



Energy Efficient State Property Revolving Fund Loan Program

American Reinvestment and Recovery Act



Executive Summary May 2011

DGS and its contractors continue to implement energy efficiency in sixty-two state-owned facilities and five parking lots.

Small Building Program

- Twenty-nine out of thirty-six lighting retrofits at CHP and DMV field offices are complete. Seven out of eleven HVAC upgrades are complete at these same facilities.
- One DMH hospital is complete. Work at a second facility was delayed due to an error the contractor made during the energy audit. Work will commence at this facility in July 2011.
- A lighting design compatible with the needs of DDS clients is complete and retrofits at three campuses will begin in late June/early July.
- Approximately half of the funds allocated to the Small Buildings Program have been disbursed.

Large Building Program

- The California Energy Commission (CEC), Jesse Unruh, and Secretary of State buildings are complete and the collection of energy data is underway to verify savings.
- Final measurements of the savings resulting from lighting upgrades at the Bonderson building, two parking lots in San Diego, and five Sacramento parking lots are underway.
- Two-thirds of the funds allocated to the Large Building Program have been expended.

CDCR & OCIO Managed Projects

- CDCR: An independent engineering consultant assessed the proposed projects at two facilities and recommended changes. Now, lighting measures are replacing upgrades to steam equipment, providing more energy savings at a lower cost.
- OCIO: Work proceeds on all measures.
- Disbursements for these projects occur only after the agencies have paid their contractors and submitted invoices to DGS. Initial invoices have arrived and subsequent updates will include disbursements on these loans.

Program Management

- DGS has created a web site for the Energy Efficient State Property Revolving Fund Loan Program, <http://www.dgs.ca.gov/resd/Programs/greenbuilding.aspx>.
- Total funds disbursed to date are \$9,422.042. This is 38 percent of funds allocated to this program.

Program/Loan Agreement	Loan Amt	Vendors	Jobs*	Disbursed
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Small Buildings Program

Loan 108-DMH/Atascadero	\$673,297	JCI	7.3	\$337,247
Loan 110-DMH/Patton	\$399,790	JCI	4.3	\$289,556
Loan 114-CHP	\$1,848,511	JCI	20.0	\$844,729
Loan 116-DMV	\$1,324,365	JCI	14.3	\$673,096
Loan 118-DWR	\$931,965	JCI	10.1	\$372,906
Loan 120-DDS	\$4,993,118	JCI	53.9	\$2,580,020
Total	\$10,171,046			\$5,097,554

Past 30-Day Activities (May - 2011)

Loan 108: DMH, Atascadero. C: 7/11 - 11/11; 15% complete. Lighting submittals have been approved and materials have been delivered to the site. Contractor re-auditing due to data entry errors; site work expected to start July 2011.

Loan 110: DMH Patton SH. C: 1/11 - 5/11; Construction 99% complete. Final walk-through held; minor punch list items underway.

Loan 114: CHP (18 sites). C: 12/10 - 8/11; 60% complete. 14 out of 18 interior and exterior lighting retrofits completed. 5 out of 8 HVAC installations completed.

Loan 116: DMV (18 sites). C: 12/10- 7/11; 75% complete. 15 out of 18 interior and exterior lighting retrofits completed. 2 out of 3 HVAC installations completed.

Loan 118: DWR (4 sites). C: 12/10 - 8/11; 60% complete. All four interior lighting retrofits completed; two of three exterior lighting retrofits completed. Vista Del Lago HVAC completed; Bryte HVAC scheduled to begin 7/5/11; Romero HVAC scheduled to begin 7/25/11.

Loan 120: DDS (3 campuses). C:1/11 - 12/11; 15% complete. Lighting submittals for non-autistic clients' areas have been approved. Lighting scheme/ mock-up to determine optimum solution for autistic clients at Fairview approved by DGS and DDS. Exterior lighting at Fairview underway; interior lighting to begin 6/20/11. Sonoma lighting installation scheduled to begin 7/11/11. Sonoma VFD installation 20% complete; Porterville VFD installation scheduled to begin mid-June 2011.

CDCR Energy Retrofits

Loan 102 CDCR	\$4,108,998	CDCR ESCO	44.4
Loan 124 CDCR	\$1,512,401	CDCR ESCO	16.3

Past 30-Day Activities (May - 2011)

Loan 102: CCI Tehachapi, Salinas Valley, and Corcoran State Prisons. C: 9/10 - 8/11; this project is being managed by CDCR. Salinas Valley State Prison - 40% complete. Tehachapi Correctional Institute - 60% complete. Corcoran State Prison - EMS Project: 85% complete. Corcoran lighting construction is 95% complete. CTF - Engineering review.

Loan 124: Substance Abuse Treatment Facility (SATF), Corcoran State Prison, and CA Rehabilitation Center Norco. C: 12/10 - 12/11; this project is being managed by CDCR. Corcoran Substance Abuse Treatment Facility - 45% complete. CRC Norco - 15% complete.

Program/Loan Agreement	Loan Amt	Vendors	Jobs*	Disbursed
Office of Chief Information Officer Energy Retrofits				
Loan 112-OCIO	\$2,299,562	ABM	24.8	\$26,799

Past 30-Day Activities (May - 2011)
 C: 12/10 - 12/11; 25% complete. Arrival and installation of the computer room air conditioning (CRAC) units began the last week of March (approx. four per month for 8 months). The design phase for modifications to the cooling towers and the heat exchangers is complete and the OCIO will be issuing a contract to ABM. Lighting subcontractor has been selected and contract awarded; upgrade to begin 6/13/11. This project is being managed by the OCIO.

Administration	\$268,124	DGS	2.9	\$255,708
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Past 30-Day Activities (May - 2011)
 Program Administration includes costs associated with Program Set-up, Legal, Accounting and Loan Origination Fees.

Total Program	\$25,000,000		270.0 *	\$9,422,041
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* The number of jobs created is based upon a calculation provided by the President's Council of Economic Advisors (10.8 per \$1 million of construction).

ARRA Energy Efficient State Property Revolving Fund
Projects in Progress
 Revised May 25, 2011

Project/Building	DGS Project #	Energy Measure	ARRA-Funded Loan Amount*	Contractor	Construction Contract Cost	Amount Disbursed to Date	Annual Savings			Simple Payback (years)
							kWh	Therms	Dollars	
SMALL BUILDINGS PROGRAM										
Department of Motor Vehicles - Loan 116										
Arieta Field Office	131601	Lighting Upgrade	\$1,324,365	Johnson Controls, Inc.	\$54,372	\$42,579	45,438		\$5,355	10.2
		Web-Based Monitoring			\$10,000					
Chula Vista	131602	Lighting Upgrade			\$63,437	\$50,135	45,996		\$8,000	7.9
		Web-Based Monitoring			\$10,000					
El Cajon	131603	Lighting Upgrade			\$12,214	\$18,170	34,065		\$6,295	1.9
		Web-Based Monitoring			\$10,000					
Hanford	131604	Lighting Upgrade			\$21,433	\$25,980	18,707		\$2,285	9.4
		Web-Based Monitoring			\$10,000					
Hollister	131605	Lighting Upgrade			\$5,582	\$12,958	11,490		\$2,053	2.7
		Web-Based Monitoring			\$10,000					
Merced	131606	Lighting Upgrade			\$46,172	\$39,271	39,651		\$6,060	7.6
		Web-Based Monitoring			\$10,000					
Modesto	131607	Lighting Upgrade			\$16,127	\$21,530	30,068		\$3,307	4.9
		Web-Based Monitoring			\$10,000					
Mountain View	131608	Lighting Upgrade			\$20,989	\$23,500	32,983		\$5,218	4.0
		Web-Based Monitoring			\$10,000					
Oakland Claremont	131609	Lighting Upgrade			\$59,993	\$48,637	57,199		\$8,993	6.7
		Web-Based Monitoring			\$10,000					
Oakland Coliseum	131610	Lighting Upgrade			\$52,468	\$55,345	37,350		\$5,479	9.6
		Web-Based Monitoring			\$10,000					
Redwood City	131611	Lighting Upgrade			\$58,704	\$47,042	41,468		\$6,494	9.0
		Web-Based Monitoring			\$10,000					
Sacramento	131612	Lighting Upgrade			\$24,416	\$70,452	24,621	776	\$2,868	8.5
		HVAC Upgrade			\$209,386					
		Web-Based Monitoring			\$10,000					
San Diego	131613	Lighting Upgrade			\$43,507	\$37,809	41,654		\$7,543	5.8
		Web-Based Monitoring			\$10,000					
San Mateo	131614	Lighting Upgrade			\$17,519	\$22,256	53,406		\$9,196	1.9
		Web-Based Monitoring			\$10,000					
Turlock	131615	Lighting Upgrade			\$26,668	\$78,818	36,099	253	\$3,913	6.8
		HVAC Upgrade	\$76,410							
		Web-Based Monitoring	\$10,000							
Visalia	131616	Lighting Upgrade	\$23,380	\$26,689	40,494		\$4,564	5.1		
		Web-Based Monitoring	\$10,000							
Watsonville	131617	Lighting Upgrade	\$8,747	\$14,749	13,414		\$2,365	3.7		
		Web-Based Monitoring	\$10,000							
Yuba City	131618	Lighting Upgrade	\$10,960	\$37,180	20,391	713	\$3,538	3.1		
		HVAC Upgrade	\$76,724							
		Web-Based Monitoring	\$10,000							
Total DMV			\$1,324,365		\$1,109,208	\$673,096	721,028	1,742	\$107,138	12.4
CA Highway Patrol - Loan 114										
Altadena Area	131621	Lighting Upgrade	\$16,744		\$58,071	55,552	10,723	\$6,450	2.6	
		HVAC Upgrade	\$108,729							
		Web-Based Monitoring	\$10,000							
Central Los Angeles Area	131622	Lighting Upgrade	\$65,945		\$45,891	92,763		\$10,511	6.3	
		Web-Based Monitoring	\$10,000							
Coalinga Area	131623	Lighting Upgrade	\$20,158	\$101,326	32,697	12,706		\$5,695	3.5	
		HVAC Upgrade	\$37,906							
		Rezone HVAC	\$51,285							
		Web-Based Monitoring	\$10,000							
El Cajon Area	131624	Lighting Upgrade	\$42,316		\$33,771	43,144		\$8,141	5.2	
		Web-Based Monitoring	\$10,000							
Fort Tejon Area	131625	Lighting Upgrade	\$30,837		\$33,761	33,523		\$4,274	7.2	
		Web-Based Monitoring	\$10,000							
Fresno Area	131626	Lighting Upgrade	\$45,960		\$38,155	97,278		\$13,142	3.5	
		Web-Based Monitoring	\$10,000							
Hanford Area	131627	Lighting Upgrade	\$29,836		\$39,041	45,638	6,992	\$7,243	4.1	
		HVAC Upgrade	\$54,894							
		Web-Based Monitoring	\$10,000							

*The ARRA-funded loan amount includes all project costs (construction cost, construction contingency, A/E costs, loan administration costs).

**ARRA Energy Efficient State Property Revolving Fund
Projects in Progress
Revised May 25, 2011**

Project/Building	DGS Project #	Energy Measure	ARRA-Funded Loan Amount*	Contractor	Construction Contract Cost	Amount Disbursed to Date	Annual Savings			Simple Payback (years)		
							kWh	Therms	Dollars			
Hayward Area	131628	Lighting Upgrade	\$1,848,511	Johnson Controls, Inc.	\$35,118	\$31,250	75,448		\$13,142	2.7		
		Web-Based Monitoring			\$10,000							
Hollister-Gilroy Area	131629	Lighting Upgrade			\$18,417	\$42,777	33,523	14,435	422	\$6,041	3.0	
		HVAC Upgrade			\$101,810							
		Web-Based Monitoring			\$10,000							
Madera Area	131630	Lighting Upgrade			\$22,214	\$22,651	38,988			\$6,791	3.3	
		Web-Based Monitoring			\$10,000							
Merced Area	131631	Lighting Upgrade			\$26,682	\$76,165	158,131	68,417	405	\$27,545	1.0	
		HVAC Upgrade			\$216,146							
		Web-Based Monitoring			\$10,000							
Modesto Area	131632	Lighting Upgrade			\$46,656	\$108,157	119,777	27,410	1,250	\$4,680	20.0	
		HVAC Upgrade			\$93,392							
		Web-Based Monitoring			\$10,000							
Oakland Area	131633	Lighting Upgrade			\$43,060	\$35,593	119,777			\$20,864	2.1	
		Web-Based Monitoring			\$10,000							
Redwood City Area	131634	Lighting Upgrade			\$23,323	\$23,476	44,109			\$7,683	3.0	
		Web-Based Monitoring			\$10,000							
San Jose Area	131635	Lighting Upgrade			\$26,620	\$26,884	82,777			\$14,419	1.8	
		Web-Based Monitoring	\$10,000									
South Los Angeles Area	131636	Lighting Upgrade	\$42,434	\$44,328	137,410			\$16,064	2.6			
		Web-Based Monitoring	\$10,000									
West Los Angeles Area	131637	Lighting Upgrade	\$19,421	\$36,555	82,806			\$9,466	2.1			
		Rezone HVAC	\$51,286									
		Web-Based Monitoring	\$10,000									
Yuba-Sutter Area	131638	Lighting Upgrade	\$18,274	\$46,879	41,801	17,351	181	\$7,281	2.5			
		HVAC Upgrade	\$58,786									
		Rezone HVAC	\$1,285									
		Web-Based Monitoring	\$10,000									
Total CHP			\$1,848,511		\$1,589,534	\$844,729	1,493,176	2,258	\$227,338	8.1		
Department of Developmental Services - Loan 120												
Fairview	131596	Lighting Upgrade	\$4,993,118	Johnson Controls, Inc.	\$1,353,891	\$978,689	2,101,987		\$257,624	5.3		
		Web-Based Monitoring			\$10,000							
Porterville	131597	HVAC - VAV Conversion			\$711,991	\$609,906	1,069,858	79,560		\$139,020	5.1	
		Web-Based Monitoring			\$10,000							
Sonoma	131598	Lighting Upgrade			\$1,214,036	\$991,426	865,790	520,202	27,778	\$161,865	7.5	
		HVAC Upgrade - Nelson			\$618,634							
		HVAC Upgrade - EJOR			\$615,360							
		Web-Based Monitoring			\$10,000							
Total DDS					\$4,993,118		\$4,543,912	\$2,580,020	5,332,560	115,674	\$825,884	6.0
Department of Mental Health												
DMH - Loan 108												
Atascadero	131599	Lighting Upgrade			\$673,297	Johnson Controls, Inc.	\$352,466	\$337,247	572,066		\$68,648	5.1
		Web-Based Monitoring					\$10,000					
DMH - Loan 110												
Patton	131600	Lighting Upgrade			\$399,790	Johnson Controls, Inc.	\$606,854	\$289,556	405,692		\$48,827	12.4
		Web-Based Monitoring					\$10,000					
Total DMH					\$1,073,087		\$979,320	\$626,804	977,758		\$117,475	9.1
Department of Water Resources - Loan 118												
Bryte Chemical Lab	131592	Lighting Upgrade	\$931,965	Johnson Controls, Inc.	\$71,742	\$155,265	76,415	9,171	\$11,497	6.2		
		HVAC Upgrade			\$310,961							
		Web-Based Monitoring			\$10,000							
Oroville Visitors Center	131593	Lighting Upgrade			\$46,563	\$74,751	22,571	28,937	1,400	\$3,747	12.4	
		HVAC Upgrade			\$57,873							
		Web-Based Monitoring			\$10,000							
Romero Overlook	131594	Lighting Upgrade			\$1,126	\$43,162	17,628	13,659		\$2,914	0.4	
		HVAC Upgrade			\$99,927							
		Web-Based Monitoring			\$10,000							
Vista Del Lago	131595	Lighting Upgrade			\$130,899	\$99,729	114,004	59,057		\$15,603	8.4	
		HVAC Upgrade			\$70,000							
		Web-Based Monitoring			\$10,000							
Total DWR					\$931,965		\$829,091	\$372,906	503,021	10,571	\$84,623	11.0

*The ARRA-funded loan amount includes all project costs (construction cost, construction contingency, A/E costs, loan administration costs).

**ARRA Energy Efficient State Property Revolving Fund
Projects in Progress
Revised May 25, 2011**

Project/Building	DGS Project #	Energy Measure	ARRA-Funded Loan Amount*	Contractor	Construction Contract Cost	Amount Disbursed to Date	Annual Savings			Simple Payback (years)
							kWh	Therms	Dollars	
Total Small Buildings Program			\$10,171,046		\$9,051,065	\$5,097,555	9,027,543	130,245	\$1,362,458	7.5
LARGE BUILDINGS PROGRAM										
Department of General Services - Loan 101										
Secretary of State	130440	Replace chiller	\$706,240		\$296,166	\$457,599	377,735		\$33,230	8.9
		Lighting controls			\$273,516		297,528	\$26,778	10.2	
		Replace air filters			\$29,593		230,035	\$19,100	1.5	
		Clean coils			\$29,324		110,697	\$9,439	3.1	
Bateson	130442	Lighting controls	\$247,004		\$205,431	\$166,614	355,867		\$32,027	6.4
		Replace air filters			\$14,731		72,812	\$6,729	2.2	
		Clean coils			\$14,604		130,590	\$11,063	1.3	
Jesse Unruh	130443	Lighting controls and variable fan drives	\$281,270	Cogent Energy, Inc.	\$224,918	\$235,620	206,180		\$18,556	12.1
		Replace air filters			\$91,870		93,155	\$9,013	10.2	
		Clean coils			\$21,146		75,252	\$6,026	3.5	
BOE	131674	Lighting upgrade	\$2,293,008		\$970,461	\$1,514,195	1,264,428		\$126,442	7.7
		VFD retrofit			\$650,486		708,989	\$70,625	9.2	
		VAV optimization			\$300,015		331,124	14,352	\$52,839	5.7
		DW pumps installation			\$35,350		40,585	\$4,464	7.9	
		Water valve replacement			\$55,953		69,883	7,425	\$15,400	3.6
Bonderson	131071	Boiler retrofit	\$138,275		\$138,275		29,198	6,746	\$11,507	12.0
Mission Valley	131072	Lighting retrofit	\$587,090	Smartwatt	\$549,067	\$552,805	476,073		\$47,607	11.5
CalTrans District 11	131073	Exterior lighting retrofit	\$169,933	Smartwatt	\$51,480	\$32,973	46,594		\$6,243	8.2
Fresno State Office Building	131062	Exterior lighting retrofit	\$415,335	Enovity, Inc.	\$109,275	\$86,625	78,582		\$11,268	9.7
		Optimum start routine for chiller and boiler			\$9,360		19,274		\$3,007	3.1
		Reset condenser water temperature			\$11,115		26,500		\$4,153	2.7
		Optimum stop routine			\$9,945	\$99,825	3,800		\$1,781	5.6
		Chilled Water Reset			\$9,945		7,650	478	\$2,090	4.8
		Variable air volume (VAV) air handlers			\$193,050		121,602	2,385	\$21,904	8.8
CA Energy Commission	130441	Chiller retrofit	\$179,000	Enovity, Inc.	\$181,350		64,600		\$10,888	16.7
		De-lamp perimeter lights			\$1,100		22,100		\$2,210	0.5
		Reschedule air handler			\$1,000		9,100		\$783	1.3
		Reschedule hot water pump			\$200		700		\$60	3.3
		Reschedule fans			\$500	\$170,000	3,800		\$327	1.5
		Occupancy sensor on hearing room air handler			\$4,000		15,600		\$1,342	3.0
		Night cooling			\$5,882		34,900		\$3,001	2.0
		Occupancy sensor for lighting			\$155,000		85,000	0	\$7,310	21.2
CalTrans District 11	131695	Chiller replacement	\$1,049,011	Johnson Controls, Inc.	\$974,106	\$194,538	405,830	29,507	\$80,268	12.1
Total Loan 101			\$5,927,891		\$5,618,214	\$3,510,794	5,815,763	60,893	\$657,480	9.0
Office of Fleet and Asset Management - Loan 104										
Parking Lot 8	131066	Lighting retrofits	\$554,898	Smartwatt	\$20,982	\$499,093	761,436		\$116,350	4.8
Parking Lot 14	131067				\$93,043					
Parking Lot 38	131068				\$48,625					
Parking Lot 50	131069				\$113,125					
Parking Lot 55	131070				\$168,056					
Total DGS/OFAM			\$554,898		\$499,093	\$443,830	761,436		\$116,350	4.8
California Highway Patrol - Loan 106										
CHP Headquarters	131074	Lighting retrofit	\$157,080	Smartwatt	\$146,200	\$87,356	186,751		\$18,675	8.4
Total CHP			\$157,080		\$146,200	\$87,356	186,751		\$18,675	8.4
TOTAL LARGE BUILDINGS PROGRAM			\$6,639,869		\$6,263,507	\$4,041,980	5,409,933	40,587	\$577,212	11.5

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**ARRA Energy Efficient State Property Revolving Fund
Projects in Progress
Revised May 25, 2011**

Project/Building	DGS Project #	Energy Measure	ARRA-Funded Loan Amount*	Contractor	Construction Contract Cost	Amount Disbursed to Date	Annual Savings			Simple Payback (years)
							kWh	Therms	Dollars	
CA DEPARTMENT OF CORRECTIONS AND REHABILITATION PROJECTS										
CDCR Loan 102										
Tehachapi	131846	Install boilers	\$786,400	Aircon Energy, Inc.	\$786,400		430,116	345,322	\$317,746	2.5
Soledad Valley State Prison	113847	Lighting upgrades	\$1,416,259	Aircon Energy, Inc.	\$136,285		441,058		\$39,695	3.4
		Replace water heaters			\$431,257	168,529	95,799	\$95,543	4.5	
		Lighting retrofit			\$81,930	258,148		\$23,223	3.5	
Salinas Correctional Training Facility	131848	Replace boilers	\$1,906,339	Aircon Energy, Inc.	\$405,846		222,983		\$187,083	2.2
		Lighting retrofit			\$181,460	687,183		\$164,923	1.1	
		Upgrade air controls			\$106,790	8,900	38	\$833	128.2	
Corcoran State Prison	131849	Expand energy mgmt system	\$1,906,339	Trane Company	\$510,072		2,190,874	61,468	\$247,930	2.1
		Programmable thermostats			\$23,998		362,889		\$33,023	0.7
		Variable fan drives		\$229,997		83,844	5,438	\$11,926	19.3	
		Lighting upgrade		\$1,142,272		1,982,859	0	\$180,440	6.3	
Total Loan 102			\$4,108,998		\$4,036,307		6,184,284	385,726	\$984,619	4.2
CDCR Loan 124										
Corcoran Treatment Center	131850	HVAC Controls Outside Lighting Controls	\$745,094	Trane Company	\$745,094		5,413,745	49,944	\$532,107	1.4
Norco Rehabilitation	131851	Boiler Replacement	\$767,307	Trane Company	\$767,307		45,505	220,980	\$161,606	4.7
Total Loan 124			\$1,512,401		\$1,512,401		5,459,250	270,924	\$693,713	2.2
TOTAL CDCR			\$5,621,399		\$5,548,708		11,643,534	656,650	\$1,678,332	3.3
OFFICE OF THE CHIEF INFORMATION OFFICER										
OCIO - Loan 112										
Gold Camp Data Center	130492	CRAC Units Upgrade	\$2,299,562	ABM, Inc.	\$1,246,080		1,535,265		\$132,769	9.4
		Chiller Upgrade			\$351,000		1,244,700		\$107,856	3.3
		Cooling Towers			\$268,000	\$26,799	1,140,000		\$98,873	2.7
		Lighting Upgrade			\$246,000		214,445		\$19,556	12.6
TOTAL OCIO			\$2,299,562		\$2,111,080	\$26,799	4,134,410		\$359,054	6.4
ADMINISTRATION			\$268,124			\$255,708				
LOAN FUND PROGRAM TOTALS			\$25,000,000		\$22,974,360	\$9,422,042	30,215,420	827,482	\$3,977,056	6.3

*The ARRA-funded loan amount includes all project costs (construction cost, construction contingency, A/E costs, loan administration costs).