NRNC MARKET AND PROGRAM TRACKING REPORT QUARTER 2, 2000

FINAL

Prepared for

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Statewide NRNC MA&E Program

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P910-160

October, 2000

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APPENDICES

1. INTRODUCTION

This 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.

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 2, 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 2, 2000.

Chapter 3 presents the market characteristics for alteration projects, as described by F.W. Dodge. It then characterizes program participation activities in Quarter 2, 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 Second 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 2, 2000.

2. STATEWIDE NONRESIDENTIAL NEW CONSTRUCTION TRENDS

This chapter presents information on the nonresidential new construction activity that has occurred in Quarter 2, 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 2, 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 2, 2000.

2.1 NEW CONSTRUCTION MARKET CHARACTERISTICS IN QUARTER 2, 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 2, 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, Santa Clara, San Diego, and Orange Counties account for the highest value of permits filed in the State during Quarter 2, 2000. Among building types, the highest permit value was recorded in the office, industrial, retail, and hotel segments.

Table 2.2 presents the F.W. Dodge valuation for nonresidential new construction projects that have started construction during Quarter 2, 2000. To emulate SBD program scope as closely as possible, additions reported by F.W. Dodge were included with "new construction". Los Angeles, San Diego, Orange, and Sacramento Counties account for the highest value of projects that have started construction in Quarter 2, 2000.

Table 2.3 shows the number of nonresidential new construction projects (including additions) that have started construction during Quarter 2, 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 2, 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 Diego, Orange, and Riverside.

Table 2.1. CIRB Statewide Nonresidential Permit Valuation in Quarter 2, 2000 ($1,000)

	AMUSEMENT	CHURCH	HOTEL	MEDICAL	OFFICE	OTHER	EDUCATION	RETAIL	SERVICE	INDUSTRIAL	TOTAL NEW	ALTERATION	TOTAL
COUNTY													
ALAMEDA	8,204	.	8,769	4,270	23,953	5,202	.	19,107	1,080	34,027	104,612	127,685	232,297
ALPINE	.	.	.	.	.	40	.	.	.	.	40	3	43
AMADOR	.	.	.	.	.	847	.	117	.	.	964	274	1,238
BUTTE	769	.	.	.	5,699	596	.	2,452	.	.	9,516	4,456	13,972
CALAVERAS	.	.	1,662	.	.	154	.	.	.	.	1,816	888	2,704
COLUSA	.	.	.	.	.	1,940	.	.	.	.	1,940	68	2,008
CONTRA COSTA	9,989	104	.	1,000	29,489	3,478	332	2,132	636	420	47,580	51,431	99,012
DEL NORTE	.	.	.	.	.	389	.	268	.	.	657	102	759
EL DORADO	.	.	.	.	5,511	601	.	3,225	.	464	9,800	3,396	13,197
FRESNO	.	3,937	1,510	.	16,628	867	1,353	8,414	219	28,392	61,321	12,629	73,951
GLENN	.	.	.	.	.	860	.	.	.	.	860	16	876
HUMBOLDT	.	.	.	.	.	913	.	138	.	.	1,051	6,145	7,196
IMPERIAL	.	248	.	.	1,595	1,167	.	520	220	2,267	6,017	799	6,817
INYO	.	.	.	.	.	.	.	2,000	.	.	2,000	161	2,161
KERN	.	.	.	.	2,693	6,743	110	5,507	2,171	7,188	24,412	19,920	44,331
KINGS	.	.	.	.	144	1,013	.	655	.	.	1,812	3,190	5,002
LAKE	.	1,270	.	.	134	145	.	910	.	.	2,459	378	2,837
LASSEN	.	.	.	.	.	102	.	669	.	.	771	145	916
LOS ANGELES	2,436	5,993	24,450	3,094	86,596	15,046	29,680	130,544	2,024	140,109	439,974	374,431	814,405
MADERA	.	.	.	.	.	.	.	2,569	.	817	3,386	258	3,645
MARIN	.	.	3,600	8,231	10,305	949	.	821	600	.	24,506	7,912	32,418
MARIPOSA	.	.	.	.	.	113	.	.	.	.	113	10	123
MENDOCINO	.	.	918	.	.	866	.	.	.	388	2,172	795	2,968
MERCED	.	.	.	.	1,184	3,553	.	2,180	.	733	7,650	2,057	9,707
MODOC	.	.	.	.	.	173	.	.	.	1,400	1,573	485	2,057
MONO	.	.	.	.	.	.	.	.	.	242	242	68	310
MONTEREY	2,086	.	2,613	1,800	2,855	3,096	1,115	5,162	650	1,125	20,502	9,232	29,734
NAPA	.	.	1,800	.	3,162	4,448	599	6,176	.	1,723	17,908	4,014	21,923
NEVADA	.	.	.	.	.	2,410	.	804	.	3,500	6,714	210	6,924
ORANGE	13,960	1,324	84,217	.	82,981	1,903	.	55,685	1,711	12,527	254,308	171,134	425,442
PLACER	1,187	2,327	.	.	2,506	1,961	594	5,682	.	3,172	17,428	34,505	51,933
PLUMAS	.	.	161	.	.	30	.	.	.	.	192	524	716
RIVERSIDE	11,555	2,668	1,811	.	6,044	4,776	1,090	60,863	.	16,691	105,498	44,233	149,730
SACRAMENTO	6,213	667	.	.	29,942	1,050	.	23,892	605	7,772	70,141	46,865	117,006
SAN BENITO	.	.	.	.	.	424	.	593	.	819	1,836	1,168	3,004
SAN BERNARDINO	.	2,116	.	.	2,144	5,762	.	51,037	148	79,647	140,853	32,218	173,070
SAN DIEGO	6,330	7,704	34,006	1,199	68,728	10,054	22,030	40,605	830	78,877	270,363	155,425	425,788
SAN FRANCISCO	.	1,516	.	.	125,332	40	2,500	6,786	.	.	136,174	204,055	340,229
SAN JOAQUIN	.	2,211	.	1,250	130	2,030	1,000	50,468	1,105	16,032	74,226	14,137	88,363
SAN LUIS OBISPO	808	.	646	.	1,186	3,198	.	11,952	.	1,834	19,624	5,532	25,156
SAN MATEO	16,000	.	2,827	.	97,717	2,585	394	8,224	.	192	127,939	56,076	184,015
SANTA BARBARA	.	.	965	.	.	3,708	.	204	.	9,522	14,399	10,125	24,524
SANTA CLARA	4,133	5,181	29,508	.	43,575	3,029	2,436	19,254	1,863	117,843	226,821	311,874	538,695
SANTA CRUZ	.	.	.	.	431	173	.	.	.	.	604	11,331	11,935
SHASTA	186	.	.	.	1,363	1,172	.	3,604	.	2,057	8,382	2,106	10,488
SIERRA	.	.	.	.	.	19	.	.	.	.	19	2	21
SISKIYOU	362	.	.	.	.	1,148	.	866	.	.	2,376	1,263	3,639
SOLANO	.	1,747	5,959	.	.	1,478	.	9,591	787	8,066	27,628	9,823	37,451
SONOMA	1,298	.	.	.	6,300	4,400	.	11,552	.	1,984	25,534	29,199	54,733
STANISLAUS	1,197	5,962	.	7,179	2,054	3,611	2,589	23,249	856	2,460	49,155	14,336	63,492
SUTTER	.	650	.	.	1,230	707	118	826	655	.	4,186	861	5,046
TEHAMA	.	.	.	.	380	655	.	1,623	.	.	2,658	571	3,229
TRINITY	.	.	.	.	570	145	.	.	.	.	715	163	878
TULARE	.	535	4,769	.	1,547	4,469	40	1,802	.	7,181	20,343	7,199	27,542
TUOLUMNE	2,482	.	.	.	.	246	.	793	.	1,024	4,544	472	5,016
VENTURA	1,594	1,429	.	.	9,334	4,434	2,000	13,043	220	16,887	48,941	30,439	79,380
YOLO	.	.	.	.	436	746	1,580	.	.	15,628	18,389	16,682	35,071
YUBA	128	.	.	.	.	987	.	321	.	.	1,437	1,504	2,941
CALIFORNIA	90,917	47,589	210,193	28,023	673,878	120,648	69,559	596,884	16,382	623,008	2,477,082	1,844,982	4,322,064

Table 2.2 F.W. Dodge Nonresidential Construction Valuation for New Construction Projects in Quarter 2, 2000 ($1,000)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	4,605	2,824	.	1,006	31,600	.	6,099	12,293	14,647	9,044	11,689	13,500	107,307
ALPINE	1,500	.	.	.	.	.	.	.	.	.	.	.	1,500
AMADOR	.	.	.	.	.	.	335	.	.	.	.	.	335
BUTTE	.	.	.	.	.	6,000	2,500	980	.	.	1,000	.	10,480
CALAVERAS	.	.	150	.	.	.	.	.	.	.	200	.	350
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	1,521	430	4,978	1,200	6,000	10,836	5,866	15,434	2,690	10,420	4,000	.	63,375
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	534	.	.	.	65,000	.	4,301	3,300	550	.	311	.	73,996
FRESNO	2,827	4,845	.	5,131	.	1,100	2,011	2,211	13,501	11,233	16,002	308	59,169
GLENN	.	.	.	.	.	.	.	.	.	.	.	.	0
HUMBOLDT	.	.	.	.	.	.	.	.	.	.	.	.	0
IMPERIAL	.	320	.	.	.	.	3,415	371	.	.	654	673	5,433
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	500	122	.	2,949	.	3,175	6,533	2,636	7,554	1,111	3,457	682	28,719
KINGS	.	.	.	.	.	.	.	.	6,490	.	.	.	6,490
LAKE	.	1,270	.	.	.	.	.	.	.	96	.	78	1,444
LASSEN	.	.	.	.	.	.	.	.	1,425	.	.	.	1,425
LOS ANGELES	41,313	9,697	515	39,844	16,950	77,585	77,322	53,298	106,809	28,807	127,422	22,901	602,463
MADERA	.	.	.	9,126	.	.	.	.	.	.	799	.	9,925
MARIN	.	.	.	.	.	.	.	173	138	.	.	.	311
MARIPOSA	.	.	.	.	.	.	.	.	.	.	.	.	0
MENDOCINO	.	.	.	.	.	1,800	.	.	.	.	.	.	1,800
MERCED	6,256	.	.	.	.	.	.	2,650	.	.	1,877	.	10,783
MODOC	.	.	.	.	.	650	.	.	.	.	.	.	650
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	.	.	.	.	.	.	5,296	270	.	.	.	2,322	7,888
NAPA	1,627	.	.	.	.	.	4,566	5,750	.	.	1,201	4,764	17,908
NEVADA	142	.	.	.	.	.	1,750	.	.	.	190	875	2,957
ORANGE	28,875	500	.	2,073	97,000	14,500	50,642	34,885	400	74,133	37,344	3,420	343,772
PLACER	445	4,327	.	.	.	.	6,063	14,549	1,709	8,750	65	3,081	38,989
PLUMAS	.	.	.	1,000	.	.	.	.	.	.	.	.	1,000
RIVERSIDE	11,275	4,724	510	30,199	.	836	20,176	34,095	5,519	13,265	52,338	1,780	174,717
SACRAMENTO	7,051	249	.	500	.	33,290	103,350	35,972	10,153	4,000	5,000	.	199,565
SAN BENITO	.	.	.	.	.	.	271	.	.	.	793	.	1,064
SAN BERNARDINO	4,258	331	.	.	192	7,000	4,597	12,579	7,357	7,194	64,838	.	108,346
SAN DIEGO	1,527	1,647	12,027	150	128,118	8,654	96,375	36,122	54,875	23,460	5,217	11,414	379,586
SAN FRANCISCO	.	.	.	.	400	.	73,444	.	1,848	12,141	.	.	87,833
SAN JOAQUIN	.	.	.	.	.	480	18,628	9,050	550	.	1,712	.	30,420
SAN LUIS OBISPO	1,000	3,275	.	.	6,089	1,511	458	8,927	.	.	14,360	1,644	37,264
SAN MATEO	4,394	2,000	.	190	8,500	.	10,769	85	868	100,280	3,500	.	130,586
SANTA BARBARA	3,702	3,105	.	.	.	670	7,757	3,833	10,352	.	4,642	2,750	36,811
SANTA CLARA	9,531	1,500	.	.	21,945	6,350	16,631	2,008	34,540	16,259	.	.	108,764
SANTA CRUZ	.	.	5,149	1,162	.	.	.	150	.	.	.	.	6,461
SHASTA	.	185	.	.	.	2,719	75	300	374	.	2,000	22,000	27,653
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	5,798	1,025	.	.	.	.	6,823
SOLANO	37	4,000	.	.	.	1,000	11,194	2,204	.	.	386	.	18,821
SONOMA	1,384	.	.	2,143	.	.	15,250	1,300	5,251	.	.	.	25,328
STANISLAUS	2,000	.	.	.	.	3,000	.	.	12,479	762	.	.	18,241
SUTTER	.	.	.	.	.	.	.	300	.	.	.	.	300
TEHAMA	1,120	500	.	.	.	.	121	.	.	.	.	.	1,741
TRINITY	.	.	.	.	500	.	.	.	555	.	.	.	1,055
TULARE	1,200	.	.	.	.	.	2,500	.	150	.	750	.	4,600
TUOLUMNE	.	.	.	.	.	.	.	624	.	.	.	.	624
VENTURA	1,200	1,127	1,934	3,317	109	6,000	3,925	8,603	2,345	3,250	6,815	8,276	46,901
YOLO	.	1,930	.	.	.	500	.	500	.	250	.	.	3,180
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	139,824	48,908	25,263	99,990	382,403	187,656	568,018	306,477	303,129	324,455	368,562	100,468	2,855,153
UTILITY													
SCE	50,824	11,838	2,444	75,710	21,609	36,172	103,623	97,732	51,805	115,247	238,166	31,233	836,403
PG&E	42,201	28,536	10,277	20,607	140,034	29,866	192,750	111,287	112,839	160,846	63,545	51,754	964,542
SDG&E	13,262	1,571	12,027	2,073	184,618	11,324	95,430	44,560	46,246	23,148	5,001	11,414	450,674
Non-IOU	33,537	6,963	515	1,600	36,142	110,294	176,215	52,898	92,239	25,214	61,850	6,067	603,534

Table 2.3. F.W. Dodge Number of Nonresidential New Construction Project Starts in Quarter 2, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	4	3	.	1	4	.	5	9	3	6	7	4	46
ALPINE	1	.	.	.	.	.	.	.	.	.	.	.	1
AMADOR	.	.	.	.	.	.	1	.	.	.	.	.	1
BUTTE	.	.	.	.	.	1	2	3	.	.	1	.	7
CALAVERAS	.	.	1	.	.	.	.	.	.	.	1	.	2
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	2	1	3	1	1	4	4	5	2	4	2	.	29
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	1	.	.	.	3	.	2	2	1	.	1	.	10
FRESNO	3	2	.	2	.	2	5	6	3	2	3	1	29
GLENN	.	.	.	.	.	.	.	.	.	.	.	.	0
HUMBOLDT	.	.	.	.	.	.	.	.	.	.	.	.	0
IMPERIAL	.	1	.	.	.	.	6	1	.	.	1	1	10
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	1	1	.	2	.	1	7	2	2	2	8	2	28
KINGS	.	.	.	.	.	.	.	.	1	.	.	.	1
LAKE	.	1	.	.	.	.	.	.	.	1	.	1	3
LASSEN	.	.	.	.	.	.	.	.	1	.	.	.	1
LOS ANGELES	20	7	1	2	6	11	39	47	35	14	41	7	230
MADERA	.	.	.	1	.	.	.	.	.	.	2	.	3
MARIN	.	.	.	.	.	.	.	1	1	.	.	.	2
MARIPOSA	.	.	.	.	.	.	.	.	.	.	.	.	0
MENDOCINO	.	.	.	.	.	1	.	.	.	.	.	.	1
MERCED	2	.	.	.	.	.	.	2	.	.	3	.	7
MODOC	.	.	.	.	.	1	.	.	.	.	.	.	1
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	.	.	.	.	.	.	7	2	.	.	.	5	14
NAPA	1	.	.	.	.	.	2	1	.	.	2	4	10
NEVADA	1	.	.	.	.	.	3	.	.	.	1	1	6
ORANGE	8	1	.	1	10	3	22	20	1	8	10	2	86
PLACER	1	3	.	.	.	.	6	14	2	3	1	2	32
PLUMAS	.	.	.	1	.	.	.	.	.	.	.	.	1
RIVERSIDE	9	3	1	4	.	1	19	17	5	10	13	3	85
SACRAMENTO	3	1	.	1	.	3	7	11	3	1	1	.	31
SAN BENITO	.	.	.	.	.	.	1	.	.	.	1	.	2
SAN BERNARDINO	3	1	.	.	1	1	6	13	4	3	18	.	50
SAN DIEGO	6	5	2	1	5	5	46	25	10	10	7	5	127
SAN FRANCISCO	.	.	.	.	1	.	7	.	2	4	.	.	14
SAN JOAQUIN	.	.	.	.	.	1	2	5	1	.	3	.	12
SAN LUIS OBISPO	1	3	.	.	3	2	2	7	.	.	6	3	27
SAN MATEO	2	1	.	1	3	.	3	1	1	6	1	.	19
SANTA BARBARA	1	4	.	.	.	2	7	3	2	.	4	1	24
SANTA CLARA	5	1	.	.	4	3	14	4	12	4	.	.	47
SANTA CRUZ	.	.	1	1	.	.	.	1	.	.	.	.	3
SHASTA	.	2	.	.	.	2	1	1	2	.	1	1	10
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	2	1	.	.	.	.	3
SOLANO	1	1	.	.	.	1	5	5	.	.	1	.	14
SONOMA	2	.	.	1	.	.	3	2	1	.	.	.	9
STANISLAUS	1	.	.	.	.	1	.	.	1	1	.	.	4
SUTTER	.	.	.	.	.	.	.	1	.	.	.	.	1
TEHAMA	1	1	.	.	.	.	1	.	.	.	.	.	3
TRINITY	.	.	.	.	1	.	.	.	2	.	.	.	3
TULARE	1	.	.	.	.	.	1	.	1	.	1	.	4
TUOLUMNE	.	.	.	.	.	.	.	1	.	.	.	.	1
VENTURA	3	1	1	3	1	1	5	5	3	3	8	3	37
YOLO	.	2	.	.	.	1	.	1	.	1	.	.	5
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	84	46	10	23	43	48	243	219	102	83	149	46	1,096
UTILITY													
SCE	31	12	2	10	4	12	84	76	34	35	73	11	384
PG&E	28	23	5	9	20	18	79	77	37	31	41	24	392
SDG&E	5	4	2	1	12	5	34	22	8	7	5	5	110
Non-IOU	20	7	1	3	7	13	46	44	23	10	30	6	210

Table 2.4. F.W. Dodge Area of Nonresidential New Construction Project Starts in Quarter 2, 2000 (1,000 sqft)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	46	30	.	4	271	.	78	202	63	187	320	210	1,410
ALPINE	8	.	.	.	.	.	.	.	.	.	.	.	8
AMADOR	.	.	.	.	.	.	2	.	.	.	.	.	2
BUTTE	.	.	.	.	.	100	27	13	.	.	18	.	158
CALAVERAS	.	.	1	.	.	.	.	.	.	.	6	.	7
COLUSA	.	.	.	.	.	.	.	.	.	.	.	.	0
CONTRA COSTA	43	5	20	6	52	86	67	239	24	172	103	.	817
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	3	.	.	.	450	.	41	39	5	.	7	.	545
FRESNO	23	42	.	21	.	13	32	41	86	320	369	4	950
GLENN	.	.	.	.	.	.	.	.	.	.	.	.	0
HUMBOLDT	.	.	.	.	.	.	.	.	.	.	.	.	0
IMPERIAL	.	3	.	.	.	.	68	10	.	.	28	3	111
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	5	2	.	15	.	21	98	69	48	17	85	10	370
KINGS	.	.	.	.	.	.	.	.	36	.	.	.	36
LAKE	.	19	.	.	.	.	.	.	.	2	.	2	23
LASSEN	.	.	.	.	.	.	.	.	10	.	.	.	10
LOS ANGELES	312	114	70	216	235	442	1,056	911	534	567	4,063	395	8,914
MADERA	.	.	.	45	.	.	.	.	.	.	25	.	70
MARIN	.	.	.	.	.	.	.	3	2	.	.	.	5
MARIPOSA	.	.	.	.	.	.	.	.	.	.	.	.	0
MENDOCINO	.	.	.	.	.	27	.	.	.	.	.	.	27
MERCED	65	.	.	.	.	.	.	23	.	.	63	.	151
MODOC	.	.	.	.	.	6	.	.	.	.	.	.	6
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	.	.	.	.	.	.	86	5	.	.	.	53	144
NAPA	6	.	.	.	.	.	93	116	.	.	27	63	305
NEVADA	1	.	.	.	.	.	28	.	.	.	4	20	52
ORANGE	191	5	.	15	1,036	211	637	474	2	1,453	665	63	4,753
PLACER	4	71	.	.	.	.	103	318	7	144	1	83	730
PLUMAS	.	.	.	8	.	.	.	.	.	.	.	.	8
RIVERSIDE	123	85	3	126	.	10	212	719	41	153	1,312	48	2,832
SACRAMENTO	54	4	.	2	.	153	971	678	76	47	140	.	2,125
SAN BENITO	.	.	.	.	.	.	3	.	.	.	21	.	24
SAN BERNARDINO	41	3	.	.	1	64	60	231	63	110	1,405	.	1,976
SAN DIEGO	17	21	74	2	1,124	102	1,389	685	416	836	108	157	4,930
SAN FRANCISCO	.	.	.	.	6	.	720	.	25	274	.	.	1,024
SAN JOAQUIN	.	.	.	.	.	6	371	209	5	.	78	.	667
SAN LUIS OBISPO	6	22	.	.	59	16	6	148	.	.	392	14	663
SAN MATEO	13	25	.	1	119	.	195	3	9	1,140	76	.	1,581
SANTA BARBARA	23	22	.	.	.	9	76	88	89	.	153	40	499
SANTA CLARA	182	31	.	.	236	100	220	21	210	399	.	.	1,398
SANTA CRUZ	.	.	32	5	.	.	.	3	.	.	.	.	40
SHASTA	.	3	.	.	.	16	1	5	6	.	37	735	803
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	59	11	.	.	.	.	70
SOLANO	0	50	.	.	.	7	94	41	.	.	11	.	203
SONOMA	7	.	.	15	.	.	167	13	35	.	.	.	238
STANISLAUS	27	.	.	.	.	31	.	.	73	14	.	.	145
SUTTER	.	.	.	.	.	.	.	5	.	.	.	.	5
TEHAMA	10	7	.	.	.	.	2	.	.	.	.	.	19
TRINITY	.	.	.	.	5	.	.	.	4	.	.	.	9
TULARE	19	.	.	.	.	.	25	.	2	.	15	.	60
TUOLUMNE	.	.	.	.	.	.	.	3	.	.	.	.	3
VENTURA	14	16	11	25	2	110	61	94	46	34	186	203	802
YOLO	.	25	.	.	.	5	.	9	.	5	.	.	45
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	1,244	606	211	505	3,594	1,534	7,046	5,428	1,915	5,872	9,715	2,101	39,770
UTILITY													
SCE	439	181	13	379	258	497	1,283	1,660	391	2,087	6,380	584	14,151
PG&E	479	332	53	101	1,197	317	2,431	1,981	722	2,517	1,696	1,230	13,054
SDG&E	74	20	74	15	1,619	142	1,369	786	354	828	104	157	5,541
Non-IOU	252	74	70	10	521	578	1,964	1,001	448	441	1,536	130	7,024

2.2 SBD NEW CONSTRUCTION PROGRAM PARTICIPATION IN QUARTER 2, 2000

The following pages summarize SBD program activity for nonresidential new construction participants for whom the IOUs have committed funds in Quarter 2, 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 2, 2000.

Table 2.6 shows the number of square feet of new construction committed in Quarter 2, 2000.

Table 2.7 presents estimated annual MWh savings attributable to new construction measures committed in Quarter 2, 2000.

Table 2.8 summarizes the estimated annual MWh savings by measure type, in new construction committed in Quarter 2, 2000. A glossary of the measures is presented in Appendix D.

Table 2.5. Number of Nonresidential New Construction SBD Participants in Quarter 2, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	.	1	.	.	.	6	.	10	2	1	1	21
Systems Approach	.	2	.	.	2	2	7	14	10	4	5	6	52
Total	.	2	1	.	2	2	13	14	20	6	6	7	73
SCE													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	1	.	1
Systems Approach	.	.	.	.	1	1	2	3	4	.	4	3	18
Total	.	.	.	.	1	1	2	3	4	.	5	3	19
PG&E													
Whole Building Approach	.	.	1	.	.	.	2	.	.	2	.	.	5
Systems Approach	.	1	.	.	.	1	3	6	3	4	.	.	18
Total	.	1	1	.	.	1	5	6	3	6	.	.	23
SDG&E													
Whole Building Approach	.	.	.	.	.	.	4	.	10	.	.	1	15
Systems Approach	.	1	.	.	1	.	2	5	3	.	1	3	16
Total	.	1	.	.	1	.	6	5	13	.	1	4	31

The majority of SBD program participants belong to the office, retail and school 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 2, 2000 (1,000 sqft)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	.	493	.	.	.	983	.	275	79	650	27	2,507
Systems Approach	.	49	.	.	204	358	524	592	402	224	755	433	3,541
Total	.	49	493	.	204	358	1,507	592	677	303	1,405	460	6,048
SCE													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	650	.	650
Systems Approach	.	.	.	.	198	300	102	274	199	.	655	256	1,983
Total	.	.	.	.	198	300	102	274	199	.	1,305	256	2,633
PG&E													
Whole Building Approach	.	.	493	.	.	.	542	.	.	79	.	.	1,113
Systems Approach	.	7	.	.	.	58	305	139	84	224	.	.	817
Total	.	7	493	.	.	58	847	139	84	303	.	.	1,931
SDG&E													
Whole Building Approach	.	.	.	.	.	.	441	.	275	.	.	27	743
Systems Approach	.	43	.	.	6	.	117	179	119	.	100	177	741
Total	.	43	.	.	6	.	558	179	394	.	100	204	1,484

The majority of SBD program activity in terms of area committed in Quarter 2, 2000 belongs to office buildings, storage, school, and retail. This result is also observed for estimated MWh savings.

Table 2.7. Estimated Annual MWh Savings for New Construction SBD Participants in Quarter 2, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	.	1,614	.	.	.	2,232	.	2,333	417	1,587	49	8,232
Systems Approach	.	83	.	.	103	447	868	1,878	513	157	2,650	1,303	8,003
Total	.	83	1,614	.	103	447	3,101	1,878	2,846	574	4,237	1,352	16,236
SCE													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	1,587	.	1,587
Systems Approach	.	.	.	.	100	405	85	601	245	.	2,650	1,091	5,179
Total	.	.	.	.	100	405	85	601	245	.	4,237	1,091	6,765
PG&E													
Whole Building Approach	.	.	1,614	.	.	.	556	.	.	417	.	.	2,588
Systems Approach	.	55	.	.	.	42	706	187	109	157	.	.	1,256
Total	.	55	1,614	.	.	42	1,262	187	109	574	.	.	3,844
SDG&E													
Whole Building Approach	.	.	.	.	.	.	1,676	.	2,333	.	.	49	4,058
Systems Approach	.	28	.	.	3	.	77	1,090	159	.	0	212	1,569
Total	.	28	.	.	3	.	1,753	1,090	2,492	.	.	261	5,627

Table 2.8. Estimated Annual MWh Savings by Measure for New Construction SBD Participants in Quarter 2, 2000

	WHOLE BUILDING	DAY-LIGHTING	SKYLIGHT	HVAC CHILLER	HVAC PACKAGE	HVAC CONTROLS	HVAC OTHER	MOTORS	LIGHTING	ENVELOPE	OTHER	TOTAL
CALIFORNIA												
Whole Building Approach	8,232	.	.	.	.	.	.	.	.	.	.	8,232
Systems Approach	.	2,193	.	20	1,690	8	.	29	1,987	.	2,077	8,003
Total	8,232	2,193	.	20	1,690	8	.	29	1,987	.	2,077	16,236
SCE												
Whole Building Approach	1,587	.	.	.	.	.	.	.	.	.	.	1,587
Systems Approach	.	1,944	.	20	1,022	.	.	29	1,129	.	1,035	5,179
Total	1,587	1,944	.	20	1,022	.	.	29	1,129	.	1,035	6,765
PG&E												
Whole Building Approach	2,588	.	.	.	.	.	.	.	.	.	.	2,588
Systems Approach	.	249	.	.	220	8	.	.	779	.	.	1,256
Total	2,588	249	.	.	220	8	.	.	779	.	.	3,844
SDG&E												
Whole Building Approach	4,058	.	.	.	.	.	.	.	.	.	.	4,058
Systems Approach	.	.	.	.	448	.	.	.	78	.	1,042	1,569
Total	4,058	.	.	.	448	.	.	.	78	.	1,042	5,627

Among measures, the whole building design, lighting, and "other" measures such as variable speed drives, 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 2, 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 2, 2000.

3.1 ALTERATION (R&R) MARKET CHARACTERISTICS IN QUARTER 2, 2000

The following tables present the alteration market activity by building segment and county in Quarter 2, 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 2, 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, Santa Clara, San Diego, and Alameda. Among building types, school, office and amusement account for the highest value of alteration projects that have started construction in Quarter 2, 2000.

Table 3.2 summarizes the number of nonresidential alteration projects that have started construction during Quarter 2, 2000. The counties with the largest number of alteration project starts are Los Angeles, San Diego, San Francisco, and Santa Clara. Among building types, the office, school, and retail segments account for the highest number of alteration project starts.

Table 3.1. F.W. Dodge Nonresidential Construction Valuation for Alteration Projects in Quarter 2, 2000 ($1,000)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	8,409	.	.	739	.	212	22,365	1,350	54,590	.	1,600	960	90,225
ALPINE	.	.	.	.	.	.	.	.	.	.	.	181	181
AMADOR	.	.	.	.	.	.	.	.	.	.	.	.	0
BUTTE	.	.	.	.	.	.	.	.	2,602	.	.	.	2,602
CALAVERAS	.	.	.	.	.	.	.	.	.	.	.	.	0
COLUSA	.	.	.	.	.	.	.	.	496	.	.	.	496
CONTRA COSTA	300	.	.	.	77	.	1,525	700	8,135	.	.	200	10,937
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	178	.	.	.	300	.	.	.	5,624	.	.	.	6,102
FRESNO	.	.	450	1,103	.	.	1,228	4,919	10,330	.	239	216	18,485
GLENN	.	.	.	.	.	.	.	.	883	.	.	.	883
HUMBOLDT	.	.	.	.	.	.	.	395	3,397	.	.	.	3,792
IMPERIAL	.	.	.	.	.	760	.	.	.	.	.	85	845
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	343	.	.	.	.	.	1,009	351	6,322	.	.	1,125	9,150
KINGS	.	.	.	.	.	.	.	.	6,930	.	.	.	6,930
LAKE	.	.	.	.	.	.	.	275	.	.	.	.	275
LASSEN	.	.	.	.	.	.	.	.	.	.	.	.	0
LOS ANGELES	95,575	1,950	1,175	237	859	4,687	37,804	27,955	75,643	7,145	6,858	6,654	266,542
MADERA	.	.	.	.	.	.	.	.	.	.	.	.	0
MARIN	.	.	50	.	.	.	.	.	3,645	.	.	.	3,695
MARIPOSA	.	.	.	.	.	.	.	.	.	.	.	.	0
MENDOCINO	.	.	.	.	.	.	.	.	.	.	.	.	0
MERCED	.	.	.	.	.	.	.	86	.	.	.	.	86
MODOC	.	.	.	.	.	.	.	.	.	.	.	.	0
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	99	.	.	.	.	.	285	377	491	200	.	.	1,452
NAPA	.	.	.	.	.	.	1,085	.	4,555	.	.	.	5,640
NEVADA	.	.	.	.	.	.	.	850	.	.	.	.	850
ORANGE	1,835	.	.	653	15,500	678	20,221	5,054	7,809	4,265	.	.	56,015
PLACER	349	.	.	.	.	.	4,367	1,581	5,754	.	.	254	12,305
PLUMAS	.	.	.	.	.	.	.	.	.	.	.	.	0
RIVERSIDE	762	.	179	.	.	87	3,485	2,259	9,223	.	145	587	16,727
SACRAMENTO	581	.	.	.	.	912	609	4,028	23,099	.	1,543	.	30,772
SAN BENITO	.	.	.	.	.	.	.	.	.	.	.	.	0
SAN BERNARDINO	79	.	.	.	.	.	2,205	3,214	238	.	207	.	5,943
SAN DIEGO	1,515	.	751	2,458	618	1,163	30,017	3,050	46,907	370	3,682	12,968	103,499
SAN FRANCISCO	.	100	.	.	2,250	290	17,970	3,647	2,131	1,163	.	1,600	29,151
SAN JOAQUIN	138	.	.	.	.	.	.	.	8,291	.	94	100	8,623
SAN LUIS OBISPO	315	.	.	.	.	.	666	150	780	.	.	905	2,816
SAN MATEO	.	.	.	.	2,000	200	4,296	150	15,839	.	.	8,078	30,563
SANTA BARBARA	179	.	.	.	.	.	1,892	1,298	433	.	104	123	4,029
SANTA CLARA	21,670	2,200	.	.	.	.	39,776	2,626	78,329	.	.	228	144,829
SANTA CRUZ	525	.	1,000	.	.	.	176	438	708	.	.	.	2,847
SHASTA	.	.	.	.	.	.	.	.	704	.	.	.	704
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	.	.	304	.	.	.	304
SOLANO	2,869	.	.	.	.	.	200	675	1,255	.	1,428	1,279	7,706
SONOMA	795	.	.	129	.	.	3,400	1,800	25,340	.	.	.	31,464
STANISLAUS	107	.	.	.	.	.	.	.	949	.	.	.	1,056
SUTTER	.	.	.	.	.	.	.	.	.	.	.	.	0
TEHAMA	.	.	.	.	.	.	.	.	1,520	.	.	.	1,520
TRINITY	.	.	.	.	.	.	.	.	.	.	.	.	0
TULARE	.	.	.	.	.	.	.	.	4,800	.	.	.	4,800
TUOLUMNE	.	.	.	.	.	.	.	.	.	.	.	.	0
VENTURA	260	625	186	376	500	.	1,044	787	23,666	115	921	2,833	31,313
YOLO	.	.	.	.	.	.	79	1,989	187	.	.	.	2,255
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	136,883	4,875	3,791	5,695	22,104	8,989	195,704	70,004	441,909	13,258	16,821	38,376	958,409
UTILITY													
SCE	5,333	725	1,540	1,193	808	2,141	40,035	13,405	86,897	5,416	6,410	9,528	173,431
PG&E	35,806	2,300	1,500	1,971	4,627	572	94,769	20,685	246,443	1,198	4,686	14,943	429,500
SDG&E	2,416	.	751	2,458	16,000	1,163	30,442	2,809	39,194	4,635	3,682	12,880	116,430
Non-IOU	93,328	1,850	.	73	669	5,113	30,458	33,105	69,375	2,009	2,043	1,025	239,048

Table 3.2. F.W. Dodge Number of Nonresidential Alteration Project Starts in Quarter 2, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
COUNTY													
ALAMEDA	4	.	.	1	.	2	16	4	37	.	2	2	68
ALPINE	.	.	.	.	.	.	.	.	.	.	.	1	1
AMADOR	.	.	.	.	.	.	.	.	.	.	.	.	0
BUTTE	.	.	.	.	.	.	.	.	1	.	.	.	1
CALAVERAS	.	.	.	.	.	.	.	.	.	.	.	.	0
COLUSA	.	.	.	.	.	.	.	.	1	.	.	.	1
CONTRA COSTA	1	.	.	.	1	.	4	2	4	.	.	1	13
DEL NORTE	.	.	.	.	.	.	.	.	.	.	.	.	0
EL DORADO	1	.	.	.	1	.	.	.	3	.	.	.	5
FRESNO	.	.	1	1	.	.	6	7	9	.	1	1	26
GLENN	.	.	.	.	.	.	.	.	1	.	.	.	1
HUMBOLDT	.	.	.	.	.	.	.	1	4	.	.	.	5
IMPERIAL	.	.	.	.	.	1	.	.	.	.	.	1	2
INYO	.	.	.	.	.	.	.	.	.	.	.	.	0
KERN	2	.	.	.	.	.	5	3	3	.	.	2	15
KINGS	.	.	.	.	.	.	.	.	3	.	.	.	3
LAKE	.	.	.	.	.	.	.	1	.	.	.	.	1
LASSEN	.	.	.	.	.	.	.	.	.	.	.	.	0
LOS ANGELES	21	4	2	1	4	8	102	40	56	8	13	13	272
MADERA	.	.	.	.	.	.	.	.	.	.	.	.	0
MARIN	.	.	1	.	.	.	.	.	3	.	.	.	4
MARIPOSA	.	.	.	.	.	.	.	.	.	.	.	.	0
MENDOCINO	.	.	.	.	.	.	.	.	.	.	.	.	0
MERCED	.	.	.	.	.	.	.	1	.	.	.	.	1
MODOC	.	.	.	.	.	.	.	.	.	.	.	.	0
MONO	.	.	.	.	.	.	.	.	.	.	.	.	0
MONTEREY	1	.	.	.	.	.	3	2	1	1	.	.	8
NAPA	.	.	.	.	.	.	2	.	6	.	.	.	8
NEVADA	.	.	.	.	.	.	.	1	.	.	.	.	1
ORANGE	6	.	.	2	2	2	39	15	8	1	.	.	75
PLACER	2	.	.	.	.	.	9	8	2	.	.	1	22
PLUMAS	.	.	.	.	.	.	.	.	.	.	.	.	0
RIVERSIDE	2	.	1	.	.	1	10	10	5	.	1	2	32
SACRAMENTO	2	.	.	.	.	1	7	10	17	.	3	.	40
SAN BENITO	.	.	.	.	.	.	.	.	.	.	.	.	0
SAN BERNARDINO	1	.	.	.	.	.	8	6	2	.	2	.	19
SAN DIEGO	7	.	2	1	2	2	57	18	26	2	2	4	123
SAN FRANCISCO	.	1	.	.	1	2	57	20	10	3	.	1	95
SAN JOAQUIN	1	.	.	.	.	.	.	.	11	.	1	1	14
SAN LUIS OBISPO	2	.	.	.	.	.	2	1	2	.	.	2	9
SAN MATEO	.	.	.	.	1	1	15	1	9	.	.	5	32
SANTA BARBARA	1	.	.	.	.	.	11	10	3	.	1	1	27
SANTA CLARA	9	1	.	.	.	.	37	7	28	.	.	2	84
SANTA CRUZ	2	.	1	.	.	.	2	1	3	.	.	.	9
SHASTA	.	.	.	.	.	.	.	.	1	.	.	.	1
SIERRA	.	.	.	.	.	.	.	.	.	.	.	.	0
SISKIYOU	.	.	.	.	.	.	.	.	2	.	.	.	2
SOLANO	1	.	.	.	.	.	1	2	1	.	2	1	8
SONOMA	1	.	.	1	.	.	4	2	15	.	.	.	23
STANISLAUS	1	.	.	.	.	.	.	.	3	.	.	.	4
SUTTER	.	.	.	.	.	.	.	.	.	.	.	.	0
TEHAMA	.	.	.	.	.	.	.	.	1	.	.	.	1
TRINITY	.	.	.	.	.	.	.	.	.	.	.	.	0
TULARE	.	.	.	.	.	.	.	.	1	.	.	.	1
TUOLUMNE	.	.	.	.	.	.	.	.	.	.	.	.	0
VENTURA	4	1	2	1	1	.	10	5	8	1	3	4	40
YOLO	.	.	.	.	.	.	1	2	1	.	.	.	4
YUBA	.	.	.	.	.	.	.	.	.	.	.	.	0
CALIFORNIA	72	7	10	8	13	20	408	180	291	16	31	45	1,101
UTILITY													
SCE	17	2	5	3	4	6	115	53	53	4	14	17	293
PG&E	26	2	3	3	4	4	158	64	164	3	8	19	458
SDG&E	8	.	2	1	3	2	49	11	22	3	2	3	106
Non-IOU	21	3	.	1	2	8	86	52	52	6	7	6	244

3.2 SBD R&R PROGRAM PARTICIPATION IN QUARTER 2, 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 2, 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 2, 2000.

Table 3.4 shows the number of square feet of R&R construction committed as of Quarter 2, 2000.

Table 3.5 presents the estimated annual MWh savings attributable to R&R measures committed in Quarter 2, 2000.

Table 3.6 summarizes the estimated annual MWh savings by measure type, in R&R projects committed in Quarter 2, 2000. A glossary of the measures is presented in Appendix D.

Table 3.3. Number of Nonresidential R&R SBD Participants in Quarter 2, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	.	.	.	.	.	2	.	.	.	.	1	3
Systems Approach	.	.	.	.	.	.	7	10	6	.	5	3	31
Total	.	.	.	.	.	.	9	10	6	.	5	4	34
SCE													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	.	.	.	.	.	.	.	5	2	.	3	.	10
Total	.	.	.	.	.	.	.	5	2	.	3	.	10
PG&E													
Whole Building Approach	.	.	.	.	.	.	1	.	.	.	.	.	1
Systems Approach	.	.	.	.	.	.	2	4	.	.	.	.	6
Total	.	.	.	.	.	.	3	4	.	.	.	.	7
SDG&E													
Whole Building Approach	.	.	.	.	.	.	1	.	.	.	.	1	2
Systems Approach	.	.	.	.	.	.	5	1	4	.	2	3	15
Total	.	.	.	.	.	.	6	1	4	.	2	4	17

The number of R&R participants is significantly lower than that of new construction SBD participants, especially those choosing the whole building approach. The retail, office and school segment are the largest building 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 2, 2000 (1,000 sqft)

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	.	.	.	.	.	110	.	.	.	.	20	130
Systems Approach	.	.	.	.	.	.	393	815	256	.	896	173	2,533
Total	.	.	.	.	.	.	503	815	256	.	896	193	2,663
SCE													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	.	.	.	.	.	.	.	624	110	.	845	.	1,579
Total	.	.	.	.	.	.	.	624	110	.	845	.	1,579
PG&E													
Whole Building Approach	.	.	.	.	.	.	93	.	.	.	.	.	93
Systems Approach	.	.	.	.	.	.	157	155	.	.	.	.	311
Total	.	.	.	.	.	.	249	155	.	.	.	.	404
SDG&E													
Whole Building Approach	.	.	.	.	.	.	17	.	.	.	.	20	37
Systems Approach	.	.	.	.	.	.	236	37	146	.	51	173	643
Total	.	.	.	.	.	.	253	37	146	.	51	193	680

The majority of SBD R&R program activity in terms of area committed in Quarter 2, 2000 belongs to the retail and storage 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 2, 2000

	AMUSEMENT	ASSEMBLY	EDUCATION	GOVT	HOTEL	MEDICAL	OFFICE	RETAIL	SCHOOL	SERVICE	STORAGE	OTHER	TOTAL
CALIFORNIA													
Whole Building Approach	.	.	.	.	.	.	257	.	.	.	.	48	305
Systems Approach	.	.	.	.	.	.	736	1,410	266	.	2,150	471	5,034
Total	.	.	.	.	.	.	993	1,410	266	.	2,150	519	5,339
SCE													
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	.	.	.	.	.	.	.	482	85	.	2,081	.	2,648
Total	.	.	.	.	.	.	.	482	85	.	2,081	.	2,648
PG&E													
Whole Building Approach	.	.	.	.	.	.	211	.	.	.	.	.	211
Systems Approach	.	.	.	.	.	.	373	877	.	.	.	.	1,250
Total	.	.	.	.	.	.	584	877	.	.	.	.	1,461
SDG&E													
Whole Building Approach	.	.	.	.	.	.	46	.	.	.	.	48	94
Systems Approach	.	.	.	.	.	.	363	52	181	.	69	471	1,136
Total	.	.	.	.	.	.	409	52	181	.	69	519	1,229

Table 3.6. Estimated Annual MWh Savings by Measure for R&R SBD Participants in Quarter 2, 2000

	WHOLE BUILDING	DAY-LIGHTING	SKYLIGHT	HVAC CHILLER	HVAC PACKAGE	HVAC CONTROLS	HVAC OTHER	MOTORS	LIGHTING	ENVELOPE	OTHER	TOTAL
CALIFORNIA												
Whole Building Approach	305	.	.	.	.	.	.	.	.	.	.	305
Systems Approach	.	2,054	.	332	490	98	149	9	986	192	724	5,034
Total	305	2,054	.	332	490	98	149	9	986	192	724	5,339
SCE												
Whole Building Approach	.	.	.	.	.	.	.	.	.	.	.	0
Systems Approach	.	2,054	.	72	48	.	18	9	173	.	275	2,648
Total	.	2,054	.	72	48	.	18	9	173	.	275	2,648
PG&E												
Whole Building Approach	211	.	.	.	.	.	.	.	.	.	.	211
Systems Approach	.	.	.	.	157	98	131	.	330	192	341	1,250
Total	211	.	.	.	157	98	131	.	330	192	341	1,461
SDG&E												
Whole Building Approach	94	.	.	.	.	.	.	.	.	.	.	94
Systems Approach	.	.	.	261	284	.	.	.	483	.	108	1,136
Total	94	.	.	261	284	.	.	.	483	.	108	1,229

Among measures, daylighting accounts for the highest MWh savings, followed by lighting and "other".

4. SBD PROGRAM PENETRATION INTO THE NRNC MARKET IN QUARTER 2, 2000

This chapter presents SBD program penetration into the NRNC market statewide, as well as by utility territory, in Quarter 2, 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 15.2%. 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 18.6% market penetration in the SCE territory; 14.8% penetration in the PG&E territory; 26.8% penetration in the SDG&E territory.

In terms of number of projects committed, the statewide new construction market penetration of the SBD program is 6.7%. SBD committed projects account for 4.9% market penetration in the SCE territory; 5.9% penetration in the PG&E territory; 28.2% penetration in the SDG&E territory.

Among R&R participants, the statewide market penetration of the SBD program is 3.1%. SBD committed projects account for 3.4% market penetration in the SCE territory; 1.5% penetration in the PG&E territory; 16.0% penetration in the SDG&E territory.

Table 4.1 Statewide SBD Program Penetration in Quarter 2, 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	2,855,153	39,770		1,096	
		SBD Whole Building	-	2,507	6.3%	21	1.9%
		SBD Systems Approach	-	3,541	8.9%	52	4.7%
		SBD Total	-	6,048	15.2%	73	6.7%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	958,409	-		1,101	
		SBD Whole Building	-	130	-	3	0.3%
		SBD Systems Approach	-	2,533	-	31	2.8%
		SBD Total	-	2,663	-	34	3.1%

Table 4.2 SBD Program Penetration in the SCE Service Territory in Quarter 2, 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	836,403	14,151		384	
		SBD Whole Building	-	650	4.6%	1	0.3%
		SBD Systems Approach	-	1,983	14.0%	18	4.7%
		SBD Total	-	2,633	18.6%	19	4.9%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	173,431	-		293	
		SBD Whole Building	-	0	-	0	0.0%
		SBD Systems Approach	-	1,579	-	10	3.4%
		SBD Total	-	1,579	-	10	3.4%

Table 4.3 SBD Program Penetration in the PG&E Service Territory in Quarter 2, 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	964,542	13,054		392	
		SBD Whole Building	-	1,113	8.5%	5	1.3%
		SBD Systems Approach	-	817	6.3%	18	4.6%
		SBD Total	-	1,931	14.8%	23	5.9%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	429,500	-		458	
		SBD Whole Building	-	93	-	1	0.2%
		SBD Systems Approach	-	311	-	6	1.3%
		SBD Total	-	404	-	7	1.5%

Table 4.4 SBD Program Penetration in the SDG&E Service Territory in Quarter 2, 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	450,674	5,541		110	
		SBD Whole Building	-	743	13.4%	15	13.6%
		SBD Systems Approach	-	741	13.4%	16	14.5%
		SBD Total	-	1,484	26.8%	31	28.2%
Alterations (R&R and TI)	2000 QTR 2	F. W. Dodge	116,430	-		106	
		SBD Whole Building	-	37	-	2	1.9%
		SBD Systems Approach	-	643	-	15	14.2%
		SBD Total	-	680	-	17	16.0%

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 Quarters 1 and 2, 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	2,855,153	39,770	1,096
	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	958,409	-	1,101
	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	836,403	14,151	384
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	239,198	-	429
	1999	4	156,236	-	343
	2000	1	214,290	-	311
	2000	2	173,431	-	293
	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	964,542	13,054	392
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	513,051	-	466
	1999	4	390,056	-	291
	2000	1	288,936	-	300
	2000	2	429,500	-	458
	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	450,674	5,541	110
	2000	3	.	.	.
	2000	4	.	.	.
Alterations	1999	3	73,780	-	139
	1999	4	142,455	-	126
	2000	1	104,878	-	140
	2000	2	116,430	-	106
	2000	3	.	-	.
	2000	4	.	-	.

Table 5.5 Statewide SBD Program Participation Summary

Program Type	Year	Quarter	Area (1,000 sqft)	MWh	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	2,507	8,232	21	21
	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	3,541	8,003	132	52
	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	6,048	16,236	153	73
	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	130	305	3	3
	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	2,533	5,034	123	31
	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	2,663	5,339	126	34
	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)	MWh	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	650	1,587	1	1
	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	1,983	5,179	33	18
	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	2,633	6,765	34	19
	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	1,579	2,648	18	10
	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	1,579	2,648	18	10
	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)	MWh	Measures	Participants
NEW CONSTRUCTION						
Whole Building Approach	1999	3	.	.	.	.
	1999	4	2,733	7,102	17	17
	2000	1	.	.	.	.
	2000	2	1,113	2,588	5	5
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	.	.	.	.
	1999	4	1,329	1,839	33	18
	2000	1	65	177	2	1
	2000	2	817	1,256	25	18
	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	1,931	3,844	30	23
	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	93	211	1	1
	2000	3	.	.	.	.
	2000	4	.	.	.	.
Systems Approach	1999	3	.	.	.	.
	1999	4	336	564	9	6
	2000	1	39	98	2	2
	2000	2	311	1,250	14	6
	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	404	1,461	15	7
	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	743	4,058	15	15
	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	741	1,569	74	16
	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	1,484	5,627	89	31
	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	37	94	2	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	643	1,136	91	15
	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	680	1,229	93	17
	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	39,770	6,048	15.2%	1,096	73	6.7%
	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	-	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	-	2,663	-	1,101	34	3.1%
	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	14,151	2,633	18.6%	384	19	4.9%
	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	-	1,232	-	429	11	2.6%
	1999	4	-	1,100	-	343	15	4.4%
	2000	1	-	406	-	311	5	1.6%
	2000	2	-	1,579	-	293	10	3.4%
	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	13,054	1,931	14.8%	392	23	5.9%
	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	-	0	-	466	0	0.0%
	1999	4	-	336	-	291	6	2.1%
	2000	1	-	39	-	300	2	0.7%
	2000	2	-	404	-	458	7	1.5%
	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	5,541	1,484	26.8%	110	31	28.2%
	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	-	680	-	106	17	16.0%
	2000	3	-	0	-	0	0	0.0%
	2000	4	-	0	-	0	0	0.0%

6. MOST ACTIVE MARKET PLAYERS IN QUARTER 2, 2000

This chapter presents the most active market players in Quarter 2, 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 2, 2000.

Table 6.2 presents the most active market players in SCE territory during Quarter 2, 2000.

Table 6.3 shows the most active market players in PG&E territory during Quarter 2, 2000.

Table 6.4 summarizes the most active market players in SDG&E territory during Quarter 2, 2000.

Table 6.1 Most Active Market Players in California in Quarter 2, 2000

Firm Name	City	State	Total Project Value ($1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Gruen Associates	LOS ANGELES	CA	226,437	1,110	3
Carrier Johnson Architects	SAN DIEGO	CA	177,309	936	6
Kwan Henmi Architecture/Planning Inc	SAN FRANCISCO	CA	172,821	830	4
Cini-Little International	SAN FRANCISCO	CA	169,940	800	1
Michael Willis and Associates	SAN FRANCISCO	CA	169,940	800	1
Paoletti Associates	SAN FRANCISCO	CA	169,940	800	1
Hill Pinckert Architects	NEWPORT BEACH	CA	96,487	3,502	10
Gunner Birkerts Architect	BLOOMFIELD HILL	MI	96,150	479	1
McLarand Vasquez and Partners	IRVINE	CA	90,793	845	5
Martinez Cutri Architects	SAN DIEGO	CA	87,500	852	1
Kaufman-Meeks and Partners	NEWPORT BEACH	CA	82,454	963	3
Mosakowski-Lindsey Associates	PASADENA	CA	75,000	370	1
Kenneth Rodriguez Associates Inc	SAN JOSE	CA	73,000	468	2
Feola and Archuleta	GLENDALE	CA	70,000	635	2
Robert A M Stern Architects	NEW YORK	NY	68,800	540	1
Fentress Bradburn Architects LTD	DENVER	CO	68,000	479	1
Dreyfuss and Blackford	SACRAMENTO	CA	68,000	479	1
Ehrenkrantz Eckstut and Kuhn	LOS ANGELES	CA	65,000	500	1
Heller Manus Architects	SAN FRANCISCO	CA	64,000	541	2
Clarkewerks	YORBA LINDA	CA	58,139	425	1
ENGINEERS					
Middlebrook and Louie	SAN FRANCISCO	CA	220,300	2,113	4
Faye Bernstein and Associates	SAN FRANCISCO	CA	171,675	800	2
AGS Inc.	SAN FRANCISCO	CA	169,940	800	1
Ajmani and Pamidi Inc.	SAN FRANCISCO	CA	169,940	800	1
The Engineering Enterprise	ALAMEDA	CA	169,940	800	1
CBM Engineers Inc	HOUSTON	TX	137,500	1,182	2
Project Design Consultants	SAN DIEGO	CA	125,000	852	2
Flack and Kurtz Consulting Engineers	SAN FRANCISCO	CA	99,915	487	2
Forell-Elsesser Engineers Inc	SAN FRANCISCO	CA	96,763	479	3
FBA-Frederick Brown and Associates	NEWPORT BEACH	CA	96,020	634	11
Randall Lamb Associates	SAN DIEGO	CA	94,500	887	2
G E M Engineering Inc	SAN DIEGO	CA	89,220	866	2
Burkett and Wong	SAN DIEGO	CA	85,357	221	5
Carollo Engineers	SACRAMENTO	CA	85,206	0	1
Psomas and Associates	SANTA MONICA	CA	85,000	772	2
C and B Consulting Engineers/Charles and Braun	SAN FRANCISCO	CA	73,431	540	2
Engineering Enterprise	ALAMEDA	CA	68,800	540	1
Critchfield Mechanical Inc	MENLO PARK	CA	68,000	479	1
Nolte Associates (Sacramento)	SACRAMENTO	CA	68,000	479	1
Rosendin Electric Inc	SAN JOSE	CA	68,000	479	1

Table 6.2 Most Active Market Players in SCE Territory in Quarter 2, 2000

Firm Name	City	State	Total Project Value ($1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Hill Pinckert Architects	NEWPORT BEACH	CA	87,358	3,014	9
Kaufman-Meeks and Partners	NEWPORT BEACH	CA	82,454	963	3
Carrier Johnson Architects	SAN DIEGO	CA	75,000	333	1
Mosakowski-Lindsey Associates	PASADENA	CA	75,000	370	1
Feola and Archuleta	GLENDALE	CA	70,000	635	2
Ehrenkrantz Eckstut and Kuhn	LOS ANGELES	CA	65,000	500	1
Clarkewerks	YORBA LINDA	CA	58,139	425	1
Dworsky and Associates	LOS ANGELES	CA	56,694	139	3
Antoine Predock Architect	ALBUQUERQUE	NM	37,500	0	1
H O K Sports Group	KANSAS CITY	MO	37,500	0	1
Milford W Donaldson Arch AIA Inc	SAN DIEGO	CA	37,500	0	1
ROMA Design Group	SAN FRANCISCO	CA	37,500	0	1
Westberg and White Inc.	SAN DIEGO	CA	37,500	450	1
Arciero Bros. Inc. (Anaheim)	ANAHEIM	CA	35,000	442	1
David Forbes Hibbert and Associates	SANTA MONICA	CA	35,000	442	1
Perkowitz and Ruth Architects	LONG BEACH	CA	33,605	437	7
Withee Malcolm Partnership	TORRANCE	CA	33,079	431	6
LPA	IRVINE	CA	32,829	456	5
McLarand Vasquez and Partners	IRVINE	CA	32,500	264	3
Carrier Johnson Architects	IRVINE	CA	32,000	0	1
ENGINEERS					
Burkett and Wong	SAN DIEGO	CA	75,157	111	4
Moffatt and Nichol Engrg (Long Beach)	LONG BEACH	CA	65,000	500	1
Fraser Engineering Inc	OCEANSIDE	CA	51,490	531	2
Spurlock Poirier Associates	SAN DIEGO	CA	50,000	60	2
Hillman Biddison and Loevenguth	LOS ANGELES	CA	38,228	16	3
Law Crandall	SAN DIEGO	CA	37,500	0	1
Libby Engineers Inc	SAN DIEGO	CA	37,500	0	1
M-E Engineers Inc.	WHEAT RIDGE	CO	37,500	0	1
Project Design Consultants	SAN DIEGO	CA	37,500	0	1
Thornton-Tomasetti Engineers	NEW YORK	NY	37,500	0	1
Glumac Engineers Inc So Calif	IRVINE	CA	37,000	427	2
Atlas Mechanical	SAN DIEGO	CA	35,000	442	1
Helix Electric Inc	SAN DIEGO	CA	35,000	442	1
Psomas and Associates	SANTA MONICA	CA	35,000	442	1
Konsortum I	IRVINE	CA	34,500	536	4
TMAD Engineers Inc.	ONTARIO	CA	34,053	46	7
FBA-Frederick Brown and Associates	NEWPORT BEACH	CA	32,600	209	8
K P F F Consulting Engineers	SANTA MONICA	CA	32,152	41	2
Bechard - Long and Associates	SAN DIEGO	CA	32,000	0	1
Michael Walls and Associates	DEL MAR	CA	32,000	0	1

Table 6.3 Most Active Market Players in PG&E Territory in Quarter 2, 2000

Firm Name	City	State	Total Project Value ($1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Gruen Associates	LOS ANGELES	CA	225,600	1,108	1
Kwan Henmi Architecture/Planning Inc	SAN FRANCISCO	CA	172,821	830	4
Cini-Little International	SAN FRANCISCO	CA	169,940	800	1
Michael Willis and Associates	SAN FRANCISCO	CA	169,940	800	1
Paoletti Associates	SAN FRANCISCO	CA	169,940	800	1
Carrier Johnson Architects	SAN DIEGO	CA	96,150	479	1
Gunner Birkerts Architect	BLOOMFIELD HILL	MI	96,150	479	1
Mosakowski-Lindsey Associates	PASADENA	CA	75,000	370	1
Kenneth Rodriguez Associates Inc	SAN JOSE	CA	73,000	468	2
Robert A M Stern Architects	NEW YORK	NY	68,800	540	1
Ehrenkrantz Eckstut and Kuhn	LOS ANGELES	CA	65,000	500	1
Feola and Archuleta	GLENDALE	CA	65,000	500	1
Heller Manus Architects	SAN FRANCISCO	CA	64,000	541	2
Kaufman-Meeks and Partners	NEWPORT BEACH	CA	51,000	565	2
Backen Arrigoni and Ross	SAN FRANCISCO	CA	50,000	525	1
Hellmuth Obata and Kassabaum Inc.	SAN FRANCISCO	CA	50,000	1,200	1
Hoover Associates	PALO ALTO	CA	50,000	0	1
Jung/Brannen Associates Inc	BOSTON	MA	50,000	450	1
Korth Sunseri Hagey Architects	SAN FRANCISCO	CA	50,000	476	1
BOORA Architects	PORTLAND	OR	47,443	106	1
ENGINEERS					
Middlebrook and Louie	SAN FRANCISCO	CA	220,300	2,113	4
Faye Bernstein and Associates	SAN FRANCISCO	CA	171,675	800	2
AGS Inc.	SAN FRANCISCO	CA	169,940	800	1
Ajmani and Pamidi Inc.	SAN FRANCISCO	CA	169,940	800	1
The Engineering Enterprise	ALAMEDA	CA	169,940	800	1
Flack and Kurtz Consulting Engineers	SAN FRANCISCO	CA	99,915	487	2
Forell-Elsesser Engineers Inc	SAN FRANCISCO	CA	96,763	479	3
Carollo Engineers	SACRAMENTO	CA	85,206	0	1
C and B Consulting Engineers/Charles and Braun	SAN FRANCISCO	CA	73,431	540	2
Engineering Enterprise	ALAMEDA	CA	68,800	540	1
Moffatt and Nichol Engrg (Long Beach)	LONG BEACH	CA	65,000	500	1
Capital Engineering Consultants Inc	SACRAMENTO	CA	55,519	200	17
Glumac International	SAN FRANCISCO	CA	53,100	373	2
Ove Arup and Partners California Ltd	SAN FRANCISCO	CA	47,443	106	1
Peter Walker and Partners Inc	BERKELEY	CA	47,443	106	1
Wilsey and Ham	SAN RAMON	CA	43,406	555	3
DASSE Design Inc	SAN FRANCISCO	CA	43,023	143	8
Hillman Biddison and Loevenguth	LOS ANGELES	CA	42,714	52	3
Buehler and Buehler	SACRAMENTO	CA	39,338	430	4
G S Dodson and Associates	WALNUT CREEK	CA	39,272	0	1

Table 6.4 Most Active Market Players in SDG&E Territory in Quarter 2, 2000

Firm Name	City	State	Total Project Value ($1,000)	Project Area (1,000 sqft)	Nr Projects
ARCHITECTS					
Martinez Cutri Architects	SAN DIEGO	CA	87,500	852	1
Carrier Johnson Architects	SAN DIEGO	CA	81,159	457	5
Lee and Sakahara	IRVINE	CA	43,000	458	2
Antoine Predock Architect	ALBUQUERQUE	NM	37,500	0	1
H O K Sports Group	KANSAS CITY	MO	37,500	0	1
Milford W Donaldson Arch AIA Inc	SAN DIEGO	CA	37,500	0	1
ROMA Design Group	SAN FRANCISCO	CA	37,500	0	1
Westberg and White Inc.	SAN DIEGO	CA	37,500	450	1
McLarand Vasquez and Partners	IRVINE	CA	35,293	274	1
Withee Malcolm Partnership	TORRANCE	CA	32,908	405	3
Carrier Johnson Architects	IRVINE	CA	32,000	0	1
Brian Paul and Associates	SAN DIEGO	CA	28,539	488	4
Rossetti Associates Architects Planners	SANTA MONICA	CA	25,648	133	3
Thomas P. Cox Architect	IRVINE	CA	23,500	664	2
H O K Architects	NEWPORT BEACH	CA	20,000	153	1
Madsen Flathmann Dameron Babcock AIA	SACRAMENTO	CA	20,000	0	1
Tucker Sadler and Associates	SAN DIEGO	CA	20,000	250	1
Studio E Architects	SAN DIEGO	CA	18,000	146	2
Creative Resources	CULVER CITY	CA	14,500	0	1
LR Design Associates	OCEANSIDE	CA	14,158	81	2
ENGINEERS					
Project Design Consultants	SAN DIEGO	CA	125,000	852	2
G E M Engineering Inc	SAN DIEGO	CA	89,220	866	2
CBM Engineers Inc	HOUSTON	TX	87,500	852	1
Randall Lamb Associates	SAN DIEGO	CA	87,500	852	1
Burkett and Wong	SAN DIEGO	CA	82,748	221	4
Fraser Engineering Inc	OCEANSIDE	CA	51,490	531	2
Spurlock Poirier Associates	SAN DIEGO	CA	50,000	60	2
Stuart Engineering	SAN DIEGO	CA	41,241	187	5
Law Crandall	SAN DIEGO	CA	37,500	0	1
Libby Engineers Inc	SAN DIEGO	CA	37,500	0	1
M-E Engineers Inc.	WHEAT RIDGE	CO	37,500	0	1
Thornton-Tomasetti Engineers	NEW YORK	NY	37,500	0	1
Bechard - Long and Associates	SAN DIEGO	CA	32,000	0	1
Michael Walls and Associates	DEL MAR	CA	32,000	0	1
Stedman and Dyson	SAN DIEGO	CA	26,409	70	6
Kanwar and Associates	CULVER CITY	CA	23,215	133	1
Syska and Hennessy Inc	LOS ANGELES	CA	23,215	133	1
Wong Hobach Lau	LOS ANGELES	CA	23,215	133	1
Merrick and Associates	SAN DIEGO	CA	22,302	291	5
TMAD Engineering	SAN DIEGO	CA	21,812	250	2

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".