

**NRNC MARKET AND PROGRAM TRACKING
REPORT
QUARTER 1, 2000**

FINAL

Prepared for

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Statewide NRNC MA&E Program**

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1. INTRODUCTION

This is one of a series of quarterly reports produced by the statewide Market Characterization and Program Activity Tracking (MCPAT) Study. The MCPAT Study tracks trends in both the nonresidential new construction (NRNC) market, and in the Savings By Design statewide NRNC program, in years 2000 - 2001.

The Savings By Design (SBD) statewide NRNC program, currently implemented by the three California electric investor-owned utilities (IOUs) PG&E, SCE, and SDG&E, is designed to transform energy-efficiency investment behavior in the commercial construction market. The program seeks to change the design practice of professionals in the construction industry by promoting the understanding and use of energy efficient and integrated design techniques in commercial building construction; to increase awareness of building owners of the benefits associated with integrated designs; and to increase the penetration of energy efficient materials, equipment, and systems in the commercial building market.

The SBD program targets specific links in the commercial building construction decision-making chain, reflecting differences in design activities and priorities between large and small buildings and various occupancies. The Whole Building Approach is used for complex projects where the design team can work closely to integrate the energy systems. The Systems Approach is used for projects where design of the energy systems is done at different phases: where one energy system predominates, where intervention occurs late in the design, or for buildings with simple system interactions.

Within the SBD program, “new construction” program elements address the commercial new construction market segments, including the public, private, and speculative markets. Remodeling and renovation (“R&R”) program elements address the commercial remodeling and renovation market segments specific to “gut-rehabilitation” and tenant improvement projects, including the public, private, and speculative markets.

The MCPAT Study conducts the NRNC market characterization using two sources of information. The F.W. Dodge Reports provide detailed project information on construction projects that have *started* within a given time period (e.g. a quarter): title and location of project, type of project (new, addition or alteration), type of building under construction, area (square feet) of new or added space, project cost (valuation), and contact information (owner, architect, engineer, contractor, as available). Appendix A contains a glossary of building types tracked by F.W. Dodge.

Regarding project types, F.W. Dodge makes a clear distinction between new/addition projects, in which new building area is produced, and alteration projects (which include remodeling, renovation, tenant improvement, and retrofit projects). Even though the SBD program excludes retrofit projects from its R&R element, the F.W. Dodge alteration data are

still the best source of information available regarding the commercial R&R construction market.

The Construction Industry Research Board (CIRB) database records building permit data from the more than 515 city and county building departments in California. The CIRB tracks monthly data by county and building type, describing permit value. While these data are not as complete as the F.W. Dodge Reports, they provide a framework for the value of commercial projects in California that start construction in each quarter.

It must be noted that there are differences between the *permit* valuation reported by CIRB and the *project start* valuation reported by F.W. Dodge. Some of these differences are attributable to the time delay that naturally occurs between permit filing and construction start. Others are attributable to the fact that F.W. Dodge records publicly-bid projects, while some projects do not go to public bid.

Regarding project types, CIRB records new construction by building type, and clearly separates it from additions and alterations. Additions and alterations are grouped together, without an indication regarding building type. Furthermore, CIRB records only building-related projects, while leaving out permits for heating, HVAC, electrical, and other remodeling/renovation projects. Appendix B contains a glossary of building/project types recorded by CIRB.

This quarterly report is structured as follows. Chapter 2 characterizes the NRNC market in Quarter 1, 2000, as described by the Construction Industry Research Board and F.W. Dodge. It then draws on the Savings By Design program participation databases maintained by the three California electric investor-owned utilities (IOUs) PG&E, SCE, and SDG&E, to track the characteristics of new construction program participants in Quarter 1, 2000.

Chapter 3 presents the market characteristics for alteration projects, as described by F.W. Dodge. It then characterizes program participation activities in Quarter 1, 2000 for the renovation/remodel/first tenant improvement (R&R) element of the SBD program.

Chapter 4 contains an evaluation of SBD program penetration into the market in the First Quarter of 2000.

Chapter 5 summarizes quarterly market and SBD participation data, as well as estimates for the SBD program penetration into the market since program inception in July 1999.

Chapter 6 presents the most active market actors (architects and engineers) in Quarter 1, 2000.

2. STATEWIDE NONRESIDENTIAL NEW CONSTRUCTION TRENDS

This chapter presents information on the nonresidential new construction activity that has occurred in Quarter 1, 2000, in the State of California. The first section covers the total valuation, the number of project starts, and the total square footage of new construction projects by county. To verify the completeness of F.W. Dodge data, the section starts with a table summarizing the value of permits filed in Quarter 1, 2000, as reported by the CIRB.

The second section analyzes the Savings By Design (SBD) program activity for new construction projects for which the IOUs have committed funds in Quarter 1, 2000.

2.1 NEW CONSTRUCTION MARKET CHARACTERISTICS IN QUARTER 1, 2000

The following tables summarize market activity by building segment and county, in terms of valuation, number of permits, and square feet. When summarizing the market activity by utility territory, project zip codes were used in conjunction with California Energy Commission's zip code-to-utility territory mapping to allocate projects to IOU and non-IOU utilities. Such a mapping was not possible in the case of CIRB data, because CIRB data are summarized at city and county level (project zip codes are not available). Appendix C contains a short description of the CEC zip code-to-utility territory mapping.

Table 2.1 summarizes the value of nonresidential permits filed during Quarter 1, 2000, as reported by the Construction Industry Research Board (CIRB). Note that CIRB reports addition and alteration projects combined, separately from new construction. CIRB data indicate that Los Angeles, Orange, San Bernardino, and Santa Clara Counties account for the highest value of permits filed in the State during Quarter 1, 2000. Among building types, the highest permit value was recorded in the retail, industrial, and office segments.

Table 2.2 presents the F.W. Dodge valuation for nonresidential new construction projects that have started construction during Quarter 1, 2000. To emulate SBD program scope as closely as possible, additions reported by F.W. Dodge were included with "new construction". Los Angeles, San Bernardino, San Diego, and Santa Clara Counties account for the highest value of projects that have started construction in Quarter 1, 2000.

Table 2.3 shows the number of nonresidential new construction projects (including additions) that have started construction during Quarter 1, 2000, as reported by F.W. Dodge. Los Angeles, San Diego, Orange, and Riverside Counties have the highest number of new construction project starts. Among building types, office, retail, and storage account for the highest number of new construction project starts.

Table 2.4 presents the number of square feet of nonresidential new construction projects (including additions) that have started construction during Quarter 1, 2000, as reported by F.W. Dodge. The counties with the largest number of square feet attributable to new project starts are Los Angeles, San Bernardino, San Diego, and Riverside.

**Table 2.1. CIRB Statewide Nonresidential Permit Valuation
in Quarter 1, 2000 (\$1,000)**

COUNTY	AMUSEMENT	CHURCH	HOTEL	MEDICAL	OFFICE	OTHER	EDUCATION	RETAIL	SERVICE	INDUSTRIAL	TOTAL NEW	ALTERATION	TOTAL
ALAMEDA	800	702	14,030	5,288	33,585	1,843	.	24,926	1,875	30,902	113,952	129,271	243,223
ALPINE	.	.	.	.	.	.	.	.	.	.	0	264	264
AMADOR	.	.	1,809	.	.	384	.	.	.	244	2,437	160	2,597
BUTTE	.	219	1,021	.	425	326	.	3,230	.	1,554	6,776	6,332	13,108
CALAVERAS	.	.	.	.	.	347	.	930	.	.	1,277	630	1,908
COLUSA	.	.	.	.	.	1,826	.	.	.	.	1,826	50	1,876
CONTRA COSTA	1,127	430	.	.	5,321	2,658	.	23,245	4,507	2,322	39,610	61,535	101,146
DEL NORTE	.	.	.	.	.	282	.	.	.	.	282	494	776
EL DORADO	.	.	.	.	1,260	573	622	963	.	.	3,418	2,383	5,801
FRESNO	.	.	.	258	11,210	297	55	7,521	.	8,202	27,544	38,643	66,187
GLENN	.	.	.	.	.	450	.	.	.	.	450	35	486
HUMBOLDT	.	.	.	.	156	286	.	442	80	657	1,620	3,790	5,410
IMPERIAL	.	1,669	.	.	324	566	.	1,004	.	2,655	6,217	1,305	7,522
INYO	.	.	.	.	.	57	.	.	.	.	57	652	709
KERN	.	.	.	.	4,603	1,466	.	1,731	564	1,470	9,834	9,923	19,757
KINGS	.	.	.	.	898	62	.	.	.	.	960	4,330	5,289
LAKE	.	.	.	.	.	28	.	.	.	.	28	359	387
LASSEN	.	.	.	.	.	71	.	.	.	.	71	35	106
LOS ANGELES	77,823	5,308	38,100	17,500	59,755	15,284	17,675	120,837	1,381	43,662	397,324	374,270	771,594
MADERA	.	.	.	.	.	720	.	797	.	846	2,363	1,310	3,673
MARIN	7,800	.	.	.	.	303	.	1,750	.	.	9,853	7,260	17,113
MARIPOSA	.	1,478	.	.	.	19	.	.	.	.	1,497	148	1,645
MENDOCINO	.	.	.	.	103	614	.	666	.	251	1,634	1,073	2,707
MERCED	.	.	.	.	.	4,023	.	785	.	957	5,764	2,884	8,648
MODOC	.	.	.	.	.	48	.	.	.	.	48	70	117
MONO	.	.	.	.	.	.	.	.	.	.	0	18	18
MONTEREY	.	.	476	.	1,775	4,720	935	1,368	.	75	9,349	10,134	19,483
NAPA	.	.	700	.	240	2,593	.	731	130	4,021	8,414	3,583	11,997
NEVADA	691	.	153	.	1,046	722	.	.	.	.	2,612	97	2,709
ORANGE	12,479	1,063	35,096	2,691	123,598	2,372	3,334	80,696	900	7,984	270,211	162,457	432,668
PLACER	.	1,099	.	.	3,988	1,208	520	16,960	.	776	24,550	17,210	41,760
PLUMAS	.	.	333	.	.	67	.	.	.	.	400	48	448
RIVERSIDE	1,619	1,762	3,242	1,687	7,712	4,970	.	94,708	1,457	44,041	161,197	32,179	193,376
SACRAMENTO	.	1,786	34,389	.	20,635	1,137	851	5,947	.	3,350	68,096	37,178	105,274
SAN BENITO	.	.	.	.	.	270	.	793	.	.	1,063	683	1,746
SAN BERNARDINO	.	331	.	3,758	4,866	9,072	928	30,538	1,096	140,340	190,928	29,101	220,029
SAN DIEGO	3,818	.	2,995	20,422	29,863	4,867	173	71,379	811	30,144	164,472	114,105	278,577
SAN FRANCISCO	.	.	.	.	5,300	.	2,700	.	1,493	.	9,493	106,070	115,563
SAN JOAQUIN	.	.	.	.	2,167	1,309	.	23,172	541	21,788	48,976	24,008	72,984
SAN LUIS OBISPO	80	114	442	.	711	1,573	.	18,639	161	10,182	31,903	6,931	38,834
SAN MATEO	.	.	4,264	.	16,984	1,341	.	1,714	.	11,799	36,101	67,233	103,335
SANTA BARBARA	.	2,900	.	.	6,109	4,042	2,580	3,264	.	4,898	23,793	17,657	41,450
SANTA CLARA	3,213	.	2,493	.	87,901	3,367	4,300	38,428	587	38,293	178,582	319,513	498,095
SANTA CRUZ	.	.	.	.	711	.	.	246	.	.	957	4,182	5,140
SHASTA	.	558	.	1,873	.	672	.	2,948	.	25,500	31,550	1,534	33,084
SIERRA	.	.	.	.	.	50	.	.	.	.	50	.	50
SISKIYOU	.	.	811	.	.	1,855	.	.	.	.	2,666	275	2,941
SOLANO	3,600	4,168	.	5,751	900	780	.	4,533	.	5,759	25,491	8,609	34,100
SONOMA	.	330	.	.	4,156	1,640	.	7,117	.	10,983	24,227	16,200	40,427
STANISLAUS	.	4,200	.	.	18,849	4,373	170	22,694	710	7,280	58,275	12,518	70,793
SUTTER	.	.	.	.	.	327	.	.	.	.	327	3,133	3,461
TEHAMA	.	.	.	.	.	77	.	153	.	.	230	1,313	1,543
TRINITY	.	.	.	.	.	79	.	.	.	.	79	6	85
TULARE	149	.	.	.	1,904	5,063	.	2,775	.	560	10,451	4,261	14,712
TUOLUMNE	.	.	.	.	666	397	.	65	.	.	1,128	396	1,524
VENTURA	460	.	.	.	3,056	1,263	.	2,048	1,029	15,639	23,494	21,315	44,808
YOLO	3,380	.	.	1,210	370	4,317	.	1,150	.	.	10,426	4,139	14,565
YUBA	1,500	.	.	.	2,350	504	.	.	.	.	4,354	153	4,507
CALIFORNIA	118,538	27,785	140,686	60,437	462,785	98,271	34,842	620,891	17,322	477,132	2,058,690	1,673,445	3,732,135

Table 2.2 F.W. Dodge Nonresidential Construction Valuation for New Construction Projects in Quarter 1, 2000 (\$1,000)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA					11,753		28,250	7,787	1,436	13,531	15,500	1,750	80,007
ALPINE													0
AMADOR													0
BUTTE	5,921	200					900	570	699		1,000		9,290
CALAVERAS	665				1,000								1,665
COLUSA													0
CONTRA COSTA	4,977		8,000		4,000		17,488	9,050	17,226	13,356	6,536	16,452	97,085
DEL NORTE													0
EL DORADO	110							800		700			1,610
FRESNO	8,955	501	1,779	1,186	3,980		7,840	6,045	6,055		2,936	26,570	65,847
GLENN													0
HUMBOLDT	5,000									298			5,298
IMPERIAL	842	1,800					266	92	1,197		585	80	4,862
INYO								5,600					5,600
KERN	4,000					13,000	1,300	339		857	4,753	309	24,558
KINGS						1,800					2,876		5,014
LAKE							262						262
LASSEN													0
LOS ANGELES	72,057	10,320	33,952	650	74,363	108,510	45,727	70,720	50,415	52,317	165,080	16,143	700,254
MADERA													381
MARIN								280					280
MARIPOSA			1,376										1,376
MENDOCINO		1,250											1,250
MERCED							3,075	395	43,507	1,334			48,311
MODOC													0
MONO													0
MONTEREY	300						2,074	1,100		800	650	117	5,041
NAPA	131		1,500		700		2,624			750	505		6,210
NEVADA				4,380									4,380
ORANGE	11,834	780		2,616		10,822	89,950	35,569	3,291	32,302	13,517	1,390	202,071
PLACER	722	2,654					2,564	22,397	2,250	1,025	550		32,162
PLUMAS													0
RIVERSIDE	175	4,500		69	412	6,700	12,262	42,118	1,800	7,136	109,494	2,095	186,761
SACRAMENTO		3,250		2,000	20,000	131	15,637	9,250	13,600	500	21,600	9,100	95,068
SAN BENITO								99	4,708		2,668		7,475
SAN BERNARDINO	18,741	1,166		459		7,430	8,018	25,367	34,173	4,327	217,202	6,240	323,123
SAN DIEGO	3,410	1,737		8,116	31,898	32,463	62,968	59,026	20,561	39,534	23,661	11,805	295,179
SAN FRANCISCO				579			115,210	21,055		27,000			175,158
SAN JOAQUIN	2,000	4,953					612	5,100		200	25,194	10,000	48,059
SAN LUIS OBISPO	588	1,304			2,080	99	1,495	12,036		250	3,121	5,198	26,171
SAN MATEO			4,295	5,108	7,800		19,575	5,713	9,950	16,449	1,700		70,590
SANTA BARBARA		1,754			1,580	4,000	8,314	5,395	18,358	2,500	6,360	1,392	49,653
SANTA CLARA	7,533	305			5,000	80	233,889	4,137	644	10,000	3,490		265,078
SANTA CRUZ	410						358		13,597		9,375		23,740
SHASTA											600		600
SIERRA													0
SISKIYOU												2,000	2,000
SOLANO	459			86			1,000	2,749					4,294
SONOMA	5,677		2,346		19,374	2,000	1,800	70	698		300		32,265
STANISLAUS	1,590				1,750		376	17,626			188	487	22,017
SUTTER													0
TEHAMA								300	5,019				5,319
TRINITY				2,645									2,645
TULARE					3,500				216				3,716
TUOLUMNE													0
VENTURA	2,279					1,750	26,217	9,575	5,342	2,337	7,464	1,043	56,007
YOLO				1,000			750		1,578		1,330	1,880	6,538
YUBA													0
CALIFORNIA	158,376	36,474	53,248	28,315	189,769	188,785	710,801	380,741	256,658	227,503	648,235	125,365	3,004,270
UTILITY													
SCE	55,799	14,767	33,952	1,553	9,355	104,158	169,246	139,354	115,595	57,393	458,811	17,236	1,177,219
PG&E	48,648	14,137	19,296	14,405	58,971	20,979	446,369	104,996	107,055	88,358	89,063	75,088	1,087,365
SDG&E	3,029	1,500		10,357	34,398	32,463	62,627	57,176	7,998	45,529	30,434	11,066	296,577
Non-IOU	50,900	6,070		2,000	87,045	31,185	32,559	79,215	26,010	36,223	69,927	21,975	443,109

Table 2.3. F.W. Dodge Number of Nonresidential New Construction Project Starts in Quarter 1, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	.	.	.	.	18	.	5	10	1	2	2	1	39
ALPINE	.	.	.	.	.	.	.	.	.	.	.	.	0
AMADOR	.	.	.	.	.	.	.	.	.	.	.	.	0
BUTTE	2	1	.	.	.	.	2	2	1	.	1	.	9
CALAVERAS	1	.	.	.	1	.	.	.	.	.	.	.	2
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	2	.	3	.	1	.	7	4	4	1	3	3	28
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	1	.	.	.	.	.	.	2	.	1	.	.	4
FRESNO	4	2	1	1	1	.	7	5	2	.	4	1	28
GLENN	.	.	.	.	.	.	.	.	.	.	.	.	0
HUMBOLDT	1	.	.	.	.	.	.	.	.	1	.	.	2
IMPERIAL	3	1	.	.	.	.	1	1	2	.	3	1	12
INYO	.	.	.	.	.	.	.	1	.	.	.	.	1
KERN	2	.	.	.	.	2	2	1	.	2	10	1	20
KINGS	.	.	.	.	.	1	.	.	1	.	1	.	3
LAKE	.	.	.	.	.	.	1	.	.	.	.	.	1
LASSEN	.	.	.	.	.	.	.	.	.	.	.	.	0
LOS ANGELES	35	8	4	1	8	12	51	57	15	33	31	14	269
MADERA	.	.	.	.	.	.	.	3	.	.	.	.	3
MARIN	.	.	.	.	.	.	.	2	.	.	.	.	2
MARIPOSA	.	.	1	.	.	.	.	.	.	.	.	.	1
MENDOCINO	.	1	.	.	.	.	.	.	.	.	.	.	1
MERCED	.	.	.	.	.	.	2	2	8	2	.	.	14
MODOC	.	.	.	.	.	.	.	.	.	.	.	.	0
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	1	.	.	.	.	.	1	2	.	1	1	1	7
NAPA	1	.	1	.	1	.	3	.	.	1	1	.	8
NEVADA	.	.	.	1	.	.	.	.	.	.	.	.	1
ORANGE	6	3	.	1	.	3	24	20	4	18	8	1	88
PLACER	3	1	.	.	.	.	5	10	4	4	1	.	28
PLUMAS	.	.	.	.	.	.	.	.	.	.	.	.	0
RIVERSIDE	2	4	.	1	3	2	14	20	1	10	23	3	83
SACRAMENTO	.	2	.	1	1	1	8	6	3	2	3	3	30
SAN BENITO	.	.	.	.	.	.	.	1	1	.	2	.	4
SAN BERNARDINO	4	3	.	1	.	4	7	18	4	7	19	3	70
SAN DIEGO	8	3	.	3	8	5	35	46	5	17	19	9	158
SAN FRANCISCO	.	.	.	.	2	.	9	7	.	4	.	3	25
SAN JOAQUIN	1	2	.	.	.	.	2	3	.	1	3	1	13
SAN LUIS OBISPO	2	2	.	.	3	1	6	8	.	1	6	4	33
SAN MATEO	.	.	1	2	2	.	6	2	2	3	1	.	19
SANTA BARBARA	.	2	.	.	2	1	5	6	1	1	2	4	24
SANTA CLARA	5	2	.	.	2	1	23	4	1	2	3	.	43
SANTA CRUZ	1	.	.	.	.	.	1	.	1	.	1	.	4
SHASTA	.	.	.	.	.	.	.	.	.	.	1	.	1
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	.	.	.	.	.	1	1
SOLANO	1	.	.	1	.	.	1	5	.	.	.	.	8
SONOMA	2	.	2	.	3	1	2	1	1	.	1	.	13
STANISLAUS	2	.	.	.	1	.	1	9	.	.	1	3	17
SUTTER	.	.	.	.	.	.	.	.	.	.	.	.	0
TEHAMA	.	.	.	.	.	.	.	1	1	.	.	.	2
TRINITY	.	.	.	1	.	.	.	.	.	.	.	.	1
TULARE	.	.	.	.	1	.	.	.	1	.	.	.	2
TUOLUMNE	.	.	.	.	.	.	.	.	.	.	.	.	0
VENTURA	1	.	.	.	.	1	11	5	3	4	4	2	31
YOLO	.	.	.	1	.	.	1	.	1	.	1	3	7
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	91	37	13	15	58	35	243	264	68	118	156	62	1,160
UTILITY													
SCE	29	16	4	4	8	16	95	85	22	53	65	19	416
PG&E	30	14	9	7	20	7	84	83	28	25	44	20	371
SDG&E	6	1	.	3	9	5	29	42	4	15	20	7	141
Non-IOU	26	6	.	1	21	7	35	54	14	25	27	16	232

**Table 2.4. F.W. Dodge Area of Nonresidential New Construction Project Starts
in Quarter 1, 2000 (1,000 sqft)**

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	.	.	.	.	131	.	308	108	6	352	502	11	1,419
ALPINE	.	.	.	.	.	.	.	.	.	.	.	.	0
AMADOR	.	.	.	.	.	.	.	.	.	.	.	.	0
BUTTE	34	4	.	.	.	.	14	7	6	.	29	.	93
CALAVERAS	5	.	.	.	20	.	.	.	.	.	.	.	25
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	36	.	45	.	50	.	185	206	83	445	202	34	1,286
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	0	.	.	.	.	.	.	19	.	9	.	.	28
FRESNO	60	7	14	9	60	.	82	83	40	.	68	80	502
GLENN	.	.	.	.	.	.	.	.	.	.	.	.	0
HUMBOLDT	50	.	.	.	.	.	.	.	.	6	.	.	56
IMPERIAL	9	24	.	.	.	.	4	2	9	.	16	2	66
INYO	.	.	.	.	.	.	.	100	.	.	.	.	100
KERN	40	.	.	.	.	93	24	7	.	13	156	5	337
KINGS	.	.	.	.	.	28	.	.	3	.	20	.	50
LAKE	.	.	.	.	.	.	3	.	.	.	.	.	3
LASSEN	.	.	.	.	.	.	.	.	.	.	.	.	0
LOS ANGELES	623	124	168	7	529	759	726	1,305	381	1,283	4,285	315	10,503
MADERA	.	.	.	.	.	.	.	5	.	.	.	.	5
MARIN	.	.	.	.	.	.	.	6	.	.	.	.	6
MARIPOSA	.	.	13	.	.	.	.	.	.	.	.	.	13
MENDOCINO	.	19	.	.	.	.	.	.	.	.	.	.	19
MERCED	.	.	.	.	.	.	25	5	306	16	.	.	352
MODOC	.	.	.	.	.	.	.	.	.	.	.	.	0
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	3	.	.	.	.	.	25	21	.	10	18	5	82
NAPA	1	.	8	.	11	.	48	.	.	14	14	.	96
NEVADA	.	.	.	28	.	.	.	.	.	.	.	.	28
ORANGE	87	9	.	21	.	79	1,393	765	39	508	470	36	3,406
PLACER	6	17	.	.	.	.	42	304	26	17	19	.	430
PLUMAS	.	.	.	.	.	.	.	.	.	.	.	.	0
RIVERSIDE	2	72	.	1	7	72	208	400	13	98	3,802	35	4,711
SACRAMENTO	.	55	.	20	137	2	462	232	86	8	509	119	1,631
SAN BENITO	.	.	.	.	.	.	.	2	67	.	66	.	135
SAN BERNARDINO	82	13	.	5	.	64	140	538	187	69	6,898	186	8,182
SAN DIEGO	33	26	.	48	418	351	1,112	1,087	162	1,029	675	222	5,162
SAN FRANCISCO	.	.	.	9	.	.	520	113	.	235	.	54	930
SAN JOAQUIN	20	43	.	.	.	.	8	145	.	4	611	232	1,063
SAN LUIS OBISPO	6	12	.	.	35	1	19	180	.	2	96	88	439
SAN MATEO	.	.	18	14	92	.	275	110	24	356	22	.	910
SANTA BARBARA	.	16	.	.	27	45	87	99	85	38	159	33	587
SANTA CLARA	44	4	.	.	45	1	2,729	44	6	134	86	.	3,092
SANTA CRUZ	4	.	.	.	.	.	4	.	62	.	125	.	194
SHASTA	.	.	.	.	.	.	.	.	.	.	19	.	19
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	.	.	.	.	.	48	48
SOLANO	4	.	.	1	.	.	15	48	.	.	.	.	68
SONOMA	30	.	17	.	161	24	25	1	7	.	7	.	273
STANISLAUS	20	.	.	.	27	.	5	369	.	.	8	22	450
SUTTER	.	.	.	.	.	.	.	.	.	.	.	.	0
TEHAMA	.	.	.	.	.	.	.	6	42	.	.	.	48
TRINITY	.	.	.	15	.	.	.	.	.	.	.	.	15
TULARE	.	.	.	.	38	.	.	.	2	.	.	.	40
TUOLUMNE	.	.	.	.	.	.	.	.	.	.	.	.	0
VENTURA	23	.	.	.	.	24	365	255	44	64	322	14	1,110
YOLO	.	.	.	8	.	.	9	.	17	.	19	17	69
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	1,221	443	281	177	1,796	1,542	8,858	6,571	1,701	4,709	19,222	1,558	48,078
UTILITY													
SCE	393	190	168	16	145	639	2,628	2,489	767	1,154	14,309	358	23,254
PG&E	359	159	113	75	652	191	4,689	1,648	688	1,637	2,234	554	12,999
SDG&E	28	22	.	66	443	351	1,102	997	82	1,101	866	236	5,293
Non-IOU	440	72	.	20	556	361	440	1,437	164	818	1,814	410	6,531

2.2 SBD NEW CONSTRUCTION PROGRAM PARTICIPATION IN QUARTER 1, 2000

The following pages summarize SBD program activity for nonresidential new construction participants for whom the IOUs have committed funds in Quarter 1, 2000. Program commitment indicates that the customer has filed an application, that the utility has reviewed it and found that it fits within the scope of the SBD program, and that an agreement was signed between the utility and the customer, detailing the conditions of participation in the program. Program commitment was established using the following dates from the tracking systems maintained by the IOUs: the “coupon issue date” for SCE participants, the “acceptance date” for PG&E participants, and the “sign date” for SDG&E participants.

The following pages summarize program participation by building type or measure. Participation is shown for the whole building approach and the systems approach separately.

Table 2.5 presents the number of new construction nonresidential participants to the SBD program for which funds were committed in Quarter 1, 2000.

Table 2.6 shows the number of square feet of new construction committed in Quarter 1, 2000.

Table 2.7 presents estimated annual MWh savings attributable to new construction measures committed in Quarter 1, 2000.

Table 2.8 summarizes the estimated annual MWh savings by measure type, in new construction committed in Quarter 1, 2000. A glossary of the measures is presented in Appendix D.

Table 2.5. Number of Nonresidential New Construction SBD Participants in Quarter 1, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	1	.	.	1	.	1	.	.	.	.	.	3
Systems Approach	1	2	.	.	.	1	4	2	1	.	3	2	16
Total	1	3	.	.	1	1	5	2	1	.	3	2	19
SCE													
Whole Building Approach	.	1	.	.	.	.	.	.	.	.	.	.	1
Systems Approach	.	.	.	.	.	1	2	.	.	.	3	1	7
Total	.	1	.	.	.	1	2	.	.	.	3	1	8
PG&E													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	1	.	.	.	.	.	.	.	.	.	.	.	1
Total	1	.	.	.	.	.	.	.	.	.	.	.	1
SDG&E													
Whole Building Approach	.	.	.	.	1	.	1	.	.	.	.	.	2
Systems Approach	.	2	.	.	.	.	2	2	1	.	.	1	8
Total	.	2	.	.	1	.	3	2	1	.	.	1	10

The majority of SBD program participants belong to the office and storage segments. This result reflects the NRNC market conditions presented in Table 2.3.

Table 2.6. Area of Nonresidential New Construction SBD Participants in Quarter 1, 2000 (1,000 sqft)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	93	.	.	118	.	123	.	.	.	.	.	334
Systems Approach	65	118	.	.	.	53	268	7	29	.	935	194	1,670
Total	65	211	.	.	118	53	391	7	29	.	935	194	2,003
SCE													
Whole Building Approach	.	93	.	.	.	.	.	.	.	.	.	.	93
Systems Approach	.	.	.	.	.	53	150	.	.	.	935	73	1,211
Total	.	93	.	.	.	53	150	.	.	.	935	73	1,304
PG&E													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	65	.	.	.	.	.	.	.	.	.	.	.	65
Total	65	.	.	.	.	.	.	.	.	.	.	.	65
SDG&E													
Whole Building Approach	.	.	.	.	118	.	123	.	.	.	.	.	241
Systems Approach	.	118	.	.	.	.	119	7	29	.	.	121	394
Total	.	118	.	.	118	.	242	7	29	.	.	121	635

The majority of SBD program activity in terms of area committed in Quarter 1, 2000 belongs to office, storage and assembly segments. This result is also observed for estimated MWh savings.

Table 2.7. Estimated Annual MWh Savings for New Construction SBD Participants in Quarter 1, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach		1,753			393		404						2,550
Systems Approach	177	81				65	80	9	27		2,889	218	3,545
Total	177	1,834			393	65	484	9	27		2,889	218	6,095
SCE													
Whole Building Approach		1,753											1,753
Systems Approach						65	57				2,889	75	3,086
Total		1,753				65	57				2,889	75	4,839
PG&E													
Whole Building Approach													0
Systems Approach	177												177
Total	177												177
SDG&E													
Whole Building Approach					393		404						797
Systems Approach		81					23	9	27			142	282
Total		81			393		427	9	27			142	1,079

Table 2.8. Estimated Annual MWh Savings by Measure for New Construction SBD Participants in Quarter 1, 2000

	WHOLE BUILDING	DAY-LIGHTING	SKYLIGHT	HVAC CHILLER	HVAC PACKAGE	HVAC CONTROLS	HVAC OTHER	MOTORS	LIGHTING	ENVELOPE	OTHER	TOTAL
CALIFORNIA												
Whole Building Approach	2,550											2,550
Systems Approach		2,758		142	140			12	457	8	28	3,545
Total	2,550	2,758		142	140			12	457	8	28	6,095
SCE												
Whole Building Approach	1,753											1,753
Systems Approach		2,758			64			12	224		28	3,086
Total	1,753	2,758			64			12	224		28	4,839
PG&E												
Whole Building Approach												0
Systems Approach					50				127			177
Total					50				127			177
SDG&E												
Whole Building Approach	797											797
Systems Approach				142	25				107	8		282
Total	797			142	25				107	8		1,079

Among measures, the whole building design and daylighting account for most of the committed MWh savings in new construction.

3. STATEWIDE NONRESIDENTIAL ALTERATION (R&R) TRENDS

This chapter summarizes the nonresidential alterations that have occurred in Quarter 1, 2000 in the State of California. Similar to Chapter 2, the first section will present the total valuation and the number of project starts of alteration projects by county (F.W. Dodge does not track square feet for alteration projects.) The second section will present the SBD program activity for tenant improvement, renovation and remodeling projects (R&R) in Quarter 1, 2000.

3.1 ALTERATION (R&R) MARKET CHARACTERISTICS IN QUARTER 1, 2000

The following tables present the alteration market activity by building segment and county in Quarter 1, 2000. When summarizing market activity by utility territory, project zip codes were used in conjunction with California Energy Commission's zip code-to-utility territory mapping to allocate projects to IOU and non-IOU utilities.

Table 3.1 presents the F.W. Dodge valuation for the nonresidential alteration projects that have started construction during Quarter 1, 2000. The valuation reported by F.W. Dodge is roughly half of that reported by CIRB (Table 2.1). One explanation is that CIRB categorizes additions as alteration projects. Another is that CIRB records only building-related projects, while leaving out permits for heating, HVAC, electrical, and other remodeling/renovation projects.

The F.W. Dodge data indicate that the counties with the most active alteration activity in terms of valuation are Los Angeles, San Diego, Santa Clara, and Orange. Among building types, office, school and retail account for the highest value of alteration projects that have started construction in Quarter 1, 2000.

Table 3.2 summarizes the number of nonresidential alteration projects that have started construction during Quarter 1, 2000. The counties with the largest number of alteration project starts are Los Angeles, San Diego, Orange, and San Francisco. Among building types, the office, retail, and school segments account for the highest number of alteration project starts.

**Table 3.1. F.W. Dodge Nonresidential Construction Valuation for Alteration Projects
in Quarter 1, 2000 (\$1,000)**

COUNTY	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
ALAMEDA	1,729	700	.	681	596	.	4,049	1,200	8,231	.	2,049	4,950	24,185
ALPINE	.	.	.	.	.	.	.	.	.	.	.	.	0
AMADOR	.	.	.	.	.	.	.	.	.	197	.	.	197
BUTTE	.	.	.	.	.	.	.	.	229	.	.	.	229
CALAVERAS	.	.	.	.	.	.	.	.	.	.	.	.	0
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	.	.	.	.	.	723	800	3,237	7,633	2,500	.	.	14,893
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	.	.	.	.	.	.	.	.	1,410	3,000	.	.	4,410
FRESNO	.	.	.	.	.	2,354	824	493	700	.	276	122	4,769
GLENN	.	.	.	.	.	.	.	.	.	.	596	.	596
HUMBOLDT	.	.	.	.	.	.	.	.	.	.	.	.	0
IMPERIAL	.	.	.	.	.	.	.	.	.	.	.	.	0
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	.	.	.	79	.	.	.	228	11,494	.	1,500	.	13,301
KINGS	.	.	.	.	.	.	.	.	.	.	.	.	0
LAKE	.	.	.	.	.	.	.	.	.	.	.	300	300
LASSEN	.	.	.	.	.	.	.	.	.	.	.	.	0
LOS ANGELES	22,338	864	427	1,199	1,955	1,970	42,771	21,102	88,237	1,653	3,665	17,530	203,711
MADERA	.	.	.	.	.	.	.	.	.	.	.	.	0
MARIN	.	.	.	.	.	.	139	1,000	.	.	.	12,011	13,150
MARIPOSA	.	.	.	.	.	.	85	.	.	.	.	.	85
MENDOCINO	.	.	.	.	.	.	.	.	.	.	.	.	0
MERCED	502	.	.	.	.	.	.	.	.	.	.	.	502
MODOC	.	.	.	.	.	.	.	.	.	.	.	.	0
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	1,100	.	.	.	199	82	.	1,361	.	.	.	1,986	4,728
NAPA	.	.	.	.	.	.	199	.	296	.	259	.	754
NEVADA	.	.	.	.	.	.	.	.	.	.	.	1,562	1,562
ORANGE	26,562	.	.	295	75	830	23,062	11,854	2,382	.	1,381	1,048	67,489
PLACER	.	.	.	.	.	84	573	1,400	180	.	.	.	2,237
PLUMAS	.	.	.	.	.	.	.	.	.	.	.	.	0
RIVERSIDE	23	.	2,168	.	.	250	4,702	2,487	3,144	203	.	3,939	16,916
SACRAMENTO	750	.	.	.	.	1,200	9,202	1,398	2,519	.	925	.	15,994
SAN BENITO	470	.	.	.	.	.	.	897	.	.	.	.	1,367
SAN BERNARDINO	.	.	150	5,966	.	.	1,204	1,721	343	.	615	.	9,999
SAN DIEGO	5,944	1,217	.	154	.	1,092	42,138	7,595	10,717	4,204	3,492	5,535	82,088
SAN FRANCISCO	1,575	2,000	.	475	4,980	96	36,670	5,974	2,121	906	255	252	55,304
SAN JOAQUIN	.	.	.	.	.	.	.	268	2,909	.	.	.	3,177
SAN LUIS OBISPO	.	.	.	.	.	50	837	300	.	.	.	161	1,348
SAN MATEO	.	810	.	.	.	1,996	14,040	1,580	6,941	.	.	.	25,367
SANTA BARBARA	130	.	.	.	140	18,401	914	1,124	.	.	.	.	20,709
SANTA CLARA	477	250	155	.	.	3,872	58,018	1,399	5,237	535	1,350	9,119	80,412
SANTA CRUZ	811	.	.	.	.	3,000	.	914	2,485	.	.	133	7,343
SHASTA	.	.	.	.	.	200	.	80	450	.	.	.	730
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	.	730	.	.	.	.	730
SOLANO	.	.	.	.	.	.	1,535	900	1,882	.	350	3,000	7,667
SONOMA	.	.	.	.	150	.	228	.	1,202	.	.	270	1,850
STANISLAUS	.	.	.	612	.	.	889	.	.	.	.	1,526	3,027
SUTTER	.	.	.	.	.	.	.	.	.	.	.	.	0
TEHAMA	.	.	.	.	.	.	.	.	.	.	.	.	0
TRINITY	.	.	.	.	.	.	.	.	.	.	.	.	0
TULARE	.	.	.	.	.	.	.	.	512	.	.	.	512
TUOLUMNE	.	.	.	.	.	.	.	.	.	.	.	.	0
VENTURA	222	.	.	106	.	449	607	3,329	7,301	479	246	4,264	17,003
YOLO	98	.	.	.	.	160	.	.	731	.	.	196	1,185
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	62,731	5,841	2,900	9,567	7,955	18,548	260,973	72,361	170,410	13,677	16,959	67,904	709,826
UTILITY													
SCE	14,781	608	150	6,600	.	1,669	43,771	33,114	94,409	1,485	4,414	13,289	214,290
PG&E	6,717	3,760	155	1,768	5,925	12,207	136,044	20,717	54,511	7,138	5,135	34,859	288,936
SDG&E	28,772	609	.	.	.	1,092	41,590	8,711	11,070	4,039	3,380	5,615	104,878
Non-IOU	12,461	864	2,595	1,199	2,030	3,580	39,568	9,819	10,420	1,015	4,030	14,141	101,722

**Table 3.2. F.W. Dodge Number of Nonresidential Alteration Project Starts
in Quarter 1, 2000**

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	4	1	.	1	1	.	15	7	1	.	1	3	34
ALPINE	.	.	.	.	.	.	.	.	.	.	.	.	0
AMADOR	.	.	.	.	.	.	.	.	.	1	.	.	1
BUTTE	.	.	.	.	.	.	.	.	2	.	.	.	2
CALAVERAS	.	.	.	.	.	.	.	.	.	.	.	.	0
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	.	.	.	.	.	2	2	5	4	1	.	.	14
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	.	.	.	.	.	.	.	.	2	1	.	.	3
FRESNO	.	.	.	.	.	2	2	2	2	.	1	1	10
GLENN	.	.	.	.	.	.	.	.	.	.	1	.	1
HUMBOLDT	.	.	.	.	.	.	.	.	.	.	.	.	0
IMPERIAL	.	.	.	.	.	.	.	.	.	.	.	.	0
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	.	.	.	1	.	.	.	1	2	.	1	.	5
KINGS	.	.	.	.	.	.	.	.	.	.	.	.	0
LAKE	.	.	.	.	.	.	.	.	.	.	.	1	1
LASSEN	.	.	.	.	.	.	.	.	.	.	.	.	0
LOS ANGELES	20	5	2	1	3	6	121	52	35	3	12	16	276
MADERA	.	.	.	.	.	.	.	.	.	.	.	.	0
MARIN	.	.	.	.	.	.	1	1	.	.	.	2	4
MARIPOSA	.	.	.	.	.	.	1	.	.	.	.	.	1
MENDOCINO	.	.	.	.	.	.	.	.	.	.	.	.	0
MERCED	1	.	.	.	.	.	.	.	.	.	.	.	1
MODOC	.	.	.	.	.	.	.	.	.	.	.	.	0
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	1	.	.	.	1	1	.	3	.	.	.	1	7
NAPA	.	.	.	.	.	.	1	.	1	.	1	.	3
NEVADA	.	.	.	.	.	.	.	.	.	.	.	1	1
ORANGE	8	.	.	1	1	3	61	24	5	.	2	3	108
PLACER	.	.	.	.	.	1	5	4	1	.	.	.	11
PLUMAS	.	.	.	.	.	.	.	.	.	.	.	.	0
RIVERSIDE	1	.	1	.	.	1	12	10	4	1	.	2	32
SACRAMENTO	1	.	.	.	.	1	11	4	4	.	2	.	23
SAN BENITO	1	.	.	.	.	.	.	2	.	.	.	.	3
SAN BERNARDINO	.	.	1	2	.	.	4	4	2	.	1	.	14
SAN DIEGO	9	9	.	1	.	4	74	23	8	2	9	6	145
SAN FRANCISCO	3	1	.	1	6	1	47	11	5	2	2	1	80
SAN JOAQUIN	.	.	.	.	.	.	.	1	4	.	.	.	5
SAN LUIS OBISPO	.	.	.	.	.	1	2	1	.	.	.	2	6
SAN MATEO	.	1	.	.	.	2	14	3	3	.	.	.	23
SANTA BARBARA	1	.	.	.	.	1	9	7	2	.	.	.	20
SANTA CLARA	3	1	1	.	.	2	39	7	3	2	2	6	66
SANTA CRUZ	1	.	.	.	.	1	.	3	4	.	.	1	10
SHASTA	.	.	.	.	.	1	.	1	1	.	.	.	3
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	.	1	.	.	.	.	1
SOLANO	.	.	.	.	.	.	3	1	2	.	1	1	8
SONOMA	.	.	.	.	1	.	1	.	1	.	.	1	4
STANISLAUS	.	.	.	1	.	.	1	.	.	.	.	2	4
SUTTER	.	.	.	.	.	.	.	.	.	.	.	.	0
TEHAMA	.	.	.	.	.	.	.	.	.	.	.	.	0
TRINITY	.	.	.	.	.	.	.	.	.	.	.	.	0
TULARE	.	.	.	.	.	.	.	.	2	.	.	.	2
TUOLUMNE	.	.	.	.	.	.	.	.	.	.	.	.	0
VENTURA	2	.	.	1	.	5	4	22	5	2	2	3	46
YOLO	1	.	.	.	.	1	.	.	2	.	.	1	5
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	57	18	5	10	13	36	430	200	107	15	38	54	983
UTILITY													
SCE	20	5	1	6	.	10	129	79	34	5	9	13	311
PG&E	15	4	1	3	9	12	129	51	41	7	9	19	300
SDG&E	12	4	.	.	.	4	67	26	11	1	8	7	140
Non-IOU	10	5	3	1	4	10	105	44	21	2	12	15	232

3.2 SBD R&R PROGRAM PARTICIPATION IN QUARTER 1, 2000

This section summarizes SBD program activity for nonresidential customers that have a first tenant improvement/renovation/remodel project (R&R customers), and for whom the IOUs have committed funds in Quarter 1, 2000. Program commitment indicates that the customer has filed an application, that the utility has reviewed it and found that it fits within the scope of the SBD program, and that an agreement was signed between the utility and the customer, detailing the conditions of participation in the program. Program commitment was established using the following dates from the tracking systems maintained by the IOUs: the “coupon issue date” for SCE participants, the “acceptance date” for PG&E participants, and the “sign date” for SDG&E participants.

Table 3.3 presents the number of nonresidential R&R participants to the SBD program for which funds were committed in Quarter 1, 2000.

Table 3.4 shows the number of square feet of R&R construction committed as of Quarter 1, 2000.

Table 3.5 presents the estimated annual MWh savings attributable to R&R measures committed in Quarter 1, 2000.

Table 3.6 summarizes the estimated annual MWh savings by measure type, in R&R projects committed in Quarter 1, 2000. A glossary of the measures is presented in Appendix D.

**Table 3.3. Number of Nonresidential R&R SBD Participants
in Quarter 1, 2000**

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach					1								1
Systems Approach		1					5		14	1	1	3	25
Total		1			1		5		14	1	1	3	26
SCE													
Whole Building Approach													0
Systems Approach							2				1	2	5
Total							2				1	2	5
PG&E													
Whole Building Approach													0
Systems Approach										1		1	2
Total										1		1	2
SDG&E													
Whole Building Approach					1								1
Systems Approach		1					3		14				18
Total		1			1		3		14				19

The number of R&R participants is slightly larger than that of new construction SBD participants. The school and office building types are the largest segments participating in the program, which is consistent with the market data presented in Table 3.2.

**Table 3.4. Area for Nonresidential R&R SBD Participants
in Quarter 1, 2000 (1,000 sqft)**

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach					23								23
Systems Approach		67					238		3,314	33	260	74	3,986
Total		67			23		238		3,314	33	260	74	4,009
SCE													
Whole Building Approach													0
Systems Approach							78				260	68	406
Total							78				260	68	406
PG&E													
Whole Building Approach													0
Systems Approach										33		6	39
Total										33		6	39
SDG&E													
Whole Building Approach					23								23
Systems Approach		67					160		3,314				3,541
Total		67			23		160		3,314				3,564

The majority of SBD R&R program activity in terms of area committed in Quarter 1, 2000 belongs to the school and office building types. This result is also observed for estimated MWh savings.

Table 3.5. Estimated Annual MWh Savings for R&R SBD Participants in Quarter 1, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	13	.	.	.	.	.	.	.	13
Systems Approach	.	29	.	.	.	.	300	.	2,543	94	241	144	3,350
Total	.	29	.	.	13	.	300	.	2,543	94	241	144	3,363
SCE													
Whole Building Approach	0
Systems Approach	60	.	.	.	241	140	441
Total	60	.	.	.	241	140	441
PG&E													
Whole Building Approach	0
Systems Approach	94	.	4	98
Total	94	.	4	98
SDG&E													
Whole Building Approach	13	.	.	.	.	.	.	.	13
Systems Approach	.	29	.	.	.	.	240	.	2,543	.	.	.	2,812
Total	.	29	.	.	13	.	240	.	2,543	.	.	.	2,824

Table 3.6. Estimated Annual MWh Savings by Measure for R&R SBD Participants in Quarter 1, 2000

	WHOLE BUILDING	DAY-LIGHTING	SKYLIGHT	HVAC CHILLER	HVAC PACKAGE	HVAC CONTROLS	HVAC OTHER	MOTORS	LIGHTING	ENVELOPE	OTHER	TOTAL
CALIFORNIA												
Whole Building Approach	13	.	.	.	.	.	.	.	.	.	.	13
Systems Approach	.	241	.	1,797	432	.	.	3	842	.	36	3,350
Total	13	241	.	1,797	432	.	.	3	842	.	36	3,363
SCE												
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	.	241	.	.	.	.	.	3	175	.	22	441
Total	.	241	.	.	.	.	.	3	175	.	22	441
PG&E												
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	.	.	.	.	4	.	.	.	94	.	.	98
Total	.	.	.	.	4	.	.	.	94	.	.	98
SDG&E												
Whole Building Approach	13	.	.	.	.	.	.	.	.	.	.	13
Systems Approach	.	.	.	1,797	428	.	.	.	573	.	13	2,812
Total	13	.	.	1,797	428	.	.	.	573	.	13	2,824

Among measures, chillers account for the highest MWh savings, followed by lighting and package HVAC.

4. SBD PROGRAM PENETRATION INTO THE NRNC MARKET IN QUARTER 1, 2000

This chapter presents SBD program penetration into the NRNC market statewide, as well as by utility territory, in Quarter 1, 2000.

Program penetration for new construction participants was evaluated based on both construction area (square feet) and number of projects. As the area of alteration projects is not tracked by F.W. Dodge, program penetration for R&R participants was evaluated only based on number of projects.

When summarizing market activity by utility territory, project zip codes were used in conjunction with California Energy Commission's zip code-to-utility territory mapping to allocate projects to IOU and non-IOU utilities.

Table 4.1 presents the statewide SBD program participation.

Table 4.2 presents SBD program participation in the SCE service territory.

Table 4.3 shows SBD program participation in the PG&E service territory.

Table 4.4 summarizes SBD program participation in the SDG&E service territory.

In terms of square feet committed, the statewide new construction market penetration of the SBD program is 4.2%. This number is lower than in individual utility territories due to the fact that non-IOU areas are included in the statewide market. SBD committed square feet account for 5.6% market penetration in the SCE territory; 0.5% penetration in the PG&E territory; 12.0% penetration in the SDG&E territory.

In terms of number of projects committed, the statewide new construction market penetration of the SBD program is 1.6%. SBD committed projects account for 1.9% market penetration in the SCE territory; 0.3% penetration in the PG&E territory; 7.1% penetration in the SDG&E territory.

Among R&R participants, the statewide market penetration of the SBD program is 2.6%. SBD committed projects account for 1.6% market penetration in the SCE territory; 0.7% penetration in the PG&E territory; 13.6% penetration in the SDG&E territory.

Table 4.1 Statewide SBD Program Penetration in Quarter 1, 2000

Program Type	Year/Quarter	Source	Value (\$1,000)	Area (1,000 sqft)	%Area Penetration	Number of Projects	%Projects Penetration
New and Additions	2000 QTR 2	F. W. Dodge	3,004,270	48,078		1,160	
		SBD Whole Building	-	334	0.7%	3	0.3%
		SBD Systems Approach	-	1,670	3.5%	16	1.4%
		SBD Total	-	2,003	4.2%	19	1.6%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	709,826	-		983	
		SBD Whole Building	-	23	-	1	0.1%
		SBD Systems Approach	-	3,986	-	25	2.5%
		SBD Total	-	4,009	-	26	2.6%

Table 4.2 SBD Program Penetration in the SCE Service Territory in Quarter 1, 2000

Program Type	Year/Quarter	Source	Value (\$1,000)	Area (1,000 sqft)	%Area Penetration	Number of Projects	%Projects Penetration
New and Additions	2000 QTR 2	F. W. Dodge	1,177,219	23,254		416	
		SBD Whole Building	-	93	0.4%	1	0.2%
		SBD Systems Approach	-	1,211	5.2%	7	1.7%
		SBD Total	-	1,304	5.6%	8	1.9%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	214,290	-		311	-
		SBD Whole Building	-	.	-	.	.
		SBD Systems Approach	-	406	-	5	1.6%
		SBD Total	-	406	-	5	1.6%

Table 4.3 SBD Program Penetration in the PG&E Service Territory in Quarter 1, 2000

Program Type	Year/Quarter	Source	Value (\$1,000)	Area (1,000 sqft)	%Area Penetration	Number of Projects	%Projects Penetration
New and Additions	2000 QTR 2	F. W. Dodge	1,087,365	12,999		371	
		SBD Whole Building	-	.	0.0%	.	0.0%
		SBD Systems Approach	-	65	0.5%	1	0.3%
		SBD Total	-	65	0.5%	1	0.3%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	288,936	-		300	
		SBD Whole Building	-	.	-	.	0.0%
		SBD Systems Approach	-	39	-	2	0.7%
		SBD Total	-	39	-	2	0.7%

Table 4.4 SBD Program Penetration in the SDG&E Service Territory in Quarter 1, 2000

Program Type	Year/Quarter	Source	Value (\$1,000)	Area (1,000 sqft)	%Area Penetration	Number of Projects	%Projects Penetration
New and Additions	2000 QTR 2	F. W. Dodge	296,577	5,293		141	
		SBD Whole Building	-	241	4.5%	2	1.4%
		SBD Systems Approach	-	394	7.4%	8	5.7%
		SBD Total	-	635	12.0%	10	7.1%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	104,878	-		140	
		SBD Whole Building	-	23	-	1	0.7%
		SBD Systems Approach	-	3,541	-	18	12.9%
		SBD Total	-	3,564	-	19	13.6%

5. NRNC MARKET AND PROGRAM TRACKING SUMMARY

This chapter provides a summary of the NRNC market and SBD program activities from SBD program inception (July 1999).

Tables 5.1 – 5.4 summarize the market activities quarterly, statewide and by utility territory, starting with Quarter 3, 1999. Consistent with the data reported the previous chapters, F.W. Dodge project zip codes were used in conjunction with California Energy Commission's zip code-to-utility territory mapping to allocate projects to IOU and non-IOU utilities.

The market activity does not vary much from quarter to quarter. Quarter 3, 1999, presents the largest volume of activity, while Quarter 4, 1999, presents the lowest volume of activity, consistently statewide, and across utility territories.

Tables 5.5 – 5.8 summarize the SBD program activities quarterly, statewide and by utility territory, starting with Quarter 3, 1999.

Tables 5.9-5.12 summarize the SBD program penetration quarterly, statewide and by utility territory, starting with Quarter 3, 1999.

The SBD program activity generally indicates a decrease of participation in Quarter 1, 2000, as compared to Quarters 3 and 4, 1999.

Table 5.1 Market Summary for Project Starts in California

Program Type	Year	Quarter	Value (\$1,000)	Area (1,000 sqft)	Number of Projects
New and additions	1999	3	3,492,468	50,226	1,443
	1999	4	2,473,923	38,156	1,068
	2000	1	3,004,270	48,078	1,160
	2000	2	.	.	.
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	1,102,056	-	1,374
	1999	4	851,088	-	1,026
	2000	1	709,826	-	983
	2000	2	.	-	.
	2000	3	.	-	.
	2000	4	.	-	.

Table 5.2 Market Summary for Project Starts within the SCE Service Territory

Program Type	Year	Quarter	Value (\$1,000)	Area (1,000 sqft)	Number of Projects
New and additions	1999	3	951,304	17,676	486
	1999	4	731,471	13,840	340
	2000	1	1,177,219	23,254	416
	2000	2	.	.	.
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	239,198	-	429
	1999	4	156,236	-	343
	2000	1	214,290	-	311
	2000	2	.	-	.
	2000	3	.	-	.
	2000	4	.	-	.

Table 5.3 Market Summary for Project Starts within the PG&E Service Territory

Program Type	Year	Quarter	Value (\$1,000)	Area (1,000 sqft)	Number of Projects
New and additions	1999	3	1,528,451	17,770	566
	1999	4	992,074	13,168	387
	2000	1	1,087,365	12,999	371
	2000	2	.	.	.
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	513,051	-	466
	1999	4	390,056	-	291
	2000	1	288,936	-	300
	2000	2	.	-	.
	2000	3	.	-	.
	2000	4	.	-	.

Table 5.4 Market Summary for Project Starts within the SDG&E Service Territory

Program Type	Year	Quarter	Value (\$1,000)	Area (1,000 sqft)	Number of Projects
New and additions	1999	3	412,207	5,275	132
	1999	4	361,650	5,056	136
	2000	1	296,577	5,293	141
	2000	2	.	.	.
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	73,780	-	139
	1999	4	142,455	-	126
	2000	1	104,878	-	140
	2000	2	.	-	.
	2000	3	.	-	.
	2000	4	.	-	.

Table 5.5 Statewide SBD Program Participation Summary

Program Type	Year	Quarter	Area (1,000 sqft)	M W h	Measures	Participants
NEW CONSTRUCTION						
Whole Building Approach	1999	3	104	288	2	2
	1999	4	3,960	11,692	24	24
	2000	1	334	2,550	3	3
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	3,861	8,005	60	29
	1999	4	7,448	18,290	154	77
	2000	1	1,670	3,545	32	16
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	3,965	8,293	62	31
	1999	4	11,408	29,983	178	101
	2000	1	2,003	6,095	35	19
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0
R&R						
Whole Building Approach	1999	3	0	0	0	0
	1999	4	190	1,104	2	2
	2000	1	23	13	1	1
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	1,390	5,563	27	16
	1999	4	1,707	3,307	103	34
	2000	1	3,986	3,350	160	25
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	1,390	5,563	27	16
	1999	4	1,897	4,411	105	36
	2000	1	4,009	3,363	161	26
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0

Table 5.6 SBD Program Participation Summary for SCE Territory

Program Type	Year	Quarter	Area (1,000 sqft)	M W h	Measures	Participants
NEW CONSTRUCTION						
Whole Building Approach	1999	3	.	.	.	.
	1999	4	270	1,571	1	1
	2000	1	93	1,753	1	1
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	3,780	7,975	58	27
	1999	4	5,504	14,271	83	48
	2000	1	1,211	3,086	12	7
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	3,780	7,975	58	27
	1999	4	5,774	15,842	84	49
	2000	1	1,304	4,839	13	8
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0
R&R						
Whole Building Approach	1999	3	.	.	.	.
	1999	4	.	.	.	.
	2000	1	.	.	.	.
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	1,232	5,343	17	11
	1999	4	1,100	2,214	25	15
	2000	1	406	441	6	5
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	1,232	5,343	17	11
	1999	4	1,100	2,214	25	15
	2000	1	406	441	6	5
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0

Table 5.7 SBD Program Participation Summary for PG&E Territory

Program Type	Year	Quarter	Area (1,000 sqft)	M W h	Measures	Participants
NEW CONSTRUCTION						
Whole Building Approach	1999	3	.	.	.	.
	1999	4	2,733	7,102	17	17
	2000	1	.	.	.	.
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	.	.	.	.
	1999	4	1,329	1,839	33	18
	2000	1	65	177	2	1
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	0	0	0	0
	1999	4	4,063	8,941	50	35
	2000	1	65	177	2	1
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0
R&R						
Whole Building Approach	1999	3	.	.	.	.
	1999	4	.	.	.	.
	2000	1	.	.	.	.
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	.	.	.	.
	1999	4	336	564	9	6
	2000	1	39	98	2	2
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	0	0	0	0
	1999	4	336	564	9	6
	2000	1	39	98	2	2
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0

Table 5.8 SBD Program Participation Summary for SDG&E Territory

Program Type	Year	Quarter	Area (1,000 sqft)	M W h	Measures	Participants
NEW CONSTRUCTION						
Whole Building Approach	1999	3	104	288	2	2
	1999	4	957	3,019	6	6
	2000	1	241	797	2	2
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	81	30	2	2
	1999	4	615	2,180	38	11
	2000	1	394	282	18	8
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	185	318	4	4
	1999	4	1,571	5,200	44	17
	2000	1	635	1,079	20	10
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0
R&R						
Whole Building Approach	1999	3	.	.	.	.
	1999	4	190	1,104	2	2
	2000	1	23	13	1	1
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	158	220	10	5
	1999	4	271	529	69	13
	2000	1	3,541	2,812	152	18
	2000	2	.	.	.	.
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Total	1999	3	158	220	10	5
	1999	4	461	1,632	71	15
	2000	1	3,564	2,824	153	19
	2000	2	0	0	0	0
	2000	3	0	0	0	0
	2000	4	0	0	0	0

Table 5.9. Summary of Statewide SBD Program Penetration

Program Type	Year	Quarter	Dodge Area (1,000 sqft)	SBD Area (1,000 sqft)	%Area Penetration	F.W. Dodge Projects	SBD Participants	%Projects Penetration
New Construction	1999	3	50,226	3,965	7.9%	1,443	31	2.1%
	1999	4	38,156	11,408	29.9%	1,068	101	9.5%
	2000	1	48,078	2,003	4.2%	1,160	19	1.6%
	2000	2	0	0	0.0%	0	0	0.0%
	2000	3	0	0	0.0%	0	0	0.0%
Alterations (R&R)	2000	4	0	0	0.0%	0	0	0.0%
	1999	3	-	1,390	-	1,374	16	1.2%
	1999	4	-	1,897	-	1,026	36	3.5%
	2000	1	-	4,009	-	983	26	2.6%
	2000	2	-	0	-	0	0	0.0%
2000	3	-	0	-	0	0	0.0%	
2000	4	-	0	-	0	0	0.0%	

Table 5.10. Summary of SBD Program Penetration within the SCE Service Territory

Program Type	Year	Quarter	Dodge Area (1,000 sqft)	SBD Area (1,000 sqft)	%Area Penetration	F.W. Dodge Projects	SBD Participants	%Projects Penetration
New Construction	1999	3	17,676	3,780	21.4%	486	27	5.6%
	1999	4	13,840	5,774	41.7%	340	49	14.4%
	2000	1	23,254	1,304	5.6%	416	8	1.9%
	2000	2	0	0	0.0%	0	0	0.0%
	2000	3	0	0	0.0%	0	0	0.0%
Alterations (R&R)	2000	4	0	0	0.0%	0	0	0.0%
	1999	3	-	1,232	-	429	11	2.6%
	1999	4	-	1,100	-	343	15	4.4%
	2000	1	-	406	-	311	5	1.6%
	2000	2	-	0	-	0	0	0.0%
2000	3	-	0	-	0	0	0.0%	
2000	4	-	0	-	0	0	0.0%	

Table 5.11. Summary of SBD Program Penetration within the PG&E Service Territory

Program Type	Year	Quarter	Dodge Area (1,000 sqft)	SBD Area (1,000 sqft)	%Area Penetration	F.W. Dodge Projects	SBD Participants	%Projects Penetration
New Construction	1999	3	17,770	0	0.0%	566	0	0.0%
	1999	4	13,168	4,063	30.9%	387	35	9.0%
	2000	1	12,999	65	0.5%	371	1	0.3%
	2000	2	0	0	0.0%	0	0	0.0%
	2000	3	0	0	0.0%	0	0	0.0%
Alterations (R&R)	2000	4	0	0	0.0%	0	0	0.0%
	1999	3	-	0	-	466	0	0.0%
	1999	4	-	336	-	291	6	2.1%
	2000	1	-	39	-	300	2	0.7%
	2000	2	-	0	-	0	0	0.0%
2000	3	-	0	-	0	0	0.0%	
2000	4	-	0	-	0	0	0.0%	

Table 5.12. Summary of SBD Program Penetration within the SDG&E Service Territory

Program Type	Year	Quarter	Dodge Area (1,000 sqft)	SBD Area (1,000 sqft)	%Area Penetration	F.W. Dodge Projects	SBD Participants	%Projects Penetration
New Construction	1999	3	5,275	185	3.5%	132	4	3.0%
	1999	4	5,056	1,571	31.1%	136	17	12.5%
	2000	1	5,293	635	12.0%	141	10	7.1%
	2000	2	0	0	0.0%	0	0	0.0%
	2000	3	0	0	0.0%	0	0	0.0%
	2000	4	0	0	0.0%	0	0	0.0%
Alterations (R&R)	1999	3	-	158	-	139	5	3.6%
	1999	4	-	461	-	126	15	11.9%
	2000	1	-	3,564	-	140	19	13.6%
	2000	2	-	0	-	0	0	0.0%
	2000	3	-	0	-	0	0	0.0%
	2000	4	-	0	-	0	0	0.0%

6. MOST ACTIVE MARKET PLAYERS IN QUARTER 1, 2000

This chapter presents the most active market players in Quarter 1, 2000, by utility territory and statewide, as reported in the F.W. Dodge “Players” database. The most active market players are defined as the actors who contributed to projects that added up to the highest total value.

Our experience with the F.W. Dodge Reports indicates that, while most projects are associated with at least one market actor, that actor is not necessarily an architect or an engineer (the F.W. Dodge database also tracks owners and contractors). The data reported below are therefore subject to the limitations intrinsic to reporting within the F.W. Dodge Reports.

In preparing these results, all entries containing the same address, zip code, and similar names for the market actors, were considered to correspond to the same firm. Civil engineering, structural engineering, and landscape architecture firms were excluded only if their name included the words “civil”, “structural” or “landscape” (the F.W. Dodge database does not contain information regarding the specialty of an actor).

The mapping of market actors by utility service territory was done using the zip code associated with the *project* location, not that associated with the address of the *market actor*.

Table 6.1 presents the most active market players statewide, during Quarter 1, 2000.

Table 6.2 presents the most active market players in SCE territory during Quarter 1, 2000.

Table 6.3 shows the most active market players in PG&E territory during Quarter 1, 2000.

Table 6.4 summarizes the most active market players in SDG&E territory during Quarter 1, 2000.

Table 6.1 Most Active Market Players in California in Quarter 1, 2000

Firm Name	City	State	Total Project Value (\$1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
McLarand Vasquez and Partners	IRVINE	CA	222,149	2,641	11
Hill Pinckert Architects	NEWPORT BEACH	CA	119,224	3,546	8
Hellmuth Obata and Kassabaum Inc.	SAN FRANCISCO	CA	102,220	794	3
Hill Glazier Architects Inc	PALO ALTO	CA	100,000	560	1
Kwan Henmi Architecture/Planning Inc	SAN FRANCISCO	CA	87,000	650	1
Ware and Malcomb Architects	IRVINE	CA	84,590	1,509	10
Perkowitz and Ruth Architects Inc.	NEWPORT BEACH	CA	81,000	501	2
Feola and Archuleta	GLENDALE	CA	75,000	490	1
B F L Owen Group	IRVINE	CA	70,000	400	1
D E S Architects and Engineers	REDWOOD CITY	CA	67,534	850	4
Todd and Associates	PHOENIX	AZ	57,500	678	2
RMW Architecture and Interior Design	SAN JOSE	CA	50,000	600	1
Wimberly Allison Tong and Goo Architects	NEWPORT BEACH	CA	50,000	566	1
Greenberg Farrow Architecture	TUSTIN	CA	49,808	1,396	11
Thomas Blurock Architects Inc.	COSTA MESA	CA	48,734	360	2
Hoover Associates	PALO ALTO	CA	48,000	574	5
Leo A Daly	LOS ANGELES	CA	45,000	70	1
R K Z Architects	TUSTIN	CA	40,520	982	4
ERHDR	SACRAMENTO	CA	39,449	120	1
Danielian and Associates	IRVINE	CA	37,500	0	1
ENGINEERS					
FBA-Frederick Brown and Associates	NEWPORT BEACH	CA	144,074	1,040	9
KPFF Consulting Engineers	SAN FRANCISCO	CA	117,623	710	3
Culp and Tanner	LAKE FOREST	CA	106,969	941	5
OMB Electrical Engineers Inc	LAGUNA HILLS	CA	106,908	1,932	17
Penfield and Smith Engrs Inc	SANTA BARBARA	CA	100,000	560	1
Middlebrook and Louie	SAN FRANCISCO	CA	90,000	675	4
Tsuchiyama and Kaino	IRVINE	CA	83,500	619	3
Ajit Randhava Engineers	LA MIRADA	CA	75,000	1,556	5
Martin Chow and Nakabara	NEWPORT BEACH	CA	61,734	505	4
Carlson Barbee Gibson	SAN RAMON	CA	57,500	732	4
Lindy Dennis Industries	CORONA	CA	57,500	732	4
Thienes Engineering	LA MIRADA	CA	55,000	2,106	2
L S Mason and Associates	LAFAYETTE	CA	51,000	602	4
Critchfield Mechanical Inc	MENLO PARK	CA	50,000	250	1
Fundament and Assoc	NEWPORT BEACH	CA	49,072	363	3
Engineering Resources	TUSTIN	CA	47,500	1,089	3
Kramer and Associates	TUSTIN	CA	47,500	1,717	2
Nowak Meulmester and Associates	SAN DIEGO	CA	46,800	544	5
Barry Levin and Associates	IRVINE	CA	46,308	1,301	10
Peterson Associates	PHOENIX	AZ	45,300	643	3

Table 6.2 Most Active Market Players in SCE Territory in Quarter 1, 2000

Firm Name	City	State	Total Project Value (\$1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Hill Glazier Architects Inc	PALO ALTO	CA	100,000	560	1
McLarand Vasquez and Partners	IRVINE	CA	75,913	1,487	5
Feola and Archuleta	GLENDALE	CA	75,000	490	1
Ware and Malcomb Architects	IRVINE	CA	67,420	1,079	7
Hill Pinckert Architects	NEWPORT BEACH	CA	65,373	1,460	6
Todd and Associates	PHOENIX	AZ	57,500	678	2
Thomas Blurock Architects Inc.	COSTA MESA	CA	48,734	360	2
R K Z Architects	TUSTIN	CA	40,520	982	4
Danielian and Associates	IRVINE	CA	37,500	0	1
Killefer Flammang Purtill Architects	SANTA MONICA	CA	37,500	0	1
Knitter and Assocs	NEWPORT BEACH	CA	37,500	0	1
Rivers and Christian	LOS ANGELES	CA	37,500	0	1
Hellmuth Obata and Kassabaum Inc.	SAN FRANCISCO	CA	32,220	119	1
CSO Architects	INDIANAPOLIS	IN	27,500	1,213	1
Bassenian Lagoni Architects	NEWPORT BEACH	CA	25,000	350	1
RGA Architectural Design	LONG BEACH	CA	25,000	650	2
DMJM - Daniel Mann Johnson and Mendenhall	LOS ANGELES	CA	24,182	128	1
Bastien and Associates	TUSTIN	CA	24,000	817	1
Johnson Fain Partners	LOS ANGELES	CA	23,500	418	2
Glavan and Associates Architects	COLUMBUS	OH	23,000	828	1
ENGINEERS					
KPFF Consulting Engineers	SAN FRANCISCO	CA	100,000	560	1
Penfield and Smith Engrs Inc	SANTA BARBARA	CA	100,000	560	1
Ajit Randhava Engineers	LA MIRADA	CA	73,000	1,533	4
FBA-Frederick Brown and Associates	NEWPORT BEACH	CA	62,990	539	6
Martin Chow and Nakabara	NEWPORT BEACH	CA	61,734	505	4
Fundament and Assoc	NEWPORT BEACH	CA	48,734	360	2
Kramer and Associates	TUSTIN	CA	47,500	1,717	2
Engineering Resources	TUSTIN	CA	40,000	1,034	2
Peterson Associates	PHOENIX	AZ	37,800	485	2
Gregg Electric Inc	ONTARIO	CA	37,500	732	1
The Planning Center	PHOENIX	AZ	37,500	468	1
Triangle Mechanical Inc	RIVERSIDE	CA	37,500	732	1
Webb Associated	RIVERSIDE	CA	37,500	468	1
Grossman and Speer Associates Inc	GLENDALE	CA	37,333	80	2
RPM	IRVINE	CA	31,752	1,528	3
Culp and Tanner	LAKE FOREST	CA	30,500	417	3
Montgomery Watson America Inc	PASADENA	CA	29,902	0	1
KCT Consultants	RIVERSIDE	CA	28,599	624	2
TMAD Engineers Inc.	ONTARIO	CA	28,581	80	4
Albert A Webb Associates	RIVERSIDE	CA	27,500	1,213	1

Table 6.3 Most Active Market Players in PG&E Territory in Quarter 1, 2000

Firm Name	City	State	Total Project Value (\$1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Hill Glazier Architects Inc	PALO ALTO	CA	100,000	560	1
McLarand Vasquez and Partners	IRVINE	CA	94,500	1,045	5
Kwan Henmi Architecture/Planning Inc	SAN FRANCISCO	CA	87,000	650	1
Hellmuth Obata and Kassabaum Inc.	SAN FRANCISCO	CA	70,000	675	2
D E S Architects and Engineers	REDWOOD CITY	CA	67,534	850	4
RMW Architecture and Interior Design	SAN JOSE	CA	50,000	600	1
Hoover Associates	PALO ALTO	CA	48,000	574	5
Danielian and Associates	IRVINE	CA	37,500	0	1
Killefer Flammang Purtill Architects	SANTA MONICA	CA	37,500	0	1
Knitter and Assocs	NEWPORT BEACH	CA	37,500	0	1
Rivers and Christian	LOS ANGELES	CA	37,500	0	1
Stanley Saitowitz	SAN FRANCISCO	CA	34,000	200	1
Gordon H Chong and Partners	SAN FRANCISCO	CA	31,647	306	2
Pfau Architecture	SAN FRANCISCO	CA	30,000	300	1
Ware and Malcomb	SAN RAMON	CA	27,500	811	2
Korth Sunseri Hagey Architects	SAN FRANCISCO	CA	24,870	321	4
Greenberg Farrow Architecture	TUSTIN	CA	23,750	762	6
Heller Manus Architects	SAN FRANCISCO	CA	23,000	325	1
Backen Arrigoni and Ross	SAN FRANCISCO	CA	20,000	161	1
Gruen Associates	LOS ANGELES	CA	20,000	0	1
ENGINEERS					
KPFF Consulting Engineers	SAN FRANCISCO	CA	117,623	710	3
Penfield and Smith Engrs Inc	SANTA BARBARA	CA	100,000	560	1
Middlebrook and Louie	SAN FRANCISCO	CA	90,000	675	4
OMB Electrical Engineers Inc	LAGUNA HILLS	CA	73,250	1,240	9
Carlson Barbee Gibson	SAN RAMON	CA	57,500	732	4
Lindy Dennis Industries	CORONA	CA	57,500	732	4
L S Mason and Associates	LAFAYETTE	CA	51,000	602	4
Critchfield Mechanical Inc	MENLO PARK	CA	50,000	250	1
M H C Engineers	SAN FRANCISCO	CA	41,693	284	3
The Watry Design Group	REDWOOD CITY	CA	34,000	200	1
Watry Design Group	SAN MATEO	CA	34,000	200	1
Hillman Biddison and Loevenguth	LOS ANGELES	CA	32,631	182	6
S W A Group	SAUSALITO	CA	32,500	322	2
Zeiger Engineers Inc	OAKLAND	CA	28,109	180	5
Capital Engineering Consultants Inc	SACRAMENTO	CA	27,939	63	8
Mazzetti and Associates Inc	SAN FRANCISCO	CA	26,890	370	2
Rutherford and Chekene	SAN FRANCISCO	CA	26,828	385	2
Burton Associates	SAN DIEGO	CA	25,000	410	2
F B A Engineers	BELMONT	CA	25,000	410	2
OMahoney and Myer	SAN RAFAEL	CA	24,220	96	4

Table 6.4 Most Active Market Players in SDG&E Territory in Quarter 1, 2000

Firm Name	City	State	Total Project Value (\$1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Feola and Archuleta	GLENDALE	CA	75,000	490	1
Hellmuth Obata and Kassabaum Inc.	SAN FRANCISCO	CA	32,220	119	1
Brian Paul and Associates	SAN DIEGO	CA	31,500	404	3
Gene Cipparrone Architect Inc	SAN DIEGO	CA	26,682	240	2
Bassenian Lagoni Architects	NEWPORT BEACH	CA	25,000	350	1
SGPA Architecture and Planning	SAN DIEGO	CA	20,623	114	2
Kaufman-Meeks and Partners	NEWPORT BEACH	CA	20,458	249	1
ARC Design International	VANCOUVER	BC	20,369	260	1
Perkins and Company Architecture and Urban Des	VANCOUVER	BC	20,369	260	1
BBG Architects	SANTA ANA	CA	20,000	282	1
SGPA Architecture and Planning	SAN DIEGO	CA	20,000	97	1
McGraw/Baldwin Architects	SAN DIEGO	CA	19,818	386	6
Daroff Design Inc	PHILADELPHIA	PA	18,000	27	1
Flynn Architects	ANAHEIM	CA	16,500	37	2
LPA	IRVINE	CA	13,969	169	2
Fehlman LaBarre Architects	SAN DIEGO	CA	13,913	204	2
Carrier Johnson Architects	SAN DIEGO	CA	13,842	249	2
SSA Associates Architect	IRVINE	CA	12,000	200	1
Fehlman LaBarre Architects	SAN DIEGO	CA	11,038	78	3
Perkowitz and Ruth Architects Inc.	NEWPORT BEACH	CA	11,000	101	1
ENGINEERS					
Tildin Engineering	FOUNTAIN VALLEY	CA	31,000	198	2
Nowak Meulmester and Associates	SAN DIEGO	CA	26,000	322	3
Bechard - Long and Associates	SAN DIEGO	CA	20,000	97	1
Project Design Consultants	SAN DIEGO	CA	20,000	97	1
McParlane and Associates	SAN DIEGO	CA	12,500	131	2
Vandorpe Chou Architect	ORANGE	CA	12,500	0	1
Nasland Engineering	SAN DIEGO	CA	12,143	183	2
Davar and Associates	LONG BEACH	CA	12,000	146	2
FBA-Frederick Brown and Associates	NEWPORT BEACH	CA	11,000	101	1
GLP Karjala Associates	COSTA MESA	CA	11,000	101	1
Nowell and Associates	SAN DIEGO	CA	11,000	72	2
Charles Hartman and Associates	SAN JUAN CAPIST	CA	10,000	168	1
TMAD Engineering	SAN DIEGO	CA	9,644	191	2
Burkett and Wong	SAN DIEGO	CA	9,431	183	3
Turpin and Rattan Engineering	SAN DIEGO	CA	7,693	51	2
Pacifica Engineers	SAN DIEGO	CA	7,500	170	1
RBF Corp	SAN DIEGO	CA	7,500	45	1
Stuart Engineering	SAN DIEGO	CA	7,500	51	1
Culp and Tanner	LAKE FOREST	CA	6,469	124	1
Glumac Engineers Inc So Calif	IRVINE	CA	6,469	124	1

APPENDIX A. GLOSSARY OF BUILDING TYPES RECORDED BY F.W. DODGE

Amusement	amusement and recreational buildings
Assembly	religious and worship buildings
Education	libraries, museums
Government	government services
Hotel	hotels and motels
Medical	hospitals and other health-related buildings
Office	office and laboratory buildings
Retail	retail stores and shopping centers
School	schools, colleges and universities, including dorms
Service	service stations
Storage	warehouses and storage facilities
Other	other nonresidential buildings

APPENDIX B. GLOSSARY OF BUILDING/PROJECT TYPES RECORDED BY CIRB

Amusement	amusement and recreational buildings
Church	churches and religious buildings
Hotel	hotels and motels
Medical	hospitals and institutional buildings
Office	office and bank buildings
Other	other nonresidential buildings
Education	schools, colleges, universities, libraries, museums
Retail	stores and other mercantile buildings
Service	service stations
Industrial	manufacturing plants and affiliated buildings
Alterations	alterations, additions, and conversions to nonresidential structures (excludes special installation permits for electrical, plumbing, heating, AC, or similar mechanical work, or installation of fire escapes, elevators, signs, etc.)

APPENDIX C. CEC ZIP CODE-TO-UTILITY TERRITORY MAPPING

California Energy Commission's zip code-to-utility territory mapping consists of a list of 2,671 zip codes corresponding to 1,410 cities in California. In this list, each zip code is mapped to one of 16 territory zones. In turn, the territory zones correspond to utility territories as follows.

Zones 1 – 5 are in PG&E territory

Zone 6 is in SMUD territory

Zones 7 – 10 are in SCE territory

Zones 11 and 12 are in LADWP territory

Zone 13 is in SDG&E territory

Zones 14 – 16 comprise the Other Service area

To identify the utility territory based on zip code, the zip code must be first used to identify the territory zone, which then corresponds to a utility territory.

Note that the territory zones defined for this purpose by the CEC are not the same as the California Climate Zones.

APPENDIX D. GLOSSARY OF MEASURES IMPLEMENTED BY SBD PARTICIPANTS

Whole building	Measures installed as part of the whole building approach
Daylighting	Daylighting measures
Skylight	Skylights
HVAC chiller	High-efficiency chillers
HVAC package	High-efficiency unitary systems
HVAC controls	Controls for HVAC systems
HVAC other	Other measures labeled as “HVAC”
Motors “motors”	High-efficiency motors and other measures labeled as
Lighting	Lighting measures, including lighting power density reduction
Envelope	Envelope measures, including insulation and windows
Other	Refrigeration, process cooling and pumps, variable frequency drives and adjustable speed drives that are not specifically labeled “HVAC” or “motors”, controls that are not specifically labeled “HVAC” or “motors”, and measures labeled “other” or “miscellaneous”.