

California ISO Projects Completed July 2017 through June 2018

Capital ID #	Year Approved	Project Description	Approved Project Budget	Final Cost	% Completed to Budget
Capital Projects					
12217	2015	Multi-Active Mode Operations (Parallel Operations)	\$ 387,922	\$ 358,720	92%
12219	2015	State Estimator	\$ 717,522	\$ 714,685	100%
12231	2017	SIBR WebSDK Upgrade	\$ 429,272	\$ 389,475	91%
12232	2017	RTD Performance Improvements	\$ 425,534	\$ 348,067	82%
12349	2013/ 2014	Contingency Modeling Enhancements	\$ 1,654,535	\$ 1,646,589	100%
12355	2013	Integrated Optimal Outage Coordination	\$ 1,185,533	\$ 1,170,860	99%
12378	2016/ 2017	2016 Market Services Enhancements	\$ 50,541	\$ 50,541	100%
12381	2016	Voltage Stability Enhancements	\$ 422,000	\$ 411,180	97%
12382	2016/ 2017/ 2018	MIP Engine Improvements	\$ 624,000	\$ 615,418	99%
12387	2016	2016 Ops/Tech Common Goal	\$ 458,816	\$ 411,742	90%
12391	2016	Bidding Rules Part B	\$ 343,193	\$ 379,732	111%
12392	2016 /2017	Reliability Services Initiative 2017	\$ 1,088,445	\$ 842,208	77%
12394	2017	VER Forecasting System	\$ 278,266	\$ 278,569	100%
12395	2017	Imperial Valley Phase Shifter	\$ 446,329	\$ 426,720	96%
12397	2017	EIM Enhancements 2017	\$ 666,807	\$ 652,101	98%
12411	2017	CTA for BPA 2017	\$ 233,671	\$ 185,324	79%
12504	2011/ 2012/ 2013	RIMS 5	\$ 1,832,375	\$ 1,834,744	100%
12638	2017	Operations Turret Phones	\$ 344,760	\$ 342,551	99%
12641	2017	Folsom Network Purchase	\$ 328,732	\$ 321,287	98%
13268	2017	EIM Enhancements Winter 2017	\$ 911,338	\$ 846,424	93%
12643	2017	SAS Prod & Fallback Server	\$ 28,000	\$ 27,373	98%
12644	2018	Interface Front Servers (RC)	\$ 106,043	\$ 106,039	100%
22		Total Completed Capital Projects	\$ 12,963,634	\$ 12,360,350	95%

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Requirements and Other Projects					
21216	2014	Master File to SOA Modeling	\$ 722,354	\$ 679,742	94%
21281	2016	2016 System Changes-Non Cap	\$ 450,000	\$ 445,773	99%
21283	2016	Wind & Solar VER Forecast	\$ 21,719	\$ 21,719	100%
21288	2017	CTA for BPA 2017 Non Capital	\$ 31,219	\$ 31,219	100%
21293	2016	Frequency Response Analysis Tool	\$ 30,000	\$ 4,324	14%
21295	2016	VER Forecasting System	\$ 266,676	\$ 50,619	19%
21300	2016	CMRI & OASIS Performance	\$ 17,820	\$ 17,820	100%
21302	2016/ 2017	ARC Phase 3 Requirements	\$ 7,311	\$ 7,311	100%
21303	2017	SMUD- RegDown	\$ 10,122	\$ 10,122	100%
21311	2017	ESDER Phase 2	\$ 15,175	\$ 15,175	100%
21313	2017	Weather & Geospatial Data Sourcing	\$ 8,655	\$ 8,655	100%
21314	2017	Market Enhancement for EMS	\$ 12,100	\$ 12,100	100%
21316	2017	NERC Standards Implementation	\$ 750	\$ 750	100%
21319	2017	Load Forecasting Improvements for LDF	\$ 33,050	\$ 26,197	79%
21321	2017	EIM Winter 2017	\$ 18,007	\$ 18,007	100%
21324	2017	Generator Contingency & RAS Modeling	\$ 37,181	\$ 37,181	100%
21325	2017	Aliso Canyon Gas-Electric Coordination Phase 3	\$ 7,000	\$ 8,783	125%
21331	2017	Settlements Performance Improvements 2017	\$ 7,375	\$ 7,375	100%
21332	2017	RMR Improvements	\$ 6,000	\$ 5,656	94%
21339	2018	Capacity Procurement Mechanism Risk of Retirement	\$ 24,753	\$ 24,753	100%
21344	2018	EIM Enhancements 2018	\$ 43,656	\$ 43,656	100%
21345	2018	CRR Auction Efficiency 1A	\$ 43,868	\$ 43,868	100%
21347	2018	Extended Short Term Unit Commitment	\$ 13,810	\$ 13,810	100%

23	Total Requirements and Other Projects	\$ 1,828,599	\$ 1,534,614	84%
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45	Grand Total Completed Projects	\$ 14,792,233	\$ 13,894,964	94%
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