

2008 - 2011 California ISO Projects Completed June 2010 through May 2011

<i>Capital ID #</i>	<i>Year Approved</i>	<i>Project Description</i>	<i>Approved Project Budgets</i>	<i>Final Cost</i>	<i>% Completed to budget</i>
---------------------	----------------------	----------------------------	---------------------------------	-------------------	------------------------------

2008-2010 Completed Capital Projects

12135	2008	SAS EBI Enhancements	\$ 950,000	\$ 691,283	73%
12136	2008	PROBE -Development	\$ 525,000	\$ 524,786	100%
13155	2008	MAP Design Phase	\$ 721,434	\$ 723,198	100%
12139	2009	iRecruitment & Standard Appraisal	\$ 502,000	\$ 484,264	96%
12156	2009	Upgrade EMS	\$ 5,808,000	\$ 5,191,961	89%
12157	2009	Alhambra Control Room Console Replacement	\$ 295,000	\$ 310,426	105%
12158	2009	ALFS 5 and 15-Minute-Level Load Update	\$ 496,000	\$ 496,000	100%
12159	2009	MPP Phase 2	\$ 300,000	\$ 292,404	97%
12162	2009	Market System Enhancements -2009	\$ 1,708,660	\$ 1,775,507	104%
12163	2009	Market Validation Software Tool	\$ 118,008	\$ 118,709	101%
12164	2009	CRR 2009 Enhancements	\$ 714,300	\$ 714,007	100%
12165	2009	OMS Core Application Phase 1	\$ 725,615	\$ 685,476	94%
12166	2009	Multi Stage Generator Modeling	\$ 4,704,680	\$ 5,023,632	107%
12167	2009	RIMS Phase 2	\$ 250,000	\$ 272,097	109%
12168	2009	Areva e-Terra v.2.5 upgrade & Hardware	\$ 1,036,350	\$ 1,007,030	97%
12169	2009	Credit Tracking System	\$ 1,885,900	\$ 1,970,204	104%
12170	2009	eTariff Project	\$ 592,668	\$ 540,419	91%
12171	2009	Scarcity Pricing	\$ 960,000	\$ 743,814	77%
12172	2009	Convergence Bidding	\$ 2,500,566	\$ 2,500,566	100%
12173	2009	Proxy Demand Response	\$ 3,951,000	\$ 3,974,100	101%
12174	2009	A/S Procurement in HASP	\$ 890,000	\$ 800,126	90%
12153 & 12154	2009	2009 Misc. Hardware & Software Purchases	\$ 1,689,000	\$ 1,376,943	82%
14164	2009	Alhambra Leaseholds	\$ 5,000	\$ 1,867	37%
12300	2010	Make Whole Payments	\$ 68,000	\$ 20,691	30%
12400	2010	RIMS Phase 3	\$ 255,000	\$ 281,758	110%
12404	2010	Transmission Constraints for IFM	\$ 50,000	\$ 45,000	90%
12405	2010	Standard Capacity Product Phase 2	\$ 899,000	\$ 480,128	53%
12603 & 12604	2010	2010 Misc. Hardware & Software Purchase	\$ 2,922,457	\$ 2,156,890	74%
12606	2010	Range 3000 Training System	\$ 17,650	\$ 17,646	100%
12607	2010	CAS Hardware Purchase	\$ 333,000	\$ 281,792	85%

Total completed Capital Projects

\$ 35,874,288 \$ 33,502,725

2008 - 2011 California ISO Projects Completed June 2010 through May 2011

<i>Capital ID #</i>	<i>Year Approved</i>	<i>Project Description</i>	<i>Approved Project Budgets</i>	<i>Final Cost</i>	<i>% Completed to budget</i>
----------------------------	-----------------------------	-----------------------------------	--	--------------------------	-------------------------------------

Requirements and Other Projects

21028	2008	OMS Requirements	\$ 330,000	\$ 329,384	100%
21036	2009	Capabilities Maturity Program	\$ 85,000	\$ 72,971	86%
21042	2009	Operational Improvements Requirements	\$ 54,300	\$ 66,236	122%
21043	2009	eTariff Management System- Requirements	\$ 80,000	\$ 37,096	46%
21044	2009	RIMS Phase 3 Requirements	\$ 54,000	\$ 49,842	92%
21052	2010	Website Redesign Requirements	\$ 157,000	\$ 156,631	100%
21053	2010	Transmission Constraints Require.& Reports	\$ 135,000	\$ 106,906	79%
21054	2010	Standard Capacity Product II Requirements	\$ 40,000	\$ 42,198	105%
21057	2010	Smart Grid Requirements	\$ 120,000	\$ 121,131	101%
21059	2010	VSA Enhancements Requirements	\$ 40,000	\$ 14,370	36%
21060	2010	Credit Policy Enhancements Requirements	\$ 75,000	\$ 77,233	103%
21063	2010	Market Scheduling Limit Open Ties Requirements	\$ 40,000	\$ 41,936	105%
21069	2010	Capacity CPM/Compensation/Bid Mitigation for Exceptional Dispatch Requirements	\$ 66,000	\$ 67,227	102%
21070	2010	Change In Commitment Costs Requirements	\$ 40,000	\$ 55,424	139%

Total Requirements and Other Projects

\$ 1,316,300 \$ 1,238,583

Grand Total Completed Projects

\$ 37,190,588 \$ 34,741,309

2009-2011 California ISO Active Projects as of May 31, 2011

<i>Capital ID #</i>	<i>Year Approved</i>	<i>Project Description</i>	<i>Approved Budgets</i>	<i>Forecast/ Actual</i>	<i>Project to Date 2011</i>	<i>\$ % Complt</i>	<i>Issued Contracts Unbilled</i>	<i>Total Remaining BALANCE</i>
---------------------	----------------------	----------------------------	-------------------------	-------------------------	-----------------------------	--------------------	----------------------------------	--------------------------------

Active Capital Projects

12172	2009	Convergence Bidding - CTS	\$ 5,454,566	\$ 5,454,566	\$ 5,226,185	96%	\$ 40,000	\$ 188,381
12200	2010	Website Software	\$ 240,000	\$ 240,000	\$ 177,270	74%		\$ 62,730
12301	2010	EMS One Line Visualization	\$ 169,000	\$ 169,000	\$ 115,500	68%	\$ 38,500	\$ 15,000
12302	2010	VSA Day Ahead Rpt.	\$ 1,006,000	\$ 1,006,000	\$ 88,359	9%	\$ 235,956	\$ 681,686
12303	2010	PSLF Exporter Enhancements	\$ 125,000	\$ 125,000	\$ -	0%		\$ 125,000
12304	2010	CRR Enhancements 2010	\$ 915,605	\$ 915,605	\$ 428,357	47%	\$ 13,200	\$ 474,048
12305	2010	Alhambra Simulator Train. Rm.	\$ 439,000	\$ 439,000	\$ 358,114	82%		\$ 80,886
12306	2010	Operations Training Simulator	\$ 152,600	\$ 152,600	\$ 125,770	82%	\$ 7,224	\$ 1,245
12307	2010	72 hour Residual Unit Commitment	\$ 780,000	\$ 780,000	\$ 77,780	10%	\$ 600,000	\$ 102,220
12308	2010	Commitment Costs	\$ 478,432	\$ 478,432	\$ 255,219	53%	\$ 73,320	\$ 149,893
12309	2010	CCEF Activity Mgt Tool	\$ 90,000	\$ 90,000	\$ -	0%	\$ 48,000	\$ 42,000
12310	2010	TRACCESS CI Migration	\$ 15,000	\$ 15,000	\$ -	0%		\$ 15,000
12311	2010	Capacity Procurement Mechanism (CPM)	\$ 275,000	\$ 275,000	\$ 161,868	59%		\$ 113,132
12312	2010	Open Ties	\$ 260,624	\$ 260,624	\$ 257,120	99%	\$ -	\$ 3,504
12313	2011	Dynamic Stability Analysis -	\$ 653,340	\$ 653,340	\$ 101,710	16%	\$ 310,000	\$ 241,630
12314	2011	CAISO Enterprise UML Model	\$ 125,000	\$ 125,000	\$ 16,504	13%		\$ 108,496
12315	2011	Credit Reform (FERC 741)	\$ 508,605	\$ 508,605	\$ -	0%		\$ 508,605
12316	2011	Generated Bids & Outage Rpt.	\$ 930,000	\$ 930,000	\$ -	0%		\$ 930,000
12317	2011	Battery Storage EMS Changes	\$ 120,468	\$ 120,468	\$ -	0%		\$ 120,468
12401	2010	Market Services Enhancement	\$ 950,000	\$ 950,000	\$ 277,567	29%		\$ 672,433
12402	2010	2010 Operation Enhancement	\$ 965,800	\$ 965,800	\$ 639,656	66%	\$ 221,800	\$ 104,344
12403	2010	Exceptional Dispatch	\$ 334,000	\$ 334,000	\$ 23,225	7%	\$ 210,000	\$ 100,775
12406	2011	Outage Management System2	\$ 456,000	\$ 456,000	\$ 147,862	32%		\$ 308,138
12407	2011	2011 Operation Enhancement	\$ 1,050,000	\$ 1,050,000	\$ 136,952	13%	\$ 600,000	\$ 313,048
12408	2011	Reliability Demand Response	\$ 617,400	\$ 617,400	\$ 20,530	3%	\$ 164,500	\$ 432,370
12409	2011	SIBR Improvements	\$ 546,160	\$ 546,160	\$ 3,250	1%		\$ 542,910
12605	2010	Reporting Services	\$ 832,380	\$ 832,380	\$ 657,081	79%		\$ 175,299
12608	2010	Electronic Records Mgt SW	\$ 294,000	\$ 294,000	\$ 119,211	41%	\$ 24,454	\$ 150,335
12609	2011	2011 HW & SW Purchases	\$ 2,050,000	\$ 2,050,000	\$ 604,057	29%	\$ 604,057	\$ 841,886
12611	2011	Integration Improvements	\$ 210,000	\$ 210,000	\$ 97,365	46%	\$ 20,550	\$ 92,086

Total Active Capital Projects	\$ 21,043,980	\$ 21,043,980	\$ 10,116,513	\$ 3,211,561	\$ 7,697,545
--------------------------------------	----------------------	----------------------	----------------------	---------------------	---------------------

2009-2011 California ISO Active Projects as of May 31, 2011

Capital ID #	Year Approved	Project Description	Approved Budgets	Forecast/ Actual	Project to Date 2011	\$ % Complt	Issued Contracts Unbilled	Total Remaining BALANCE
--------------	---------------	---------------------	------------------	------------------	----------------------	-------------	---------------------------	-------------------------

Active Requirements and Other Projects

21046	2009	Participating Load Refinements Reqmts	100,000	\$ 100,000	\$ 38,601	39%		\$ 61,399
21048	2010	Non-Generator Resources in A/S Market Reqmts	\$ 20,000	\$ 20,955	\$ 20,955	105%		\$ -
21049	2010	EMMS - Enterprise Model Management System Reqmts	\$ 104,000	\$ 104,000	\$ 40,199	39%		\$ 63,801
21050	2010	Market Services Reqmts	\$ 100,000	\$ 100,000	\$ 85,217	85%		\$ 14,783
21052	2010	Website Renovation	\$ 1,510,000	\$ 1,510,000	\$ 572,904	38%	\$ 446,598	\$ 490,498
21055	2010	Tariff Compliance Framework	\$ 788,696	\$ 788,696	\$ 778,617	99%		\$ 10,079
21058	2010	Compliance Automation	\$ 45,000	\$ 45,000	\$ 44,882	100%		\$ 118
21061	2010	Multi-Day Unit Commit Reqmt	\$ 85,000	\$ 85,000	\$ 22,631	27%		\$ 62,369
21062	2010	Dynamic Transfers Reqmts	\$ 60,000	\$ 60,000	\$ -	0%		\$ 60,000
21065	2010	Remedy on Demand Implmt.	\$ 640,100	\$ 680,100	\$ 677,149	106%		\$ 2,951
21066	2010	OMAR Enhancements Reqmts	\$ 45,000	\$ 45,000	\$ 38,005	84%		\$ 6,995
21067	2010	Market Network Model Reqmts	\$ 55,000	\$ 55,000	\$ 18,800	34%		\$ 36,200
21068	2010	Reliability Demand Response Reqmts	\$ 70,000	\$ 70,000	\$ 61,818	88%		\$ 8,183
21071	2010	Operations Training Simulator	\$ 181,600	\$ 181,600	\$ 32,646	18%		\$ 148,954
21072	2010	Electronic Records Mgt	\$ 451,000	\$ 451,000	\$ 189,504	42%		\$ 261,496
21073	2010	Predictive AGC - Study	\$ 1,026,000	\$ 1,026,000	\$ -	0%	\$ 961,500	\$ 64,500
21074	2011	33% Renewable Profiling	\$ 270,000	\$ 270,000	\$ 183,270	68%	\$ 25,730	\$ 61,000
21075	2011	Generated Bids & Outage Rpt.	\$ 90,000	\$ 90,000	\$ 42,255	47%		\$ 47,745
21077	2011	Reporting Services	\$ 455,050	\$ 455,050	\$ 267,800	59%	\$ 1,962	\$ 185,288
21078	2011	FERC 741 Requirements	\$ 25,000	\$ 25,000	\$ 18,395	74%		\$ 6,605
21079	2011	2012 GMC Project	\$ 5,000	\$ 5,000	\$ 2,412	48%		\$ 2,588
21080	2011	Battery Storage Projects	\$ 32,000	\$ 32,000	\$ 16,365	51%		\$ 15,635
21083	2001	CIP-004 Reporting	\$ 44,800	\$ 44,800	\$ 1,150	3%		\$ 43,650
21084	2011	Consolidated Arch. Analysis	\$ 50,000	\$ 50,000	\$ -	0%		\$ 50,000
21085	2011	LMPM Enhancement Reqmts	\$ 25,000	\$ 25,000	\$ -	0%		\$ 25,000
21086	2011	Regulation Energy MGT	\$ 45,000	\$ 45,000	\$ -	0%		\$ 45,000
21087	2011	OMS Phase 3 Reqmt.	\$ 145,213	\$ 145,213	\$ -	0%		\$ 145,213
21088	2011	Data Release Phase 3	\$ 30,000	\$ 30,000	\$ -	0%		\$ 30,000
21089	2011	Operations Perform. Opt.	\$ 200,000	\$ 200,000	\$ -	0%		\$ 200,000

Total Requirements & Other Project	\$ 6,698,459	\$ 6,739,414	\$ 3,153,573	\$ 1,435,790	\$ 2,150,051
---	---------------------	---------------------	---------------------	---------------------	---------------------

Grand Total Active Projects	\$ 27,742,439	\$ 27,783,394	\$ 13,270,086	\$ 4,647,351	\$ 9,847,596
------------------------------------	----------------------	----------------------	----------------------	---------------------	---------------------

14161	2008	Iron Point Building Total Cost	\$ 160,000,000	\$ 148,989,182	\$ 144,448,765		\$ 1,263,372	\$ 3,277,045
-------	------	--------------------------------	----------------	----------------	----------------	--	--------------	--------------

2012 - 2013 Proposed Capital and Project Listing

Access and Identity Management
Architecture: Operational Monitoring Dashboard
Bid Cost Recovery for Unit over Multiple Days
Compliance NERC Audit & MOC Audit Automation
Congestion revenue rights enhancements
Distributed Generations Studies and Pilots
Efficiency and performance enhancements for settlement systems
Energy management system enhancements , automatic generation control, tuning tool, increase telemetry, & frequency obligation
Enhanced forecasting tools (congestion mgmt display, short term event predictor, ramp planning tool)
Export of Ancillary Services
Fleet Characteristics Study
Full Network Model Test Environment
Implement DNP3 secure authentication specification
Interties Studies for renewable integration
Misc. Hardware & Software Purchase
Operational meter analysis & reporting new features, corrections, and automation
Operational Monitoring Dashboard
Program Office Internal Labor
Renewable integration market products - Bid Floor Cap Enhancements
Rules to encourage dispatchability of wind and solar resources
Simultaneous residual unit commitment and integrated forward market
Smart Grid California Energy Commission Phasor project
Smart Grid Technology Pilots
Sub-set of hours phase 2
Two Tier Real Time Uplift
Upgrades to Oracle eBusiness suite software – human resources, finance, procurement and market clearing

Total Proposed Capital and Projects for 2012 Estimated \$19.5M