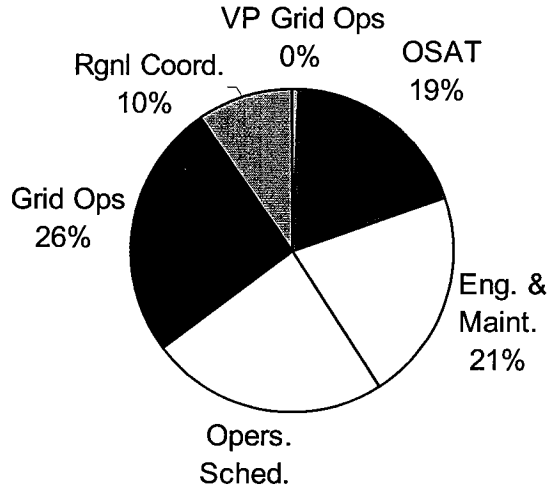
SPENDING AND STAFFING TREND



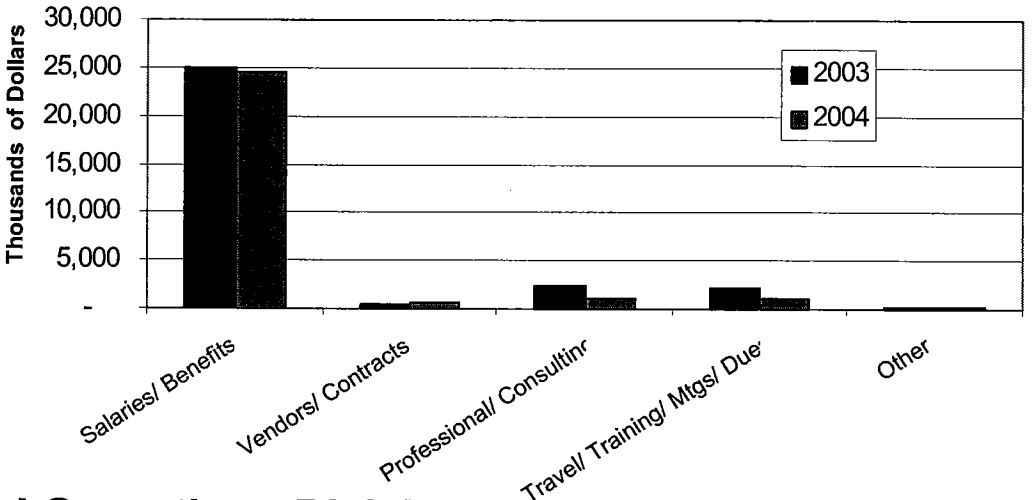
DIVISIONAL O&M BUDGET OVERVIEWS

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FY2004 Grid Ops Operating Budget: $27.5M



Budget Comparison 2003 ($30.2M) to 2004 ($27.5M)
(net decrease of $2.7M)



VP Grid Operations Division

Cost Reductions in Proposed Budget:

$508K - Salary/benefit related: Reduce Callout, Overtime, increase in headcount vacancy factor

$300K – Reduce Professional Dues

$1.1M - Reduce Consulting/contracting expenditures

$492K - Reduce travel

$206K - Reduce Training expenditures

$2706K – TOTAL

Cost Increases in Proposed Budget:

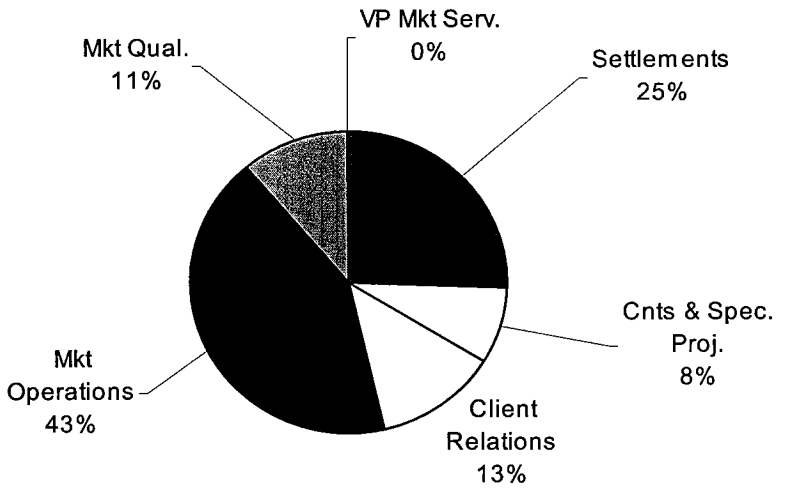
NONE

$0K - TOTAL

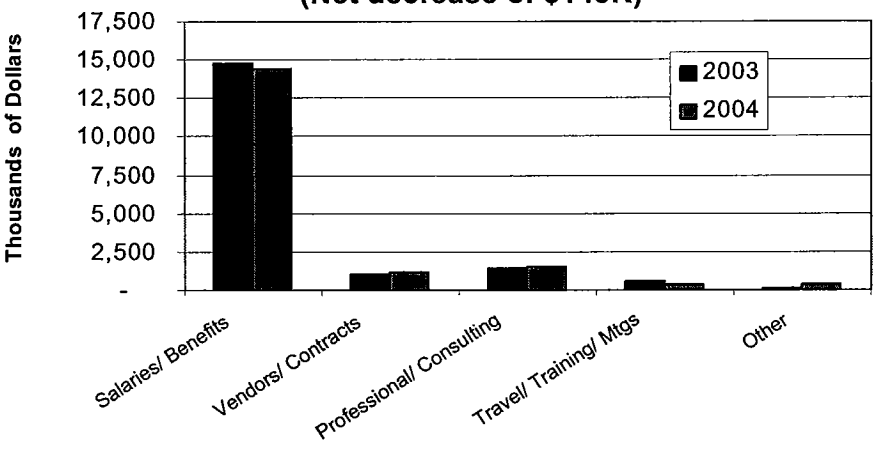
Exh. No. ISO- 37, Page 17 of 65

CALIFORNIA ISO

FY2004 MS Operating Budget: $17.9M



Budget Comparison 2003 ($18M) to 2004 ($17.9M)
(Net decrease of $148K)



VP Market Services Division

Cost Reductions in Proposed Budget:

$330K – Reductions in O & M Consulting Budget

$115K – Contractor Support

$186K – Training Fees/Supplies, Meetings, Travel, Printing Services

$360K – Increase in headcount vacancy factor and transfer of staff to MD02.

$991K –TOTAL

Cost Increases in Proposed Budget:

$110K – Contractor Support for FERC Mandated Reruns

$350K – ALFS Load Forecasting for 8 Additional Zones

$200K – Intermittent Resources Program

$65K – Placeware Web Based Conferencing

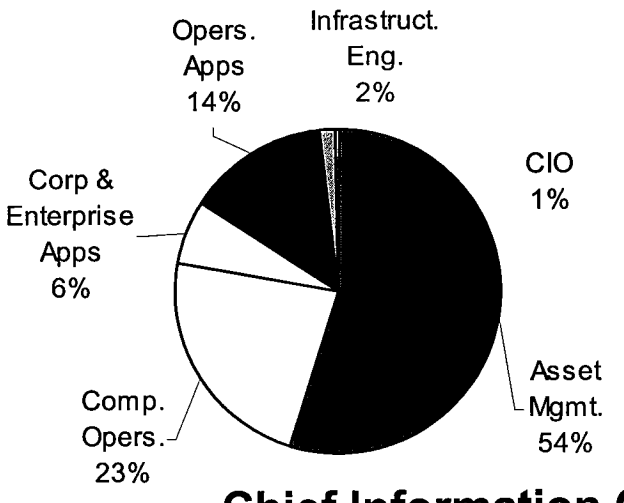
$12K – V.P. Market Services Travel

$106K – AMP Reference Price Subscription

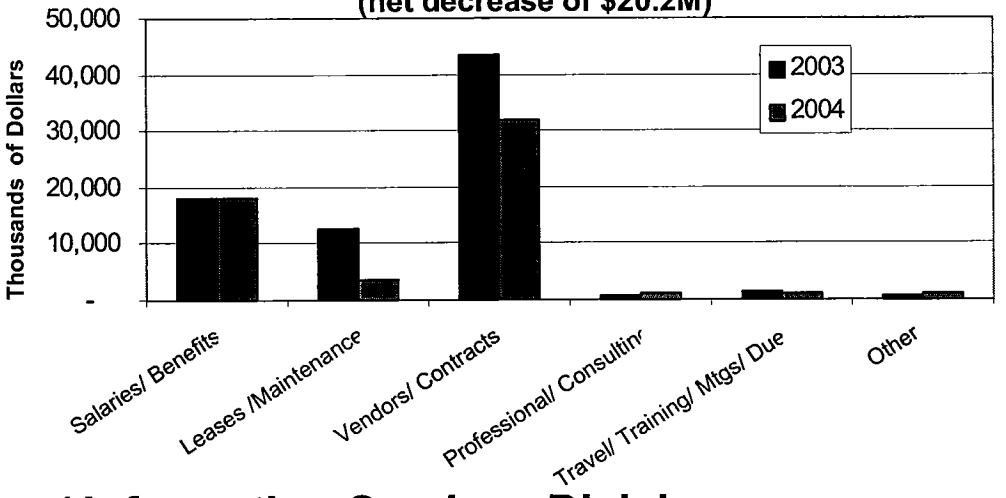
$843K - TOTAL

Exh. No. ISO- 37, Page 18 of 65

FY2004 CIO Operating Budget: $56.9M



Budget Comparison 2003 ($77.2M) to 2004 ($56.9M) (net decrease of $20.2M)



Chief Information Officer / Information Services Division

Cost Reductions in Proposed Budget:

$15 M– Savings associated with WAN & LAN contract (50%)

$ 450K - Increase in headcount vacancy factor and reduction in other salary related items (2%)

$ 131K – Savings in hardware (20%) and software (30%) expenses

$ 9.04 M– Reduction in lease expenses (70%)

$ 95K– Reduction in consulting (16%)
Elimination of Customer Satisfaction Survey
PKI Replacement study Network monitoring consulting

$ 1.36 M– Reduction in software maintenance expenses (18%)

$ 287 K – Net Reduction in Travel and Training expenditures (21%)

$26.36 million – TOTAL (%'s are reduction from 2003 budget)

Cost Increases in Proposed Budget:

$ 245K– Additional contractor resources (50%)

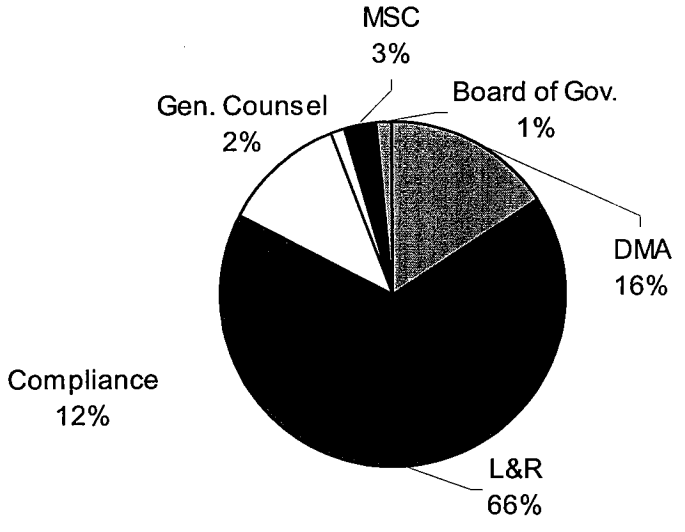
$ 560K –Four staff for Market Support Services (unbudgeted from 2002) (3%)

$ 4.12M– Hardware & software maintenance expense increase (50% increase a resulting from vendor pricing increases and direct impact of Capital Projects)

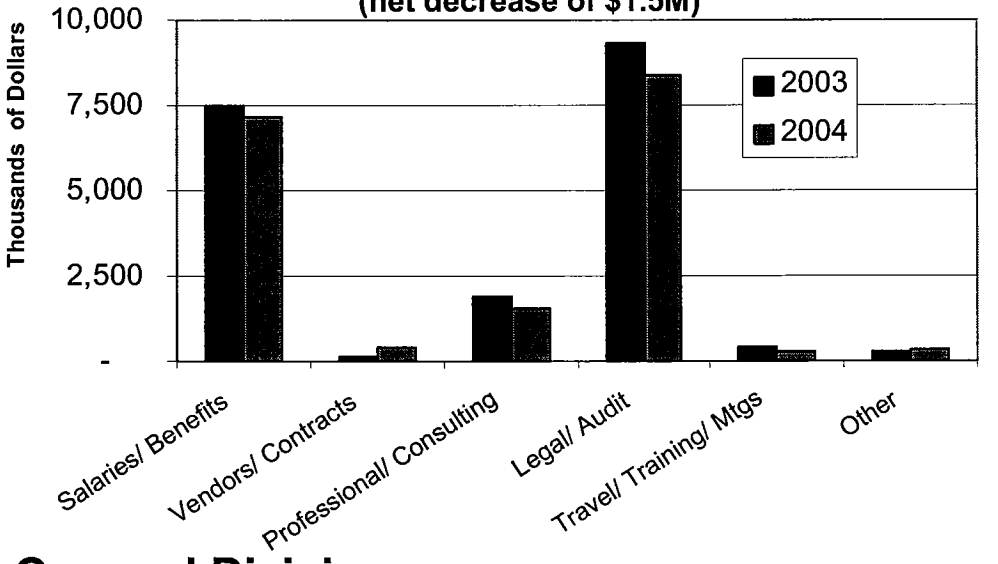
$ 1.2 M – Increase in funds for LAN monitoring, personal property taxes, back-up tapes. (% varies per cost category)

$6.125 million– TOTAL (%'s are increases from 2003 budget)

FY2004 GC Operating Budget: $18.1M



Budget Comparison 2003 ($19.6M) to 2004 ($18.1M)
(net decrease of $1.5M)



General Counsel Division

Cost Reductions in Proposed Budget:

- Reduced external legal expenses ($970K)
- Salary related adjustments of $300K (transfer of one staff to MD02 & increase in headcount vacancy factor)
- Reduced consulting in DMA/ Market Surveillance Committee ($200K), other consulting reductions of $90K.
- Reduction in Other Contracts/Services in DMA, L&R of $50K.
- Other reductions (training, travel, meetings, etc) of $175K

$1.785 million - TOTAL

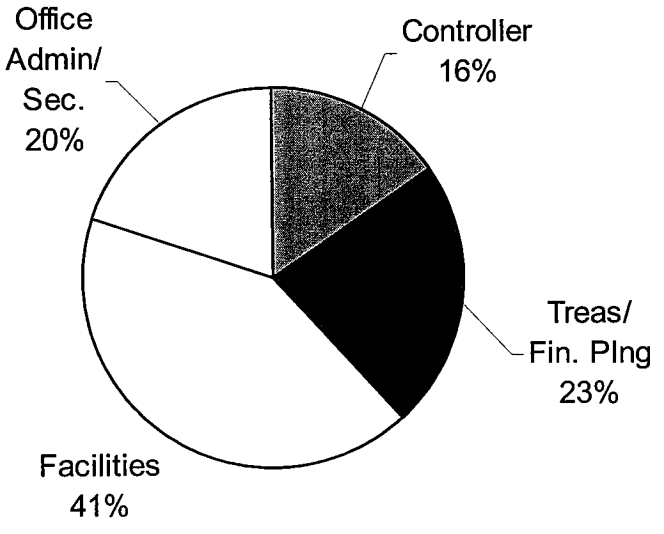
Cost Increases in Proposed Budget:

- Temporary & Contract staff of $265K in Compliance (O&I training, MSS, SC Self Audit continuation of SQMD lessons learned, SAS 70 Type II compliance)
- Board Related items: $80K

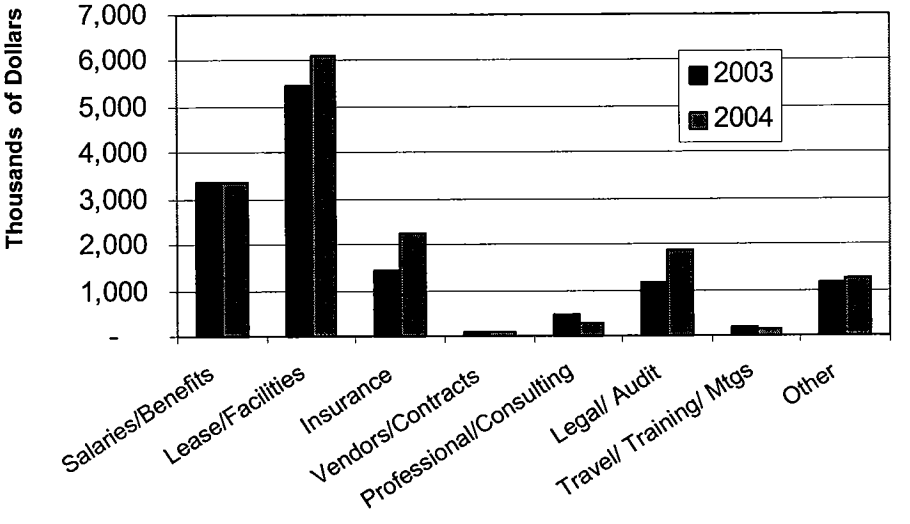
$345K- TOTAL

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FY2004 CFO Budget: $15.4 million



Budget Comparison 2003 ($13.3M) to 2004 ($15.4M) (net increase of $2.1M)



CFO Division

Cost Reductions in Proposed Budget:

- Reduced consulting costs ($158K)
- Misc. Other Reductions including training, travel: ($38K)

$196K – TOTAL

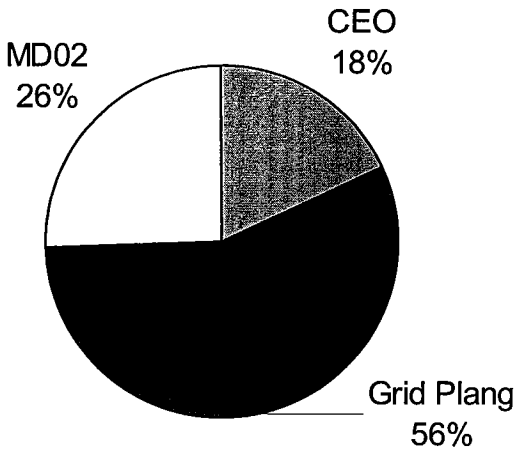
Cost Increases in Proposed Budget:

- Leases / facilities: Increase in lease expenses ($75K) and operating expenses ($260K), and security force ($350K).
- Insurance: Increase in costs for same level of coverage, primarily E&O, D&O policies: $800K. (Savings in workers compensation coverage budgeted elsewhere)
- Increased audits and scope (FERC refund assurance, FERC quarterly reporting, retirement plan audits) $650K
- Increased bank fees-more accounts/activity: $108K
- Misc. Increases ($55K)

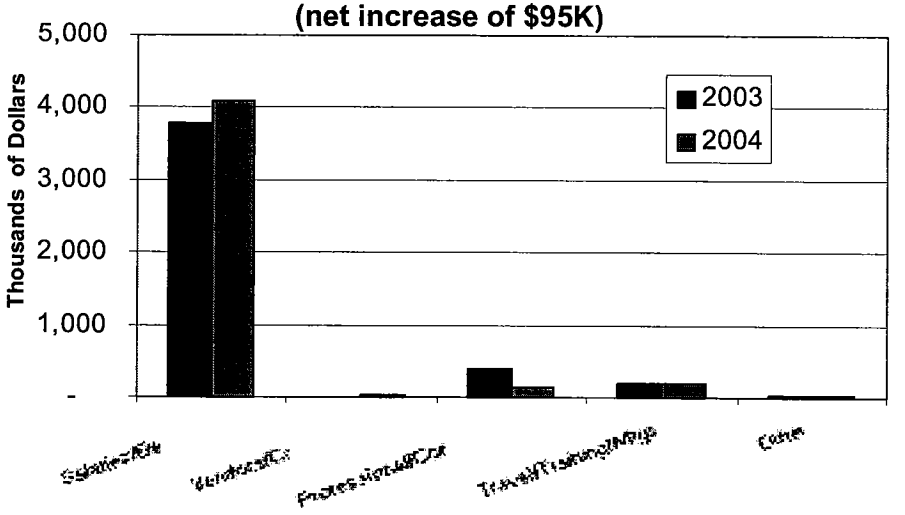
$2,298K- TOTAL

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FY2004 CEO/MD02/Grid Planning Budget: $4.5 million



Budget Comparison 2003 ($4.4M) to 2004 ($4.5M)
(net increase of $95K)



CEO/MD02/Grid Planning Division

Cost Reductions in Proposed Budget:

- Reduced salary & Benefits costs due to increase in headcount vacancy factor ($48K)
- Reduced consulting in grid planning ($250K)
- Other Misc. Reductions, including conferences, meetings ($57K)

$355K– TOTAL

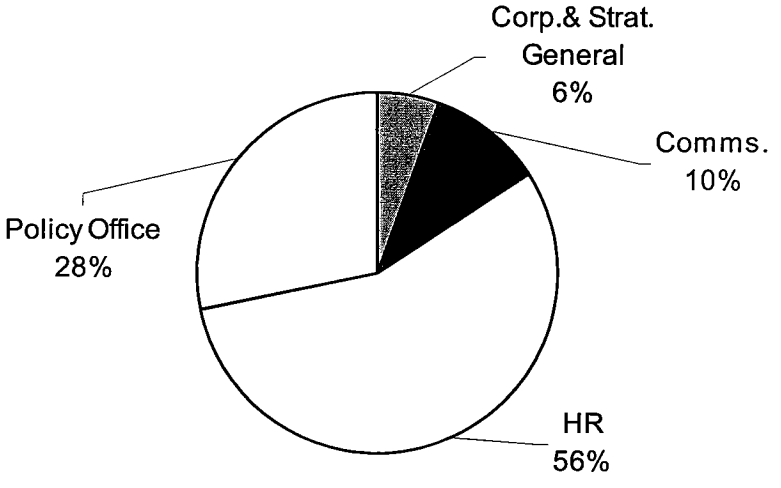
Cost Increases in Proposed Budget:

- Transfer of 1 additional staff to MD02, and one additional grid planning engineer , other compensation related items ($370K)
- Temporary contract staff for MD02 ($35K)
- Other: travel, conferences ($45K)

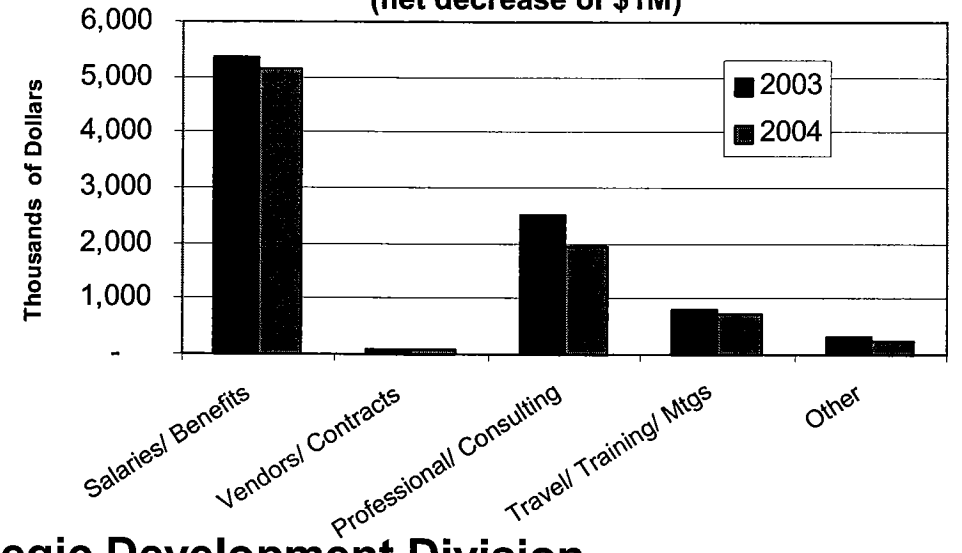
$450K TOTAL

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FY2004 C&SD Budget: $8.1 million



Budget Comparison 2003 ($9.1M) to 2004 ($8.1M)
(net decrease of $1M)



Corporate & Strategic Development Division

Cost Reductions in Proposed Budget:

- Reduced salary & Benefits costs due to increase in headcount vacancy factor ($41K).
- Reduced overall consulting expenses ($360K).
- Reduced relocation expenses ($325K).
- Reduced Recruiting expenses ($100K).
- Reduced Training and Travel ($92K).
- Reduced Advertising expenses ($50K).
- Reduced Printing expenses ($47K).
- Other Reductions ($198K).

$1.223M – TOTAL

Cost Increases in Proposed Budget:

- Increased Legal Audit expenses ($35K).
- Increased Training expenses ($150K).
- Increased Temporary Staffing expenses ($25K).

$210K- TOTAL

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APPENDIX A
2004 BUDGET COMPOSITION AND COMPARISON

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CALIFORNIA ISO

2004 BUDGET COMPOSITION

FY2004 Proposed Budget	CEO/ Gnd Plng/ MD02	1500	FIN:	1300	IT:	1400	OPS:	1500	GC:	1600	Market Services:	1700	CESD	1800	Other	2100	Total	
1. Salaries and Benefits	$ 4,094	91%	$ 3,352	22%	$ 18,256	32%	$ 24,436	89%	$ 7,162	40%	$ 14,476	81%	$ 5,149	63%	3,393	5%	$ 80,317	37%
2. Bldg, Lease & Facility Costs	-	0%	6,122	40%	3,615	6%	-	0%	-	0%	-	0%	-	0%	-	0%	9,737	4%
3. Insurance	-	0%	2,250	15%	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	2,250	1%
4. Third Party Vendor Contracts	35	1%	103	1%	31,764	56%	574	2%	356	2%	1,135	6%	98	1%	-	0%	34,105	16%
5. Prof & Consulting Services	152	3%	298	2%	1,167	2%	1,181	4%	1,540	9%	1,537	9%	1,622	20%	-	0%	7,896	4%
6. Audit, Legal & Regulatory	-	0%	1,845	12%	-	0%	-	0%	8,368	46%	-	0%	105	1%	-	0%	10,338	5%
7. Training, Travel, Professional Dues	196	4%	162	1%	1,057	2%	1,141	4%	354	2%	403	2%	737	9%	-	0%	3,950	2%
8. Miscellaneous	28	1%	1,252	8%	1,056	2%	130	0%	343	2%	310	2%	229	3%	-	0%	3,343	2%
Subtotal	4,504	100%	15,384	100%	56,915	100%	27,461	100%	18,083	100%	17,862	100%	8,139	100%	3,393	5%	$ 151,735	70%
Other: Debt Service-Existing															43,692	64%	43,692	20%
Operating Reserve-Existing															10,923	16%	10,923	5%
Cash Funded Capital Expenditures															32,000	47%	32,000	15%
Expense Recovery															(2,095)	-3%	(2,095)	-1%
Revenue Credit from Operating Reserve															(19,400)	-28%	(19,400)	-9%
Total	$ 4,504	100%	$ 15,384	100%	$ 56,915	100%	$ 27,461	100%	$ 18,083	100%	$ 17,862	100%	$ 8,139	100%	$ 68,524	100%	$ 215,855	100%
Headcount	25.0		34.5		148.0		187.0		53.0		122.0		30.0				599.6	

For Each Line Item, What Percentage Does Each Division Contribute to the Total for that Line Item?

FY2004 Proposed Budget	CEO/ Gnd Plng/ MD02	1500	FIN:	1300	IT:	1400	OPS:	1500	GC:	1600	Market Services:	1700	CESD	1800	Other	2100	Total
Analysis																	
1. Salaries and Benefits	5.1%		4.2%		22.7%		30.4%		8.9%		18.0%		6.4%		4.2%		100.0%
2. Bldg, Lease & Facility Costs	0.0%		62.9%		37.1%		0.0%		0.0%		0.0%		0.0%		0.0%		100.0%
3. Insurance	0.0%		100.0%		0.0%		0.0%		0.0%		0.0%		0.0%		0.0%		100.0%
4. Third Party Vendor Contracts	0.1%		0.3%		93.1%		1.7%		1.0%		3.3%		0.3%		0.0%		100.0%
5. Prof & Consulting Services	1.9%		3.8%		15.0%		15.0%		20.0%		20.0%		23.7%		0.0%		100.0%
6. Audit, Legal & Regulatory	0.0%		17.8%		0.0%		0.0%		81.1%		0.0%		1.0%		0.0%		100.0%
7. Training, Travel, Professional Dues	5.0%		4.1%		26.8%		28.9%		9.0%		10.2%		18.6%		0.0%		100.0%
8. Miscellaneous	0.9%		37.5%		31.6%		3.9%		10.3%		9.3%		6.7%		0.0%		100.0%
Subtotal	3.0%		10.1%		37.5%		18.1%		11.9%		11.8%		5.4%		2.2%		100.0%
Other: Debt Service-Existing																	
Operating Reserve-Existing																	
Cash Funded Capital Expenditures																	
Expense Recovery																	
Revenue Credit from Operating Reserve																	
Total																	
Headcount	4%		6%		25%		31%		9%		20%		5%				100%

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CALIFORNIA ISO

COMPARISON OF 2003 TO 2004

FY2003 Budget	CEO/ Grid Mgt.	1100		FIN:	1300		IT:	1400		OPS:	1500		GC:	1600		Market Services:	1700		C&SD	1800		Other	2100		Total	
1 Salaries and Benefits	$ 3,772	86%		$ 3,344	25%		$ 18,181	24%		$ 24,944	83%		$ 7,606	38%		$ 14,836	82%		$ 5,340	59%			0%		$ 77,922	33%
2 Bldg. Lease & Facility Costs	-	0%		5,442	41%		12,656	16%		-	0%		-	0%		-	0%		-	0%			0%		18,097	8%
3 Insurance	-	0%		1,445	11%		-	0%		-	0%		-	0%		-	0%		-	0%			0%		1,445	1%
4 Third Party Vendor Contracts	-	0%		115	1%		43,578	56%		472	2%		160	1%		1,027	6%		89	1%			0%		45,239	19%
5 Prof & Consulting Services	400	9%		444	3%		789	1%		2,489	8%		1,889	10%		1,471	8%		2,456	27%			0%		9,918	4%
6 Audit, Legal & Regulatory	-	0%		1,157	9%		-	0%		-	0%		9,568	49%		-	0%		75	1%			0%		10,800	4%
7 Training, Travel, Professional Dues	205	5%		200	2%		1,345	2%		2,168	7%		378	2%		585	3%		813	9%			0%		5,695	2%
8 Miscellaneous	32	1%		1,160	9%		612	1%		125	0%		293	1%		91	1%		321	4%			0%		2,834	1%
Subtotal	4,410	100%		13,307	100%		77,159	100%		30,178	100%		19,583	100%		18,010	100%		9,093	100%			0%		171,739	72%
Other: Debt Service-Existing																						43,797	66%		43,797	18%
Operating Reserve-Existing																						10,949	17%		10,949	5%
Cash Funded Capital Expenditures																						22,000			22,000	9%
Expense Recovery																						(2,528)	-4%		(2,528)	-1%
Revenue Credit from Operating Reserve																						(8,257)			(8,257)	
Total	$ 4,410	100%		$ 13,307	100%		$ 77,159	100%		$ 30,178	100%		$ 19,583	100%		$ 18,010	100%		$ 9,093	100%		$ 65,961	100%		$ 237,500	100%
Headcount	23			34.5			144			187			54			123			30						595.5	

FY2004 Proposed Budget vs.2003 Budget	CEO/ Grid Mgt./ MD02	1100		FIN:	1300		IT:	1400		OPS:	1500		GC:	1600		Market Services:	1700		C&SD	1800		Other	2100		Total	
		% Change			% Change			% Change			% Change			% Change			% Change			% Change			% Change			% Chang
1 Salaries and Benefits	$ 323	9%		$ 8	0%		$ 75	0%		$ (508)	-2%		$ (344)	-5%		$ (360)	-2%		$ (191)	-4%		$ 3,393			$ 2,395	3%
2 Bldg. Lease & Facility Costs	-			681	13%		(9,041)	-71%		-			-			-			-			-			(8,360)	-46%
3 Insurance	-			805	56%		-			-			-			-			-			-			805	56%
4 Third Party Vendor Contracts	35			(12)	-10%		(11,612)	-27%		102	22%		236	148%		108	11%		9	10%		-			(11,134)	-25%
5 Prof & Consulting Services	(250)	-63%		(146)	-33%		378	48%		(1,289)	-52%		(248)	-18%		87	5%		(635)	-25%		-			(2,223)	-22%
6 Audit, Legal & Regulatory	-			688	59%		-			-			(960)	-10%		-			30	40%		-			(252)	-2%
7 Training, Travel, Professional Dues	(10)	-5%		(39)	-19%		(287)	-21%		(1,025)	-47%		(124)	-53%		(162)	-31%		(76)	-9%		-			(1,744)	-31%
8 Miscellaneous	(4)	-11%		92	6%		243	30%		5	4%		50	17%		219	240%		(97)	-30%		-			509	18%
Subtotal	94	2%		2,077	16%		(20,244)	-26%		(2,716)	-9%		(1,500)	-8%		(148)	-1%		(960)	-11%		3,393			(20,004)	-12%
Other: Debt Service-Existing																						(105)	0%		(105)	0%
Operating Reserve-Existing																						(26)	0%		(26)	0%
Cash Funded Capital Expenditures																						10,000	45%		10,000	4%
Expense Recovery																						543	-21%		543	0%
Revenue Credit from Operating Reserve																						(11,143)	135%		(11,143)	-5%
Total	$ 94	100%		$ 2,077	100%		$ (20,244)	100%		$ (2,716)	100%		$ (1,500)	100%		$ (148)	100%		$ (960)	100%		$ 2,663	100%		$ (20,735)	100%
Headcount	2.0			-			4.0			-			(1.0)			(1.0)			-						4.0	1%

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APPENDIX B
ADDITIONAL COMMENTARY ON ISO DIVISIONS: ORGANIZATION AND WORKLOAD

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VP Grid Operations (1500)

- Departments:
  - Operations Support And Training (OSAT)
  - Engineering & Maintenance
  - Scheduling & Outage Coordination
  - Grid Operations
  - Regional Coordination

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Operations Support And Training (OSAT)

- **Responsibilities:**
  - Provides operations training to all operations groups, other ISO groups & market participants
  - Update, create & maintain all operating procedures
  - Implement emergency response programs & procedures, including coordinating with state & federal external agencies
  - Final operations approval of revised and new EMS displays as required & requested by control room personnel
- **Staff:** 28
- **Work/Metrics:**
  - Prepare 8 trainees to become ISO, WECC, & NERC Certified Operators
  - Prepare material & provide 8377 hours of training to existing personnel
  - 582 Operating procedures changed
  - Monitor internal operations audits
  - Research & prepare data for investigations and internal reports
  - Interface with multiple external agencies during emergency situations

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Engineering & Maintenance

- **Responsibilities:**
  - Develop ISO operating procedures
  - Administer transmission register & line availability analysis & reporting
  - Develop & administer transmission maintenance program/standards
  - Prepare summer & winter assessments for the local areas
  - Prepare disturbance reports for the local areas
  - Participate in WECC working groups
- **Staff:** 36
- **Work/Metrics:**
  - Performed 32,000 short term operating studies or assessments in 2003
  - Seasonal reliability assessments (bi-annual process)
  - New generation resource interconnections (4790mw from 25 plants/units in 2003)
  - Represents the ISO in WECC Technical Subcommittees
  - System model development & maintenance
  - 1000 Transmission registry changes in 2003

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Scheduling & Outage Coordination

- **Responsibilities:**
  - Schedule real time interchange energy with adjacent control areas
  - Provide control area approval for electronic tagging system in real time
  - Approve or deny outage requests to enable necessary maintenance to preserve reliability of generation & transmission facilities
  - Long-term planning for outage coordination for both generation & transmission facilities
  - Record & maintain data related to outages
  - Ensure accurate path ratings and integrated outages
  - Conduct generator inspections to follow up on forced outages
- **Staff:** 48
- **Work/Metrics:**
  - 144,204 Schedules moved into, out of, and through the ISO control area on 31 interconnections with adjacent control areas in 2002
  - Approved 184,517 e-tags that met the NERC & WECC criteria in 2002
  - Processed & approved 38,000 outage requests in 2002 for work on power system equipment
  - 17 Generating unit outages investigated and inspected this year
  - Provide training to 25 entities on new outage scheduling tool-SLIC, in 2003

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Grid Operations

- **Responsibilities:**
  - Oversee & perform all real time operations of ISO grid & control area
  - Ensure reliable & safe operation of the ISO grid
  - Coordinate load & system restoration after any contingency or major system disturbance in cooperation with WECC Security Coordinator
  - Declare, when appropriate, a Statewide System Emergency as detailed in the dispatch protocol
  - Ensure compliance with all WECC, NERC criteria, and ISO protocols & procedures
  - Procure additional Ancillary Services as necessary
  - Manage operation of regulatory must-take, must-run & RMR generation
  - Dispatch interruptible loads as necessary
  - Coordinate generation resources to meet system load requirements
- **Staff:** 51
- **Work/Metrics:**
  - Performance meeting CPS1 (>100%) and CPS2 (>90%)
  - Performance meeting DCS (100%)
  - Operating within standards, policies, practices, & procedures of NERC & WECC (100%)

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Regional Coordination

- **Responsibilities:**
  - Regional Coordination - Interact with standards setting organizations – NERC, NAESB, WECC
  - Reliability Coordination – monitors real time system conditions, react to system emergencies
  - Research & development for special projects engineering
- **Staff:** 14
- **Work/Metrics:**
  - Coordinate & attend over 50 NERC & WECC committees & subcommittees
  - Participate in NERC technical standards development
  - Participate in development of WECC policies, practices, & procedures
  - Participate in development of NAESB Wholesale Electric Quadrant (WEQ) business standards
  - Participate in research & development of over 20 separate projects with EPRI, CEC, Power Systems Energy Resource Consortium (PSERC) & Consortium for Electric Reliability Technology Solutions (CERTS), such as wind generation, control algorithms, performance assessment, and special display development

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VP Market Services (1700)

- **Departments:**
  - Contracts & Special Projects
  - Client Relations
  - Settlements
  - Market Operations
  - Market Quality

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Contracts & Special Projects

- **Responsibilities:**
  - Develop, negotiate and administer contracts for market participants
  - Develop, negotiate and administer reliability contracts
  - Provide broad-based ISO leadership and support on issues including Transmission Access Charges, Grid Management Charges, Muni issues and FERC proceedings
- **Staff:** 9
- **Work/Metrics:**
  - Contracts in negotiations year-to-date (including RMR): 90
  - Contracts executed year-to-date (including RMR): 33
  - Administers 470 Contracts
  - Currently working on 20 special projects

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Client Relations

- **Responsibilities:**
  - Manages the day-to-day business relationship between the ISO and Grid users in the California energy market
  - Scheduling Coordinator, Participating Generator & Ancillary Services Certification
  - Resolution of Operational and Financial Disputes
  - Managing the Stakeholder process
  - Educating clients on ISO Systems and protocols
- **Staff:** 17
- **Work/Metrics:**
  - 70 Active Scheduling Coordinators
  - Scheduling Coordinator Applicants - 11 Active
  - Participating Generator Certifications – 14 Completed, 12 Active
  - Processed 1,304 settlement disputes
  - Provided 62 hours of settlement training to Scheduling Coordinators

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Settlements

- **Responsibilities:**
  - Billing and financial settlements of all transactions concerning ISO-controlled Grid activity
  - Daily statements and monthly invoices
  - Validate data to the settlement calculations
  - Rerun of Settlements calculations
  - RMR invoicing in accordance with the ISO tariff
- **Staff:** 32
- **Work/Metrics:**
  - Issues over 300 invoices per month
  - 2 Statements daily to over 70 entities
  - 2.5 million entries per month, half of which are generated manually
  - Reruns will require reproducing 70 statements per day for 510 days

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Market Operations

- **Responsibilities:**
  - Design, implement, run and maintain the necessary systems to facilitate California's markets
  - Costs analysis, cost justification and audits on the market-based business systems
  - Operating the various ISO markets, as well as the minute-to-minute control of the Market in accordance with FERC, WECC and ISO guidelines, policies and procedures
- **Staff:** 43
- **Work/Metrics:**
  - Congestion Management: 3689 hours in the Day Ahead Market, 2058 Hours in the Hour Ahead Market
  - Automatic Dispatch System Instructions: 392,877 in 2002
  - Real Time Price Corrections: 420 in 2002

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Market Quality

- **Responsibilities:**
  - Market Quality works to ensure the quality of the "bid to book" market transaction data prior to the settlements process
  - Developing and deploying standards, procedures and controls for new and existing business processes regarding markets, settlements and metering
  - Participates on the design, implementation and testing teams for new market and settlement functionality
- **Staff:** 18
- **Work/Metrics:**
  - Average monthly disputes processed: 97
  - Average monthly data corrections: 50,000
  - Average monthly transaction validations: 30,000

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Chief Information Officer (1400)

- **Departments:**
  - Operations System Services
  - Computer Operations & Infrastructure
  - Corporate & Enterprise Applications
  - IT Planning
  - Asset & Change Management

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Operations Systems Services

- **Responsibilities:**
  - Control Systems
  - Market & Scheduling System Development
  - Market & Scheduling Application Support
  - Settlements System Support
  - Field Data Acquisition System Support
- **Staff:** 60
- **Work/Metrics:**
  - 24/7 support for 25 software applications
  - Manage acquisition of real-time grid information from:
    - 1200 power generators
    - 80,000 telemetered points
    - >600 meters
  - Prepare systems for FERC reruns

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Computer Operations & Infrastructure Services

- **Responsibilities:**
  - Information Security Services
  - Network Services
  - Production Support
  - Systems Engineering
  - User Support Services
- **Staff:** 47, and outsourced resources including IBM (39), MCI (32).
- **Work/Metrics:**
  - 24/7 support for:
    - 132 software applications
    - >400 servers
    - 963 desktop computers
  - Security activity for access, intrusion detection, and virus protection
  - 3500 Help Desk calls (monthly)
  - 300 IT system changes (monthly)

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Corporate & Enterprise Applications

- **Responsibilities:**
  - Corporate Applications
  - Enterprise Applications
  - Analytical & Reporting Applications
- **Staff:** 24
- **Work/Metrics:**
  - Support and development of 40+ software applications
    - Corporate and Market Financials (EDI - ±$7B))
    - HR applications
    - DMA
    - Physical Security systems
    - Settlement Dispute System
  - 24/7 support for CHASE (Help Desk), CAISO.com, Data Warehouse, Documentum

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IT Planning

- **Responsibilities:**
  - IT Strategic Planning
  - IT System Architecture
  - IT System Standards
- **Staff:** 6
- **Work/Metrics:**
  - Annual update of IT Strategic Plan (a 3-year forecast of IT project spending)
  - Architectural evaluations for all major acquisition or development projects
  - Maintenance of: technical standards in 19 major areas; 5 major application architecture patterns; and 30 major application system architectures
  - Participation in technical exchanges sponsored by
    - Seams Steering Group of the Western Interconnection
    - ISO/RTO Council
    - US Agency for International Development

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IT Asset & Change Management

- **Responsibilities:**
  - IT Change & Asset Management
  - IT Contract Management
  - Telecommunications Vendor Management
  - Financial Planning & Budget Management
    - Centralized IT costs of >$30M are contained within the IS division budget to facilitate management of costs and efficiencies for vendor management.
- **Staff**: 10
- **Work/Metrics:**
  - IS Changes Managed Monthly: 300 infrastructure changes (monthly)
  - IS Contracts Managed: >1,200
    - 5 Lease companies
    - 175 Software license and maintenance vendors
    - 10 Hardware vendors
    - 7 Telecom vendors
    - 2 Prime outsource providers (AT&T and IBM)
  - Divisional financial performance management

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General Counsel Division (1600)

Departments:

- Legal & Regulatory
- Compliance
- Market Analysis

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General Counsel: Legal

- **Responsibilities:**
  - Key contracts
    Vendor agreements, consulting agreements, RFPs, DSOWs, non-disclosure agreements
  - HR counseling:
    HR policies, benefit plans, investigations, personnel actions
  - Corporate governance
  - Tax, IP, insurance coverage
  - Legal administration
  - Training
  - Corporate Secretary

- **Staff:** 9

- **Work/Metrics:**
  - AT&T conversion
  - Wage & hour trial
  - Settlement systems replacement
  - MD02 contracts

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General Counsel: Regulatory

- **Responsibilities:**
  - FERC, CPUC
  - Tariff administration
  - Tariff compliance
  - Rate cases
  - Regulatory litigation
- **Staff:** 7
- **Work/Metrics:**
  - MD02 implementation
  - Tariff simplification
  - PUC procurement proceeding
  - GMC rate design
  - Interconnection policies
  - 175 FERC filings (a/o 8/31)
  - 23 CPUC filings (a/o 8/31)
  - 80 active FERC dockets (a/o 8/31)
  - 8 active PUC dockets (a/o 8/31)

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CALIFORNIA ISO

General Counsel: Legislative

- **Responsibilities:**
  - State & Federal Government Relations
  - Interests Groups
  - Bill Tracking & Analysis
  - Advocacy
  - Hearings
- **Staff:** 4
- **Work/Metrics:**
  - MD02 legislative strategy
  - SB 72 (Dunn)
  - SB 520 (Sher)
  - SB 888 (Dunn)
  - WAPA
  - Federal energy bill
  - Board confirmations
  - 64 Bills tracked and analyzed (a/o 9/03)
  - 28 hearings attended (a/o 9/03)

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CALIFORNIA ISO

General Counsel: Litigation

- **Responsibilities:**
  - Investigations
  - Court litigation
  - Regulatory litigation
  - "Good Faith" Negotiations"/ADR
  - Data/Information requests
- **Staff:** 2
- **Work/Metrics:**
  - Governance litigation
  - Senate energy committee investigation
  - Refund litigation
  - Madrid litigation
  - FERC OSC cases
  - Williams mediation
  - PG&E, Enron, Mirant bankruptcies
  - 12 active civil cases
  - 14 GFN/Arbitrations
  - 166 sets of data responses (a/o 8/31)

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General Counsel: Compliance

- **Responsibilities:**
  - Enforcement of tariff provisions
  - Automated compliance programs and settlement adjustments
  - Meter data quality
  - Operational investigations
  - Training
- **Staff:** 13
- **Work/Metrics:**
  - Oversight & investigation program
  - "Double Pay" adjustment
  - Enron meter errors
  - MD02 implementation
  - Uninstructed deviation penalties
  - MSS compliance
  - SAS 70 Type 2
  - 169 logged events per month reviewed
  - 2411 declined instructions per month researched

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CALIFORNIA ISO

General Counsel: Market Analysis

- **Responsibilities:**
  - Monitoring & analysis of market performance
  - Routine and special reporting
  - Responding to data requests
  - Investigations:
    - anomalous events, market power, gaming, and market manipulation
  - Market design assessment
  - Design market power mitigation measures
  - Market Surveillance Committee
- **Staff:** 16
- **Work/Metrics:**
  - Refund litigation
  - Transmission projects & economic analysis
  - MD02 implementation
  - Monitoring market power mitigation measures
  - O&I
  - Procurement proceeding
  - Must-Offer analysis

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Chief Financial Officer (1300)

- **Departments:**
  - Controller
  - Treasury/Financial Planning
  - Facilities
  - Security / Office Administration

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Controller

- **Responsibilities:**
  - Accounting
  - Audit Coordination
  - Market Clearing
  - A/R, A/P
  - Purchasing
- **Staff:** 9.5
- **Work/Metrics:**
  - Annually:
    - Nearly 40,000 market invoices processed
    - 68 bank accounts
    - 25,000 vendor invoices processed
    - 2,500 purchasing line items processed

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Treasury/Financial Planning

- **Responsibilities:**
  - Budgeting
  - GMC Rates
  - Capital Project Financial Tracking
  - Risk Mgmt./ Insurance
  - Investments
  - SC Security Admin.
  - Benchmarking
- **Staff:** 6.5
- **Work/Metrics:**
  - Annually:
    - Budgets for 73 departments with approximately 70 expense types, 50 + database tables.
    - 500-1500 GMC related discovery questions
    - 350 investment transactions
    - >150 SC security changes

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Facilities

- **Responsibilities:**
  - To provide and manage a highly reliable building infrastructure that supports a safe, efficient and comfortable work environment and contributes to enterprise-wide teamwork and collaboration.
  - Building maintenance
  - Space planning
- **Staff:** 7
- **Work/Metrics:**
  - 182,653 sq. ft. of facilities in two campuses
  - Over 100 facilities action requests per month
  - Over 30 space planning moves per month

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Security/ Office Administration

- **Responsibilities:**
  - Security
  - Safety
  - Administration: mail, room setup, reception
- **Staff:** 10
- **Work/Metrics:**
  - 2003 monthly averages:
    - 16 security incidents
    - 750 visitors to ISO
    - 20 conference room setups

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CEO/MD02/Grid Planning (1100)

- **Departments:**
  - Office of CEO
  - MD02 Implementation Project
  - Grid Planning

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Office of CEO

- **Responsibilities:**
  - Ensures that the ISO fulfills its corporate goals
  - Oversees all ISO departments
  - Represents ISO to external regulatory agencies & public policy decision making bodies
  - Represents ISO to industry organizations
  - Represents ISO in national forums
- **Staff: 2**
- **Work/Metrics:**
  - NERC Stakeholder Committee
  - NERC Steering Group – for NE Blackout Investigation
  - ISO / RTO Council
  - CERTS – Industry Advisory Board
  - WECC Reliability Policy Issues Committee
  - The Conference Board – Executive Council
  - Speeches to industry conferences – IEEE, CMTA, Western Markets Forum, Toronto Energy Summit, Arizona Energy Summit, etc.

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CALIFORNIA ISO

Grid Planning

- **Responsibilities:**
  - Review the PTO 10-year Bulk Power Program & ensure projects are implemented in a timely fashion, such as Jefferson-Martin
  - Review studies by PTOs for connecting new generators or load to the ISO controlled grid
  - Conduct studies to determine RMR/LARS contract requirements
  - Coordinating & establishing the ISO Planning Standards
  - Lead or support several Regional and National technical/engineering groups including WECC, SSG-WI, STEP, NTEP, several NERC Planning groups (including PC Vice-Chair) and SAC (Vice-Chair)
- **Staff:** 16
- **Work/Metrics:**
  - 17 generation projects in que
  - Over 100 base cases reviewed or developed in 2003
  - Chair, Vice-Chair or participate in meetings of: WECC, SSG-WI (Steering Group & Planning Working Group), NERC (Standards Authorization Committee(SAC), Planning Committee (PC))
  - Initiated subregional transmission planning groups for southwest & northwest (STEP, NTEP)
  - Participated in ISO's development of methodology for analysis of economic transmission projects
  - Help facilitate resolution of issues surrounding closure of generation at Hunters Point and Potrero
  - Support PG&E towards goal of successfully completing the CPCN process for Jefferson-Martin and its in-service date of Sept. 2005

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CALIFORNIA ISO

MD02 Implementation Project

- **Responsibilities:**
  - Successful implementation of approved phases of MD02
  - Such implementation necessitates change-out of majority of existing systems and installing open architecture, modular systems, using industry best practices
  - Seek out, negotiate & contract with top vendors to develop new software systems
- **Staff:** 7, with additional resources of IBM & staff from other ISO Depts.
- **Work/Metrics:**
  - Developed scope, schedule and overall budget for project
  - Submitted nine monthly reports to FERC
  - Delivery and implementation of Phase 1A
  - Development and testing of Phase 1B
  - Established disciplined RFP process and have employed it on major IFM/LMP and settlements software development projects

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CALIFORNIA ISO

Corporate & Strategic Development (1800)

- **Departments:**
  - Communications
  - Human Resources
  - Policy Office

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CALIFORNIA ISO

Communications

- **Responsibilities:**
  - Corporate communications policy
  - Media relations
  - External communications coordination
  - Internal communications coordination
  - Inter-and Intra-net coordination
- **Staff:** 4
- **Work/Metrics:**
  - 12-24 public information inquiries per day(including through the website)
  - 10-20 news releases/media advisories
  - Track media coverage – post daily to intranet
  - Publications:
    - Corporate Annual Report
    - Quarterly Employee Newsletter
    - Biweekly Watt's New with MD02
  - Plan and execute Employee monthly events; all/hands; anniversary party; fall family picnic
  - Control room tours: 500+ visitors
  - Developed & distributed 12 Fact Sheets on current issues

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CALIFORNIA ISO

Human Resources

- **Responsibilities:**
  - Recruit, hire and retain employees
  - Benefits and compensation HR Policy
  - Manage Employee Transactions and Records
  - Provide Organization Development and Training
- **Staff:** 13
- **Work/Metrics:**
  - Process employee benefits and payroll for approximately 574 employees
  - New hires: 25
  - Manage on-site Temporary Vendor staffing services – avg. of 70 contractors per month
  - Select & implement new Oracle Human Resources Database to replace in-house payroll system (scheduled within an 8 month timeframe)
  - Promotions, transfers, administrative changes: 107
  - Voluntary/involuntary terminations: 19
  - Training opportunities
    - 67 courses
    - Total Participants: 585
  - Initiated "Manager Seminar Series"

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Policy Office

(Strategic Development; Project Office; Regulatory Policy)

- **Responsibilities:**
  - Facilitate Development of Corporate/Strategic Goals & Objectives
  - Guide Corporate Policy
  - Guide Market Design
  - Lead Policy Interaction with Regional and Regulatory Bodies
  - Project Management Standards & Portfolio Reporting
- **Staff:** 10
- **Work/Metrics:**
  - Developed and tracked corporate goals
  - Lead development of MD02 conceptual design
  - Lead policy witness on such regulatory processes as FERC's interconnection rulemaking, CPUC's resource procurement and transmission planning and expansion efforts
  - Lead representatives on regional outreach and policy coordination efforts
  - Assisted in generation maintenance standards development and establishing inter-agency AB39XX Committee
  - Led in relationships building with CPUC and utilities during final development of MD02
  - Produce monthly POWER report on progress of ISO's major projects
  - Introduced and defined generic process of project management and established intranet coaching site

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California ISO
Calculation of Financial & Capital Operating Reserve Credit for 2004

Factors affecting the reserve credit for 2004 can be outlined in two parts:

1. Items affecting the reserve balance as of 12/31/2002.
   The analysis shows the reserve balance at 12/31/2002 based on the assumptions used in our last GMC filing (for 2003), updates to those assumptions based on actual experience, and also incorporates new items affecting the reserve as of that date.

2. 2003 events affecting the reserve, including 2003 revenues, expenses and other reserve uses and credits.

SUMMARY OF			Plan		Actual / Revised
1	Available as credit for 2003		8,257		3,423
2	2003 Events				
	Reserve Balance at 1/2003		34,018		29,184
	Increases in 2003		2,693		11,678
	Ending Reserve Balance		36,711		40,862
	Calculation of Available 2004 Credit				
	2004 O&M Budget	*171,739*		*151,735*	
	Less: Reserve Requirement= 15% of 2004 O&M Budget		(25,761)		(22,760)
	2004 Credit		10,950		18,102

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California ISO

Calculation of Financial & Capital Operating Reserve Account Balance as of 12/2002

		Per 11/2/2002 Filing				Actual							Allocation Percentages			
		CAS	CONG	Market Ops/ ASREQ	Total	CAS	CONG	Market Ops/ ASREQ	Total	Difference	General Notes	Allocation Notes	CAS	CONG	Market Ops/ ASREQ	Total
1	**BEGINNING RESERVE BALANCE, 1/1/2002**	22,953	4,850	34,907	62,710	22,953	4,850	34,907	62,710		Per 2001 Section 35 Filing.		36.6%	7.7%	55.7%	100.0%
2	**CALCULATION OF CONTRIBUTION TO RESERVE FROM OPERATIONS**															
3	Revenue:															
4	GMC Rates: 2002 Revenue	132,866	29,105	62,364	224,334	133,297	28,438	62,735	224,470	136	2002 Collections, updated figures replacing those from 11/2/2002 filing. Actual collections per accounting records. Includes post audited adjustments.	Actual collections.	59.4%	12.7%	27.9%	100.0%
5	Other (Interest Income, WECC reimbursement)	2,473	311	1,024	3,808	2,523	335	1,061	3,920	112	Updated figures replacing those from 11/2/2002 filing. SC Application fees: $11.5, WECC reimbursement: $1,127, interest and other: $2,781	Security coordinator fees assigned to CAS, remainder (mainly interest) spread proportionately.	64.4%	8.5%	27.1%	100.0%
6	Expenses:															
7	O&M	(95,742)	(18,014)	(53,209)	(166,965)	(89,706)	(16,878)	(49,854)	(156,438)	10,527	Updated based on actual 2002 results. (Per supporting schedules for audited F/S) less, depreciation/amortization= $152,328 and excluding $4,110 of capitalized internal labor costs. Net is: $156,438	Per 2002 cost allocation matrix, O&M costs.	57.3%	10.8%	31.9%	100.0%
8	Debt Service	(20,092)	(4,481)	(19,938)	(44,510)	(19,782)	(4,412)	(19,631)	(43,825)	685	Updated based on actual 2002 results. (Per supporting schedules for audited F/S). Interest is $10,458. Principal amount is $33,367 (payments to Trustee in 2002). Interest is at higher rate from 2000 swap, offset by interest income from GIC, included in other income above.	Variance spread proportionately. Allocation based on filed 2001 debt service allocation factors.	45.1%	10.1%	44.8%	100.0%
8a	Cash Funded CapEx	(5,559)	(645)	(2,096)	(8,301)	(5,559)	(645)	(2,096)	(8,301)	-	As planned, any variance would be below in Line 11.		67.0%	7.8%	25.3%	100.0%
9	**Contribution to Operating Reserve**	13,946	6,275	(11,855)	8,367	20,773	6,837	(7,785)	19,826	11,459						
10	**OTHER RESERVE USES**															
11	Use of Reserve for CapEx	(3,589)	(2,617)	(7,494)	(13,699)	(3,696)	(2,694)	(7,715)	(14,105)	(406)	Actual of $22,417.	Per 2002 cost allocation matrix.	26.2%	19.1%	54.7%	100.0%
12	Amendment 33 Fines	(11,136)	(2,088)	(9,976)	(23,200)	(11,136)	(2,088)	(9,976)	(23,200)	-	Actual fines provided toward 2002 rates per 11/2/2001 filing.	Allocated based on proportion of forecasted GMC collections in 2001.	48.0%	9.0%	43.0%	100.0%
12a	Reallocation of Fines per 2002 GMC Settlement	(4,065)	(1,151)	5,216	(0)	(4,065)	(1,151)	5,216	(0)	-	Reallocation per terms of 2002 GMC Settlement	Up to $9 million reallocated per 2002 GMC settlement.				
13	Interest on Refunds from 2002 GMC Settlement	*(46)*	*(29)*	*(85)*	*(160)*	*(142)*	*(27)*	*(127)*	*(295)*	(135)	Refund on excess 2002 GMC collections per Settlement Agmt paid in February 2003, later than anticipated.	Same as above.	48.0%	9.0%	43.0%	100.0%
14	*2001 GMC Case Refunds per 5/2/2003 FERC Order (related to 2001 incentive compensation)*					*(923)*	*(133)*	*(743)*	*(1,800)*	(1,800)	*Order 463 indicated $1.8 million in "overbudgeted" incentive compensation should be returned as a refund to 2001 ratepayers. ISO has filed a request for rehearing on this.*	*Allocated with 2001 GMC O&M budget factors.*	51.3%	7.4%	41.3%	100.0%
15	*Matters Pending Dispute Resolution, Litigation or Appeal including interest on potential awards or judgment.*					*(11,487)*	*(612)*	*(612)*	*(12,711)*	(12,711)	*The outcome of several matters is pending, and until such time as a final determination is made, amounts potentially payable are set aside in this reserve calculation.*	*Allocation is detailed for each item.*	90.4%	4.8%	4.8%	100.0%
16	*Interest on Excess collection of Amendment 33 fines.*					*(585)*	*(69)*	*(1,465)*	*(2,118)*		*Interest through 12/31/2002 on Amend 33 fines likely to be returned. $54.7 million collections less $19.9 million to keep, difference of $34.8 million. Interest calculated at FERC interest rate.*	*Allocated in same proportion as total Amend 33 Fines collected*	27.6%	3.2%	69.1%	100.0%
17	*Interest on 2001 GMC Case Refunds per 5/2/2003 FERC Order (related to incentive compensation)*					*(63)*	*(9)*	*(51)*	*(122)*	(122)	*Estimate of interest related to the $1.8 million refund from 2001 to end of year 2002.*	*Allocated with 2001 GMC O&M budget factors.*	51.3%	7.4%	41.3%	100.0%
18	**Net Increase in Operating Reserve (Sum Lines 9-17)**	**(4,891)**	**391**	**(24,193)**	**(28,693)**	**(11,324)**	**55**	**(23,257)**	**(34,526)**	(5,833)						
19	**Ending Reserve Balance**	18,062	5,241	10,714	34,018	11,629	4,905	11,650	28,184	(5,833)						
20	Less: Reserve Requirement (15% of 2003 Budget. Line	16,066	2,694	7,001	25,761	16,066	2,694	7,001	25,761							
21	FY2003 Operating Budget	*107.105*	*17.958*	*46.675*	*171.739*	*107.105*	*17.958*	*46.675*	*171.739*							
22	Equals: Revenue Credit Available	1,996	2,547	3,713	8,257	(4,437)	2,211	4,649	2,423	(5,833)						

California ISO
Calculation of Available Revenue Credit for 2004

EXHIBIT B

		Budget				Actual/Forecast							Allocation Percentages			
		CAS	CONG	Market Ops/ ASREQ	Total	CAS	CONG	Market Ops/ ASREQ	Total	Difference	General Notes	Allocation Notes	CAS	CONG	Market Ops/ ASREQ	Total
1	**BEGINNING RESERVE BALANCE, 1/1/2003**	$ 18,062	$ 5,241	$ 10,714	$ 34,018	$ 12,425	$ 5,007	$ 11,752	$ 29,184							
2	**CALCULATION OF CONTRIBUTION TO RESERVE FROM OPERATIONS**															
3	Revenue:															
4	GMC Rates: 2003 Calendar Year Revenue	137,857	27,401	72,343	237,601	135,655	28,618	78,393	242,666	5,065	Actuals/estimated through August, forecast amounts for September - December.		55.9%	11.8%	32.3%	100.0%
5	Other (Interest Income, WECC reimbursement)	1,993	148	487	2,628	1,993	148	487	2,628	-	Budgeted amounts used as of September 2003.	Security coordinator fees assigned to CAS. Remainder (mainly interest) spread proportionately. Allocation is per 11/8/2002 CAM: page 14, Line 249.	80.3%	5.5%	14.2%	100.0%
6	Expenses:															
7	O&M	(107,047)	(18,001)	(46,691)	(171,739)	(103,418)	(17,430)	(45,152)	(166,000)	5,739	Per accounting forecast at 8/28/2003, of $164 million, increased to $166 million.	Allocation: Per 11/8/2002 filing (CAM: page 14 Line 243)	62.3%	10.5%	27.2%	100.0%
8	Debt Service	(22,392)	(5,067)	(16,338)	(43,797)	(22,449)	(5,096)	(16,387)	(43,932)	(135)	Principal: payments to trustee in 2003: $34,800. Interest: $9,132 budgeted.	Allocation: Actual 2003: budget as allocated in CAM.	51.1%	11.6%	37.3%	100.0%
9	Cash Funded CapEx	(9,081)	(5,617)	(7,302)	(22,000)	(9,081)	(5,617)	(7,302)	(22,000)	-	Additional use of reserve for CapEx is shown below.	Allocation per 11/8/2002 filing, cash funded CapEx. CAM: page 16, Line 332.	41.3%	25.5%	33.2%	100.0%
10	Contribution to Operating Reserve (Sum lines 2 throug	1,330	(1,136)	2,499	2,693	2,700	623	10,039	13,362	10,669						
11	**OTHER RESERVE USES**															
12	Interest on Excess Collections of Amendment 33 Fines					(397)	(46)	(992)	(1,436)	(1,436)	*Interest for year 2003 on Amend 33 fines likely to be returned. $54.7 million collections less $19.9 million to keep, difference of $34.8 million. Interest at 4.125% (average FERC interest rate in 2003).*	*Allocated in same proportion as total Amend 33 Fines collected*	27.6%	3.2%	69.1%	100.0%
14	Interest on 2001 GMC Case: Incentive Comp.					(41)	(6)	(33)	(79)	(79)	*Calculated using FERC interest rates on 2001 GMC overassessment of $1.8 million. Interest is for year 2003.*	*Allocated with 2001 GMC O&M budget factors.*	51.3%	7.4%	41.3%	100.0%
15	*Matters Pending Dispute Resolution, Litigation or Appeal including interest on potential awards or judgment.*					(169)	-	-	(169)	(169)	*The outcome of several matters is pending, and until such time as a final determination is made, amounts potentially payable are P24*	*Allocation is detailed for each item.*	100.0%	0.0%	0.0%	100.0%
	Net Increase in Operating Reserve	**1,330**	**(1,136)**	**2,499**	**2,693**	**2,093**	**570**	**9,014**	**11,678**	**8,985**						
	Ending Reserve Balance	19,392	4,105	13,214	36,711	14,518	5,578	20,767	40,862	4,152						
	Less: Reserve Requirement (15% of 2003 Budget)	16,066	2,694	7,001	25,761	12,291	2,504	7,966	22,760	(3,001)						
	FY2004 Operating Budget	*107.105*	*17.958*	*46.675*	*171.739*	*81.937*	*16.691*	*53.107*	*151.735*	(20,004)						
	Equals: Revenue Credit Available	$ 3,326	$ 1,412	$ 6,212	$ 10,950	**$ 2,228**	**$ 3,074**	**$ 12,800**	**$ 18,102**	$ 7,152						

CALIFORNIA ISO

FY2004 GMC Summary
$ in 000's

	FY2003 Budget	FY2004 Management Recommended Budget
Revenue Requirement		
Operating & Maintenance Budget	$ 171,739	$ 151,735
Difference from FY2003		(20,004)
		-12%
Financing Budget:		
Principal-Existing Debt	35,300	36,167
Interest-Existing Debt	8,497	7,525
Operating Reserve (25% of Principal & Interest)	10,949	10,923
Subtotal, Financing Collection	54,746	54,615
Capital Project Funding	22,000	32,000
Subtotal, Revenue Requirement Prior to Credits	248,485	238,350
Less: Expense Recovery Budget:		
Interest Earnings	(1,252)	(652)
SC Application & Training Fees	(120)	(120)
WECC Reimbursement/NERC Reimbursement	(1,256)	(1,313)
Subtotal, Expense Recovery Budget	(2,628)	(2,085)
Subtotal, Revenue Requirement before Revenue Credit	$ 245,857	$ 236,265
Revenue (Credit)/Deficiency From Operating Reserve	(8,257)	(18,102)
Total Revenue Requirement	$ 237,600	$ 218,163
Difference from FY2003 Filed Revenue Requirement		(19,437)
		-8%

Net Revenue Requirements by Service (see note 1)		
Core Reliability Services	$ 94,041	$ 87,942
Energy & Transmission Services- Energy	56,072	53,251
Energy & Transmission Services- Deviations	14,344	13,313
Forward Scheduling	19,167	14,876
Congestion Management	14,139	14,571
Market Usage	39,052	33,440
Settlements, Metering, Client Relations	785	771
	$ 237,600	$ 218,163

Divided By:

Billing Determinant Volume Forecast (see note 2)		
Core Reliability Services: NCP Demand in MW	532,612	534,678
Energy & Transmission Services-: Energy in MWh	240,786,893	239,703,024
Energy & Transmission Services: Deviations in MWh	16,722,610	18,046,625
Forward Scheduling: # of schedules	12,680,795	12,904,622
Congestion Management: Net Interzonal Flows in MWh	91,533,351	92,306,042
Market Usage: Purchases & Sales of RT & A/S in MWh	43,048,955	42,376,439
Settlements, Metering, Client Relations: Customer Months	1,542	1,542

Equals:

Net Grid Management Charge ("GMC") (see note 1)		
Core Reliability Services: $ / NCP Demand in MW	$ 177	$ 164
Energy & Transmission Services-: $ / Energy in MWh	$ 0.23	$ 0.22
Energy & Transmission Services: $ / Deviations in MWh	$ 0.86	$ 0.74
Forward Scheduling: $ per schedule	$ 1.51	$ 1.15
Congestion Management: $ / Net Interzonal Flows in MWh	$ 0.15	$ 0.16
Market Usage: $/ Purchases & Sales of RT & A/S in MWh	$ 0.91	$ 0.79
Settlements, Metering, Client Relations: $ / Customer Month	$ 500.00	$ 500.00

Notes:

1. GMC Service Categories are those approved for 2004
   Costs are after apportionment of Financial & Capital Operating Reserve Credit and Other Expense Recovery I
   functional association of Settlements, Metering & Client Relations costs.
2. Volumes for 2003 budget are actual volumes for 2002. 2004 volumes are forecast, and forecast will be furthe
   prior to filing.