

**Supplemental Report of the
2007 Budget Act
Item 1760-001-0666
Green Buildings**

October 2007

Overview

The Department of General Services (DGS), Real Estate Services Division, received \$2.971 million (Service Revolving Fund) to secure private consultants to pursue Leadership in Energy Efficiency and Design for Existing Buildings (LEED-EB) goals for 11 DGS-owned State office buildings.

Pursuant to the Supplemental Report Language Item 1760-001-0666 1(a), the DGS will report to the Legislature describing the schedule proposed for existing State buildings to achieve LEED certification and Energy Star rating by 2015 and the schedule for achieving retro-commissioning, including a list of buildings proposed to be retro-commissioned.

LEED Certification

The DGS, in conjunction with the LEED-EB Consultant, is developing and deploying a comprehensive LEED-Existing Building (EB) Certification/Recertification/Training Program. The program is designed to be a model and knowledge base for use by all State agencies when certifying their buildings and developing in-house LEED certification expertise. The procedure illustrated in the attached chart outlines a 10-step process to implement many of the management policies that will earn LEED-EB points and lead the facility team to achieve LEED-EB certification. While the diagram is cyclical, any of these steps will assist in the final success of creating a sustainable building and can be approached in any order.

There are approximately 210 State-owned facilities that fall under the LEED-EB certification requirements of Executive Order S-20-04 (buildings greater than 50,000 square feet), of which 58 are DGS-owned and/or operated. The DGS is applying the portions of the program that have been developed towards its portfolio of buildings (see attached program schedule). The DGS is working with the US Green Building Council on a model for volume registration of its entire portfolio, as well as implementing its recently developed Best Practices Manual as a precursor to the LEED-EB certification process.

In addition, the DGS has sponsored focused LEED training of its professional staff with the goal of certifying all appropriate staff as LEED Accredited Professionals. DGS will be providing a detailed legislative report of its LEED training activities pursuant to Item 1760-001-0666 1(c) in January 2008. The DGS is offering this training to other state agencies and proactively working with facility staffs throughout the state.

Other outreach efforts include presentations at the Green Action Team meetings, the DGS Partnership Council, discussions with Agency Undersecretaries and the development and implementation of the Green California website which provides a gateway for the latest information about how the State of California is working to reduce energy and resource consumption, while lowering greenhouse gas emissions, and creating healthier environments in which to work, live and learn.

Energy Star Ratings

Executive Order S-20-04 requires State departments to benchmark all occupied buildings by December 2007. At the direction of the California Energy Commission, State departments are using the US Environmental Protection Agency ENERGY STAR Portfolio Manager (PM) program for this task.

Benchmarks vs. Ratings

The Benchmarking Work Group (BMWG; comprised primarily of the DGS, the California Energy Commission (CEC) and the Utilities), in consultation with the CEC, has designated “Btu per square foot per year” as the benchmark measure. The PM program calculates this value for every facility. Percentage changes in this number will be used to evaluate departments’ progress towards meeting the 20 percent goal by 2015.

The PM program was designed to analyze and produce ENERGY STAR ratings for only 8 building types. It also has metering rules and size thresholds. State buildings which meet these prerequisites will receive a rating in the PM program. Many State buildings, however, will not qualify for an ENERGY STAR rating because they fall outside of the program’s allowable parameters. Per the Green Building Action Plan, for those buildings that cannot receive a rating it is expected that the California Energy Commission will develop an efficiency goal equivalent to an ENERGY STAR rating of 75.

Implementation Steps

1. Portfolio Manager accounts created for departments by BMWG.
2. Obtain approximately 90 percent of utility information automatically from participating utilities via XML protocols.
3. Obtain approximately 10 percent of utility information from department records or from non-XML utility data dumps.

Status

To date, 97percent of the executive branch departments have supplied all or some information to the BMWG. There are currently 793 benchmarkable facilities comprising over 97 million square feet in the Portfolio Manager program.

Automatic XML Utility Data Acquisition

The following utilities are implementing automatic data transfer of historical and current utility usage and cost information via XML protocol over the Web:

- Pacific Gas and Electric – in operation
- Southern California Edison – in operation

- San Diego Gas and Electric – ready by December 31, 2007
- Southern California Gas – ready by December 31, 2007
- Sacramento Municipal Utility District – in limited operation

Manual Utility Data Acquisition

- The BMWG suggested departments attempt to obtain utility information from the non-XML (non-participating) utilities in electronic form for simple uploading into PM.
- Data not obtained from the utilities will be gathered from department records.
- The DGS is coordinating with and assisting State agencies in their manual utility data acquisition and uploading tasks.

Milestones

ELEMENTS	DATE	COMMENTS
Benchmarking Complete	Dec. 31, 2007	Expect that departments will have submitted all documentation necessary for benchmarking except Dec. 2007 bills which are not available until early Feb. 2008 (see below).
Dec. 2007 Utility Bills from XML Utilities	Early Feb. 2008	XML utility data anticipated very quickly in PM after bills prepared and available.
Dec. 2007 Utility Bills from Non-XML Utilities	Mid Feb. 2008	Paper bills and spreadsheets from non-XML utilities take a bit longer to produce and distribute.
Depts. Populate PM with Dec. 2007 Billing Info	Mid to Late Feb. 2008	Some Dec. 2007 data will be in spreadsheets from non-XML utilities and some will be from paper bills. The data must then be uploaded or manually entered into the PM website.
First Report	Mid to Late March	

Retro-Commissioning

The DGS is administering the statewide retro-commissioning program in response to Executive Order (E.O.) S-20-04. The E.O. and its accompanying Green Building Action Plan stipulates that all State-owned buildings greater than 50,000 square feet be retro-commissioned, and then re-commissioned on a 5-year cycle. Of the approximately 210 buildings greater than 50,000 square feet, 95 are currently on the statewide retro-commissioning program schedule (see attached). The remaining buildings, comprised mainly of warehouses, barns, and open-air facilities, are not strong candidates for retro-commissioning due to their very simplistic or non-existent mechanical and electrical

systems.

Of the 25 projects for 2006/07, 24 will have investigative reports completed by December 31, 2007. DGS is working with all of the State agencies on the implementation of the recommended energy efficiency measures. The 20 projects in the 2007/08 schedule are set to begin in December 2007.

DGS LEED – Existing Buildings (EB) Program Schedule

Fiscal Year 2006/07: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
049	East End – Education	502,419	July 2006	LEED-EB Platinum
051	East End – DHS	449,125	-	Submitted May 2007 (Campus Project)
052	East End – DHS	189,632	-	Submitted May 2007 (Campus Project)
053	East End – DHS	221,562	-	Submitted May 2007 (Campus Project)
054	East End – DHS	249,226	-	Submitted May 2007 (Campus Project)

Totals **1,611,964**

Fiscal Year 2007/08: LEED EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
008	Energy Commission	145,476	-	In Progress
418	Public Utilities Commission	293,340	-	In Progress
602	Elihu Harris	506,380	-	-
402	SF Civic Center	1,105,000	-	-
028	Board of Equalization	568,000	-	-
084	Franchise Tax Board – SD Bldg.	385,000	-	-
084	Franchise Tax Board – LA Bldg.	466,000	-	-
084	Franchise Tax Board – SF/Sac Bldg.	999,839	-	See comment #3
512	Junipero Serra	451,000	-	-
850	Mission Valley	250,000	-	-

Bldg. No.	Building	Square Feet	Date Completed	Comments
480	Santa Rosa	138,525	-	-

Totals **5,308,560**

Fiscal Year 2008/09: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
030	Attorney General	361,025	-	-
075	DOJ	382,330	-	-
701	Fresno	174,600	-	-
002	Jesse Unruh	162,000	-	-
509	Ronald Reagan	850,000	-	-
470	San Jose	130,000	-	-
036	Secretary of State	460,000	-	-
011	Bateson	267,000	-	-
901	Stockton State	63,548	-	-
039	OB8	307,620	-	-
860	CalTrans Dist. 11 (DGS owned)	301,000	-	-
010	DOR (formerly Education)	145,800	-	-

Totals **3,604,923**

Fiscal Year 2009/10: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
056	Agriculture Annex	112,300	-	-
006	Agriculture	127,010	-	-

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Bldg. No.	Building	Square Feet	Date Completed	Comments
045	OB9	370,620	-	-
019	Veterans Affairs	128,050	-	-
021	State Personnel Board	84,400	-	-
025	EDD	505,823	-	-
013	EDD Solar	236,000	-	-
018	Resources Building	656,625	-	-
520	Santa Ana State Building	138,525	-	-

Totals **2,359,353**

Fiscal Year 2010/11: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
095	Central Plant	50,000	-	-
330	California Towers	162,000	-	-
530	Van Nuys State Building	147,495	-	See comment #3
049	Education EEC	421,151	-	Recertification (Platinum Certified)
051	East End Complex	348,859	-	Recertification (Campus Project)
052	East End Complex	348,859	-	Recertification (Campus Project)
053	East End Complex	348,859	-	Recertification (Campus Project)
054	East End Complex	348,859	-	Recertification (Campus Project)

Totals **2,176,082**

Fiscal Year 2011/12: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
005	Cal Trans (Sac HQ)	445,600	-	-
016	Paul Bonderson	137,297	-	-
801	San Diego State Building	174,100	-	-
106	State Record Center & Warehouse	82,682	-	-

Totals **839,679**

Fiscal Year 2012/13: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
038	Library & Courts II Annex	149,943	-	-
003	Library & Courts I	185,940	-	-
004	Legislative Office Bldg.	240,735	-	-
001	Capitol	582,250	-	-
602	Elihu Harris Building	506,380	-	Recertification
418	Public Utilities Commission	293,340	-	Recertification
402	SF Civic Center Bldg.	1,105,000	-	Recertification
087	Office of Emergency Services	117,000	-	-
017	State Printing Plant	323,460	-	-

Totals **3,504,048**

Fiscal Year 2010/11: LEED-EB Silver (45 credits)

Bldg. No.	Building	Square Feet	Date Completed	Comments
902	Cal Trans (Stockton)	63,560	-	See comment #4

Bldg. No.	Building	Square Feet	Date Completed	Comments
410	EDD	59,761	-	See comment #4
514	CalTrans TMC (LA)	88,851	-	See comment #4
026	CHP Bldg. B Sacramento	69,100	-	See comment #4
042	DMV East Office Bldg. HQ	518,364	-	See comment #4
870	TMC Irvine	55,000	-	See comment #4
820	CalTrans Dist 11 (agency owned)	110,515	-	See comment #4
408	Transbay Terminal	22,1,447	-	See comment #4

Totals **2,176,328**

Comments

1. NOTE: The schedule has changed since the time of the BCP submittal for the following reasons: The DGS was approved in July 2007 by the USGBC to participate in a pilot program for LEED-EB Initial Submittals for Volume Certification. The entire portfolio of DGS buildings will be registered and initiate the certification process at the same time. This volume certification process along with the input of the LEED consultant and PYs' may impact the original BCP submitted schedule. For those reasons the stated schedule may deviate and/or excel from the previous stated schedule.

2. The original submitted schedule was based upon scheduling the LEED certification after completion of buildings being first retro-commissioned. LEED-EB credits involve retro-commissioning (RCx) or commissioning (Cx) of the facility with a 1-5 year plan in place to implement recommended measures. USGBC is scheduled to release a revised LEED for High Performance Operations version for 2008. Under the revised LEED standards, the RCx will continue to contribute to LEED certification points. In the future the LEED certification may no longer follow but instead precede the RCx schedule.

3. Schedule exchange between Franchise Tax Board-Sac.SF.TC Bldg.s.(084) and California Towers (330). The California Towers RCx was placed on hold due to the need of capitol energy measures project completion.

4. Unlike DGS Owned and Operated Buildings, these buildings are DGS Operated and Agency Owned. LEED certification dependent upon agency approval and participation.

Retro-Commissioning Program Schedule

Fiscal Year 2006/07

Owner Agency	Structure Name	City	Electric Utility	Square Footage
ARB	Haagen-Smit Laboratories	El Monte	SCE	54,000
CDCR	CSP, San Quentin (Hospital & Clinic)	San Quentin	PG&E	70,884
CDCR	NACYCF (Vocational/Free Venture Bldg.)	Stockton	PG&E	70,209
CDCR	CSP, Solano (Level 2 Program Support)	Vacaville	PG&E	108,340
CDCR	California Medical Facility	Vacaville	PG&E	769,993
CDCR	CSP, Cocoran (Hospital)	Corcoran	PG&E	68,654
CHP	Academy	Bryte	PG&E	163,000
CLC	California State Lottery, Bldg. D	Sacramento	SMUD	77,527
CLC	California State Lottery, Bldg. A, B & C	Sacramento	SMUD	189,753
DDS	Fairview Developmental Center (R&T)	Costa Mesa	SCE	301,653
DFA	Plant Pest Diagnostic Laboratory	Sacramento	SMUD	50,840
DGS	Board of Equalization (P.E.R.S.)	Sacramento	SMUD	568,000
DGS	Franchise Tax Board, San Diego Bldg.	Sacramento	SMUD	385,000
DGS	Franchise Tax Board, Los Angeles Bldg.	Sacramento	SMUD	466,000
DGS	Santa Rosa State Bldg. (Judge Joseph Rattigan Bldg.)	Santa Rosa	PG&E	97,397
DGS	California Towers	Riverside	RIVMU	162,000
DGS	Mission Valley State Office Bldg.	San Diego	SDG&E	250,000
DGS	New Junipero Serra State Office Bldg.	Los Angeles	LADWP	451,000

Owner Agency	Structure Name	City	Electric Utility	Square Footage
DHS	Richmond Laboratory Complex (Phase I Laboratory/Office)	Richmond	PG&E	160,000
DMV	Sacramento West Office Bldg.	Sacramento	SMUD	260,158
DOT	District 04 Office Bldg.	Oakland	PG&E	525,000
DOT	San Bernardino Government Center Office Bldg.	San Bernardino	SCE	313,869
DPR	Railroad Museum	Sacramento	SMUD	100,000
DTS	Data Center, Gold Campus (Stephen P. Teale)	Rancho Cordova	SMUD	137,275
DVA	Veterans Home at Chula Vista (Bldg. A)	Chula Vista	SDG&E	122,298

Total Square Footage **5,922,832**

Fiscal Year 2007/08

Owner Agency	Structure Name	City	Electric Utility	Square Footage
CDCR	Valley SP For Women (Bldg. 408-Academic Education)	Chochilla	PG&E	60,224
CDCR	California Institution for Women (Administration Bldg.)	Frontera	SCE	64,603
CDCR	RJ Donovan Correctional Facility (FAC 1 FOC Shops + Admin Bldg.)	San Diego	SDG&E	58,080
CSC	California Science Center (Museum)	Los Angeles	LADWP	154,106
CSC	California Science Center (Phase I Bldg.)	Los Angeles	LADWP	200,927
DDS	Lanterman Developmental Center (Acute Hospital B50)	Pomona	SCE	127,093
DDS	Porterville Developmental Center (Administration)	Porterville	SCE	110,712
DGS	Attorney General Office Bldg. (DOJ "I" Street Bldg.)	Sacramento	SMUD	381,025
DGS	Secretary of State Bldg. Complex (Secretary of State / Archives)	Sacramento	SMUD	460,000
DGS	Energy Commission Office Bldg.	Sacramento	SMUD	145,476

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Owner Agency	Structure Name	City	Electric Utility	Square Footage
DGS	Gregory Bateson Bldg.	Sacramento	SMUD	267,000
DGS	Jesse M. Unruh Bldg.	Sacramento	SMUD	162,000
DGS	Justice Bldg. (Broadway)	Sacramento	SMUD	382,330
DGS	Fresno State Office Bldg. (Hugh Burns Bldg.)	Fresno	PG&E	174,600
DGS	San Jose State Office Bldg. (Alfred E. Alquist Bldg.)	San Jose	PG&E	130,000
DGS	Stockton State Office Bldg.	Stockton	PG&E	62,548
DGS	Ronald Reagan State Office Bldg.	Los Angeles	LADWP	850,000
DMH	Metropolitan State Hospital (S.N.F., Clinical Admin, R&T, CT West/East)	Norwalk	SCE	371,713
DOT	District 10 Office Bldg.	Stockton	PG&E	60,000
Mil	Long Beach Armory	Long Beach	SCE	69,869

Total Square Footage **4,292,306**

Fiscal Year 2008/09

Owner Agency	Structure Name	City	Electric Utility	Square Footage
CDCR	CTF Soledad (Central Facility)	Soledad	PG&E	432,325
CDCR	California Institute for Men (Hospital, MSF)	Chino	SCE	53,812
CDCR	CSP, Solano (Level 3 Program Support + Admin Bldg.)	Vacaville	PG&E	77,328
CDE	Diagnostic Center	Los Angeles	LADWP	60,000
DAA	San Diego Fairgrounds (Exhibit Hall, O'Brien Hall, Coliseum)	Del Mar	SDG&E	202,565
DGS	Office of Emergency Services (William P. Campbell Bldg.)	Rancho Cordova	SMUD	117,000
DGS	Resources Bldg.	Sacramento	SMUD	656,625

Owner Agency	Structure Name	City	Electric Utility	Square Footage
DGS	Agriculture Office Bldg.	Sacramento	SMUD	127,010
DGS	State Personnel Bldg.	Sacramento	SMUD	84,400
DGS	EDD Solar Bldg. (Annex)	Sacramento	SMUD	236,000
DGS	EDD Office Bldg.	Sacramento	SMUD	505,823
DMH	Napa State Hospital (Various Bldgs. & Wards)	Napa	PG&E	811,577
DOT/ DGS*	HQ Office Bldg. (Main Bldg.)	Sacramento	SMUD	157,580
DOT/ DGS*	HQ Office Bldg. (Annex 1)	Sacramento	SMUD	213,251
DOT/ DGS*	HQ Office Bldg. (Annex 2)	Sacramento	SMUD	80,277
DOT	Caltrans Laboratory (Main Lab Bldg.)	Sacramento	SMUD	57,260
DVA	Veterans Home at Barstow (Bldg. "A")	Barstow	SCE	112,345
DVA/ DGS*	HQ Office Bldg.	Sacramento	SMUD	128,050
MIL	Camp San Luis Obispo (USPFO HQ Bldg. NR632)	San Luis Obispo	PG&E	96,000
MIL	Fresno Armory	Fresno	PG&E	62,183

Total Square Footage **4,271,671**

*Agency Owned / DGS Operated

Fiscal Year 2009/10

Owner Agency	Structure Name	City	Electric Utility	Square Footage
CDCR	Deuel Vocational Institute (Main Inst Complex)	Tracy	PG&E	638,329
CDCR	Mule Creek State Prison (C1 & C2 / Receiving & Release)	Ione	PG&E	128,424
DGS	Capitol Area East End Complex (051 thru 054)	Sacramento	SMUD	1,395,437
DGS	East End Complex – Education Bldg. (049)	Sacramento	SMUD	421,151

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Owner Agency	Structure Name	City	Electric Utility	Square Footage
DGS	Education Bldg. (Capitol Mall)	Sacramento	SMUD	145,800
DGS	Office Bldg. Numbers 8 & 9	Sacramento	SMUD	615,240
DGS	District 11 Office Buildings (DGS Owned)	San Diego	SDG&E	301,000
DGS	Van Nuys State Office Bldg.	Van Nuys	LADWP	147,495
DHS	Richmond Laboratory Complex (Richmond Laboratory Complex)	Richmond	PG&E	332,000
DOT	District 01 Office	Eureka	PG&E	77,466
DOT/ DGS*	HQ Office Bldg.	Stockton	PG&E	63,560
DOT/ DGS*	District 11 Office Bldg.	San Diego	SDG&E	110,515
DOT/ DGS*	Traffic Mgmt. Center (TMC)	Los Angeles	LADWP	88,851
DOT/ DGS*	Traffic Mgmt. Center (TMC)	Irvine	SCE	55,000
DVA	Veteran's Home Main Hospital	Yountville	PG&E	252,700
EDD/ DGS*	EDD Office Bldg.	San Francisco	PG&E	59,761

Total Square Footage **4,832,729**

*Agency Owned / DGS Operated

Fiscal Year 2010/11

Owner Agency	Structure Name	City	Electric Utility	Square Footage
CHP/ DGS*	Bldg. B	Sacramento	SMUD	69,100
DGS	Franchise Tax Board (Sacramento, San Francisco & California Bldgs.)	Sacramento	SMUD	999,839
DGS	Cal/EPA Headquarters	Sacramento	SMUD	950,000
DMV/ DGS*	DMV HQ Office Bldg. (East Bldg.)	Sacramento	SMUD	518,364

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Owner Agency	Structure Name	City	Electric Utility	Square Footage
DOT/ DGS*	District 07 Office Bldg.	Los Angeles	LADWP	759,120
DOT	District 06 Office Bldg.	Fresno	PG&E	63,247
Total Square Footage				3,359,670

*Agency Owned / DGS Operated

Fiscal Year 2011/12

Owner Agency	Structure Name	City	Electric Utility	Square Footage
DGS	Library & Courts II Annex Bldg.	Sacramento	SMUD	149,943
DGS	Library & Courts Bldg.	Sacramento	SMUD	185,940
DGS	State Capitol Bldg.	Sacramento	SMUD	582,250
DGS	San Francisco Civic Center Complex (Earl Warren / Hiram Johnson Bldg.)	San Francisco	PG&E	1,105,000
DGS	Santa Ana State Office Bldg.	Santa Ana	SCE	138,525
DGS	Elihu Harris State Office Bldg.	Oakland	PG&E	506,380
DGS	Public Utilities Commission Bldg. (Edmund G. "Pat" Brown Bldg.)	San Francisco	PG&E	293,340
LEG/ DGS*	Legislative Office Bldg.	Sacramento	SMUD	240,735
Total Square Footage				3,202,113

*Agency Owned / DGS Operated