2006 California Gas Report Workpapers

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Prepared by

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2006 CALIFORNIA GAS REPORT

HISTORICAL DATA
JULY 2006

SDG&E Sources & Distribution Summary

2005 Recorded Data

MMCF/Day

SDG&E	California Sources	El Paso	Transwestern	PGT / PG&E	Kern River	Mojave	Other	Total
Core	6.1	42.0	28.0	45.8	1.2	0.0	25.9	149
Noncore	0.1	103.6	69.1	0.6	0.0	0.0	0.3	174
Total	6	146	97	46	1	0	26	323

Note: Recorded gas disposition by source represents the total actual deliveries by end-use including sales and transportation volumes.
Transport volumes are assumed to be istributed as follows based on end-use sales from only these southwest basin pipeline
60% **El Paso** & **40%** **Transwestern**
"Other" category includes supplies made available from purchases from storage inventory or through imbalance trades.
(Company Use & LUAF volumes are included in disposition to Core)

SDG&E Sources & Distribution Summary

2005 Recorded Data

WORK PAPER CALCULATIONS | **2005 Recorded Data**

(MMBtu)

	California	El Paso	Transwestern	PGT / PG&E	Kern River	Mojave	Other	Total
End-Use Sales								
%/Source:								
Portfolio	0.04162	0.27765	0.18504	0.31132	0.00848	0.00000	0.17589	1.00
Volumes:								
Portfolio	**1,871,857**	**12,487,358**	**8,322,163**	**14,002,020**	**381,440**	**0**	**7,910,919**	44,975,757
Transportation								
%/Source:	0	0.60008	0.39992	0	0	0	0	1.00

(MMCFD)

SDG&E	California	El Paso	Transwestern	PGT / PG&E	Kern River	Mojave	Other	Total
Core	6.1	42.0	28.0	45.8	1.2	0.0	25.9	**149.1**
Sales w/LUAF	6.1	40.9	27.2	45.8	1.2	0.0	25.9	**147.2**
Transp	0.0	1.1	0.8	0.0	0.0	0.0	0.0	**1.9**
Noncore	0.1	103.6	69.1	0.6	0.0	0.0	0.3	**173.8**
Sales	0.1	0.5	0.4	0.6	0.0	0.0	0.3	**2.0**
Transp	0.0	103.1	68.7	0.0	0.0	0.0	0.0	**171.8**
Total	6.2	145.7	97.1	46.4	1.3	0.0	26.2	322.9

DATA SOURCE:

Transportation Volumes = h:\data1\calgasrp\Volumes.xls

Total Recorded Core/Noncore Usage = h:\data1\calgasrp\HISTDATA.xls

2006 CALIFORNIA GAS REPORT

FORECAST OF REQUIREMENTS - SUMMARY
JULY 2006

2006 CALIFORNIA GAS REPORT

AVERAGE TEMPERATURE YEAR
JULY 2006

TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2006 THRU 2010

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE 2/ & 3		2006	2007	2008	2009	2010	LINE
1	California Source Gas		0	0	0	0	0	1
	Out-of-State Gas							
2	El Paso Natural Gas Co.		50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	5
6	Other		0	0	0	0	0	6
7	Total Out-of-State Gas		141	141	141	141	141	7
8	TOTAL FIRM CAPACITY AVAILABLE		141	141	141	141	141	8
	GAS SUPPLY TAKEN							
9	California Source Gas		0	0	0	0	0	9
10	Out-of-State		334	318	325	347	333	10
11	TOTAL SUPPLY TAKEN		334	318	325	347	333	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	12
13	TOTAL THROUGHPUT		334	318	325	347	333	13
	REQUIREMENTS FORECAST BY END-USE 1/							
14	CORE	Residential	91	91	91	92	93	14
15		Commercial	41	41	41	41	41	15
16		Industrial	5	5	5	5	5	16
17		NGV	3	3	3	3	3	17
18		Subtotal-CORE	140	140	140	141	142	18
19	NONCORE	Commercial	7	7	7	7	7	19
20		Industrial	5	4	5	5	5	20
21		Electric Generation (EG)	178	163	169	190	175	21
22		Subtotal-NONCORE	190	174	181	202	187	22
23		Co. Use & LUAF	4	4	4	4	4	23
24	SYSTEM TOTAL THROUGHPUT		334	318	325	347	333	24
	TRANSPORTATION AND EXCHANGE							
25	CORE	All End Uses	3	3	3	3	3	25
26	NONCORE	Commercial/Industrial	11	11	11	11	11	26
27		Electric Generation (EG)	178	163	169	189	175	27
28	TOTAL TRANSPORTATION & EXCHANGE		192	177	183	203	189	28
	CURTAILMENT							
29		Core	0	0	0	0	0	29
30		Noncore	0	0	0	0	0	30
31		TOTAL - Curtailment	0	0	0	0	0	31

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes
2/ Firm capacity uder contrat by SDG&E in 2006
3/ For 2007 and after, assume capacity at same levels for 2006.

TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2011 THRU 2025

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE 2/ & 3		2011	2012	2015	2020	2025	LINE
1	California Source Gas		0	0	0	0	0	1
	Out-of-State Gas							
2	El Paso Natural Gas Co.		50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	5
6	Other		0	0	0	0	0	6
7	Total Out-of-State Gas		141	141	141	141	141	7
8	TOTAL FIRM CAPACITY AVAILABLE		141	141	141	141	141	8
	GAS SUPPLY TAKEN							
9	California Source Gas		0	0	0	0	0	9
10	Out-of-State		334	337	334	345	371	10
11	TOTAL SUPPLY TAKEN		334	337	334	345	371	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	12
13	TOTAL THROUGHPUT		334	337	334	345	371	13
	REQUIREMENTS FORECAST BY END-USE 1/							
14	CORE	Residential	94	94	96	99	103	14
15		Commercial	41	40	39	39	41	15
16		Industrial	5	5	5	5	5	16
17		NGV	3	3	3	4	4	17
18		Subtotal-CORE	143	142	143	147	153	18
19	NONCORE	Commercial	8	8	8	8	9	19
20		Industrial	4	4	4	5	5	20
21		Electric Generation (EG)	175	179	175	181	200	21
22		Subtotal-NONCORE	187	191	187	194	214	22
23		Co. Use & LUAF	4	4	4	4	4	23
24	SYSTEM TOTAL THROUGHPUT		334	337	334	345	371	24
	TRANSPORTATION AND EXCHANGE							
25	CORE	All End Uses	3	3	2	3	3	25
26	NONCORE	Commercial/Industrial	11	11	12	12	13	26
27		Electric Generation (EG)	175	179	175	180	200	27
28	TOTAL TRANSPORTATION & EXCHANGE		189	193	189	195	216	28
	CURTAILMENT							
29		Core	0	0	0	0	0	29
30		Noncore	0	0	0	0	0	30
31		TOTAL - Curtailment	0	0	0	0	0	31

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes
2/ Firm capacity uder contrat by SDG&E in 2006
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2006

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE 2/ & 3/		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		417	431	360	333	325	263	275	291	288	281	341	401	334	10
11	TOTAL SUPPLY TAKEN		417	431	360	333	325	263	275	291	288	281	341	401	334	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		417	431	360	333	325	263	275	291	288	281	341	401	333	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	148	139	120	93	69	55	51	51	51	58	103	154	91	14
15		Commercial	53	56	48	41	37	35	34	32	34	32	41	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	2	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	209	204	176	142	114	97	92	89	93	98	152	213	140	18
19	NONCORE	Subtotal-NONCORE	203	223	179	187	207	163	181	198	191	180	185	182	190	19
22		Co. Use & LUAF	5	5	4	4	4	3	3	3	3	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		417	431	360	333	325	263	275	291	288	281	341	401	333	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	4	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	201	222	178	186	206	162	180	198	191	179	184	181	189	25
26	TOTAL TRANSPORTATION & EXCHANGE		205	225	181	189	208	164	182	199	192	181	187	184	191	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2007

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		381	381	344	297	275	270	284	294	291	273	329	403	318	10
11	TOTAL SUPPLY TAKEN		381	381	344	297	275	270	284	294	291	273	329	403	318	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		381	381	344	297	275	270	284	294	291	273	329	403	318	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	148	140	120	93	69	55	51	51	52	58	103	154	91	14
15		Commercial	52	55	48	41	37	35	34	31	34	32	41	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	209	203	176	142	114	97	92	89	93	98	152	213	139	18
19	NONCORE	Subtotal-NONCORE	167	173	164	152	158	170	190	202	195	172	173	185	175	19
22		Co. Use & LUAF	5	5	4	4	3	3	3	3	3	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		381	381	344	297	275	270	284	294	291	273	329	403	318	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	4	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	166	172	163	151	157	169	189	201	194	171	172	184	174	25
26	TOTAL TRANSPORTATION & EXCHANGE		169	175	166	153	159	171	191	203	196	173	175	187	177	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2008

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		401	379	351	302	281	273	288	301	291	284	345	404	325	10
11	TOTAL SUPPLY TAKEN		401	379	351	302	281	273	288	301	291	284	345	404	325	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		401	379	351	302	281	273	288	301	291	284	345	404	325	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	149	136	121	93	70	55	51	51	52	59	104	155	91	14
15		Commercial	52	53	48	41	37	35	34	32	34	32	41	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	210	197	177	142	115	98	92	90	94	98	153	214	140	18
19	NONCORE	Subtotal-NONCORE	186	177	170	156	163	172	193	207	194	183	188	185	181	19
22		Co. Use & LUAF	5	4	4	4	3	3	3	4	3	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		401	379	351	302	281	273	288	301	291	284	345	404	325	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	3	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	185	176	169	155	162	171	192	206	193	182	187	183	180	25
26	TOTAL TRANSPORTATION & EXCHANGE		189	179	172	158	164	173	194	208	195	184	189	187	183	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2009

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		400	403	367	322	294	302	314	329	316	315	366	433	347	10
11	TOTAL SUPPLY TAKEN		400	403	367	322	294	302	314	329	316	315	366	433	347	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		400	403	367	322	294	302	314	329	316	315	366	433	346	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	150	141	122	94	70	56	51	51	52	59	104	156	92	14
15		Commercial	52	55	48	41	37	35	34	32	34	32	41	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	211	205	178	143	115	98	92	90	94	99	154	215	141	18
19	NONCORE	Subtotal-NONCORE	184	192	185	175	175	200	218	235	218	212	209	213	201	19
22		Co. Use & LUAF	5	5	4	4	3	4	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		400	403	367	322	294	302	314	329	316	315	366	433	346	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	4	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	183	191	184	174	174	199	217	234	217	211	208	211	200	25
26	TOTAL TRANSPORTATION & EXCHANGE		186	195	187	176	176	201	219	236	219	213	211	215	203	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2010

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		408	396	356	296	275	276	296	309	302	302	357	424	333	10
11	TOTAL SUPPLY TAKEN		408	396	356	296	275	276	296	309	302	302	357	424	333	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		408	396	356	296	275	276	296	309	302	302	357	424	333	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	152	143	123	95	71	56	52	52	53	60	105	157	93	14
15		Commercial	52	55	48	41	37	35	34	31	34	32	41	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	212	207	179	144	116	99	93	90	94	99	154	217	142	18
19	NONCORE	Subtotal-NONCORE	191	185	173	148	156	175	199	214	204	199	199	202	187	19
22		Co. Use & LUAF	5	5	4	4	3	3	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		408	396	356	296	275	276	296	309	302	302	357	424	333	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	4	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	190	184	172	147	155	174	198	213	203	198	198	201	186	25
26	TOTAL TRANSPORTATION & EXCHANGE		193	187	175	150	158	176	200	215	205	200	200	204	189	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2011

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		409	400	359	300	280	285	298	313	303	293	346	413	334	10
11	TOTAL SUPPLY TAKEN		409	400	359	300	280	285	298	313	303	293	346	413	334	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		409	400	359	300	280	285	298	313	303	293	346	413	333	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	153	144	124	95	72	57	52	52	53	60	106	158	94	14
15		Commercial	52	55	48	41	37	35	34	31	34	32	40	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	213	207	180	144	116	99	93	91	95	99	155	218	142	18
19	NONCORE	Subtotal-NONCORE	191	188	176	152	161	183	201	218	204	190	187	190	187	19
22		Co. Use & LUAF	5	5	4	4	3	3	4	4	4	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		409	400	359	300	280	285	298	313	303	293	346	413	333	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	4	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	190	187	175	151	160	182	200	217	204	190	186	189	186	25
26	TOTAL TRANSPORTATION & EXCHANGE		193	190	178	153	162	184	202	219	206	191	188	193	188	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2012

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		412	397	373	310	281	287	304	315	306	298	347	421	337	10
11	TOTAL SUPPLY TAKEN		412	397	373	310	281	287	304	315	306	298	347	421	337	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		412	397	373	310	281	287	304	315	306	298	347	421	337	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	154	139	124	96	72	57	53	52	53	60	107	159	94	14
15		Commercial	51	52	47	40	36	34	33	31	33	31	40	50	40	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	213	200	180	144	116	99	93	91	95	99	155	218	142	18
19	NONCORE	Subtotal-NONCORE	194	192	189	162	162	185	207	220	208	195	188	198	192	19
22		Co. Use & LUAF	5	5	4	4	3	3	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		412	397	373	310	281	287	304	315	306	298	347	421	337	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	3	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	193	191	188	161	161	184	206	219	207	194	187	197	191	25
26	TOTAL TRANSPORTATION & EXCHANGE		196	194	191	163	163	186	208	221	209	196	189	200	193	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2015

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		411	409	363	313	282	288	299	311	302	292	340	405	334	10
11	TOTAL SUPPLY TAKEN		411	409	363	313	282	288	299	311	302	292	340	405	334	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		411	409	363	313	282	288	299	311	302	292	340	405	334	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	156	147	127	98	73	58	54	53	54	62	109	162	96	14
15		Commercial	49	52	45	39	35	33	32	30	32	30	39	48	39	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	4	3	4	3	3	17
18		Subtotal-CORE	215	209	181	145	116	99	93	91	95	100	156	219	143	18
19	NONCORE	Subtotal-NONCORE	191	195	178	164	163	186	202	216	203	189	180	181	187	19
22		Co. Use & LUAF	5	5	4	4	3	3	4	4	4	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		411	409	363	313	282	288	299	311	302	292	340	405	334	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	3	3	3	2	2	2	2	2	2	3	3	2	24
25	NONCORE	All End Uses	190	194	177	163	162	185	201	215	202	188	179	180	186	25
26	TOTAL TRANSPORTATION & EXCHANGE		193	197	180	166	164	187	203	217	204	190	181	183	189	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2020

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		414	389	371	330	297	300	306	320	310	299	356	436	345	10
11	TOTAL SUPPLY TAKEN		414	389	371	330	297	300	306	320	310	299	356	436	345	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		414	389	371	330	297	300	306	320	310	299	356	436	344	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	162	147	131	101	76	60	55	55	56	64	112	167	99	14
15		Commercial	49	51	45	39	35	33	32	30	32	30	39	48	39	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	4	4	4	4	4	4	4	4	4	4	17
18		Subtotal-CORE	220	206	185	149	119	101	95	93	97	102	160	225	146	18
19	NONCORE	Subtotal-NONCORE	189	177	182	177	174	194	207	223	209	193	192	206	194	19
22		Co. Use & LUAF	5	5	4	4	4	4	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		414	389	371	330	297	300	306	320	310	299	356	436	344	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	3	3	3	3	2	2	2	2	2	2	3	3	3	24
25	NONCORE	All End Uses	188	176	181	176	173	193	206	222	208	192	191	205	193	25
26	TOTAL TRANSPORTATION & EXCHANGE		191	180	184	179	175	195	208	224	210	194	194	208	195	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2025

AVERAGE TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		431	430	387	351	321	327	344	366	349	316	376	454	371	10
11	TOTAL SUPPLY TAKEN		431	430	387	351	321	327	344	366	349	316	376	454	371	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		431	430	387	351	321	327	344	366	349	316	376	454	370	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	168	158	136	105	78	62	57	57	58	66	116	174	103	14
15		Commercial	52	55	47	41	37	35	34	31	34	32	40	51	41	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	4	4	4	4	4	4	4	4	4	4	4	4	4	17
18		Subtotal-CORE	229	222	192	154	124	105	99	97	101	106	166	234	152	18
19	NONCORE	Subtotal-NONCORE	197	202	190	192	193	218	241	266	244	206	205	215	214	19
22		Co. Use & LUAF	5	5	5	4	4	4	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		431	430	387	351	321	327	344	366	349	316	376	454	370	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	195	201	189	191	192	216	240	265	243	205	204	214	213	25
26	TOTAL TRANSPORTATION & EXCHANGE		199	205	192	194	194	219	242	267	245	207	207	218	216	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

2006 CALIFORNIA GAS REPORT

COLD TEMPERATURE YEAR
JULY 2006

TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2006 THRU 2010

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE 2/ & 3		2006	2007	2008	2009	2010	LINE
1	California Source Gas		0	0	0	0	0	1
	Out-of-State Gas							
2	El Paso Natural Gas Co.		50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	5
6	Other		0	0	0	0	0	6
7	Total Out-of-State Gas		141	141	141	141	141	7
8	TOTAL FIRM CAPACITY AVAILABLE		141	141	141	141	141	8
	GAS SUPPLY TAKEN							
9	California Source Gas		0	0	0	0	0	9
10	Out-of-State		349	332	339	362	347	10
11	TOTAL SUPPLY TAKEN		349	332	339	362	347	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	12
13	TOTAL THROUGHPUT		349	332	339	362	347	13
	REQUIREMENTS FORECAST BY END-USE 1/							
14	CORE	Residential	103	103	103	104	105	14
15		Commercial	44	43	43	44	43	15
16		Industrial	5	5	5	5	5	16
17		NGV	3	3	3	3	3	17
18		Subtotal-CORE	155	154	154	156	156	18
19	NONCORE	Commercial	7	7	7	7	7	19
20		Industrial	5	4	5	5	5	20
21		Electric Generation (EG)	178	163	169	190	175	21
22		Subtotal-NONCORE	190	174	181	202	187	22
23		Co. Use & LUAF	4	4	4	4	4	23
24	SYSTEM TOTAL THROUGHPUT		349	332	339	362	347	24
	TRANSPORTATION AND EXCHANGE							
25	CORE	All End Uses	3	3	3	3	3	25
26	NONCORE	Commercial/Industrial	11	11	11	11	11	26
27		Electric Generation (EG)	178	163	169	189	175	27
28	TOTAL TRANSPORTATION & EXCHANGE		192	177	183	203	189	28
	CURTAILMENT							
29		Core	0	0	0	0	0	29
30		Noncore	0	0	0	0	0	30
31		TOTAL - Curtailment	0	0	0	0	0	31

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes
2/ Firm capacity uder contrat by SDG&E in 2006
3/ For 2007 and after, assume capacity at same levels for 2006.

TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2011 THRU 2025

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE 2/ & 3		2011	2012	2015	2020	2025	LINE
1	California Source Gas		0	0	0	0	0	1
	Out-of-State Gas							
2	El Paso Natural Gas Co.		50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	5
6	Other		0	0	0	0	0	6
7	Total Out-of-State Gas		141	141	141	141	141	7
8	TOTAL FIRM CAPACITY AVAILABLE		141	141	141	141	141	8
	GAS SUPPLY TAKEN							
9	California Source Gas		0	0	0	0	0	9
10	Out-of-State		348	352	348	360	387	10
11	TOTAL SUPPLY TAKEN		348	352	348	360	387	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	12
13	TOTAL THROUGHPUT		348	352	348	360	387	13
	REQUIREMENTS FORECAST BY END-USE 1/							
14	CORE	Residential	106	106	108	112	116	14
15		Commercial	43	43	41	41	43	15
16		Industrial	5	5	5	5	5	16
17		NGV	3	3	3	4	4	17
18		Subtotal-CORE	157	157	157	162	168	18
19	NONCORE	Commercial	8	8	8	8	9	19
20		Industrial	4	4	4	5	5	20
21		Electric Generation (EG)	175	179	175	181	200	21
22		Subtotal-NONCORE	187	191	187	194	214	22
23		Co. Use & LUAF	4	4	4	4	5	23
24	SYSTEM TOTAL THROUGHPUT		348	352	348	360	387	24
	TRANSPORTATION AND EXCHANGE							
25	CORE	All End Uses	3	3	3	3	3	25
26	NONCORE	Commercial/Industrial	11	11	12	12	13	26
27		Electric Generation (EG)	175	179	175	180	200	27
28	TOTAL TRANSPORTATION & EXCHANGE		189	193	190	195	216	28
	CURTAILMENT							
29		Core	0	0	0	0	0	29
30		Noncore	0	0	0	0	0	30
31		TOTAL - Curtailment	0	0	0	0	0	31

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes
2/ Firm capacity uder contrat by SDG&E in 2006
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2006

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE 2/ & 3/		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		452	465	386	348	333	265	276	291	289	283	359	437	349	10
11	TOTAL SUPPLY TAKEN		452	465	386	348	333	265	276	291	289	283	359	437	349	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		452	465	386	348	333	265	276	291	289	283	359	437	348	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	177	165	140	105	75	56	51	51	52	61	119	184	103	14
15		Commercial	59	62	53	44	39	36	35	32	35	32	43	57	44	15
16		Industrial	6	6	6	6	5	5	4	4	5	5	5	6	5	16
17		NGV	2	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	244	236	202	157	122	99	93	89	94	100	171	250	154	18
19	NONCORE	Subtotal-NONCORE	203	223	179	187	207	163	181	198	191	180	185	182	190	19
22		Co. Use & LUAF	5	6	5	4	4	3	3	3	3	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		452	465	386	348	333	265	276	291	289	283	359	437	348	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	201	222	178	186	206	162	180	198	191	179	184	181	189	25
26	TOTAL TRANSPORTATION & EXCHANGE		205	226	182	189	208	164	182	199	193	181	187	185	191	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2007

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		416	414	369	313	283	272	285	294	292	275	347	440	332	10
11	TOTAL SUPPLY TAKEN		416	414	369	313	283	272	285	294	292	275	347	440	332	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		416	414	369	313	283	272	285	294	292	275	347	440	333	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	177	166	140	105	75	56	51	51	52	61	119	184	103	14
15		Commercial	58	61	53	43	39	35	35	31	35	32	43	57	43	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	244	236	202	157	122	99	92	89	94	100	170	250	154	18
19	NONCORE	Subtotal-NONCORE	167	173	164	152	158	170	190	202	195	172	173	185	175	19
22		Co. Use & LUAF	5	5	4	4	3	3	3	3	3	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		416	414	369	313	283	272	285	294	292	275	347	440	333	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	166	172	163	151	157	169	189	201	194	171	172	184	174	25
26	TOTAL TRANSPORTATION & EXCHANGE		170	176	166	154	160	171	191	203	196	173	175	188	177	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2008

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		437	411	377	318	288	275	289	301	292	286	363	441	339	10
11	TOTAL SUPPLY TAKEN		437	411	377	318	288	275	289	301	292	286	363	441	339	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		437	411	377	318	288	275	289	301	292	286	363	441	340	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	178	161	141	106	76	57	51	51	52	61	120	186	103	14
15		Commercial	58	59	53	44	39	36	35	32	35	32	43	57	43	15
16		Industrial	6	6	6	5	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	245	229	203	158	122	100	93	90	94	101	171	251	155	18
19	NONCORE	Subtotal-NONCORE	186	177	170	156	163	172	193	207	194	183	188	185	181	19
22		Co. Use & LUAF	5	5	4	4	3	3	3	4	3	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		437	411	377	318	288	275	289	301	292	286	363	441	340	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	185	176	169	155	162	171	192	206	193	182	187	183	180	25
26	TOTAL TRANSPORTATION & EXCHANGE		189	180	172	158	164	173	194	208	195	184	190	187	183	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2009

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		436	436	394	337	302	304	315	329	317	317	386	471	362	10
11	TOTAL SUPPLY TAKEN		436	436	394	337	302	304	315	329	317	317	386	471	362	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		436	436	394	337	302	304	315	329	317	317	386	471	361	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	179	168	142	107	76	57	51	51	53	61	120	187	104	14
15		Commercial	58	61	53	44	39	36	35	32	35	32	43	57	44	15
16		Industrial	6	6	6	6	5	5	4	4	4	4	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	246	238	204	159	123	100	93	90	95	101	172	253	156	18
19	NONCORE	Subtotal-NONCORE	184	192	185	175	175	200	218	235	218	212	209	213	201	19
22		Co. Use & LUAF	5	5	5	4	4	4	4	4	4	4	5	6	4	22
23	SYSTEM TOTAL THROUGHPUT /1		436	436	394	337	302	304	315	329	317	317	386	471	361	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	183	191	184	174	174	199	217	234	217	211	208	211	200	25
26	TOTAL TRANSPORTATION & EXCHANGE		187	195	188	177	177	201	219	236	219	213	211	215	203	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2010

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		444	429	383	312	283	278	297	309	303	304	376	461	347	10
11	TOTAL SUPPLY TAKEN		444	429	383	312	283	278	297	309	303	304	376	461	347	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		444	429	383	312	283	278	297	309	303	304	376	461	348	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	181	169	143	108	77	57	52	52	53	62	121	188	105	14
15		Commercial	58	61	53	43	39	35	35	31	35	32	43	57	43	15
16		Industrial	6	6	6	6	5	5	4	4	4	5	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	248	240	205	160	124	101	94	90	95	102	173	254	157	18
19	NONCORE	Subtotal-NONCORE	191	185	173	148	156	175	199	214	204	199	199	202	187	19
22		Co. Use & LUAF	5	5	5	4	3	3	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		444	429	383	312	283	278	297	309	303	304	376	461	348	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	190	184	172	147	155	174	198	213	203	198	198	201	186	25
26	TOTAL TRANSPORTATION & EXCHANGE		194	188	175	150	158	176	200	215	205	200	201	205	189	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2011

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		445	433	386	316	288	287	299	313	304	296	365	451	348	10
11	TOTAL SUPPLY TAKEN		445	433	386	316	288	287	299	313	304	296	365	451	348	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		445	433	386	316	288	287	299	313	304	296	365	451	348	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	182	171	145	109	77	58	52	52	53	62	122	190	106	14
15		Commercial	58	61	52	43	39	35	35	31	34	32	43	56	43	15
16		Industrial	6	6	6	6	5	5	4	4	4	5	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	249	241	206	160	124	101	94	91	96	102	174	255	157	18
19	NONCORE	Subtotal-NONCORE	191	188	176	152	161	183	201	218	204	190	187	190	187	19
22		Co. Use & LUAF	5	5	5	4	3	3	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		445	433	386	316	288	287	299	313	304	296	365	451	348	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	190	187	175	151	160	182	200	217	204	190	186	189	186	25
26	TOTAL TRANSPORTATION & EXCHANGE		194	191	178	154	162	184	202	219	206	191	189	193	189	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2012

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		448	429	400	326	289	289	305	315	307	301	366	458	352	10
11	TOTAL SUPPLY TAKEN		448	429	400	326	289	289	305	315	307	301	366	458	352	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		448	429	400	326	289	289	305	315	307	301	366	458	352	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	183	166	145	109	78	58	53	52	54	63	123	191	106	14
15		Commercial	57	58	52	43	38	35	34	31	34	32	42	56	43	15
16		Industrial	6	6	6	6	5	5	4	4	4	5	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	3	3	3	3	3	17
18		Subtotal-CORE	249	233	206	160	124	101	94	91	95	102	174	256	157	18
19	NONCORE	Subtotal-NONCORE	194	192	189	162	162	185	207	220	208	195	188	198	192	19
22		Co. Use & LUAF	5	5	5	4	3	3	4	4	4	4	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		448	429	400	326	289	289	305	315	307	301	366	458	352	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	193	191	188	161	161	184	206	219	207	194	187	197	191	25
26	TOTAL TRANSPORTATION & EXCHANGE		197	195	191	163	163	186	208	221	209	196	190	200	193	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2015

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		447	442	390	329	290	290	300	311	303	294	359	443	348	10
11	TOTAL SUPPLY TAKEN		447	442	390	329	290	290	300	311	303	294	359	443	348	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		447	442	390	329	290	290	300	311	303	294	359	443	349	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	187	175	148	111	79	59	54	53	55	64	125	194	108	14
15		Commercial	55	58	50	41	37	34	33	30	33	30	41	54	41	15
16		Industrial	6	6	6	6	5	5	4	4	4	5	5	6	5	16
17		NGV	3	3	3	3	3	3	3	3	4	3	4	3	3	17
18		Subtotal-CORE	251	242	207	161	124	101	94	91	96	102	175	258	158	18
19	NONCORE	Subtotal-NONCORE	191	195	178	164	163	186	202	216	203	189	180	181	187	19
22		Co. Use & LUAF	5	5	5	4	3	3	4	4	4	3	4	5	4	22
23	SYSTEM TOTAL THROUGHPUT /1		447	442	390	329	290	290	300	311	303	294	359	443	349	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	190	194	177	163	162	185	201	215	202	188	179	180	186	25
26	TOTAL TRANSPORTATION & EXCHANGE		194	198	181	166	164	187	203	217	204	190	182	183	189	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2020

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		451	422	399	346	306	302	307	320	311	302	376	477	360	10
11	TOTAL SUPPLY TAKEN		451	422	399	346	306	302	307	320	311	302	376	477	360	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		451	422	399	346	306	302	307	320	311	302	376	477	359	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	193	174	153	115	82	61	55	55	57	66	129	201	112	14
15		Commercial	55	56	50	41	37	34	33	30	33	30	41	54	41	15
16		Industrial	6	6	6	6	5	5	4	4	5	5	5	6	5	16
17		NGV	3	3	3	4	4	4	4	4	4	4	4	4	4	17
18		Subtotal-CORE	258	240	212	165	127	103	96	93	98	105	180	264	162	18
19	NONCORE	Subtotal-NONCORE	189	177	182	177	174	194	207	223	209	193	192	206	194	19
22		Co. Use & LUAF	5	5	5	4	4	4	4	4	4	4	4	6	4	22
23	SYSTEM TOTAL THROUGHPUT /1		451	422	399	346	306	302	307	320	311	302	376	477	359	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	3	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	188	176	181	176	173	193	206	222	208	192	191	205	193	25
26	TOTAL TRANSPORTATION & EXCHANGE		191	180	184	179	175	195	208	224	210	194	194	209	195	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2025

COLD TEMPERATURE YEAR

LINE	FIRM CAPACITY AVAILABLE		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
	Out-of-State Gas															
2	El Paso Natural Gas Co.		50	50	50	50	50	50	50	50	50	50	50	50	50	2
3	Transwestern Pipeline Co.		33	33	33	33	33	33	33	33	33	33	33	33	33	3
4	Kern/Mojave		7	7	7	7	7	7	7	7	7	7	7	7	7	4
5	PGT/PG&E		51	51	51	51	51	51	51	51	51	51	51	51	51	5
8	Other		0	0	0	0	0	0	0	0	0	0	0	0	0	8
7	Total Out-of-State Gas		141	141	141	141	141	141	141	141	141	141	141	141	141	7
8	TOTAL CAPACITY AVAILABLE /1		141	141	141	141	141	141	141	141	141	141	141	141	141	8
	GAS SUPPLY TAKEN															
9	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	9
10	Out-of-State		470	466	416	368	329	329	345	366	350	319	397	496	387	10
11	TOTAL SUPPLY TAKEN		470	466	416	368	329	329	345	366	350	319	397	496	387	11
12	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	12
13	TOTAL THROUGHPUT		470	466	416	368	329	329	345	366	350	319	397	496	388	13
	REQUIREMENTS FORECAST BY END-USE 1/															
14	CORE	Residential	200	187	159	119	85	63	57	57	59	68	134	208	116	14
15		Commercial	58	61	52	43	38	35	35	31	34	32	43	56	43	15
16		Industrial	6	6	6	6	5	5	4	4	5	5	5	6	5	16
17		NGV	4	4	4	4	4	4	4	4	4	4	4	4	4	17
18		Subtotal-CORE	268	258	221	172	132	107	100	97	102	109	187	275	168	18
19	NONCORE	Subtotal-NONCORE	197	202	190	192	193	218	241	266	244	206	205	215	214	19
22		Co. Use & LUAF	6	6	5	4	4	4	4	4	4	4	5	6	5	22
23	SYSTEM TOTAL THROUGHPUT /1		470	466	416	368	329	329	345	366	350	319	397	496	388	23
	TRANSPORTATION AND EXCHANGE															
24	CORE	All End Uses	4	4	4	3	2	2	2	2	2	2	3	4	3	24
25	NONCORE	All End Uses	195	201	189	191	192	216	240	265	243	205	204	214	213	25
26	TOTAL TRANSPORTATION & EXCHANGE		199	205	192	194	194	219	242	267	245	207	207	218	216	26
	CURTAILMENT (RETAIL & WHOLESALE)															
27		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	27
28		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	28
29		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	29

NOTES:
1/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
2/ Firm capacity uder contrat by SDG&E in 2006.
3/ For 2007 and after, assume capacity at same levels for 2006.

2006 CALIFORNIA GAS REPORT

FORECAST OF REQUIREMENTS – DETAIL
JULY 2006

2006 CALIFORNIA GAS REPORT

CUSTOMER FORECAST
JULY 2006

SAN DIEGO GAS and ELECTRIC COMPANY: CUSTOMER FORECAST
(annual averages)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Residential	775,938	788,196	799,494	812,434	825,747	839,422	853,063	866,373	879,758	893,627	908,053
Core C/I	29,454	29,513	29,610	29,834	30,050	30,257	30,453	30,636	30,808	30,978	31,152
NGV	252	276	287	299	311	323	335	347	359	371	383
Non-Core C/I	55	56	57	57	58	58	59	59	59	60	60
Electric Generation	71	75	79	82	85	89	92	95	98	102	105
TOTAL	805,771	818,117	829,526	842,707	856,251	870,148	884,001	897,510	911,082	925,138	939,753

SAN DIEGO GAS and ELECTRIC COMPANY: CUSTOMER FORECAST
(annual averages)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Residential	922,662	937,416	952,223	967,143	982,096	997,075	1,012,006	1,026,878	1,041,735	1,056,588	1,071,535
Core C/I	31,331	31,514	31,699	31,886	32,074	32,265	32,457	32,648	32,842	33,037	33,235
NGV	395	408	420	432	444	456	468	480	492	504	516
Non-Core C/I	60	61	61	61	62	62	62	63	63	64	64
Electric Generation	108	111	115	118	121	124	128	131	134	137	141
TOTAL	954,557	969,510	984,518	999,640	1,014,797	1,029,983	1,045,121	1,060,200	1,075,267	1,090,331	1,105,492

2006 CALIFORNIA GAS REPORT

EUFORECASTER
JULY 2006

Refer to the 2006 California Gas Report workpapers of Southern California Gas Company for documentation of the EUForecaster model. This model is used to forecast gas demands for the residential, core commercial and core industrial markets.

2006 CALIFORNIA GAS REPORT

RESIDENTIAL DEMAND FORECAST
JULY 2006

Core Residential End-Use Model
2006 California Gas Report

Introduction:

SDG&E used the End Use Forecaster model to generate annual gas demand forecasts for the residential market from 2006 through 2025. The software's market segmentation and end-use modeling framework analyzes the impacts of competitive strategies (gas vs. electricity) and market scenarios on gas demand and market shares.

The model separates the residential market into four building types (B-level). These groups are identified by the premise code classification found in the company billing files. The four residential groups are:

- Single-Family (SF);
- Multi-Family (MF);
- Master Metered (MM); and
- Sub-Metered (SM).

The residential model identifies eight end-uses (N-level) that are the primary drivers of natural gas demand:

- Space heating;
- Water heating;
- Cooking;
- Drying;
- Pool heating;
- Spa heating;
- Fireplace; and
- Barbeque.

The model assumes two fuel choices (F-level) for end-uses:

- Natural gas; and
- Electricity.

The model assumes up to four efficiency levels (E-level) for the various end-uses. In general, the efficiency levels are:

- Stock;
- Standard;
- High efficiency; and
- Premium efficiency.

See Figure 1 for a classification of the number of efficiency levels for each end use by customer segment type.

A set of post-model adjustments were applied to the model's annual demand forecast. The first adjustment calibrates to the recorded 2005 weather adjusted demand. Next, the annual forecast was parceled out to a series of monthly forecasts by a process which involves two steps. The steps consist of (1) using the fitted equation[1] for customer demand to generate a forecast of use per customer that varies with the number of calendar days and heating degree days in a given month and (2) calculating a series of weights based on the customer's predicted monthly usage share in total annual consumption. The shares obtained from the latter step were then applied to annual totals to derive the stream of monthly forecasts which are conditional on the particular weather design specification for the year. A final adjustment to the forecast offsets the throughput by the energy efficiency savings. See Figure 2 for the annual demand forecast. Figures 3-6 illustrate the monthly forecasts for each weather scenario.

Data Sources:

The information used to perform the modeling and to generate the forecast includes historical 2005 consumption and customer counts; meter counts, growth, and decay; use per customer by vintage and unit energy consumption (UEC) values; fuel costs and price elasticity; equipment capital costs and availability; building and equipment lives and decay. The historical data were extracted from the billing tables housed within the Customer Information System (CIS). See Figure 7 for the 2005 historical data.

Meter Counts, Growth and Decay:

Regression equations were developed for each of the 4 building types. The meter count forecast is a company-specific forecast based on actual meter counts within the SDG&E service territory. Data on meter decay rates were obtained from the Energy Information Administration (EIA). See Figure 8 for the meter count forecast.

Use Per Customer by Vintage and UEC:

Use per customer and Unit Energy Consumption (UEC) data were based on company marketing data and the California Measurement Advisory Council. See Figure 9 for the appliance UEC's.

[1] SDGE Monthly Use Per Customer = (0.61) * Calendar Days + (0.14) * Heating Degree Days.

Fuel Costs and Price Elasticity:

Average and marginal gas prices ($/therm) were calculated from forecasts of the residential rate components. Residential rates have two consumption tiers. We used the simple average of the second tiers' projected monthly prices for each forecast year as the marginal rate. The marginal rate was used for each housing segment type.

For a given housing type, the average gas commodity rate was calculated using a pair of weights for the two consumption tiers applied to the simple average of each tier's monthly rate. The average commodity rate in each forecast year was developed using the same consumption tier weights, but with the forecasts of rates for each residential rate tier. The average gas price each year was then calculated by including the non-volumetric customer charges with the year's average gas commodity price. Figure 10 illustrates the gas price forecasts.

Electric Price Data:

The electricity price inputs consist of average prices (cents/kWh) and marginal prices (cents/kWh). The forecasts for the SDG&E residential customer class were developed by SDG&E's electricity rate analysis group for 2006 through 2025.

A ratio of the housing type's average gas price to the overall residential gas price was constructed. The weight was then multiplied by the overall average electricity price to derive the residential market-specific electricity prices

The marginal prices for each residential housing type were calculated by multiplying each year's respective average price by a ratio. These ratios were 1.513 for the SF and MF housing types, 1.034 for the MM housing type and 1.125 for the SM housing type. These various ratios were the same as those used to construct the marginal electricity prices for the SoCalGas residential end-use model. Figure 11 illustrates the electricity price forecasts.

Price elasticities for each building type were based on the SDG&E Residential Econometric Demand Forecasting Model. See Figure 7 for price elasticities.

Equipment Capital Costs and Availability:

Data on equipment capital costs and availability were from EIA, the Residential Appliance Saturation Survey (RASS), Energy Star (EPA & DOE), and SDG&E company data. See Figures 12 and 13 for gas and electric appliance equipment cost.

Building and Equipment Lives and Decay:

Building decay rates are based on the building shell lifetimes, where the lifetime is defined as the length of time it takes for either a demolition or a major renovation to occur. For single-family residential buildings, an exponential rate of decay of 0.3% per year was assumed. See Figure 14 for the building decay rates.

Data on equipment lives and decay rates are based on EIA, RASS, Energy Star, and SDG&E company data. See Figure 15 for the average lifetimes of gas appliances.

Saturations, Fuel and Efficiency Shares:

Saturation values, fuel shares, and efficiency shares were extracted from SDG&E company data files and the most recent 2004 RASS Update. Please see Figures 16-19 for saturations, fuel, and efficiency shares.

RESIDENTIAL DATA

2006 California Gas Report - Residential
Figure 1: Number of Efficiency Levels by End Use by Customer Segment

	Space Heating		Water Heating		Cooking		Drying		Pool		Spa		Fireplace		BBQ	
	Gas	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Gas	Electric
Single Family	4	1	4	4	2	2	2	4	2	0	2	0	1	0	1	1
Multi-Family	4	1	4	4	2	2	2	4	0	0	0	0	0	0	1	1
Master Meter	4	1	4	4	2	2	2	4	0	0	0	0	0	0	1	1
Sub-Meter	4	1	4	4	2	2	2	4	0	0	0	0	0	0	1	1

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Figure 2: Annual Demand Forecast (Mdth)

Year	Total	Single Family	Multi-Family	Master Meter	Sub Meter
2005	33,587	24,073	4,457	3,843	1,213
2006	33,587	24,119	4,465	3,927	1,194
2007	33,587	24,172	4,478	4,002	1,173
2008	33,587	24,415	4,515	4,087	1,162
2009	33,587	24,612	4,547	4,161	1,148
2010	33,587	24,909	4,592	4,240	1,139
2011	33,587	25,202	4,636	4,313	1,131
2012	33,587	25,432	4,673	4,373	1,119
2013	33,587	25,714	4,717	4,434	1,110
2014	33,587	25,985	4,761	4,486	1,099
2015	33,587	26,250	4,805	4,533	1,088
2016	33,587	26,535	4,852	4,578	1,078
2017	33,587	26,758	4,892	4,611	1,066
2018	33,587	26,948	4,928	4,638	1,052
2019	33,587	27,184	4,969	4,665	1,041
2020	33,587	27,397	5,008	4,686	1,029
2021	33,587	27,614	5,047	4,705	1,017
2022	33,587	27,868	5,090	4,724	1,007
2023	33,587	28,083	5,129	4,736	995
2024	33,587	28,300	5,167	4,747	984
2025	33,587	28,548	5,210	4,757	974

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Figure 3: Average-Temperature Year Demand Forecast

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005	4,656	3,955	3,769	2,816	2,180	1,673	1,593	1,590	1,565	1,832	3,132	4,825	33,587
2006	4,673	3,969	3,782	2,826	2,188	1,679	1,599	1,596	1,570	1,838	3,143	4,842	33,705
2007	4,689	3,983	3,795	2,836	2,196	1,685	1,605	1,602	1,576	1,845	3,154	4,859	33,825
2008	4,739	4,025	3,835	2,865	2,219	1,702	1,622	1,618	1,592	1,864	3,187	4,910	34,180
2009	4,779	4,059	3,868	2,890	2,238	1,717	1,635	1,632	1,606	1,880	3,214	4,952	34,468
2010	4,836	4,107	3,914	2,924	2,264	1,737	1,655	1,652	1,625	1,902	3,253	5,011	34,879
2011	4,891	4,154	3,959	2,958	2,290	1,757	1,674	1,671	1,644	1,924	3,290	5,069	35,281
2012	4,935	4,192	3,994	2,984	2,311	1,773	1,689	1,686	1,658	1,941	3,320	5,114	35,597
2013	4,987	4,236	4,037	3,016	2,335	1,792	1,707	1,703	1,676	1,962	3,355	5,168	35,974
2014	5,037	4,278	4,077	3,046	2,359	1,810	1,724	1,720	1,693	1,982	3,388	5,220	36,331
2015	5,085	4,319	4,116	3,075	2,381	1,827	1,740	1,737	1,709	2,000	3,420	5,269	36,677
2016	5,136	4,362	4,157	3,105	2,405	1,845	1,757	1,754	1,726	2,020	3,454	5,322	37,043
2017	5,175	4,395	4,188	3,129	2,423	1,859	1,771	1,768	1,739	2,036	3,481	5,363	37,327
2018	5,208	4,423	4,215	3,149	2,439	1,871	1,782	1,779	1,750	2,049	3,503	5,397	37,566
2019	5,249	4,458	4,248	3,174	2,458	1,886	1,796	1,793	1,764	2,065	3,530	5,439	37,858
2020	5,285	4,489	4,277	3,196	2,475	1,899	1,809	1,805	1,776	2,079	3,555	5,476	38,120
2021	5,321	4,519	4,307	3,218	2,492	1,912	1,821	1,817	1,788	2,093	3,579	5,514	38,382
2022	5,364	4,556	4,341	3,243	2,512	1,927	1,835	1,832	1,802	2,110	3,608	5,558	38,688
2023	5,399	4,586	4,370	3,265	2,528	1,940	1,848	1,844	1,814	2,124	3,632	5,595	38,943
2024	5,434	4,616	4,398	3,286	2,545	1,952	1,860	1,856	1,826	2,138	3,655	5,631	39,199
2025	5,475	4,650	4,431	3,311	2,564	1,967	1,874	1,870	1,840	2,154	3,683	5,673	39,490

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Figure 4: Cold-Temperature Year Demand Forecast

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005	5,558	4,695	4,406	3,200	2,359	1,707	1,593	1,590	1,577	1,902	3,608	5,786	37,982
2006	5,577	4,711	4,422	3,211	2,368	1,713	1,599	1,596	1,582	1,909	3,621	5,806	38,116
2007	5,597	4,728	4,438	3,223	2,376	1,719	1,605	1,602	1,588	1,916	3,634	5,827	38,251
2008	5,656	4,778	4,484	3,257	2,401	1,737	1,622	1,618	1,604	1,936	3,672	5,888	38,652
2009	5,703	4,818	4,522	3,284	2,421	1,752	1,635	1,632	1,618	1,952	3,703	5,937	38,979
2010	5,771	4,876	4,576	3,323	2,450	1,773	1,655	1,652	1,637	1,975	3,747	6,008	39,443
2011	5,838	4,932	4,629	3,362	2,478	1,793	1,674	1,671	1,656	1,998	3,790	6,077	39,898
2012	5,890	4,976	4,670	3,392	2,501	1,809	1,689	1,686	1,671	2,016	3,824	6,132	40,255
2013	5,952	5,029	4,720	3,428	2,527	1,828	1,707	1,703	1,689	2,037	3,865	6,197	40,681
2014	6,012	5,079	4,766	3,462	2,552	1,846	1,724	1,720	1,705	2,058	3,903	6,258	41,086
2015	6,069	5,127	4,812	3,495	2,576	1,864	1,740	1,737	1,722	2,077	3,940	6,318	41,477
2016	6,129	5,178	4,860	3,529	2,602	1,883	1,757	1,754	1,739	2,098	3,979	6,381	41,890
2017	6,176	5,218	4,897	3,556	2,622	1,897	1,771	1,768	1,752	2,114	4,010	6,430	42,212
2018	6,216	5,251	4,928	3,579	2,639	1,909	1,782	1,779	1,763	2,128	4,036	6,471	42,481
2019	6,264	5,292	4,967	3,607	2,659	1,924	1,796	1,793	1,777	2,144	4,067	6,521	42,812
2020	6,308	5,329	5,001	3,632	2,678	1,937	1,809	1,805	1,789	2,159	4,095	6,566	43,108
2021	6,351	5,365	5,035	3,657	2,696	1,951	1,821	1,817	1,802	2,174	4,123	6,611	43,404
2022	6,402	5,408	5,076	3,686	2,718	1,966	1,835	1,832	1,816	2,191	4,156	6,664	43,751
2023	6,444	5,444	5,109	3,710	2,736	1,979	1,848	1,844	1,828	2,206	4,184	6,708	44,039
2024	6,486	5,479	5,143	3,735	2,754	1,992	1,860	1,856	1,840	2,220	4,211	6,752	44,328
2025	6,534	5,520	5,181	3,763	2,774	2,007	1,874	1,870	1,854	2,237	4,242	6,802	44,657

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Figure 5: Hot-Temperature Year Demand Forecast

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005	3,755	3,215	3,131	2,443	2,001	1,627	1,593	1,590	1,565	1,761	2,668	3,877	29,227
2006	3,769	3,226	3,142	2,452	2,008	1,633	1,599	1,596	1,570	1,768	2,677	3,890	29,330
2007	3,782	3,238	3,153	2,460	2,016	1,639	1,605	1,602	1,576	1,774	2,687	3,904	29,434
2008	3,822	3,272	3,186	2,486	2,037	1,656	1,622	1,618	1,592	1,793	2,715	3,945	29,743
2009	3,854	3,299	3,213	2,507	2,054	1,670	1,635	1,632	1,606	1,808	2,738	3,978	29,994
2010	3,900	3,338	3,252	2,537	2,078	1,690	1,655	1,652	1,625	1,829	2,770	4,026	30,352
2011	3,945	3,377	3,289	2,566	2,102	1,709	1,674	1,671	1,644	1,850	2,802	4,072	30,701
2012	3,980	3,407	3,318	2,589	2,121	1,725	1,689	1,686	1,658	1,867	2,827	4,109	30,976
2013	4,022	3,443	3,354	2,617	2,144	1,743	1,707	1,703	1,676	1,887	2,857	4,152	31,304
2014	4,062	3,477	3,387	2,643	2,165	1,760	1,724	1,720	1,693	1,905	2,886	4,193	31,616
2015	4,101	3,511	3,419	2,668	2,186	1,777	1,740	1,737	1,709	1,924	2,913	4,233	31,917
2016	4,142	3,546	3,453	2,694	2,207	1,795	1,757	1,754	1,726	1,943	2,942	4,275	32,235
2017	4,174	3,573	3,480	2,715	2,224	1,809	1,771	1,768	1,739	1,958	2,965	4,308	32,482
2018	4,200	3,596	3,502	2,732	2,238	1,820	1,782	1,779	1,750	1,970	2,984	4,336	32,690
2019	4,233	3,624	3,529	2,754	2,256	1,834	1,796	1,793	1,764	1,985	3,007	4,370	32,944
2020	4,262	3,649	3,554	2,773	2,271	1,847	1,809	1,805	1,776	1,999	3,028	4,400	33,171
2021	4,291	3,674	3,578	2,792	2,287	1,860	1,821	1,817	1,788	2,013	3,048	4,430	33,400
2022	4,326	3,703	3,607	2,814	2,305	1,875	1,835	1,832	1,802	2,029	3,073	4,465	33,666
2023	4,354	3,727	3,630	2,833	2,321	1,887	1,848	1,844	1,814	2,042	3,093	4,495	33,888
2024	4,383	3,752	3,654	2,851	2,336	1,899	1,860	1,856	1,826	2,056	3,113	4,524	34,110
2025	4,415	3,780	3,681	2,872	2,353	1,913	1,874	1,870	1,840	2,071	3,136	4,558	34,364

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Figure 6: Base-Temperature Year Demand Forecast

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2005	1,560	1,411	1,566	1,523	1,560	1,536	1,593	1,590	1,541	1,585	1,518	1,563	18,547
2006	1,566	1,416	1,571	1,528	1,565	1,542	1,599	1,596	1,547	1,591	1,523	1,568	18,613
2007	1,571	1,421	1,577	1,533	1,571	1,547	1,605	1,602	1,552	1,597	1,529	1,574	18,679
2008	1,588	1,436	1,594	1,550	1,587	1,564	1,622	1,618	1,568	1,613	1,545	1,590	18,875
2009	1,601	1,448	1,607	1,563	1,601	1,577	1,635	1,632	1,582	1,627	1,558	1,604	19,034
2010	1,620	1,465	1,626	1,581	1,620	1,596	1,655	1,652	1,601	1,646	1,576	1,623	19,261
2011	1,639	1,482	1,645	1,599	1,639	1,614	1,674	1,671	1,619	1,665	1,595	1,642	19,483
2012	1,654	1,495	1,660	1,614	1,653	1,628	1,689	1,686	1,633	1,680	1,609	1,656	19,657
2013	1,671	1,511	1,677	1,631	1,671	1,646	1,707	1,703	1,651	1,698	1,626	1,674	19,865
2014	1,688	1,526	1,694	1,647	1,687	1,662	1,724	1,720	1,667	1,715	1,642	1,690	20,063
2015	1,704	1,541	1,710	1,663	1,703	1,678	1,740	1,737	1,683	1,731	1,658	1,706	20,254
2016	1,721	1,556	1,727	1,679	1,720	1,694	1,757	1,754	1,700	1,748	1,674	1,723	20,456
2017	1,734	1,568	1,740	1,692	1,734	1,707	1,771	1,768	1,713	1,762	1,687	1,737	20,613
2018	1,745	1,578	1,751	1,703	1,745	1,718	1,782	1,779	1,724	1,773	1,698	1,748	20,744
2019	1,759	1,590	1,765	1,716	1,758	1,732	1,796	1,793	1,737	1,787	1,711	1,761	20,906
2020	1,771	1,601	1,777	1,728	1,770	1,744	1,809	1,805	1,749	1,799	1,723	1,774	21,050
2021	1,783	1,612	1,790	1,740	1,783	1,756	1,821	1,817	1,761	1,812	1,735	1,786	21,195
2022	1,797	1,625	1,804	1,754	1,797	1,770	1,835	1,832	1,775	1,826	1,748	1,800	21,364
2023	1,809	1,636	1,816	1,765	1,809	1,781	1,848	1,844	1,787	1,838	1,760	1,812	21,505
2024	1,821	1,647	1,828	1,777	1,820	1,793	1,860	1,856	1,799	1,850	1,772	1,824	21,646
2025	1,835	1,659	1,841	1,790	1,834	1,806	1,874	1,870	1,812	1,864	1,785	1,837	21,807

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Figure 7: 2005 Historical Data

	Single Family	Multi-Family	Master Meter	Sub Meter
Total Therm Sales	240,734,619	44,573,309	38,430,777	12,132,554
Meter Count				
Pre-1979 Customers	550,097	140,715	11,292	448
1979 - 2001 Customers	62,598	16,476	113	2
2004-2005 Customers	10,183	973	14	1
TOTAL	622,878	158,164	11,419	450
Use Per Customer (UPC, therms)				
Pre-1979 Customers	386	287	3,357	27,036
1979 - 2001 Customers	408	241	3,898	10,184
2004-2005 Customers	293	232	6,226	1
Price Elasticity	-0.105	-0.071	-0.069	-0.105

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Figure 8: Meter Count Forecast

Year	Total	Single Family	Multi-Family	Master Meter	Sub Meter
2005	792,911	622,878	158,164	11,419	450
2006	804,272	631,938	160,465	11,419	450
2007	817,190	642,240	163,081	11,419	450
2008	830,503	652,857	165,777	11,419	450
2009	844,177	663,762	168,546	11,419	450
2010	857,818	674,641	171,308	11,419	450
2011	871,128	685,256	174,003	11,419	450
2012	884,512	695,930	176,713	11,419	450
2013	898,382	706,991	179,522	11,419	450
2014	912,807	718,495	182,443	11,419	450
2015	927,415	730,145	185,401	11,419	450
2016	942,170	741,912	188,389	11,419	450
2017	956,976	753,720	191,387	11,419	450
2018	971,895	765,618	194,408	11,419	450
2019	986,848	777,543	197,436	11,419	450
2020	1,001,827	789,489	200,469	11,419	450
2021	1,016,758	801,396	203,493	11,419	450
2022	1,031,630	813,256	206,505	11,419	450
2023	1,046,487	825,104	209,514	11,419	450
2024	1,061,340	836,949	212,522	11,419	450
2025	1,076,287	848,869	215,549	11,419	450

Note: The master meter and sub meter groups are expected to decline.
A decay rate was built into the model specification.

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Figure 9: Appliance Unit Energy Consumption (Gas in therms, Electric in Kwh)

		Single Family		Multi-Family		Master Meter		Sub Meter	
End-Use	**Vintage**	**Gas**	**Electric**	**Gas**	**Electric**	**Gas**	**Electric**	**Gas**	**Electric**
Space Heat	Stock	370	4,110	200	730	200	730	330	1,340
	Standard	330	3,730	180	-	180	-	300	-
	High	310	3,450	170	-	170	-	280	-
	Premium	280	3,170	150	-	150	-	260	-
Water Heat	Stock	260	2,440	230	2,440	230	2,440	210	2,010
	Standard	240	2,220	210	2,220	210	2,220	190	1,830
	High	230	2,110	200	2,110	200	2,110	180	1,740
	Premium	220	2,050	190	2,050	190	2,050	180	1,690
Cooking	Stock	50	574	34	465	34	465	45	514
	Standard	42.5	487.9	29	395	29	395	38	437
Drying	Stock	45.1	1442.1	24	1,442	24	1,442	26	873
	Standard	42.8	1369.9	23	1,370	23	1,370	25	830
Pool	Stock	177	3,431	177	3,431	177	3,431	177	3,431
Spa	Stock	146	430	146	430	146	430	146	430
Fireplace	Stock	21	-	21	-	21	-	21	-
BBQ	Stock	28	-	28	-	28	-	28	-

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Figure 10: Average and Marginal Gas Price Forecast (Nominal $ / therm)

		Average Price				Marginal Price			
Year	Price Deflator	Single Family	Multi-Family	Master Meter	Sub Meter	Single Family	Multi-Family	Master Meter	Sub Meter
2005	100.00	1.2885	1.2718	1.2561	1.2564	1.4377	1.4377	1.4377	1.4377
2006	102.80	1.3504	1.3324	1.3156	1.3159	1.5108	1.5108	1.5108	1.5108
2007	104.53	1.4206	1.4019	1.3844	1.3847	1.5873	1.5873	1.5873	1.5873
2008	106.44	1.3960	1.3772	1.3597	1.3600	1.5632	1.5632	1.5632	1.5632
2009	108.36	1.3950	1.3750	1.3563	1.3566	1.5735	1.5735	1.5735	1.5735
2010	110.25	1.3470	1.3271	1.3084	1.3088	1.5250	1.5250	1.5250	1.5250
2011	112.36	1.3010	1.2811	1.2625	1.2628	1.4783	1.4783	1.4783	1.4783
2012	115.02	1.2978	1.2774	1.2585	1.2588	1.4790	1.4790	1.4790	1.4790
2013	117.93	1.2777	1.2575	1.2386	1.2389	1.4584	1.4584	1.4584	1.4584
2014	120.84	1.2697	1.2491	1.2299	1.2302	1.4531	1.4531	1.4531	1.4531
2015	123.79	1.2678	1.2467	1.2271	1.2274	1.4552	1.4552	1.4552	1.4552
2016	126.97	1.2656	1.2448	1.2254	1.2258	1.4509	1.4509	1.4509	1.4509
2017	130.38	1.3010	1.2798	1.2600	1.2604	1.4900	1.4900	1.4900	1.4900
2018	133.90	1.3626	1.3410	1.3208	1.3211	1.5556	1.5556	1.5556	1.5556
2019	137.53	1.4034	1.3819	1.3619	1.3623	1.5946	1.5946	1.5946	1.5946
2020	141.23	1.4551	1.4332	1.4127	1.4131	1.6509	1.6509	1.6509	1.6509
2021	145.02	1.5065	1.4840	1.4631	1.4634	1.7069	1.7069	1.7069	1.7069
2022	148.90	1.5395	1.5173	1.4965	1.4969	1.7381	1.7381	1.7381	1.7381
2023	152.89	1.5955	1.5727	1.5515	1.5518	1.7987	1.7987	1.7987	1.7987
2024	156.98	1.6521	1.6288	1.6071	1.6075	1.8600	1.8600	1.8600	1.8600
2025	161.16	1.6905	1.6667	1.6445	1.6448	1.9032	1.9032	1.9032	1.9032

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Figure 11: Average and Marginal Electric Price Forecast (Nominal cents / Kwh)

		Average Price				Marginal Price			
Year	Price Deflator	Single Family	Multi Family	Master Meter	Sub Meter	Single Family	Multi Family	Master Meter	Sub Meter
2005	100.00	15.21	15.01	14.83	14.83	23.02	22.72	15.33	16.69
2006	102.80	16.70	16.48	16.27	16.27	25.27	24.93	16.82	18.31
2007	104.53	17.99	17.75	17.53	17.53	27.22	26.86	18.12	19.73
2008	106.44	18.96	18.71	18.47	18.47	28.69	28.30	19.10	20.79
2009	108.36	18.74	18.47	18.22	18.23	28.36	27.95	18.84	20.51
2010	110.25	17.80	17.54	17.29	17.30	26.94	26.54	17.88	19.46
2011	112.36	18.28	18.00	17.74	17.74	27.66	27.23	18.34	19.96
2012	115.02	17.23	16.96	16.71	16.72	26.08	25.67	17.28	18.81
2013	117.93	17.39	17.12	16.86	16.86	26.32	25.90	17.43	18.98
2014	120.84	17.63	17.35	17.08	17.09	26.68	26.25	17.66	19.23
2015	123.79	17.86	17.56	17.29	17.29	27.03	26.58	17.88	19.46
2016	126.97	18.06	17.76	17.49	17.49	27.33	26.88	18.08	19.68
2017	130.38	18.26	17.96	17.68	17.69	27.63	27.18	18.29	19.91
2018	133.90	18.45	18.16	17.89	17.89	27.92	27.48	18.49	20.13
2019	137.53	18.64	18.36	18.09	18.09	28.21	27.78	18.71	20.36
2020	141.23	18.84	18.55	18.29	18.29	28.51	28.08	18.91	20.59
2021	145.02	19.04	18.75	18.49	18.49	28.81	28.38	19.12	20.81
2022	148.90	19.23	18.95	18.69	18.69	29.10	28.67	19.33	21.04
2023	152.89	19.43	19.15	18.89	18.89	29.39	28.97	19.53	21.26
2024	156.98	19.62	19.35	19.09	19.09	29.69	29.27	19.74	21.49
2025	161.16	19.83	19.55	19.28	19.29	30.00	29.58	19.94	21.71

2006 California Gas Report - Residential
Figure 12: Gas Appliance Equipment Cost (Nominal $)

End-use	Efficiency Level	Single Family	Multi-Family	Master Meter	Sub Meter
Space Heat	Stock	4,000	1,600	1,000	1,600
	Standard	4,600	1,840	1,150	1,840
	High	4,800	1,920	1,200	1,920
	Premium	5,000	1,980	1,250	1,980
Water Heat	Stock	550	330	330	330
	Standard	650	390	390	390
	High	700	420	420	420
	Premium	750	450	450	450
Cooking	Stock	500	250	250	250
	Standard	1,400	1,400	1,400	1,400
Drying	Stock	328	328	328	328
	Standard	482	482	482	482
Pool	Stock	1,200	1,200	1,200	1,200
Spa	Stock	2,000	2,000	2,000	2,000
Fireplace	Stock	150	150	150	150
BBQ	Stock	1,000	600	600	600

2006 California Gas Report - Residential
Figure 13: Electric Appliance Equipment Cost (Nominal $)

End-use	Efficiency Level	Single Family	Multi-Family	Master Meter	Sub Meter
Space Heat	Stock	4,100	1,640	1,025	1,640
Water Heat	Stock	550	330	330	330
	Standard	650	390	390	390
	High	700	420	420	420
	Premium	750	450	450	450
Cooking	Stock	500	250	250	250
	Standard	1,400	1,400	1,400	1,400
Drying	Stock	328	328	328	328
	Standard	482	482	482	482
Pool	Stock	1,200	1,200	1,200	1,200
Spa	Stock	2,000	2,000	2,000	2,000
Fireplace	Stock	150	150	150	150
BBQ	Stock	1,000	600	600	600

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Figure 14: Building Lives and Decay Rate

Building Type	Building Decay Rate
Single-Family	0.003
Multi-Family > 4 Units	0.006
Master Meter	0.008
Sub Meter	0.008

2006 California Gas Report - Residential
Figure 15: Gas Appliance Equipment Age (Years)

			Single Family		Multi-Family		Master Meter		Sub Meter	
End-Use	Vintage	Max	Average	Max	Average	Max	Average	Max	Average	Max
Space Heat	Pre-1979	17	17	17	15	15	16	16	16	16
	1979 - 2003	17	10	17	11	15	11	16	11	16
	2004-2005	17	3	17	4	15	4	16	4	16
Water Heat	Pre-1979	7	7	7	6	8	6	8	6	8
	1979 - 2003	7	7	7	8	8	8	8	8	8
	2004-2005	7	3	7	4	8	4	8	4	8
Cooking	Pre-1979	12	12	12	10	11	14	14	14	14
	1979 - 2003	12	10	12	11	11	11	14	11	14
	2004-2005	12	2	12	4	11	3	14	3	14
Drying	Pre-1979	8	8	8	6	8	8	8	8	8
	1979 - 2003	8	8	8	8	8	8	8	8	8
	2004-2005	8	6	8	3	8	4	8	4	8
Pool	Pre-1979	13	13	13	13	13	13	13	13	13
	1979 - 2003	13	9	13	9	13	9	13	9	13
	2004-2005	13	3	13	3	13	3	13	3	13
Spa	Pre-1979	11	11	11	11	11	11	11	11	11
	1979 - 2003	11	8	11	8	11	8	11	8	11
	2004-2005	11	3	11	3	11	3	11	3	11
Fireplace	Pre-1979	15	15	15	15	15	15	15	15	15
	1979 - 2003	15	15	15	15	15	15	15	15	15
	2004-2005	15	15	15	15	15	15	15	15	15
BBQ	Pre-1979	7	7	7	5	5	5	9	5	9
	1979 - 2003	7	7	7	5	5	9	9	9	9
	2004-2005	7	5	7	5	5	2	9	2	9
Other	Pre-1979	15	15	15	15	15	15	15	15	15
	1979 - 2003	15	15	15	15	15	15	15	15	15
	2004-2005	15	15	15	15	15	15	15	15	15

2006 California Gas Report - Residential
Figure 16: End-Use Saturations

End-use	Vintage	Single Family	Multi-Family	Master Meter	Sub Meter
Space Heat	Pre-1979	0.9976	0.9664	0.9727	1.0000
	1979 - 2003	0.9969	1.0000	0.9183	1.0000
	2004-2005	0.9917	1.0000	1.0000	1.0000
Water Heat	Pre-1979	1.0000	0.9915	0.9561	1.0000
	1979 - 2003	1.0000	1.0000	0.9800	1.0000
	2004-2005	1.0000	1.0000	1.0000	1.0000
Cooking	Pre-1979	0.9892	0.9890	0.9745	0.6000
	1979 - 2003	0.9895	0.9788	0.9622	0.6000
	2004-2005	1.0000	1.0000	1.0000	1.0000
Drying	Pre-1979	0.8714	0.7781	0.9067	0.8000
	1979 - 2003	0.9301	0.8422	0.8679	0.8000
	2004-2005	0.9733	0.8672	0.5000	0.5000
Pool	Pre-1979	0.0711	0.1045	0.1179	0.1179
	1979 - 2003	0.1686	0.1941	0.0053	0.0053
	2004-2005	0.2414	0.1941	0.0053	0.0053
Spa	Pre-1979	0.1299	0.0668	0.1329	0.1329
	1979 - 2003	0.2802	0.2896	0.2012	0.2012
	2004-2005	0.2750	0.2896	0.2012	0.2012
Fireplace	Pre-1979	0.5493	0.1519	0.1894	0.1894
	1979 - 2003	0.7149	0.4775	0.4156	0.4156
	2004-2005	0.7149	0.4775	0.4156	0.4156
Barbecue	Pre-1979	0.5240	0.2706	0.1875	0.4000
	1979 - 2003	0.6040	0.3838	0.3600	0.0000
	2004-2005	0.6497	0.4576	0.0000	0.0000

2006 California Gas Report - Residential
Figure 17: Gas Fuel Shares

End-use	Single Family	Multi-Family	Master Meter	Sub Meter
Space Heat	0.9399	0.8168	0.7710	0.7304
Water Heat	0.9878	0.9673	0.9356	0.7403
Cooking	0.6621	0.7440	0.5861	0.6871
Drying	0.7592	0.6962	0.8156	0.5469
Pool	0.7263	0.7263	0.7263	0.7263
Spa	0.5462	0.5819	0.5819	0.5819
Fireplace	0.5815	0.5816	0.5816	0.5816
Barbecue	0.2814	0.2344	0.3114	0.1364

2006 California Gas Report - Residential
Figure 18: Gas Efficiency Shares

Gas End-use	Efficiency Level	Single Family		Multi-Family		Master Meter		Sub Meter	
		Existing	New	Existing	New	Existing	New	Existing	New
Space Heat	Stock	0.59	0.59	0.50	0.50	0.50	0.50	0.59	0.59
	Standard	0.34	0.34	0.48	0.48	0.48	0.48	0.34	0.34
	High	0.06	0.06	0.01	0.01	0.01	0.01	0.06	0.06
	Premium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Water Heat	Stock	0.10	0.10	0.13	0.13	0.13	0.13	0.10	0.10
	Standard	0.68	0.68	0.76	0.76	0.76	0.76	0.68	0.68
	High	0.21	0.21	0.10	0.10	0.10	0.10	0.21	0.21
	Premium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cooking	Stock	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95
	Standard	0.10	0.10	0.05	0.05	0.05	0.05	0.05	0.05
Drying	Stock	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	Standard	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Pool	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Spa	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fireplace	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Barbeque	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

2006 California Gas Report - Residential
Figure 19: Electric Efficiency Shares

Electric End-use	Efficiency Level	Single Family		Multi-Family		Master Meter		Sub Meter	
		Existing	New	Existing	New	Existing	New	Existing	New
Space Heat	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Water Heat	Stock	0.10	0.10	0.13	0.13	0.13	0.13	0.10	0.10
	Standard	0.68	0.68	0.76	0.76	0.76	0.76	0.68	0.68
	High	0.21	0.21	0.10	0.10	0.10	0.10	0.21	0.21
	Premium	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cooking	Stock	0.90	0.90	0.95	0.95	0.95	0.95	0.95	0.95
	Standard	0.10	0.10	0.05	0.05	0.05	0.05	0.05	0.05
Drying	Stock	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
	Standard	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Pool	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Spa	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fireplace	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Barbecue	Stock	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

2006 CALIFORNIA GAS REPORT

CORE COMMERCIAL AND INDUSTRIAL DEMAND FORECAST
JULY 2006

Core Commercial and Industrial End Use Model

2006 California Gas Report

Introduction

The core commercial and Industrial GN-3 gas demand forecast used the EUForecaster model to generate annual gas demand forecasts for the years 2006 through 2025.

The model segments the core commercial and industrial GN-3 markets into 14 sectors and 11 sectors by type of business activity, respectively. Business activity is determined by the NAICS code assigned to the customer and carried on the customer's billing record. A second segmentation within each specific business type involved further disaggregation into end-uses.

The gas demand forecast that results from the EUForecaster model is at the annual design HDD total of 1298 for an Average Year. The gas demand forecasts under Cold, Hot and Base temperature were then constructed based on Cold Year (Hdd = 1675), Hot Year (Hdd=921) and Base Year (Hdd=0) annual assumptions.

This *end use* forecasts under the above four temperature scenarios are then reduced for the EE/DSM savings provided by the EE/DSM group. The post-model adjustments are summarized in tables that follow.

Data Sources

The key set of information used to perform the modeling and to generate the forecast includes historical year 2005 consumption and customer counts, employment forecasts, gas and electric energy use intensity (EUI) values, end-use saturations, fuel and efficiency shares, gas and electric price forecasts, equipment age, use per meter for existing and new customers, and equipment cost. A description of each component follows:

A. <u>Historical Year 2005 Sales:</u>

The historical data are extracted from the billing tables in the Customer Information System (CIS). The gas consumption by business type was adjusted to 1298 Average Year Hdd.

B. Employment Data:

The level of employment in each business type is used as a measure of economic activity in the core commercial and industrial GN-3 demand forecast models. The employment data series matches the NAICS categories used to develop the historical consumption data. The employment data was compiled and totaled for the SDG&E' service territory. The forecast data comes from Global Insight's Winter 2006 Regional forecast released in February 2006 and based on Global Insight's January 2006 US Economic Forecast. The historical 2005 data comes from the California Employment Development Department.

C. Incremental Meter Data:

A regression equation was developed for the total GN-3 customers, using its employment as the main driver of its customer growth. Then, the total GN-3 customer forecast was split into 95% and 5% for core commercial and core industrial, respectively.

The customer forecasts for each of the 14 commercial and 11 industrial customer types were derived by applying the employment growth in each type to its base year (2005) customer counts in each type.

The 14 commercial customer forecasts were then scaled equally "across the board" year-by-year, so that their aggregated total each year would match the core commercial portion of the already-forecasted single-series forecast of active GN-3 meters in SDG&E' econometric Customer Forecast model. Likewise, the 11 industrial sector forecasts were scaled equally so their aggregate for each year would match the customer model's single-series forecast of active industrial meters.

For each commercial and industrial market and segment listed above we populated EUForecaster with the number of SDG&E customer accounts as of December 2005. The forecast of new construction was developed in a manner to achieve consistency with our Commercial econometric models. The number of new customers is based entirely on employment growth forecasts and on employment elasticities derived from our econometric demand forecast. The employment elasticities essentially show how changes in employment affect sales growth. The end-use models preserved this relationship by the development of growth indices that were derived by multiplying the employment elasticities. This

growth index was then multiplied by the stock of existing customers to provide an estimate of sale growth for EUForecaster.

D. Gas Price Data:

Average and marginal gas prices ($/Therm) were calculated from forecasts of the GN-3 rate components. We used underlying detailed consumption data to separate monthly consumption for customers by each business type into the respective G-3 consumption tiers. (The most recent 12-month period, July 2003 through June 2004 of this detailed consumption data was used.)

For a given business type, the average gas commodity rate for the 12-month period was calculated for each year. The average commodity rate in each forecast year was developed using the same monthly consumption pattern, but with the forecasts of rates for each GN-3 rate tier. The average gas price each year was then calculated by including the non-volumetric customer charges with the year's average gas commodity rate.

Each respective business type's marginal gas commodity rate (for each month) was calculated by "pricing" the entire month's consumption at the GN-3 rate's tier that was the last tier with non-zero consumption, the marginal consumption tier, for the customers of the given business type. The marginal gas price was then calculated as the simple average of the 12 monthly marginal commodity rates. The forecasts for each year used the same monthly consumption pattern, but used the projected GN-3 price of the marginal consumption tier.

E. Electric Price Data:

Both average prices (cents/kWh) and marginal prices (cents/kWh) were developed as electricity price inputs. Forecasts for the SDG&E medium commercial and industrial customer class were developed by SDG&E's electricity rate analysis group for 2006 through 2025. These were the average electricity prices for the G-10 commercial and industrial market, overall.

The marginal prices were calculated by multiplying each year's respective average price by a ratio. This ratio, 0.789, was used and is the same as the ratio used for the SoCalGas core industrial G-10 end use model.

To impute, in each year, average and marginal electricity prices to each core commercial and industrial business type, we simply calculated the ratio of the average (or marginal) gas price to the overall GN-3 commercial and industrial gas price for each business type, then multiplied by the overall average (or marginal) electricity price.

F. Building and Equipment Decay Rates:

Building decay rates are based on the building lifetimes, where the lifetime is defined as the length of time it takes for either a demolition or a major renovation where are major systems are replaced. For existing core buildings and facilities, an exponential rate of decay of 1% per year was assumed, consistent with an average remaining life for existing buildings of 100 years. A building decay rate concept is not relevant to large gas transport (non-core) customers. In both the commercial and industrial non-core models the existing building decay rate was set equal to zero.

Similarly, all new construction decay rates were assumed to be zero over the forecast horizon. This assumption was required because the growth of new buildings and facilities was tied directly to the econometric models.

End-Use lifetimes were derived from a variety of sources.

Commercial:

Space heat – 25 years
Water heat – 15 years
AC/compressor – 20 years
All other commercial end-uses – 15 years

Industrial:

Fire-tube boiler – 25 years
Water-tube boiler – 25 years
Engine (motors) – 25 years
All other industrial end-uses – 20 years

G. Equipment Saturations, Fuel Shares, and Efficiency Shares:

EUForecaster defines saturation as the percentage of customers in any segment that has a particular end use, independent of fuel shares. The commercial models developed saturation and fuel share estimates from our others end-use models. EUForecaster adjusted core commercial fuel shares according to a set of fuel-choice equations over the forecast horizon.

End-use saturations in the industrial model were initially set equal to 100%. Industrial end-use gas fuel shares were initially approximated. We then used an iterative procedure to further adjust industrial saturation and fuel shares such that the EUForecaster sales totals matched SDG&E industrial sales figures, and our estimates of electric usage by SDG&E customers. Finally, all

commercial and industrial fuel shares were held constant over the forecast horizon.

Energy efficiency varied within the major gas end-uses/processes, including all boilers, space heat, and water heat. Four levels of efficiency were assigned to gas equipment: low, medium (standard) high, and premium for core commercial and three levels of efficiency were assigned to gas equipment: low, medium (standard), and high for core industrial market. California and federal standards have effectively eliminated the lowest efficiency alternatives for several gas end-uses from being purchased as new or replacement equipment. The lowest efficiency alternative for these end uses is, therefore, allowed to exist in the base year stock, but the customer must then purchase either medium (e.g., equipment that just meets Government standards), high or premium efficiency equipment as these units decay.

For existing equipment stock, the low efficiency share was set to 50%, where as the medium efficiency share ranges from 40 to 45% and the high efficiency share ranges from 5% to 10%.

EUForecaster's choice module prorates the low share proportionately to the medium, high and premium alternatives proportionate to their shares noted above. Therefore, for replacement of new equipment stock, the medium efficiency share ranges from 80% to 90% and the high efficiency share ranges from 10% to 20%.

H. DSM Forecast:

The end-use gas demand forecast developed with EUForecaster does not capture the effects of SDG&E's EE/DSM programs. Energy savings goals from the CPUC's mandated energy efficiency/energy conservation programs for the core commercial and industrial were provided by SDG&E's DSM department. These savings are subtracted from the forecast generated by the core commercial and industrial forecasts generated by EUForecaster.

G10 COMMERCIAL DATA TABLES

2006 California Gas Report - Commercial GN3
The Year the Equipment Was Installed by Business Types

Sector	Space Heater	Water Heater	Cookto p	Griddle	Fryer	Cookin g Equipm	Kitchen Equipm ent	AC	Dryer	Engine	Other
Office	1977	1978	1974	1978	1979	1976	1980	1975	1978	1975	1973
Restaurant	1980	1983	1980	1980	1982	1981	1983	1977	1983	1978	1980
Retail	1976	1979	1977	1977	1984	1981	1977	1976	1978	1984	1977
Laundry	1979	1975	1981	1986	1986	1986	1986	1975	1976	.	1975
Warehouse	1977	1977	1975	1981	1979	1979	1939	1975	1983	1981	1978
School	1975	1977	1971	1972	1975	1972	1972	1973	1975	1974	1972
College	1974	1976	1973	1974	1975	1975	1973	1979	1974	1973	1970
Health	1976	1979	1974	1975	1977	1975	1973	1975	1977	1974	1975
Lodging	1974	1981	1975	1979	1983	1979	1984	1975	1980	1975	1981
Misc	1974	1977	1972	1972	1976	1973	1979	1974	1978	1974	1978
Government	1975	1977	1973	1979	1975	1976	1978	1975	1980	1978	1972
TIU	1975	1979	1975	1978	1982	1979	1990	1975	1983	1978	1981
Construction	1977	1977	1972	1974	1975	1974	1953	1973	1980	1975	1976
Agriculture	1982	1980	1973	1979	1980	1979	1970	1976	1971	1987	1985

2006 California Gas Report - Commercial GN3
Incremental Meter Forecast by Business Types

Year	Office	Restaurant	Retail	Laundry	Warehouse	School	College	Health	Lodging	Misc	Government	TCU	Construction	Agriculture
2006	41	-40	-32	3	-1	-3	-1	5	10	67	-6	17	26	5
2007	44	49	39	3	8	9	2	2	-3	68	8	-1	-15	-1
2008	43	29	23	3	3	1	0	3	3	82	3	11	-1	0
2009	72	33	27	0	1	12	3	2	5	13	14	11	0	1
2010	2	23	18	4	4	3	1	1	3	98	12	12	4	1
2011	45	21	17	3	1	6	2	4	3	67	-11	10	6	1
2012	31	24	19	2	2	2	1	3	3	52	13	5	6	1
2013	53	24	19	1	4	7	2	2	3	32	6	1	5	1
2014	54	18	14	2	4	5	1	3	3	46	5	4	6	1
2015	29	19	15	3	3	3	1	3	4	71	4	7	5	1
2016	30	13	11	3	4	3	1	5	4	81	4	8	5	1
2017	20	18	15	3	4	4	1	5	4	84	5	7	3	1
2018	43	25	20	2	4	3	1	4	4	53	4	8	4	1
2019	48	27	22	1	5	6	2	4	5	34	8	12	5	1
2020	25	26	21	2	3	8	2	3	4	58	15	6	4	1
2021	39	22	18	3	4	4	1	4	3	80	-10	10	3	1
2022	32	24	19	2	5	5	1	3	3	59	14	7	4	1
2023	44	22	18	2	4	5	1	3	4	60	6	9	4	1
2024	39	25	20	2	4	6	1	3	4	61	7	8	5	1
2025	41	24	19	2	4	6	2	3	4	61	7	9	5	1

2006 California Gas Report - Commercial GN3
Electric Price Forecast (Cent/KWH)

(a) Average Price Forecast

Year	Agriculture	College	Construction	Government	Health	Laundry	Lodging	Misc	Office	Restaurant	Retail	School	TCU	Warehouse
2005	16.25	16.00	16.91	15.90	16.72	17.76	16.54	18.32	16.80	18.27	17.27	17.99	16.56	16.84
2006	16.05	15.79	16.64	15.71	16.47	17.49	16.29	18.03	16.54	17.99	17.02	17.77	16.28	16.57
2007	17.32	17.05	17.93	16.96	17.76	18.81	17.57	19.37	17.82	19.33	18.33	19.10	17.55	17.86
2008	18.31	18.06	18.90	17.98	18.73	19.73	18.55	20.32	18.82	20.24	19.30	20.02	18.56	18.85
2009	18.12	17.88	18.67	17.81	18.50	19.42	18.34	20.01	18.60	19.89	19.05	19.70	18.36	18.63
2010	17.22	17.01	17.72	16.95	17.57	18.40	17.42	18.97	17.67	18.82	18.08	18.65	17.46	17.71
2011	17.65	17.42	18.18	17.36	18.02	18.90	17.86	19.51	18.13	19.35	18.56	19.17	17.90	18.16
2012	16.61	16.40	17.13	16.33	16.98	17.83	16.82	18.42	17.08	18.27	17.50	18.10	16.86	17.11
2013	16.76	16.54	17.29	16.47	17.13	17.99	16.96	18.60	17.23	18.44	17.66	18.27	17.01	17.27
2014	16.96	16.74	17.51	16.67	17.35	18.25	17.18	18.88	17.46	18.72	17.90	18.53	17.23	17.49
2015	17.15	16.91	17.73	16.84	17.56	18.50	17.38	19.15	17.67	18.99	18.13	18.80	17.43	17.70
2016	17.36	17.13	17.93	17.05	17.76	18.69	17.59	19.34	17.87	19.18	18.34	18.99	17.63	17.91
2017	17.57	17.33	18.13	17.26	17.96	18.90	17.79	19.53	18.07	19.38	18.53	19.19	17.84	18.11
2018	17.79	17.56	18.34	17.49	18.18	19.08	18.01	19.70	18.28	19.55	18.73	19.37	18.05	18.32
2019	18.02	17.80	18.55	17.74	18.39	19.26	18.23	19.85	18.49	19.70	18.92	19.53	18.27	18.53
2020	18.23	18.01	18.75	17.95	18.60	19.46	18.44	20.03	18.69	19.90	19.12	19.72	18.47	18.73
2021	18.44	18.22	18.96	18.16	18.80	19.66	18.65	20.22	18.90	20.10	19.32	19.92	18.68	18.93
2022	18.66	18.44	19.16	18.38	19.01	19.85	18.86	20.40	19.10	20.28	19.51	20.10	18.89	19.14
2023	18.87	18.65	19.36	18.59	19.22	20.05	19.07	20.59	19.30	20.47	19.71	20.30	19.09	19.34
2024	19.07	18.86	19.57	18.80	19.42	20.25	19.27	20.78	19.51	20.67	19.91	20.50	19.30	19.54
2025	19.27	19.06	19.77	19.00	19.63	20.46	19.47	20.98	19.71	20.88	20.11	20.71	19.49	19.74

(b) Marginal Price Forecast

Year	Agriculture	College	Construction	Government	Health	Laundry	Lodging	Misc	Office	Restaurant	Retail	School	TCU	Warehouse
2005	16.39	16.14	16.95	16.15	16.71	17.54	16.60	18.21	16.79	18.18	17.18	17.99	16.54	16.78
2006	16.16	15.94	16.68	15.96	16.44	17.26	16.35	17.92	16.53	17.88	16.93	17.78	16.29	16.52
2007	17.43	17.20	17.97	17.22	17.72	18.58	17.63	19.26	17.82	19.21	18.23	19.11	17.57	17.80
2008	18.44	18.22	18.95	18.24	18.71	19.52	18.62	20.16	18.80	20.12	19.19	20.02	18.57	18.79
2009	18.25	18.05	18.71	18.07	18.50	19.23	18.42	19.82	18.58	19.78	18.94	19.70	18.36	18.57
2010	17.35	17.18	17.77	17.19	17.58	18.23	17.50	18.76	17.65	18.72	17.97	18.65	17.46	17.64
2011	17.79	17.60	18.23	17.62	18.03	18.72	17.95	19.28	18.10	19.25	18.44	19.16	17.90	18.09
2012	16.75	16.57	17.18	16.58	16.98	17.66	16.90	18.21	17.06	18.17	17.39	18.09	16.86	17.04
2013	16.89	16.71	17.34	16.73	17.13	17.82	17.05	18.38	17.21	18.34	17.54	18.26	17.01	17.20
2014	17.11	16.92	17.57	16.93	17.35	18.07	17.27	18.65	17.43	18.61	17.78	18.53	17.22	17.42
2015	17.30	17.10	17.78	17.11	17.56	18.32	17.47	18.92	17.64	18.88	18.01	18.79	17.42	17.63
2016	17.51	17.31	17.98	17.33	17.77	18.51	17.68	19.11	17.85	19.07	18.21	18.98	17.63	17.84
2017	17.71	17.52	18.19	17.53	17.97	18.71	17.88	19.31	18.05	19.27	18.41	19.18	17.83	18.04
2018	17.93	17.74	18.39	17.75	18.18	18.90	18.10	19.48	18.26	19.44	18.61	19.36	18.05	18.25
2019	18.16	17.97	18.60	17.99	18.39	19.09	18.32	19.64	18.47	19.60	18.80	19.52	18.27	18.46
2020	18.36	18.18	18.80	18.20	18.60	19.28	18.52	19.83	18.68	19.80	19.01	19.72	18.47	18.66
2021	18.57	18.39	19.00	18.40	18.80	19.48	18.72	20.03	18.88	20.00	19.21	19.91	18.68	18.87
2022	18.78	18.61	19.21	18.62	19.01	19.68	18.94	20.21	19.09	20.17	19.41	20.10	18.89	19.07
2023	18.99	18.82	19.41	18.83	19.22	19.88	19.14	20.40	19.29	20.37	19.61	20.29	19.10	19.28
2024	19.20	19.02	19.61	19.04	19.42	20.08	19.35	20.60	19.49	20.57	19.81	20.49	19.30	19.48
2025	19.39	19.22	19.81	19.23	19.62	20.28	19.54	20.81	19.69	20.78	20.01	20.70	19.50	19.68

2006 California Gas Report - Commercial GN3
Gas Price Forecast ($/Therm)

(a) Average Price Forecast

Year	Price Deflator	Agriculture	College	Construction	Government	Health	Laundry	Lodging	Misc	Office	Restaurant	Retail	School	TCU	Warehouse
2005	100.00	1.002	0.986	1.042	0.980	1.030	1.094	1.019	1.129	1.036	1.126	1.064	1.109	1.021	1.038
2006	102.80	1.067	1.050	1.106	1.044	1.095	1.163	1.083	1.199	1.100	1.196	1.132	1.181	1.082	1.102
2007	104.53	1.122	1.104	1.161	1.099	1.151	1.219	1.138	1.255	1.155	1.253	1.187	1.238	1.137	1.157
2008	106.44	1.064	1.049	1.098	1.044	1.088	1.146	1.078	1.181	1.093	1.176	1.121	1.163	1.078	1.095
2009	108.36	0.998	0.985	1.028	0.981	1.019	1.070	1.010	1.102	1.024	1.096	1.049	1.085	1.011	1.026
2010	110.25	0.932	0.921	0.959	0.917	0.951	0.995	0.943	1.026	0.956	1.018	0.978	1.009	0.945	0.958
2011	112.36	0.886	0.875	0.913	0.872	0.905	0.949	0.897	0.980	0.910	0.972	0.932	0.963	0.899	0.912
2012	115.02	0.873	0.862	0.901	0.859	0.892	0.937	0.884	0.968	0.898	0.961	0.920	0.951	0.886	0.900
2013	117.93	0.854	0.843	0.881	0.840	0.873	0.917	0.865	0.948	0.878	0.940	0.900	0.931	0.867	0.880
2014	120.84	0.838	0.827	0.865	0.823	0.857	0.902	0.849	0.933	0.862	0.925	0.885	0.916	0.851	0.864
2015	123.79	0.826	0.815	0.854	0.811	0.846	0.891	0.837	0.922	0.851	0.915	0.873	0.905	0.839	0.853
2016	126.97	0.830	0.819	0.858	0.816	0.849	0.894	0.841	0.925	0.855	0.917	0.877	0.908	0.843	0.857
2017	130.38	0.856	0.845	0.884	0.842	0.876	0.921	0.867	0.952	0.881	0.945	0.904	0.935	0.870	0.883
2018	133.90	0.909	0.897	0.937	0.894	0.929	0.975	0.920	1.006	0.934	0.999	0.957	0.989	0.922	0.936
2019	137.53	0.956	0.945	0.984	0.941	0.976	1.022	0.967	1.053	0.981	1.046	1.004	1.036	0.969	0.983
2020	141.23	0.997	0.985	1.026	0.982	1.017	1.064	1.009	1.096	1.023	1.089	1.046	1.079	1.011	1.024
2021	145.02	1.038	1.025	1.067	1.022	1.058	1.106	1.049	1.138	1.063	1.131	1.087	1.121	1.051	1.065
2022	148.90	1.079	1.067	1.109	1.063	1.100	1.148	1.091	1.180	1.105	1.173	1.129	1.163	1.093	1.107
2023	152.89	1.124	1.112	1.154	1.108	1.145	1.195	1.136	1.227	1.151	1.220	1.175	1.210	1.138	1.153
2024	156.98	1.170	1.157	1.200	1.153	1.191	1.242	1.182	1.274	1.197	1.268	1.221	1.257	1.184	1.199
2025	161.16	1.197	1.184	1.228	1.180	1.219	1.271	1.210	1.303	1.224	1.297	1.249	1.286	1.211	1.226

(b) Marginal Price Forecast

Year	Price Deflator	Agriculture	College	Construction	Government	Health	Laundry	Lodging	Misc	Office	Restaurant	Retail	School	TCU	Warehouse
2005	100.00	0.958	0.944	0.991	0.944	0.977	1.026	0.971	1.065	0.982	1.063	1.004	1.052	0.967	0.981
2006	102.80	1.021	1.007	1.054	1.008	1.039	1.091	1.033	1.132	1.045	1.130	1.070	1.123	1.029	1.044
2007	104.53	1.075	1.061	1.109	1.063	1.093	1.146	1.087	1.188	1.099	1.185	1.125	1.179	1.084	1.098
2008	106.44	1.024	1.012	1.052	1.013	1.039	1.084	1.034	1.119	1.044	1.117	1.065	1.112	1.031	1.043
2009	108.36	0.962	0.952	0.987	0.953	0.976	1.014	0.971	1.045	0.980	1.043	0.999	1.039	0.969	0.979
2010	110.25	0.900	0.891	0.922	0.892	0.912	0.946	0.908	0.973	0.916	0.971	0.932	0.967	0.906	0.915
2011	112.36	0.855	0.846	0.876	0.847	0.866	0.900	0.863	0.927	0.870	0.925	0.886	0.921	0.860	0.869
2012	115.02	0.841	0.832	0.863	0.833	0.853	0.887	0.849	0.915	0.857	0.913	0.874	0.909	0.847	0.856
2013	117.93	0.823	0.814	0.844	0.814	0.834	0.868	0.830	0.895	0.838	0.893	0.854	0.889	0.828	0.837
2014	120.84	0.806	0.797	0.828	0.798	0.818	0.852	0.814	0.879	0.822	0.878	0.838	0.873	0.812	0.821
2015	123.79	0.794	0.785	0.816	0.785	0.806	0.841	0.802	0.868	0.810	0.867	0.827	0.862	0.800	0.809
2016	126.97	0.799	0.790	0.820	0.790	0.810	0.844	0.806	0.872	0.814	0.870	0.831	0.866	0.804	0.814
2017	130.38	0.824	0.815	0.846	0.816	0.836	0.871	0.832	0.899	0.840	0.897	0.857	0.893	0.830	0.839
2018	133.90	0.876	0.867	0.899	0.868	0.888	0.924	0.884	0.952	0.892	0.950	0.909	0.946	0.882	0.892
2019	137.53	0.924	0.914	0.946	0.915	0.936	0.971	0.932	0.999	0.940	0.997	0.957	0.993	0.929	0.939
2020	141.23	0.964	0.954	0.987	0.955	0.976	1.012	0.972	1.041	0.980	1.039	0.998	1.035	0.970	0.980
2021	145.02	1.004	0.994	1.027	0.995	1.016	1.053	1.012	1.083	1.020	1.081	1.038	1.076	1.010	1.020
2022	148.90	1.045	1.035	1.069	1.036	1.058	1.095	1.054	1.125	1.062	1.123	1.080	1.118	1.051	1.061
2023	152.89	1.090	1.080	1.114	1.080	1.103	1.141	1.098	1.171	1.107	1.169	1.125	1.164	1.096	1.106
2024	156.98	1.135	1.124	1.159	1.125	1.148	1.187	1.143	1.218	1.152	1.216	1.171	1.211	1.141	1.151
2025	161.16	1.161	1.151	1.186	1.151	1.175	1.214	1.170	1.246	1.179	1.244	1.198	1.239	1.167	1.178

2006 California Gas Report - Commercial GN3
Historical Throughput and Customer Counts

Segment	2005 Therm Sales	2005 Meter Count	2005 Meter Count, Existing/Old customers	2005 Meter Count New Customers	Avg Use Per Meter Existing Customers	Avg Use Per Meter New Customers	Price Elasticity	Employment Elasticities
Office	29,342,199	5,537	5,182	32	5,308	30,673	-0.135376	0.3267434
Restaurant	28,671,652	3,605	3,359	36	8,177	12,641	-0.091877	0.7372293
Retail	10,675,308	2,884	2,693	23	3,803	10,627	-0.265060	0.4336357
Laundry	5,152,202	395	371	1	13,430	26,895	-0.122795	0.2658749
Warehouse	3,412,612	579	541	4	5,462	77,719	-0.043035	0.3504214
School	4,267,735	779	723	11	5,716	4,806	0.000000	0.0000000
College	4,578,108	209	196	1	22,605	21,756	-0.037179	0.4753826
Health	7,127,727	507	477	0	14,581	0	-0.096826	0.0866466
Lodging	16,137,944	615	572	7	24,742	67,291	-0.105697	0.2778638
Misc	20,600,616	9,861	8,859	427	2,109	3,584	0.000000	0.0000000
Government	16,529,423	912	857	2	18,696	63,263	-0.095709	1.0951027
TCU	2,560,494	1,275	1,199	2	2,035	364	-0.129301	0.4683042
Construction	1,712,740	652	614	0	2,721	0	-0.161076	0.0688501
Agriculture	3,456,353	151	142	0	24,029	0	-0.315282	0.4328963
Total	154,225,113	27,962						

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Average Use Per Meter (Therm)

Sector	Space Heater	Water Heater	Cooktop	Griddle	Fryer	Other Cooking Equipment	Kitchen Equipment	AC	Dryer	Engine	Other	Total Building
Office	1,949	809	99	33	25	102	22	33	97	28	1,944	5,142
Restaurant	579	1,121	1,872	770	1,479	1,636	398	23	10	0	368	8,256
Retail	846	514	187	31	208	359	222	49	95	8	1,172	3,691
Laundry	40	632	5	1	1	8	0	1	6,348	0	5,911	12,946
Warehouse	970	282	40	11	97	111	142	110	323	96	3,122	5,304
School	2,894	976	165	12	37	303	31	37	6	40	848	5,347
College	9,786	4,834	472	139	242	581	134	612	148	208	6,656	23,812
Health	4,050	2,538	407	79	110	313	177	73	557	42	4,282	12,628
Lodging	3,796	7,754	1,070	261	334	1,303	641	63	2,020	1	8,764	26,009
Misc	774	473	96	19	31	79	25	80	31	6	522	2,135
Government	7,613	4,426	389	192	114	320	174	203	103	1,124	2,983	17,642
TCU	457	164	14	4	7	13	9	22	1	717	758	2,165
Construction	903	282	23	0	3	13	8	27	169	1	1,331	2,759
Agriculture	3,294	798	136	23	282	627	570	8	831	5,447	10,998	23,011

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Use Per Meter for New Customers (Therm)

Sector	Space Heater	Water Heater	Cooktop	Griddle	Fryer	Other Cooking Equipment	Kitchen Equipment	AC	Dryer	Engine	Other	Total Building
Office	1,949	809	99	33	25	102	22	33	97	28	1,944	5,142
Restaurant	579	1,121	1,872	770	1,479	1,636	398	23	10	0	368	8,256
Retail	846	514	187	31	208	359	222	49	95	8	1,172	3,691
Laundry	40	632	5	1	1	8	0	1	6,348	0	5,911	12,946
Warehouse	970	282	40	11	97	111	142	110	323	96	3,122	5,304
School	2,894	976	165	12	37	303	31	37	6	40	848	5,347
College	9,786	4,834	472	139	242	581	134	612	148	208	6,656	23,812
Health	4,050	2,538	407	79	110	313	177	73	557	42	4,282	12,628
Lodging	3,796	7,754	1,070	261	334	1,303	641	63	2,020	1	8,764	26,009
Misc	774	473	96	19	31	79	25	80	31	6	522	2,135
Government	7,613	4,426	389	192	114	320	174	203	103	1,124	2,983	17,642
TCU	457	164	14	4	7	13	9	22	1	717	758	2,165
Construction	903	282	23	0	3	13	8	27	169	1	1,331	2,759
Agriculture	3,294	798	136	23	282	627	570	8	831	5,447	10,998	23,011

2006 California Gas Report - Commercial GN3
UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Office	Space_Heat	1	1	0.3046	4.3149	0.65
Office	Space_Heat	1	2	0.2742	4.7464	0.3
Office	Space_Heat	1	3	0.2495	5.1779	0.04
Office	Space_Heat	1	4	0.2248	5.6094	0.01
Office	Space_Heat	2	1	6.2481	3.4519	1
Office	Space_Heat	2	2	5.6233	3.7971	0
Office	Space_Heat	2	3	5.1172	4.1423	0
Office	Space_Heat	2	4	4.6111	4.4875	0
Office	Water_Heat	1	1	0.0474	0.6712	0.4
Office	Water_Heat	1	2	0.0427	0.7384	0.5
Office	Water_Heat	1	3	0.0373	0.8055	0.08
Office	Water_Heat	1	4	0.032	0.8726	0.02
Office	Water_Heat	2	1	0.972	0.537	0.4
Office	Water_Heat	2	2	0.8748	0.5907	0.5
Office	Water_Heat	2	3	0.7654	0.6444	0.08
Office	Water_Heat	2	4	0.6561	0.6981	0.02
Office	Cooking	1	1	0.0346	0.4899	0.65
Office	Cooking	1	2	0.0311	0.5389	0.35
Office	Cooking	2	1	0.7094	0.3919	0.65
Office	Cooking	2	2	0.6385	0.4311	0.35
Office	AC_Compressor	1	1	0.1043	1.4773	0.65
Office	AC_Compressor	1	2	0.0939	1.6251	0.35
Office	AC_Compressor	2	1	2.1392	1.1819	0.65
Office	AC_Compressor	2	2	1.9253	1.3	0.35
Office	Other	1	1	0	0	1
Office	Other	2	1	0	0	0
Restaurant	Space_Heat	1	1	0.1177	1.5841	0.65
Restaurant	Space_Heat	1	2	0.1059	1.7425	0.3
Restaurant	Space_Heat	1	3	0.0964	1.9009	0.04
Restaurant	Space_Heat	1	4	0.0868	2.0593	0.01
Restaurant	Space_Heat	2	1	2.4134	1.2673	1
Restaurant	Space_Heat	2	2	2.1721	1.394	0
Restaurant	Space_Heat	2	3	1.9766	1.5207	0
Restaurant	Space_Heat	2	4	1.7811	1.6474	0
Restaurant	Water_Heat	1	1	0.8666	11.666	0.4
Restaurant	Water_Heat	1	2	0.7799	12.8326	0.5
Restaurant	Water_Heat	1	3	0.6824	13.9992	0.08
Restaurant	Water_Heat	1	4	0.5849	15.1658	0.02
Restaurant	Water_Heat	2	1	17.7736	9.3328	0.4
Restaurant	Water_Heat	2	2	15.9962	10.2661	0.5
Restaurant	Water_Heat	2	3	13.9967	11.1994	0.08
Restaurant	Water_Heat	2	4	11.9972	12.1327	0.02
Restaurant	Cook_top	1	1	1.1985	16.1343	0.65
Restaurant	Cook_top	1	2	1.0787	17.7477	0.35
Restaurant	Cook_top	2	1	24.5811	12.9074	0.65
Restaurant	Cook_top	2	2	22.123	14.1981	0.35
Restaurant	Fryer	1	1	1.0791	14.5274	0.65
Restaurant	Fryer	1	2	0.9712	15.9802	0.35
Restaurant	Fryer	2	1	22.133	11.622	0.65
Restaurant	Fryer	2	2	19.9197	12.7841	0.35
Restaurant	Griddle	1	1	0.9107	12.2603	0.65
Restaurant	Griddle	1	2	0.8197	13.4863	0.35

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
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Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Restaurant	Griddle	2	1	18.6789	9.8082	0.65
Restaurant	Griddle	2	2	16.8111	10.789	0.35
Restaurant	Other_Cooking	1	1	0.9712	13.0747	0.65
Restaurant	Other_Cooking	1	2	0.8741	14.3822	0.35
Restaurant	Other_Cooking	2	1	19.9197	10.4598	0.65
Restaurant	Other_Cooking	2	2	17.9278	11.5057	0.35
Restaurant	AC_Compressor	1	1	0.2028	2.7306	0.65
Restaurant	AC_Compressor	1	2	0.1826	3.0036	0.35
Restaurant	AC_Compressor	2	1	4.1601	2.1844	0.65
Restaurant	AC_Compressor	2	2	3.7441	2.4029	0.35
Restaurant	Other	1	1	0	0	1
Restaurant	Other	2	1	0	0	0
Retail	Space_Heat	1	1	0.2455	3.5122	0.65
Retail	Space_Heat	1	2	0.221	3.8634	0.3
Retail	Space_Heat	1	3	0.2011	4.2146	0.04
Retail	Space_Heat	1	4	0.1812	4.5658	0.01
Retail	Space_Heat	2	1	5.0356	2.8097	1
Retail	Space_Heat	2	2	4.532	3.0907	0
Retail	Space_Heat	2	3	4.1241	3.3717	0
Retail	Space_Heat	2	4	3.7163	3.6527	0
Retail	Water_Heat	1	1	0.1093	1.563	0.4
Retail	Water_Heat	1	2	0.0983	1.7193	0.5
Retail	Water_Heat	1	3	0.086	1.8756	0.08
Retail	Water_Heat	1	4	0.0738	2.0319	0.02
Retail	Water_Heat	2	1	2.2409	1.2504	0.4
Retail	Water_Heat	2	2	2.0168	1.3754	0.5
Retail	Water_Heat	2	3	1.7647	1.5004	0.08
Retail	Water_Heat	2	4	1.5126	1.6255	0.02
Retail	Cooking	1	1	0.3079	4.4039	0.65
Retail	Cooking	1	2	0.2771	4.8443	0.35
Retail	Cooking	2	1	6.3142	3.5231	0.65
Retail	Cooking	2	2	5.683	3.875	0.35
Retail	Other	1	1	0	0	1
Retail	Other	2	1	0	0	0
Laundry	Space_Heat	1	1	0.147	1.836	0.65
Laundry	Space_Heat	1	2	0.132	2.02	0.3
Laundry	Space_Heat	1	3	0.12	2.203	0.04
Laundry	Space_Heat	1	4	0.108	2.387	0.01
Laundry	Space_Heat	2	1	3.012	1.469	1
Laundry	Space_Heat	2	2	2.711	1.616	0
Laundry	Space_Heat	2	3	2.467	1.763	0
Laundry	Space_Heat	2	4	2.223	1.909	0
Laundry	Water_Heat	1	1	2.76	34.512	0.4
Laundry	Water_Heat	1	2	2.484	37.963	0.5
Laundry	Water_Heat	1	3	2.174	41.414	0.08
Laundry	Water_Heat	1	4	1.863	44.865	0.02
Laundry	Water_Heat	2	1	56.617	27.609	0.4
Laundry	Water_Heat	2	2	50.955	30.37	0.5
Laundry	Water_Heat	2	3	44.586	33.131	0.08
Laundry	Water_Heat	2	4	38.216	35.892	0.02
Laundry	Drying	1	1	14.937	186.738	0.65
Laundry	Drying	1	2	13.443	205.412	0.35

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UEC, Equipment Cost and Efficiency Shares

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Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Laundry	Drying	2	1	306.348	149.39	0.65
Laundry	Drying	2	2	275.713	164.329	0.35
Laundry	Other	1	1	0	0	1
Laundry	Other	2	1	0	0	0
Warehouse	Space_Heat	1	1	0.621	7.909	0.65
Warehouse	Space_Heat	1	2	0.559	8.7	0.3
Warehouse	Space_Heat	1	3	0.509	9.491	0.04
Warehouse	Space_Heat	1	4	0.458	10.282	0.01
Warehouse	Space_Heat	2	1	12.739	6.327	1
Warehouse	Space_Heat	2	2	11.465	6.96	0
Warehouse	Space_Heat	2	3	10.433	7.593	0
Warehouse	Space_Heat	2	4	9.401	8.225	0
Warehouse	Water_Heat	1	1	0.205	2.608	0.4
Warehouse	Water_Heat	1	2	0.184	2.869	0.5
Warehouse	Water_Heat	1	3	0.161	3.13	0.08
Warehouse	Water_Heat	1	4	0.138	3.39	0.02
Warehouse	Water_Heat	2	1	4.2	2.086	0.4
Warehouse	Water_Heat	2	2	3.78	2.295	0.5
Warehouse	Water_Heat	2	3	3.308	2.504	0.08
Warehouse	Water_Heat	2	4	2.835	2.712	0.02
Warehouse	Engine	1	1	8.884	113.127	0.65
Warehouse	Engine	1	2	7.995	124.44	0.35
Warehouse	Engine	2	1	182.207	90.502	0.65
Warehouse	Engine	2	2	163.986	99.552	0.35
Warehouse	Other	1	1	0	0	1
Warehouse	Other	2	1	0	0	0
School	Space_Heat	1	1	0.092	1.225	0.65
School	Space_Heat	1	2	0.083	1.348	0.3
School	Space_Heat	1	3	0.076	1.471	0.04
School	Space_Heat	1	4	0.068	1.593	0.01
School	Space_Heat	2	1	1.895	0.98	1
School	Space_Heat	2	2	1.705	1.078	0
School	Space_Heat	2	3	1.552	1.176	0
School	Space_Heat	2	4	1.398	1.274	0
School	Water_Heat	1	1	0.123	1.635	0.4
School	Water_Heat	1	2	0.111	1.799	0.5
School	Water_Heat	1	3	0.097	1.962	0.08
School	Water_Heat	1	4	0.083	2.126	0.02
School	Water_Heat	2	1	2.528	1.308	0.4
School	Water_Heat	2	2	2.276	1.439	0.5
School	Water_Heat	2	3	1.991	1.57	0.08
School	Water_Heat	2	4	1.707	1.701	0.02
School	Cook_top	1	1	0.046	0.61	0.65
School	Cook_top	1	2	0.041	0.671	0.35
School	Cook_top	2	1	0.943	0.488	0.65
School	Cook_top	2	2	0.849	0.537	0.35
School	Fryer	1	1	0.046	0.612	0.65
School	Fryer	1	2	0.041	0.673	0.35
School	Fryer	2	1	0.946	0.489	0.65
School	Fryer	2	2	0.851	0.538	0.35
School	Griddle	1	1	0.046	0.612	0.65
School	Griddle	1	2	0.041	0.673	0.35

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UEC, Equipment Cost and Efficiency Shares

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Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
School	Griddle	2	1	0.946	0.489	0.65
School	Griddle	2	2	0.851	0.538	0.35
School	Other_Cooking	1	1	0.046	0.61	0.65
School	Other_Cooking	1	2	0.041	0.671	0.35
School	Other_Cooking	2	1	0.943	0.488	0.65
School	Other_Cooking	2	2	0.849	0.537	0.35
School	AC_Compressor	1	1	0.065	0.866	0.65
School	AC_Compressor	1	2	0.059	0.953	0.35
School	AC_Compressor	2	1	1.339	0.693	0.65
School	AC_Compressor	2	2	1.205	0.762	0.35
School	Other	1	1	0	0	1
School	Other	2	1	0	0	0
College	Space_Heat	1	1	0.26643	3.14441	0.65
College	Space_Heat	1	2	0.23979	3.45885	0.3
College	Space_Heat	1	3	0.21821	3.77329	0.04
College	Space_Heat	1	4	0.19663	4.08773	0.01
College	Space_Heat	2	1	5.46443	2.51553	1
College	Space_Heat	2	2	4.91799	2.76708	0
College	Space_Heat	2	3	4.47537	3.01863	0
College	Space_Heat	2	4	4.03275	3.27018	0
College	Water_Heat	1	1	0.28715	3.38894	0.4
College	Water_Heat	1	2	0.25844	3.72784	0.5
College	Water_Heat	1	3	0.22613	4.06673	0.08
College	Water_Heat	1	4	0.19383	4.40563	0.02
College	Water_Heat	2	1	5.88939	2.71116	0.4
College	Water_Heat	2	2	5.30045	2.98227	0.5
College	Water_Heat	2	3	4.6379	3.25339	0.08
College	Water_Heat	2	4	3.97534	3.5245	0.02
College	Cook_top	1	1	0.0486	0.57358	0.65
College	Cook_top	1	2	0.04374	0.63093	0.35
College	Cook_top	2	1	0.99678	0.45886	0.65
College	Cook_top	2	2	0.8971	0.50475	0.35
College	Fryer	1	1	0.04857	0.57322	0.65
College	Fryer	1	2	0.04371	0.63055	0.35
College	Fryer	2	1	0.99616	0.45858	0.65
College	Fryer	2	2	0.89655	0.50444	0.35
College	Griddle	1	1	0.04857	0.57322	0.65
College	Griddle	1	2	0.04371	0.63055	0.35
College	Griddle	2	1	0.99616	0.45858	0.65
College	Griddle	2	2	0.89655	0.50444	0.35
College	Other_Cooking	1	1	0.0486	0.57358	0.65
College	Other_Cooking	1	2	0.04374	0.63093	0.35
College	Other_Cooking	2	1	0.99678	0.45886	0.65
College	Other_Cooking	2	2	0.8971	0.50475	0.35
College	AC_Compressor	1	1	0.11819	1.3949	0.65
College	AC_Compressor	1	2	0.10637	1.53439	0.35
College	AC_Compressor	2	1	2.4241	1.11592	0.65
College	AC_Compressor	2	2	2.18169	1.22752	0.35
College	Other	1	1	0	0	1
College	Other	2	1	0	0	0
Health	Space_Heat	1	1	0.06894	0.8825	0.65
Health	Space_Heat	1	2	0.06205	0.97075	0.3

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UEC, Equipment Cost and Efficiency Shares

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Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Health	Space_Heat	1	3	0.05646	1.059	0.04
Health	Space_Heat	1	4	0.05088	1.14725	0.01
Health	Space_Heat	2	1	1.41395	0.706	1
Health	Space_Heat	2	2	1.27255	0.7766	0
Health	Space_Heat	2	3	1.15802	0.8472	0
Health	Space_Heat	2	4	1.04349	0.9178	0
Health	Water_Heat	1	1	0.41709	5.33917	0.4
Health	Water_Heat	1	2	0.37538	5.87309	0.5
Health	Water_Heat	1	3	0.32846	6.407	0.08
Health	Water_Heat	1	4	0.28154	6.94092	0.02
Health	Water_Heat	2	1	8.55444	4.27134	0.4
Health	Water_Heat	2	2	7.699	4.69847	0.5
Health	Water_Heat	2	3	6.73662	5.1256	0.08
Health	Water_Heat	2	4	5.77425	5.55274	0.02
Health	Cook_top	1	1	0.26358	3.37409	0.65
Health	Cook_top	1	2	0.23722	3.7115	0.35
Health	Cook_top	2	1	5.40598	2.69927	0.65
Health	Cook_top	2	2	4.86538	2.9692	0.35
Health	Fryer	1	1	0.26358	3.37409	0.65
Health	Fryer	1	2	0.23722	3.7115	0.35
Health	Fryer	2	1	5.40598	2.69927	0.65
Health	Fryer	2	2	4.86538	2.9692	0.35
Health	Griddle	1	1	0.26358	3.37409	0.65
Health	Griddle	1	2	0.23722	3.7115	0.35
Health	Griddle	2	1	5.40598	2.69927	0.65
Health	Griddle	2	2	4.86538	2.9692	0.35
Health	Other_Cooking	1	1	0.02636	0.33743	0.65
Health	Other_Cooking	1	2	0.02372	0.37118	0.35
Health	Other_Cooking	2	1	0.54064	0.26995	0.65
Health	Other_Cooking	2	2	0.48657	0.29694	0.35
Health	Drying	1	1	0.14598	1.86871	0.65
Health	Drying	1	2	0.13138	2.05558	0.35
Health	Drying	2	1	2.99405	1.49497	0.65
Health	Drying	2	2	2.69465	1.64446	0.35
Health	AC_Compressor	1	1	0.11386	1.45749	0.65
Health	AC_Compressor	1	2	0.10247	1.60324	0.35
Health	AC_Compressor	2	1	2.3352	1.16599	0.65
Health	AC_Compressor	2	2	2.10168	1.28259	0.35
Health	Other	1	1	0	0	1
Health	Other	2	1	0	0	0
Lodging	Space_Heat	1	1	0.38698	4.85892	0.65
Lodging	Space_Heat	1	2	0.3483	5.3448	0.3
Lodging	Space_Heat	1	3	0.3169	5.8307	0.04
Lodging	Space_Heat	1	4	0.2856	6.3166	0.01
Lodging	Space_Heat	2	1	7.9369	3.8871	1
Lodging	Space_Heat	2	2	7.1432	4.2759	
Lodging	Space_Heat	2	3	6.5003	4.6646	
Lodging	Space_Heat	2	4	5.8574	5.0533	
Lodging	Water_Heat	1	1	0.6901	8.6651	0.4
Lodging	Water_Heat	1	2	0.6211	9.5317	0.5
Lodging	Water_Heat	1	3	0.5435	10.3982	0.08
Lodging	Water_Heat	1	4	0.4658	11.2647	0.02

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Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Lodging	Water_Heat	2	1	14.1542	6.9321	0.4
Lodging	Water_Heat	2	2	12.7388	7.6253	0.5
Lodging	Water_Heat	2	3	11.1465	8.3185	0.08
Lodging	Water_Heat	2	4	9.5541	9.0118	0.02
Lodging	Cook_top	1	1	0.321	4.0305	0.65
Lodging	Cook_top	1	2	0.2889	4.4335	0.35
Lodging	Cook_top	2	1	6.5837	3.2244	0.65
Lodging	Cook_top	2	2	5.9253	3.5468	0.35
Lodging	Fryer	1	1	0.4183	5.2524	0.65
Lodging	Fryer	1	2	0.3765	5.7777	0.35
Lodging	Fryer	2	1	8.5797	4.2019	0.65
Lodging	Fryer	2	2	7.7217	4.6221	0.35
Lodging	Griddle	1	1	0.4183	5.2524	0.65
Lodging	Griddle	1	2	0.3765	5.7777	0.35
Lodging	Griddle	2	1	8.5797	4.2019	0.65
Lodging	Griddle	2	2	7.7217	4.6221	0.35
Lodging	Other_Cooking	1	1	0.041	0.5148	0.65
Lodging	Other_Cooking	1	2	0.0369	0.5663	0.35
Lodging	Other_Cooking	2	1	0.8409	0.4118	0.65
Lodging	Other_Cooking	2	2	0.7568	0.453	0.35
Lodging	Drying	1	1	0.1725	2.1663	0.65
Lodging	Drying	1	2	0.1553	2.3829	0.35
Lodging	Drying	2	1	3.5386	1.733	0.65
Lodging	Drying	2	2	3.1847	1.9063	0.35
Lodging	AC_Compressor	1	1	0.057	0.7157	0.65
Lodging	AC_Compressor	1	2	0.0513	0.7872	0.35
Lodging	AC_Compressor	2	1	1.169	0.5725	0.65
Lodging	AC_Compressor	2	2	1.0521	0.6298	0.35
Lodging	Other	1	1	0	0	1
Lodging	Other	2	1	0	0	0
Misc	Space_Heat	1	1	0.1469	2.1455	0.65
Misc	Space_Heat	1	2	0.1322	2.36	0.3
Misc	Space_Heat	1	3	0.1203	2.5746	0.04
Misc	Space_Heat	1	4	0.1084	2.7891	0.01
Misc	Space_Heat	2	1	3.0121	1.7164	1
Misc	Space_Heat	2	2	2.7109	1.888	0
Misc	Space_Heat	2	3	2.4669	2.0597	0
Misc	Space_Heat	2	4	2.2229	2.2313	0
Misc	Water_Heat	1	1	0.2013	2.9412	0.4
Misc	Water_Heat	1	2	0.1812	3.2354	0.5
Misc	Water_Heat	1	3	0.1585	3.5295	0.08
Misc	Water_Heat	1	4	0.1359	3.8236	0.02
Misc	Water_Heat	2	1	4.1292	2.353	0.4
Misc	Water_Heat	2	2	3.7163	2.5883	0.5
Misc	Water_Heat	2	3	3.2518	2.8236	0.08
Misc	Water_Heat	2	4	2.7872	3.0589	0.02
Misc	Cook_top	1	1	0.043	0.6282	0.65
Misc	Cook_top	1	2	0.0387	0.691	0.35
Misc	Cook_top	2	1	0.8819	0.5025	0.65
Misc	Cook_top	2	2	0.7937	0.5528	0.35
Misc	Fryer	1	1	0.043	0.6285	0.65
Misc	Fryer	1	2	0.0387	0.6913	0.35

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Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Misc	Fryer	2	1	0.8823	0.5028	0.65
Misc	Fryer	2	2	0.7941	0.5531	0.35
Misc	Griddle	1	1	0.043	0.6285	0.65
Misc	Griddle	1	2	0.0387	0.6913	0.35
Misc	Griddle	2	1	0.8823	0.5028	0.65
Misc	Griddle	2	2	0.7941	0.5531	0.35
Misc	Other_Cooking	1	1	0.043	0.6282	0.65
Misc	Other_Cooking	1	2	0.0387	0.691	0.35
Misc	Other_Cooking	2	1	0.8819	0.5025	0.65
Misc	Other_Cooking	2	2	0.7937	0.5528	0.35
Misc	AC_Compressor	1	1	0.1322	1.9306	0.65
Misc	AC_Compressor	1	2	0.1189	2.1237	0.35
Misc	AC_Compressor	2	1	2.7104	1.5445	0.65
Misc	AC_Compressor	2	2	2.4394	1.6989	0.35
Misc	Other	1	1	0	0	1
Misc	Other	2	1	0	0	0
Government	Space_Heat	1	1	0.3046	3.815	0.65
Government	Space_Heat	1	2	0.2742	4.1965	0.3
Government	Space_Heat	1	3	0.2495	4.578	0.04
Government	Space_Heat	1	4	0.2248	4.9595	0.01
Government	Space_Heat	2	1	6.2481	3.052	1
Government	Space_Heat	2	2	5.6233	3.3572	0
Government	Space_Heat	2	3	5.1172	3.6624	0
Government	Space_Heat	2	4	4.6111	3.9676	0
Government	Water_Heat	1	1	0.0474	0.5935	0.4
Government	Water_Heat	1	2	0.0427	0.6528	0.5
Government	Water_Heat	1	3	0.0373	0.7122	0.08
Government	Water_Heat	1	4	0.032	0.7715	0.02
Government	Water_Heat	2	1	0.972	0.4748	0.4
Government	Water_Heat	2	2	0.8748	0.5222	0.5
Government	Water_Heat	2	3	0.7654	0.5697	0.08
Government	Water_Heat	2	4	0.6561	0.6172	0.02
Government	Cook_top	1	1	0.0346	0.4333	0.65
Government	Cook_top	1	2	0.0311	0.4766	0.35
Government	Cook_top	2	1	0.7096	0.3466	0.65
Government	Cook_top	2	2	0.6387	0.3813	0.35
Government	Fryer	1	1	0.0346	0.4332	0.65
Government	Fryer	1	2	0.0311	0.4765	0.35
Government	Fryer	2	1	0.7094	0.3465	0.65
Government	Fryer	2	2	0.6385	0.3812	0.35
Government	Griddle	1	1	0.0346	0.4332	0.65
Government	Griddle	1	2	0.0311	0.4765	0.35
Government	Griddle	2	1	0.7094	0.3465	0.65
Government	Griddle	2	2	0.6385	0.3812	0.35
Government	Other_Cooking	1	1	0.0346	0.4333	0.65
Government	Other_Cooking	1	2	0.0311	0.4766	0.35
Government	Other_Cooking	2	1	0.7096	0.3466	0.65
Government	Other_Cooking	2	2	0.6387	0.3813	0.35
Government	AC_Compressor	1	1	0.1043	1.3062	0.65
Government	AC_Compressor	1	2	0.0939	1.4368	0.35
Government	AC_Compressor	2	1	2.1392	1.0449	0.65
Government	AC_Compressor	2	2	1.9253	1.1494	0.35

2006 California Gas Report - Commercial GN3
UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Government	Other	1	1	0	0	1
Government	Other	2	1	0	0	0
TCU	Space_Heat	1	1	0.1469	1.8457	0.65
TCU	Space_Heat	1	2	0.1322	2.0303	0.3
TCU	Space_Heat	1	3	0.1203	2.2149	0.04
TCU	Space_Heat	1	4	0.1084	2.3995	0.01
TCU	Space_Heat	2	1	3.0121	1.4766	1
TCU	Space_Heat	2	2	2.7109	1.6242	0
TCU	Space_Heat	2	3	2.4669	1.7719	0
TCU	Space_Heat	2	4	2.2229	1.9196	0
TCU	Water_Heat	1	1	0.2013	2.5303	0.4
TCU	Water_Heat	1	2	0.1812	2.7833	0.5
TCU	Water_Heat	1	3	0.1585	3.0364	0.08
TCU	Water_Heat	1	4	0.1359	3.2894	0.02
TCU	Water_Heat	2	1	4.1292	2.0243	0.4
TCU	Water_Heat	2	2	3.7163	2.2267	0.5
TCU	Water_Heat	2	3	3.2518	2.4291	0.08
TCU	Water_Heat	2	4	2.7872	2.6315	0.02
TCU	Engine	1	1	2.4409	30.6768	0.65
TCU	Engine	1	2	2.1968	33.7445	0.35
TCU	Engine	2	1	50.0617	24.5415	0.65
TCU	Engine	2	2	45.0556	26.9956	0.35
TCU	Other	1	1	0	0	1
TCU	Other	2	1	0	0	0
Construction	Space_Heat	1	1	0.1469	2.2951	0.65
Construction	Space_Heat	1	2	0.1322	2.5246	0.3
Construction	Space_Heat	1	3	0.1203	2.7542	0.04
Construction	Space_Heat	1	4	0.1084	2.9837	0.01
Construction	Space_Heat	2	1	3.0121	1.8361	1
Construction	Space_Heat	2	2	2.7109	2.0197	0
Construction	Space_Heat	2	3	2.4669	2.2033	0
Construction	Space_Heat	2	4	2.2229	2.3869	0
Construction	Water_Heat	1	1	0.2013	3.1464	0.4
Construction	Water_Heat	1	2	0.1812	3.461	0.5
Construction	Water_Heat	1	3	0.1585	3.7757	0.08
Construction	Water_Heat	1	4	0.1359	4.0903	0.02
Construction	Water_Heat	2	1	4.1292	2.5171	0.4
Construction	Water_Heat	2	2	3.7163	2.7688	0.5
Construction	Water_Heat	2	3	3.2518	3.0205	0.08
Construction	Water_Heat	2	4	2.7872	3.2722	0.02
Construction	Other	1	1	0	0	1
Construction	Other	2	1	0	0	0
Agriculture	Space_Heat	1	1	0.1469	1.6583	0.65
Agriculture	Space_Heat	1	2	0.1322	1.8242	0.3
Agriculture	Space_Heat	1	3	0.1203	1.99	0.04
Agriculture	Space_Heat	1	4	0.1084	2.1558	0.01
Agriculture	Space_Heat	2	1	3.0121	1.3267	1
Agriculture	Space_Heat	2	2	2.7109	1.4593	0
Agriculture	Space_Heat	2	3	2.4669	1.592	0
Agriculture	Space_Heat	2	4	2.2229	1.7247	0
Agriculture	Water_Heat	1	1	0.2013	2.2734	0.4
Agriculture	Water_Heat	1	2	0.1812	2.5008	0.5

2006 California Gas Report - Commercial GN3
UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Types	End Use	Fuel	Efficiency	UEC (therm/SqFt)	Equipment Cost	Efficiency shares
Agriculture	Water_Heat	1	3	0.1585	2.7281	0.08
Agriculture	Water_Heat	1	4	0.1359	2.9554	0.02
Agriculture	Water_Heat	2	1	4.1292	1.8187	0.4
Agriculture	Water_Heat	2	2	3.7163	2.0006	0.5
Agriculture	Water_Heat	2	3	3.2518	2.1825	0.08
Agriculture	Water_Heat	2	4	2.7872	2.3644	0.02
Agriculture	Drying	1	1	0.2013	2.2734	0.65
Agriculture	Drying	1	2	0.1812	2.5008	0.35
Agriculture	Drying	2	1	4.1292	1.8187	0.65
Agriculture	Drying	2	2	3.7163	2.0006	0.35
Agriculture	Engine	1	1	0.8657	9.7757	0.65
Agriculture	Engine	1	2	0.7791	10.7533	0.35
Agriculture	Engine	2	1	17.7557	7.8206	0.65
Agriculture	Engine	2	2	15.9802	8.6026	0.35
Agriculture	Other	1	1	0	0	1
Agriculture	Other	2	1	0	0	0

2006 California Gas Report - Commercial GN3
Fuel Market Share

Where Fuel = 1 (gas) and 2 (electric)

Business Types	End Use	Fuel	Share
Office	Space_Heat	1	0.8555
Office	Space_Heat	2	0.1445
Office	Water_Heat	1	0.16581
Office	Water_Heat	2	0.83419
Office	Cooking	1	0.02069
Office	Cooking	2	0.97931
Office	AC_Compressor	1	0.06
Office	AC_Compressor	2	0.94
Office	Other	1	1
Restaurant	Space_Heat	1	0.59046
Restaurant	Space_Heat	2	0.40954
Restaurant	Water_Heat	1	0.90204
Restaurant	Water_Heat	2	0.09796
Restaurant	Cook_top	1	0.97733
Restaurant	Cook_top	2	0.02267
Restaurant	Fryer	1	0.90535
Restaurant	Fryer	2	0.09465
Restaurant	Griddle	1	0.97038
Restaurant	Griddle	2	0.02962
Restaurant	Other_Cooking	1	0.66
Restaurant	Other_Cooking	2	0.34
Restaurant	AC_Compressor	1	0.06
Restaurant	AC_Compressor	2	0.94
Restaurant	Other	1	1
Retail	Space_Heat	1	0.51751
Retail	Space_Heat	2	0.48249
Retail	Water_Heat	1	0.31008
Retail	Water_Heat	2	0.68992
Retail	Cooking	1	0.09367
Retail	Cooking	2	0.90633
Retail	Other	1	1
Laundry	Space_Heat	1	0.57692
Laundry	Space_Heat	2	0.42308
Laundry	Water_Heat	1	0.67647
Laundry	Water_Heat	2	0.32353
Laundry	Drying	1	0.6
Laundry	Drying	2	0.4
Laundry	Other	1	1
Warehouse	Space_Heat	1	0.43723
Warehouse	Space_Heat	2	0.56277
Warehouse	Water_Heat	1	0.07159
Warehouse	Water_Heat	2	0.92841
Warehouse	Engine	1	0.06
Warehouse	Engine	2	0.94
Warehouse	Other	1	1
School	Space_Heat	1	0.75284
School	Space_Heat	2	0.24716
School	Water_Heat	1	0.75843
School	Water_Heat	2	0.24157
School	Cook_top	1	0.42857
School	Cook_top	2	0.57143
School	Fryer	1	0.42857
School	Fryer	2	0.57143
School	Griddle	1	0.42857

2006 California Gas Report - Commercial GN3
Fuel Market Share

Where Fuel = 1 (gas) and 2 (electric)

Business Types	End Use	Fuel	Share
School	Griddle	2	0.57143
School	Other_Cooking	1	0.42857
School	Other_Cooking	2	0.57143
School	AC_Compressor	1	0.06
School	AC_Compressor	2	0.94
School	Other	1	1
College	Space_Heat	1	0.33028
College	Space_Heat	2	0.66972
College	Water_Heat	1	0.81675
College	Water_Heat	2	0.18325
College	Cook_top	1	0.04801
College	Cook_top	2	0.95199
College	Fryer	1	0.04801
College	Fryer	2	0.95199
College	Griddle	1	0.04801
College	Griddle	2	0.95199
College	Other_Cooking	1	0.04801
College	Other_Cooking	2	0.95199
College	AC_Compressor	1	0.06
College	AC_Compressor	2	0.94
College	Other	1	1
Health	Space_Heat	1	0.66026
Health	Space_Heat	2	0.33974
Health	Water_Heat	1	0.8242
Health	Water_Heat	2	0.1758
Health	Cook_top	1	0.09487
Health	Cook_top	2	0.90513
Health	Fryer	1	0.09487
Health	Fryer	2	0.90513
Health	Griddle	1	0.09487
Health	Griddle	2	0.90513
Health	Other_Cooking	1	0.66
Health	Other_Cooking	2	0.34
Health	Drying	1	0.6
Health	Drying	2	0.4
Health	AC_Compressor	1	0.06
Health	AC_Compressor	2	0.94
Health	Other	1	1
Lodging	Space_Heat	1	0.27151
Lodging	Space_Heat	2	0.72849
Lodging	Water_Heat	1	0.98948
Lodging	Water_Heat	2	0.01052
Lodging	Cook_top	1	0.44958
Lodging	Cook_top	2	0.55042
Lodging	Fryer	1	0.44958
Lodging	Fryer	2	0.55042
Lodging	Griddle	1	0.44958
Lodging	Griddle	2	0.55042
Lodging	Other_Cooking	1	0.44958
Lodging	Other_Cooking	2	0.55042
Lodging	Drying	1	0.6
Lodging	Drying	2	0.4
Lodging	AC_Compressor	1	0.06
Lodging	AC_Compressor	2	0.94

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Fuel Market Share

Where Fuel = 1 (gas) and 2 (electric)

Business Types	End Use	Fuel	Share
Lodging	Other	1	1
Misc	Space_Heat	1	0.54964
Misc	Space_Heat	2	0.45036
Misc	Water_Heat	1	0.55691
Misc	Water_Heat	2	0.44309
Misc	Cook_top	1	0.97733
Misc	Cook_top	2	0.02267
Misc	Fryer	1	0.90535
Misc	Fryer	2	0.09465
Misc	Griddle	1	0.97038
Misc	Griddle	2	0.02962
Misc	Other_Cooking	1	0.66
Misc	Other_Cooking	2	0.34
Misc	AC_Compressor	1	0.06
Misc	AC_Compressor	2	0.94
Misc	Other	1	1
Government	Space_Heat	1	0.8555
Government	Space_Heat	2	0.1445
Government	Water_Heat	1	0.16581
Government	Water_Heat	2	0.83419
Government	Cook_top	1	0.97733
Government	Cook_top	2	0.02267
Government	Fryer	1	0.90535
Government	Fryer	2	0.09465
Government	Griddle	1	0.97038
Government	Griddle	2	0.02962
Government	Other_Cooking	1	0.66
Government	Other_Cooking	2	0.34
Government	AC_Compressor	1	0.06
Government	AC_Compressor	2	0.94
Government	Other	1	1
TCU	Space_Heat	1	0.57692
TCU	Space_Heat	2	0.42308
TCU	Water_Heat	1	0.67647
TCU	Water_Heat	2	0.32353
TCU	Engine	1	0.06
TCU	Engine	2	0.94
TCU	Other	1	1
Construction	Space_Heat	1	0.57692
Construction	Space_Heat	2	0.42308
Construction	Water_Heat	1	0.67647
Construction	Water_Heat	2	0.32353
Construction	Other	1	1
Agriculture	Space_Heat	1	0.57692
Agriculture	Space_Heat	2	0.42308
Agriculture	Water_Heat	1	0.67647
Agriculture	Water_Heat	2	0.32353
Agriculture	Drying	1	1
Agriculture	Drying	2	0
Agriculture	Engine	1	0.06
Agriculture	Engine	2	0.94
Agriculture	Other	1	1
Grocery	Space_Heat	1	0.74652
Grocery	Space_Heat	2	0.25348

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Fuel Market Share

Where Fuel = 1 (gas) and 2 (electric)

Business Types	End Use	Fuel	Share
Grocery	Water_Heat	1	0.70846
Grocery	Water_Heat	2	0.29154
Grocery	Cook_top	1	0.35627
Grocery	Cook_top	2	0.64373
Grocery	Fryer	1	0.35627
Grocery	Fryer	2	0.64373
Grocery	Griddle	1	0.35627
Grocery	Griddle	2	0.64373
Grocery	Other_Cooking	1	0.35627
Grocery	Other_Cooking	2	0.64373
Grocery	AC_Compressor	1	0.06
Grocery	AC_Compressor	2	0.94
Grocery	Other	1	1

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Saturation Rate

Business Type	End Use	Saturation
Office	Space_Heat	0.872
Office	Water_Heat	0.7
Office	Cooking	0.082
Office	AC_Compressor	0.931
Office	Other	1
Restaurant	Space_Heat	0.818
Restaurant	Water_Heat	0.96
Restaurant	Cook_top	0.75
Restaurant	Fryer	0.729
Restaurant	Griddle	0.574
Restaurant	Other_Cooking	0.9
Restaurant	AC_Compressor	0.871
Restaurant	Other	1
Retail	Space_Heat	0.771
Retail	Water_Heat	0.62
Retail	Cooking	0.245
Retail	Other	1
Laundry	Space_Heat	0.72
Laundry	Water_Heat	1
Laundry	Drying	1
Laundry	Other	1
Warehouse	Space_Heat	0.231
Warehouse	Water_Heat	0.88
Warehouse	Engine	0.25
Warehouse	Other	1
School	Space_Heat	0.967
School	Water_Heat	0.9
School	Cook_top	0.147
School	Fryer	0.147
School	Griddle	0.147
School	Other_Cooking	0.147
School	AC_Compressor	0.885
School	Other	1
College	Space_Heat	0.763
College	Water_Heat	0.955
College	Cook_top	0.147
College	Fryer	0.147
College	Griddle	0.147
College	Other_Cooking	0.147
College	AC_Compressor	0.885
College	Other	1
Health	Space_Heat	0.936
Health	Water_Heat	1
Health	Cook_top	0.102
Health	Fryer	0.102
Health	Griddle	0.102
Health	Other_Cooking	0.102
Health	Drying	0.82
Health	AC_Compressor	0.792
Health	Other	1
Lodging	Space_Heat	0.895
Lodging	Water_Heat	1
Lodging	Cook_top	0.084
Lodging	Fryer	0.084
Lodging	Griddle	0.084
Lodging	Other_Cooking	0.084

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Saturation Rate

Business Type	End Use	Saturation
Lodging	Drying	0.82
Lodging	AC_Compressor	0.795
Lodging	Other	1
Misc	Space_Heat	0.695
Misc	Water_Heat	0.69
Misc	Cook_top	0.021
Misc	Fryer	0.021
Misc	Griddle	0.021
Misc	Other_Cooking	0.021
Misc	AC_Compressor	0.731
Misc	Other	1
Government	Space_Heat	0.872
Government	Water_Heat	0.7
Government	Cook_top	0.196
Government	Fryer	0.196
Government	Griddle	0.196
Government	Other_Cooking	0.196
Government	AC_Compressor	0.888
Government	Other	1
TCU	Space_Heat	0.72
TCU	Water_Heat	0.69
TCU	Engine	0.5
TCU	Other	1
Construction	Space_Heat	0.72
Construction	Water_Heat	0.69
Construction	Other	1
Agriculture	Space_Heat	0.72
Agriculture	Water_Heat	0.69
Agriculture	Drying	1
Agriculture	Engine	0.5
Agriculture	Other	1
Grocery	Space_Heat	0.647
Grocery	Water_Heat	0.93
Grocery	Cook_top	0.245
Grocery	Fryer	0.245
Grocery	Griddle	0.245
Grocery	Other_Cooking	0.245
Grocery	AC_Compressor	0.856
Grocery	Other	1

2006 California Gas Report - Commercial GN3
Employment Forecast (in millions)

YEAR	Office	Restaurant	Retail	Laundry	Warehouse	School	College	Health	Lodging	Misc	Government	TCU	Construction	Agriculture	Total
2005	0.2904	0.0980	0.1612	0.0122	0.0468	0.0892	0.0297	0.1018	0.0292	0.0452	0.1169	0.0653	0.0914	0.0107	1.1879
2006	0.2954	0.0979	0.1609	0.0124	0.0472	0.0897	0.0299	0.1038	0.0299	0.0460	0.1173	0.0669	0.0960	0.0112	1.2043
2007	0.3022	0.0988	0.1625	0.0126	0.0481	0.0911	0.0304	0.1059	0.0305	0.0469	0.1185	0.0683	0.0983	0.0115	1.2258
2008	0.3092	0.0999	0.1642	0.0129	0.0491	0.0918	0.0306	0.1079	0.0310	0.0480	0.1191	0.0697	0.0999	0.0118	1.2452
2009	0.3177	0.1010	0.1660	0.0131	0.0496	0.0933	0.0311	0.1096	0.0315	0.0487	0.1205	0.0713	0.1006	0.0121	1.2660
2010	0.3243	0.1020	0.1677	0.0133	0.0502	0.0945	0.0315	0.1105	0.0319	0.0495	0.1227	0.0730	0.1012	0.0124	1.2847
2011	0.3313	0.1029	0.1693	0.0136	0.0504	0.0957	0.0319	0.1116	0.0323	0.0503	0.1226	0.0748	0.1020	0.0126	1.3015
2012	0.3387	0.1041	0.1711	0.0138	0.0506	0.0967	0.0322	0.1128	0.0327	0.0512	0.1236	0.0766	0.1033	0.0129	1.3202
2013	0.3477	0.1054	0.1733	0.0140	0.0509	0.0982	0.0327	0.1139	0.0330	0.0520	0.1248	0.0781	0.1049	0.0131	1.3421
2014	0.3584	0.1067	0.1754	0.0142	0.0513	0.0996	0.0332	0.1150	0.0334	0.0528	0.1260	0.0795	0.1068	0.0134	1.3656
2015	0.3692	0.1079	0.1775	0.0144	0.0516	0.1010	0.0337	0.1162	0.0338	0.0536	0.1272	0.0808	0.1089	0.0137	1.3894
2016	0.3799	0.1089	0.1791	0.0147	0.0520	0.1022	0.0341	0.1178	0.0342	0.0546	0.1281	0.0822	0.1112	0.0140	1.4128
2017	0.3899	0.1098	0.1806	0.0150	0.0524	0.1033	0.0344	0.1198	0.0346	0.0556	0.1290	0.0836	0.1133	0.0143	1.4357
2018	0.4006	0.1107	0.1821	0.0153	0.0529	0.1041	0.0347	0.1220	0.0350	0.0567	0.1296	0.0849	0.1155	0.0146	1.4587
2019	0.4117	0.1116	0.1836	0.0155	0.0533	0.1049	0.0350	0.1242	0.0354	0.0575	0.1302	0.0864	0.1176	0.0149	1.4818
2020	0.4223	0.1126	0.1852	0.0157	0.0538	0.1060	0.0353	0.1263	0.0359	0.0583	0.1321	0.0878	0.1198	0.0152	1.5062
2021	0.4334	0.1136	0.1867	0.0159	0.0542	0.1070	0.0357	0.1288	0.0363	0.0591	0.1318	0.0893	0.1218	0.0155	1.5292
2022	0.4447	0.1146	0.1885	0.0162	0.0547	0.1081	0.0360	0.1312	0.0367	0.0600	0.1327	0.0908	0.1240	0.0159	1.5541
2023	0.4569	0.1156	0.1902	0.0164	0.0553	0.1092	0.0364	0.1337	0.0371	0.0609	0.1335	0.0924	0.1261	0.0162	1.5799
2024	0.4695	0.1167	0.1919	0.0167	0.0559	0.1104	0.0368	0.1361	0.0375	0.0618	0.1344	0.0939	0.1283	0.0166	1.6062
2025	0.4825	0.1177	0.1936	0.0169	0.0564	0.1116	0.0372	0.1384	0.0378	0.0626	0.1354	0.0955	0.1306	0.0169	1.6332

2006 California Gas Report - Commercial GN3
Core Commercial Demand Forecast
Avg Temperature (Mdth)

YEAR	Model Output GN3-Com	DSM	Total Com-GN3
2005	15,423	0	15,423
2006	15,441	169	15,272
2007	15,525	362	15,163
2008	15,790	620	15,170
2009	16,089	907	15,182
2010	16,380	1,221	15,158
2011	16,604	1,564	15,040
2012	16,795	1,934	14,861
2013	17,020	2,333	14,688
2014	17,251	2,731	14,520
2015	17,477	3,130	14,347
2016	17,673	3,359	14,315
2017	17,834	3,565	14,269
2018	17,956	3,704	14,251
2019	18,086	3,816	14,270
2020	18,251	3,900	14,351
2021	18,376	3,956	14,420
2022	18,526	3,984	14,542
2023	18,676	3,984	14,692
2024	18,828	3,984	14,844
2025	19,007	3,984	15,023

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Core Commercial Demand Forecast
Cold Temperature (Mdth)

YEAR	Model Output GN3-Com	DSM	Total Com-GN3
2005	16,388	0	16,388
2006	16,408	180	16,228
2007	16,497	384	16,112
2008	16,779	659	16,120
2009	17,097	964	16,133
2010	17,405	1,298	16,108
2011	17,644	1,662	15,982
2012	17,847	2,056	15,791
2013	18,086	2,479	15,607
2014	18,331	2,902	15,429
2015	18,571	3,326	15,246
2016	18,780	3,569	15,211
2017	18,951	3,788	15,163
2018	19,080	3,936	15,144
2019	19,219	4,055	15,164
2020	19,394	4,144	15,250
2021	19,527	4,204	15,323
2022	19,686	4,233	15,452
2023	19,845	4,233	15,612
2024	20,007	4,233	15,773
2025	20,197	4,233	15,964

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Core Commercial Demand Forecast
Hot Temperature (Mdth)

YEAR	Model Output GN3-Com	DSM	Total Com-GN3
2005	14,457	0	14,457
2006	14,474	159	14,315
2007	14,552	339	14,213
2008	14,801	582	14,220
2009	15,081	850	14,231
2010	15,354	1,145	14,209
2011	15,564	1,466	14,098
2012	15,743	1,813	13,930
2013	15,955	2,187	13,768
2014	16,170	2,560	13,610
2015	16,382	2,934	13,449
2016	16,567	3,148	13,418
2017	16,717	3,341	13,376
2018	16,831	3,472	13,359
2019	16,954	3,577	13,376
2020	17,108	3,656	13,452
2021	17,225	3,708	13,517
2022	17,366	3,734	13,631
2023	17,506	3,734	13,772
2024	17,649	3,734	13,914
2025	17,817	3,734	14,082

2006 California Gas Report - Commercial GN3
Core Commercial Demand Forecast
Base ("Zero Hdd") Temperature (Mdth)

YEAR	Model Output GN3-Com	DSM	Total Com-GN3
2005	12,097	0	12,097
2006	12,112	133	11,979
2007	12,177	284	11,894
2008	12,386	487	11,899
2009	12,620	711	11,909
2010	12,848	958	11,890
2011	13,024	1,227	11,798
2012	13,174	1,517	11,657
2013	13,351	1,830	11,521
2014	13,531	2,142	11,389
2015	13,709	2,455	11,254
2016	13,863	2,635	11,228
2017	13,989	2,796	11,193
2018	14,085	2,906	11,179
2019	14,187	2,993	11,193
2020	14,316	3,059	11,257
2021	14,414	3,103	11,311
2022	14,532	3,125	11,407
2023	14,649	3,125	11,524
2024	14,768	3,125	11,643
2025	14,909	3,125	11,784

G10 INDUSTRIAL DATA TABLES

2006 California Gas Report - Industrial GN3
The Year the Equipment Was Installed by Business Types

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Chemical	1980	1980	1976	1977	1967	1976	1974	1980	1979
Fabricated_Metal	1982	1981	1976	1977	1979	1979	1976	1972	1976
Food	1980	1982	1975	1978	1976	1983	1970	1987	1977
Mining	1981	1974	1978	1978	1968	1980	1973	1980	1975
Misc	1979	1980	1976	1976	1978	1978	1976	1979	1977
Petroleum	1980	1981	1974	1977	1975	1979	.	1972	1978
Primary_Metal	1986	1979	1975	1976	1976	1977	1978	.	1974
Stone	1980	1973	1975	1977	1980	1978	1982	.	1977
Textile	1985	1979	1977	1978	1981	1976	1976	.	1979
Transport	1980	1978	1976	1976	1980	1980	1974	1988	1976
Wood_Paper	1979	1975	1975	1976	1976	1976	1976	.	1980

2006 California Gas Report - Industrial GN3
Incremental Meter Forecast by Business Types

Year	Mining	Food	Textile	Wood-Paper	Chemical	Petroleum	Stone	Primary-Metal	Fabricated-Metal	Transportation	Miscellaneous
2006	0	1	0	0	0	0	0	0	1	0	2
2007	0	7	0	0	0	0	1	0	5	1	-3
2008	0	-1	0	0	0	0	-1	0	-4	0	17
2009	0	2	1	0	0	0	0	0	1	1	6
2010	0	3	1	0	1	0	0	0	-1	0	6
2011	0	3	0	0	1	0	1	0	1	0	3
2012	0	0	0	0	0	0	0	0	1	0	7
2013	0	1	0	0	0	0	0	0	0	0	6
2014	0	2	0	0	1	0	0	0	0	1	5
2015	0	2	0	0	1	0	0	0	2	0	4
2016	0	2	0	0	1	0	0	0	0	0	5
2017	0	2	0	0	1	0	0	0	0	1	4
2018	0	2	0	0	1	0	1	0	0	0	5
2019	0	2	0	0	1	0	0	0	1	1	5
2020	0	2	0	0	1	0	0	0	1	0	5
2021	0	2	0	0	1	0	0	0	1	0	5
2022	0	2	0	0	0	0	0	0	1	0	5
2023	0	2	0	0	1	0	0	0	1	0	5
2024	0	2	0	0	0	0	0	0	1	0	5
2025	0	2	0	0	0	0	0	0	1	0	5

2006 California Gas Report - Industrial GN3
Electric Price Forecast (Cent/KWH)

(a) Average Price Forecast

Year	Chemical	Fab_Metal	Food	Mining	Petroleum	_Prim_Metal	Stone	Textile	Transport	Wood_Paper	Misc
2005	14.8730	15.6293	15.2092	15.4104	16.4162	15.4266	15.0599	15.9312	14.4946	15.3088	15.0379
2006	13.5422	14.1922	13.8511	14.0080	14.8729	14.0139	13.6844	14.4715	13.2079	13.9038	13.6801
2007	14.6041	15.2780	14.9241	15.0874	15.9846	15.0936	14.7516	15.5674	14.2570	14.9787	14.7466
2008	15.4285	16.0777	15.7390	15.8897	16.7460	15.8943	15.5703	16.3581	15.1009	15.7923	15.5712
2009	15.2558	15.8606	15.5470	15.6815	16.4719	15.6846	15.3878	16.1232	14.9570	15.5974	15.3937
2010	14.4971	15.0480	14.7642	14.8813	15.5948	14.8830	14.6172	15.2887	14.2305	14.8108	14.6272
2011	14.8615	15.4490	15.1466	15.2707	16.0307	15.2725	14.9896	15.7057	14.5780	15.1963	15.0009
2012	13.9956	14.5671	14.2726	14.3944	15.1349	14.3962	14.1202	14.8167	13.7187	14.3209	14.1303
2013	14.1190	14.7007	14.4012	14.5243	15.2772	14.5261	14.2458	14.9548	13.8379	14.4504	14.2567
2014	14.2985	14.9032	14.5917	14.7202	15.5033	14.7221	14.4303	15.1673	14.0058	14.6428	14.4413
2015	14.4633	15.0955	14.7695	14.9049	15.7249	14.9071	14.6012	15.3713	14.1563	14.8228	14.6118
2016	14.6355	15.2619	14.9392	15.0724	15.8837	15.0744	14.7721	15.5354	14.3323	14.9921	14.7834
2017	14.8063	15.4290	15.1079	15.2411	16.0487	15.2433	14.9421	15.7007	14.5040	15.1604	14.9526
2018	14.9863	15.5905	15.2786	15.4089	16.1936	15.4112	15.1181	15.8539	14.6920	15.3295	15.1275
2019	15.1710	15.7492	15.4509	15.5752	16.3259	15.5774	15.2971	16.0014	14.8896	15.4995	15.3063
2020	15.3433	15.9154	15.6198	15.7439	16.4879	15.7463	15.4681	16.1646	15.0639	15.6679	15.4763
2021	15.5149	16.0820	15.7887	15.9127	16.6514	15.9152	15.6386	16.3288	15.2368	15.8362	15.6459
2022	15.6921	16.2452	15.9591	16.0802	16.8010	16.0827	15.8128	16.4860	15.4206	16.0054	15.8197
2023	15.8641	16.4115	16.1281	16.2489	16.9633	16.2515	15.9836	16.6495	15.5945	16.1738	15.9897
2024	16.0359	16.5781	16.2970	16.4175	17.1262	16.4203	16.1542	16.8135	15.7679	16.3421	16.1595
2025	16.2021	16.7479	16.4646	16.5869	17.3014	16.5899	16.3213	16.9847	15.9314	16.5100	16.3258

(b) Marginal Price Forecast

Year	Chemical	Fab_Metal	Food	Mining	Petroleum	_Prim_Metal	Stone	Textile	Transport	Wood_Paper	Misc
2005	11.8067	12.3161	12.1532	12.0586	12.4773	12.1167	12.0556	12.4329	11.5743	12.2136	11.9237
2006	10.7520	11.1692	11.0758	10.9364	11.3300	10.9985	10.9416	11.2860	10.5763	11.0812	10.8602
2007	11.5923	12.0246	11.9278	11.7834	12.1912	11.8477	11.7888	12.1456	11.4102	11.9334	11.7044
2008	12.2453	12.6520	12.5610	12.4250	12.8088	12.4855	12.4301	12.7659	12.0739	12.5662	12.3508
2009	12.1084	12.4792	12.3962	12.2723	12.6221	12.3275	12.2769	12.5830	11.9523	12.4010	12.2046
2010	11.5073	11.8380	11.7640	11.6534	11.9654	11.7026	11.6576	11.9305	11.3680	11.7682	11.5930
2011	11.7997	12.1521	12.0732	11.9554	12.2879	12.0078	11.9598	12.2507	11.6513	12.0777	11.8911
2012	11.1137	11.4581	11.3811	11.2659	11.5909	11.3171	11.2702	11.5546	10.9685	11.3855	11.2030
2013	11.2127	11.5626	11.4843	11.3673	11.6974	11.4194	11.3717	11.6605	11.0654	11.4888	11.3035
2014	11.3568	11.7215	11.6399	11.5180	11.8620	11.5722	11.5225	11.8235	11.2032	11.6445	11.4514
2015	11.4894	11.8725	11.7867	11.6587	12.0201	11.7157	11.6635	11.9797	11.3281	11.7916	11.5888
2016	11.6253	12.0033	11.9187	11.7924	12.1490	11.8486	11.7971	12.1092	11.4661	11.9236	11.7234
2017	11.7591	12.1356	12.0514	11.9255	12.2808	11.9815	11.9302	12.2410	11.6005	12.0562	11.8568
2018	11.8984	12.2642	12.1824	12.0601	12.4052	12.1145	12.0647	12.3666	11.7443	12.1870	11.9933
2019	12.0414	12.3903	12.3122	12.1956	12.5248	12.2475	12.2000	12.4880	11.8944	12.3167	12.1319
2020	12.1759	12.5221	12.4446	12.3289	12.6555	12.3804	12.3333	12.6190	12.0301	12.4491	12.2657
2021	12.3101	12.6542	12.5772	12.4621	12.7868	12.5133	12.4665	12.7505	12.1651	12.5816	12.3993
2022	12.4482	12.7836	12.7085	12.5964	12.9129	12.6463	12.6006	12.8775	12.3069	12.7128	12.5352
2023	12.5827	12.9154	12.8409	12.7297	13.0437	12.7792	12.7339	13.0086	12.4425	12.8452	12.6690
2024	12.7170	13.0474	12.9734	12.8630	13.1747	12.9121	12.8671	13.1399	12.5778	12.9777	12.8027
2025	12.8480	13.1816	13.1069	12.9954	13.3102	13.0450	12.9996	13.2750	12.7074	13.1112	12.9345

2006 California Gas Report - Industrial GN3
Gas Price Forecast ($/Therm)

(a) Average Price Forecast

Year	Price Deflator	Chemical	Fabricated Metal	Food	Mining	Petroleum	Primary Metal	Stone	Textile	Transport	Wood Paper	Misc
2005	100.00	0.9967	1.0473	1.0192	1.0327	1.1001	1.0338	1.0092	1.0676	0.9713	1.0259	1.0077
2006	102.80	1.0597	1.1105	1.0839	1.0961	1.1638	1.0966	1.0708	1.1324	1.0335	1.0880	1.0705
2007	104.53	1.1145	1.1659	1.1389	1.1514	1.2198	1.1518	1.1257	1.1880	1.0880	1.1431	1.1254
2008	106.44	1.0574	1.1019	1.0787	1.0890	1.1477	1.0893	1.0671	1.1211	1.0349	1.0823	1.0672
2009	108.36	0.9922	1.0315	1.0111	1.0199	1.0713	1.0201	1.0008	1.0486	0.9728	1.0144	1.0012
2010	110.25	0.9268	0.9620	0.9439	0.9514	0.9970	0.9515	0.9345	0.9774	0.9098	0.9469	0.9351
2011	112.36	0.8811	0.9159	0.8980	0.9053	0.9504	0.9054	0.8887	0.9311	0.8643	0.9009	0.8893
2012	115.02	0.8682	0.9037	0.8854	0.8930	0.9389	0.8931	0.8760	0.9192	0.8510	0.8884	0.8766
2013	117.93	0.8491	0.8841	0.8661	0.8735	0.9187	0.8736	0.8567	0.8994	0.8322	0.8690	0.8574
2014	120.84	0.8330	0.8682	0.8501	0.8576	0.9032	0.8577	0.8407	0.8836	0.8160	0.8531	0.8413
2015	123.79	0.8210	0.8569	0.8384	0.8461	0.8927	0.8462	0.8289	0.8726	0.8036	0.8414	0.8295
2016	126.97	0.8252	0.8606	0.8424	0.8499	0.8956	0.8500	0.8329	0.8760	0.8081	0.8453	0.8336
2017	130.38	0.8513	0.8871	0.8687	0.8763	0.9228	0.8765	0.8591	0.9028	0.8340	0.8717	0.8597
2018	133.90	0.9037	0.9401	0.9213	0.9292	0.9765	0.9293	0.9116	0.9560	0.8859	0.9244	0.9122
2019	137.53	0.9511	0.9873	0.9686	0.9764	1.0235	0.9765	0.9590	1.0031	0.9334	0.9717	0.9596
2020	141.23	0.9919	1.0289	1.0098	1.0178	1.0659	1.0180	1.0000	1.0450	0.9739	1.0129	1.0005
2021	145.02	1.0322	1.0699	1.0504	1.0587	1.1078	1.0588	1.0404	1.0863	1.0137	1.0536	1.0409
2022	148.90	1.0739	1.1118	1.0922	1.1005	1.1498	1.1006	1.0822	1.1282	1.0553	1.0953	1.0826
2023	152.89	1.1188	1.1575	1.1375	1.1460	1.1964	1.1462	1.1273	1.1742	1.0998	1.1407	1.1277
2024	156.98	1.1643	1.2037	1.1832	1.1920	1.2435	1.1922	1.1729	1.2207	1.1448	1.1865	1.1733
2025	161.16	1.1914	1.2315	1.2107	1.2197	1.2722	1.2199	1.2001	1.2489	1.1715	1.2140	1.2005

(b) Marginal Price Forecast

Year	Price Deflator	Chemical	Fabricated Metal	Food	Mining	Petroleum	Primary Metal	Stone	Textile	Transport	Wood Paper	Misc
2005	100.00	0.9527	0.9938	0.9806	0.9730	1.0068	0.9777	0.9727	1.0032	0.9339	0.9855	0.9621
2006	102.80	1.0142	1.0536	1.0447	1.0316	1.0687	1.0374	1.0321	1.0646	0.9976	1.0452	1.0244
2007	104.53	1.0685	1.1083	1.0994	1.0861	1.1237	1.0920	1.0866	1.1195	1.0517	1.0999	1.0788
2008	106.44	1.0178	1.0516	1.0440	1.0327	1.0646	1.0378	1.0332	1.0611	1.0036	1.0445	1.0266
2009	108.36	0.9574	0.9867	0.9802	0.9704	0.9980	0.9747	0.9707	0.9949	0.9451	0.9805	0.9650
2010	110.25	0.8958	0.9216	0.9158	0.9072	0.9315	0.9110	0.9075	0.9288	0.8850	0.9161	0.9025
2011	112.36	0.8505	0.8759	0.8702	0.8617	0.8856	0.8655	0.8620	0.8830	0.8398	0.8705	0.8570
2012	115.02	0.8370	0.8630	0.8572	0.8485	0.8730	0.8523	0.8488	0.8702	0.8261	0.8575	0.8437
2013	117.93	0.8183	0.8439	0.8381	0.8296	0.8537	0.8334	0.8299	0.8510	0.8076	0.8385	0.8249
2014	120.84	0.8020	0.8278	0.8220	0.8134	0.8377	0.8172	0.8137	0.8350	0.7912	0.8223	0.8087
2015	123.79	0.7894	0.8158	0.8099	0.8011	0.8259	0.8050	0.8014	0.8231	0.7784	0.8102	0.7963
2016	126.97	0.7942	0.8200	0.8142	0.8056	0.8299	0.8094	0.8059	0.8272	0.7833	0.8145	0.8009
2017	130.38	0.8198	0.8461	0.8402	0.8314	0.8562	0.8353	0.8317	0.8534	0.8087	0.8405	0.8266
2018	133.90	0.8716	0.8984	0.8924	0.8834	0.9087	0.8874	0.8838	0.9059	0.8603	0.8927	0.8785
2019	137.53	0.9191	0.9458	0.9398	0.9309	0.9560	0.9349	0.9312	0.9532	0.9079	0.9401	0.9260
2020	141.23	0.9593	0.9866	0.9805	0.9714	0.9971	0.9754	0.9717	0.9942	0.9478	0.9808	0.9664
2021	145.02	0.9989	1.0268	1.0206	1.0112	1.0376	1.0154	1.0116	1.0346	0.9871	1.0209	1.0061
2022	148.90	1.0405	1.0685	1.0622	1.0529	1.0793	1.0570	1.0532	1.0764	1.0287	1.0626	1.0477
2023	152.89	1.0847	1.1134	1.1070	1.0974	1.1245	1.1017	1.0978	1.1214	1.0726	1.1074	1.0922
2024	156.98	1.1295	1.1588	1.1522	1.1424	1.1701	1.1468	1.1428	1.1670	1.1171	1.1526	1.1371
2025	161.16	1.1558	1.1858	1.1791	1.1691	1.1974	1.1736	1.1695	1.1942	1.1432	1.1795	1.1636

2006 California Gas Report - Industrial GN3
Historical Throughput and Customer Counts

Business Type	therms_ 2005 Temp. Adj.	meters_ 2005	meters_ 2005_ ExCust	meters_ 2005_ NewCust	avgUse_ 2005_ ExCust	avgUse_ 2005_ NewCust	Price Elasticity	Employment Elasticity
Mining	87,074.59	5	4	1	19,569.00	5,325.00	0.000000	0.321451
Food	3,433,938.26	286	269	0	12,256.32	0.00	-0.190795	1.242506
Textile	58,445.52	32	30	0	1,870.47	0.00	0.000000	0.033325
Wood_Paper	252,789.31	24	23	0	10,552.39	0.00	0.000000	0.508272
Chemical	2,502,145.00	78	73	0	32,908.62	0.00	-0.080517	0.650067
Petroleum	13,566.18	3	2	1	6,493.50	38.00	-0.180563	0.084537
Stone	824,552.18	40	38	0	20,833.13	0.00	0.000000	0.416909
Prim_Metal	321,038.94	14	13	0	23,710.15	0.00	0.000000	0.956685
Fab_Metal	1,162,949.59	181	169	1	6,033.84	96,838.00	-0.137441	1.023881
Transport	2,396,791.21	68	64	0	35,955.91	0.00	0.000000	0.402505
Misc	7,533,411.14	712	670	1	10,793.74	1,078.00	-0.108307	0.879307
Total	18,586,702	1,443						

2006 California Gas Report - Industrial GN3
Average Use Per Meter (Therm)

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other	Total
Chemical	4,366.6	42.6	491.8	121.7	1,553.1	1,535.6	11.0	1,218.1	4,169.3	13,509.8
Fabricated_Metal	16,172.7	3,829.2	1,397.9	549.5	1,970.7	4,751.6	95.4	397.2	3,383.0	32,547.2
Food	13,453.1	3,495.6	435.2	874.1	8,247.0	1,773.6	282.9	0.0	904.9	29,466.4
Mining	4,003.5	1,313.9	895.2	91.2	727.6	1,271.4	12.3	0.0	1,333.4	9,648.5
Misc	5,933.3	3,338.2	757.4	575.4	49.0	1,093.9	6.3	0.3	3,051.2	14,805.0
Petroleum	7,748.0	1,953.7	342.9	449.8	25,523.9	112.3	0.0	34.5	10,240.9	46,406.0
Primary_Metal	1,797.2	357.2	697.5	675.5	3,176.5	6,897.1	127.4	0.0	1,204.3	14,932.7
Stone	442.0	1,396.6	1,205.0	287.3	59.1	25,647.9	237.4	0.0	2,342.9	31,618.2
Textile	1,535.4	1,498.7	1,207.0	266.6	133.7	3,842.0	20.7	0.0	2,434.7	10,938.7
Transportation	387.3	225.6	666.8	192.0	424.5	723.0	5.7	2.5	373.0	3,000.4
Wood_Paper	750.9	528.1	496.4	138.2	336.2	1,853.1	33.0	6.0	952.2	5,094.1

2006 California Gas Report - Industrial GN3
Use Per Meter for New Customers (Therm)

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other	Total
Chemical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35,872.2	0.0	35,872.2
Fabricated_Metal	13,791.7	2.8	205.1	225.3	0.0	0.0	0.0	0.0	0.0	14,224.8
Food	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mining	.	.	.	.	.	.	.	.	.	0.0
Misc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17,866.6	17,866.6
Petroleum	0.0	0.0	0.0	0.0	140,409.4	0.0	0.0	0.0	0.0	140,409.4
Primary_Metal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stone	0.0	0.0	0.0	891.7	0.0	14,986.1	0.0	0.0	4,995.4	20,873.2
Textile	0.0	0.0	558.2	0.0	0.0	3,041.6	0.0	0.0	8,110.9	11,710.8
Transportation	0.0	0.0	0.0	0.0	0.0	2,306.4	0.0	0.0	331.4	2,637.8
Wood_Paper	612.3	0.0	0.0	5.0	2,182.2	1,428.8	0.0	0.0	983.8	5,212.0

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Electric UEC (Kwh/SqFt)

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Mining	12,053,557	117,480	22,540	4,117	3,349,437	1,388,699	3,261	2,871,579	.
Food	992,080	234,899	77,958	15,939	1,062,552	781,260	24,817	1,163,891	.
Textile	1,428,304	371,125	20,797	30,369	3,811,277	1,069,238	74,615	0	.
Wood_Paper	11,051,345	3,626,956	48,301	2,915	523,062	985,476	3,282	0	.
Chemical	1,169,880	658,201	34,723	19,440	26,417	593,554	1,620	738	.
Petroleum	1,527,674	385,215	15,711	15,192	13,761,553	60,935	0	101,154	.
Stone	4,960,873	985,989	31,975	22,824	6,850,607	6,237,158	37,820	0	.
Primary_Metal	174,313	550,730	55,233	9,317	25,494	13,916,258	66,288	0	.
Fabricated_Metal	605,450	591,011	55,315	8,658	57,653	2,084,618	5,763	0	.
Transportation	76,358	44,486	30,560	6,490	228,869	392,291	1,456	7,240	.
Miscellaneous	148,060	104,128	22,745	4,673	181,266	1,005,453	8,471	17,618	.

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Gas UEC (Therm per Sq. Ft.)

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Mining	587,697	5,728	1,099	281	163,309	67,709	159	140,010	4,169
Food	48,371	11,453	3,801	1,088	51,807	38,092	1,210	56,748	3,383
Textile	69,640	18,095	1,014	2,073	185,827	52,133	3,638	0	905
Wood_Paper	538,832	176,840	2,355	199	25,503	48,049	160	0	1,333
Chemical	57,040	32,092	1,693	1,327	1,288	28,940	79	36	3,051
Petroleum	74,485	18,782	766	1,037	670,974	2,971	0	4,932	10,241
Stone	241,878	48,074	1,559	1,558	334,016	304,106	1,844	0	1,204
Primary_Metal	8,499	26,852	2,693	636	1,243	678,517	3,232	0	2,343
Fabricated_Metal	29,520	28,816	2,697	591	2,811	101,640	281	0	2,435
Transportation	3,723	2,169	1,490	443	11,159	19,127	71	353	373
Miscellaneous	7,219	5,077	1,109	319	8,838	49,023	413	859	.

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Gas Market Shares

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Chemical	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Fabricated_Metal	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Food	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Mining	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Miscllaneous	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Petroleum	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Primary_Metal	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Stone	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Textile	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Transportation	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1
Wood_Paper	0.74	0.74	0.61	0.59	0.32	0.38	0.11	0.01	1

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Saturation Rate

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Furnace_ Oven_ Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Chemical	0.14	0.14	0.73	0.73	0.12	0.1	0.74	0.7	1
Fab_Metal	0.07	0.07	0.73	0.76	0.15	0.1	0.68	0.86	1
Food	0.45	0.45	0.6	0.85	0.12	0.33	0.73	0.7	1
Mining	0.01	0.01	0.73	0.73	0.03	0.06	0.64	0.87	1
Misc	0.14	0.14	0.73	0.73	0.12	0.1	0.74	0.7	1
Petroleum	0.14	0.14	0.73	0.73	0.12	0.1	0.74	0.7	1
Prim_Metal	0.07	0.07	0.73	0.76	0.15	0.1	0.68	0.86	1
Stone	0.01	0.01	0.73	0.73	0.03	0.06	0.64	0.87	1
Textile	0.26	0.26	0.7	0.71	0.14	0.09	0.72	0.46	1
Transport	0.14	0.14	0.73	0.73	0.12	0.1	0.74	0.7	1
Wood_Paper	0.01	0.01	0.62	0.77	0.09	0.07	0.71	0.5	1

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Mining	Fire_Tube_Boiler	1	1	3,907,010
Mining	Fire_Tube_Boiler	1	2	4,297,711
Mining	Fire_Tube_Boiler	1	3	4,688,412
Mining	Fire_Tube_Boiler	2	1	3,125,608
Mining	Fire_Tube_Boiler	2	2	3,438,169
Mining	Fire_Tube_Boiler	2	3	3,750,729
Mining	Water_Tube_Boiler	1	1	38,080
Mining	Water_Tube_Boiler	1	2	41,888
Mining	Water_Tube_Boiler	1	3	45,696
Mining	Water_Tube_Boiler	2	1	30,464
Mining	Water_Tube_Boiler	2	2	33,510
Mining	Water_Tube_Boiler	2	3	36,557
Mining	Space_Heat	1	1	7,306
Mining	Space_Heat	1	2	8,037
Mining	Space_Heat	1	3	8,767
Mining	Space_Heat	2	1	5,845
Mining	Space_Heat	2	2	6,429
Mining	Space_Heat	2	3	7,014
Mining	Water_Heat	1	1	1,868
Mining	Water_Heat	1	2	2,055
Mining	Water_Heat	1	3	2,242
Mining	Water_Heat	2	1	1,494
Mining	Water_Heat	2	2	1,644
Mining	Water_Heat	2	3	1,793
Mining	Dryer	1	1	1,085,678
Mining	Dryer	1	2	1,194,246
Mining	Dryer	1	3	1,302,814
Mining	Dryer	2	1	868,543
Mining	Dryer	2	2	955,397
Mining	Dryer	2	3	1,042,251
Mining	Furnace_Oven_Kiln	1	1	450,129
Mining	Furnace_Oven_Kiln	1	2	495,142
Mining	Furnace_Oven_Kiln	1	3	540,155
Mining	Furnace_Oven_Kiln	2	1	360,104
Mining	Furnace_Oven_Kiln	2	2	396,114
Mining	Furnace_Oven_Kiln	2	3	432,124
Mining	AC	1	1	1,057
Mining	AC	1	2	1,163
Mining	AC	1	3	1,268
Mining	AC	2	1	846
Mining	AC	2	2	930
Mining	AC	2	3	1,015
Mining	Engine	1	1	930,786
Mining	Engine	1	2	1,023,865
Mining	Engine	1	3	1,116,944
Mining	Engine	2	1	744,629
Mining	Engine	2	2	819,092
Mining	Engine	2	3	893,555
Mining	Other	1	1	-
Mining	Other	1	2	-
Mining	Other	1	3	-
Mining	Other	2	1	-
Mining	Other	2	2	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Mining	Other	2	3	-
Food	Fire_Tube_Boiler	1	1	303,093
Food	Fire_Tube_Boiler	1	2	333,402
Food	Fire_Tube_Boiler	1	3	363,711
Food	Fire_Tube_Boiler	2	1	242,474
Food	Fire_Tube_Boiler	2	2	266,722
Food	Fire_Tube_Boiler	2	3	290,969
Food	Water_Tube_Boiler	1	1	71,765
Food	Water_Tube_Boiler	1	2	78,941
Food	Water_Tube_Boiler	1	3	86,117
Food	Water_Tube_Boiler	2	1	57,412
Food	Water_Tube_Boiler	2	2	63,153
Food	Water_Tube_Boiler	2	3	68,894
Food	Space_Heat	1	1	23,817
Food	Space_Heat	1	2	26,199
Food	Space_Heat	1	3	28,580
Food	Space_Heat	2	1	19,054
Food	Space_Heat	2	2	20,959
Food	Space_Heat	2	3	22,864
Food	Water_Heat	1	1	6,817
Food	Water_Heat	1	2	7,499
Food	Water_Heat	1	3	8,181
Food	Water_Heat	2	1	5,454
Food	Water_Heat	2	2	5,999
Food	Water_Heat	2	3	6,545
Food	Dryer	1	1	324,623
Food	Dryer	1	2	357,085
Food	Dryer	1	3	389,547
Food	Dryer	2	1	259,698
Food	Dryer	2	2	285,668
Food	Dryer	2	3	311,638
Food	Furnace_Oven_Kiln	1	1	238,684
Food	Furnace_Oven_Kiln	1	2	262,553
Food	Furnace_Oven_Kiln	1	3	286,421
Food	Furnace_Oven_Kiln	2	1	190,948
Food	Furnace_Oven_Kiln	2	2	210,042
Food	Furnace_Oven_Kiln	2	3	229,137
Food	AC	1	1	7,582
Food	AC	1	2	8,340
Food	AC	1	3	9,098
Food	AC	2	1	6,065
Food	AC	2	2	6,672
Food	AC	2	3	7,279
Food	Engine	1	1	355,583
Food	Engine	1	2	391,141
Food	Engine	1	3	426,700
Food	Engine	2	1	284,466
Food	Engine	2	2	312,913
Food	Engine	2	3	341,360
Food	Other	1	1	-
Food	Other	1	2	-
Food	Other	1	3	-
Food	Other	2	1	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Food	Other	2	2	-
Food	Other	2	3	-
Textile	Fire_Tube_Boiler	1	1	440,682
Textile	Fire_Tube_Boiler	1	2	484,750
Textile	Fire_Tube_Boiler	1	3	528,818
Textile	Fire_Tube_Boiler	2	1	352,546
Textile	Fire_Tube_Boiler	2	2	387,800
Textile	Fire_Tube_Boiler	2	3	423,055
Textile	Water_Tube_Boiler	1	1	114,505
Textile	Water_Tube_Boiler	1	2	125,956
Textile	Water_Tube_Boiler	1	3	137,406
Textile	Water_Tube_Boiler	2	1	91,604
Textile	Water_Tube_Boiler	2	2	100,765
Textile	Water_Tube_Boiler	2	3	109,925
Textile	Space_Heat	1	1	6,417
Textile	Space_Heat	1	2	7,058
Textile	Space_Heat	1	3	7,700
Textile	Space_Heat	2	1	5,133
Textile	Space_Heat	2	2	5,647
Textile	Space_Heat	2	3	6,160
Textile	Water_Heat	1	1	13,118
Textile	Water_Heat	1	2	14,430
Textile	Water_Heat	1	3	15,742
Textile	Water_Heat	2	1	10,494
Textile	Water_Heat	2	2	11,544
Textile	Water_Heat	2	3	12,593
Textile	Dryer	1	1	1,175,913
Textile	Dryer	1	2	1,293,505
Textile	Dryer	1	3	1,411,096
Textile	Dryer	2	1	940,731
Textile	Dryer	2	2	1,034,804
Textile	Dryer	2	3	1,128,877
Textile	Furnace_Oven_Kiln	1	1	329,898
Textile	Furnace_Oven_Kiln	1	2	362,887
Textile	Furnace_Oven_Kiln	1	3	395,877
Textile	Furnace_Oven_Kiln	2	1	263,918
Textile	Furnace_Oven_Kiln	2	2	290,310
Textile	Furnace_Oven_Kiln	2	3	316,702
Textile	AC	1	1	23,021
Textile	AC	1	2	25,323
Textile	AC	1	3	27,626
Textile	AC	2	1	18,417
Textile	AC	2	2	20,259
Textile	AC	2	3	22,100
Textile	Engine	1	1	-
Textile	Engine	1	2	-
Textile	Engine	1	3	-
Textile	Engine	2	1	-
Textile	Engine	2	2	-
Textile	Engine	2	3	-
Textile	Other	1	1	-
Textile	Other	1	2	-
Textile	Other	1	3	-

2006 California Gas Report - Industrial GN3
UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Textile	Other	2	1	-
Textile	Other	2	2	-
Textile	Other	2	3	-
Wood_Paper	Fire_Tube_Boiler	1	1	3,531,505
Wood_Paper	Fire_Tube_Boiler	1	2	3,884,655
Wood_Paper	Fire_Tube_Boiler	1	3	4,237,806
Wood_Paper	Fire_Tube_Boiler	2	1	2,825,204
Wood_Paper	Fire_Tube_Boiler	2	2	3,107,724
Wood_Paper	Fire_Tube_Boiler	2	3	3,390,245
Wood_Paper	Water_Tube_Boiler	1	1	1,159,009
Wood_Paper	Water_Tube_Boiler	1	2	1,274,910
Wood_Paper	Water_Tube_Boiler	1	3	1,390,811
Wood_Paper	Water_Tube_Boiler	2	1	927,207
Wood_Paper	Water_Tube_Boiler	2	2	1,019,928
Wood_Paper	Water_Tube_Boiler	2	3	1,112,649
Wood_Paper	Space_Heat	1	1	15,435
Wood_Paper	Space_Heat	1	2	16,978
Wood_Paper	Space_Heat	1	3	18,522
Wood_Paper	Space_Heat	2	1	12,348
Wood_Paper	Space_Heat	2	2	13,583
Wood_Paper	Space_Heat	2	3	14,817
Wood_Paper	Water_Heat	1	1	1,304
Wood_Paper	Water_Heat	1	2	1,435
Wood_Paper	Water_Heat	1	3	1,565
Wood_Paper	Water_Heat	2	1	1,043
Wood_Paper	Water_Heat	2	2	1,148
Wood_Paper	Water_Heat	2	3	1,252
Wood_Paper	Dryer	1	1	167,147
Wood_Paper	Dryer	1	2	183,861
Wood_Paper	Dryer	1	3	200,576
Wood_Paper	Dryer	2	1	133,717
Wood_Paper	Dryer	2	2	147,089
Wood_Paper	Dryer	2	3	160,461
Wood_Paper	Furnace_Oven_Kiln	1	1	314,913
Wood_Paper	Furnace_Oven_Kiln	1	2	346,404
Wood_Paper	Furnace_Oven_Kiln	1	3	377,896
Wood_Paper	Furnace_Oven_Kiln	2	1	251,931
Wood_Paper	Furnace_Oven_Kiln	2	2	277,124
Wood_Paper	Furnace_Oven_Kiln	2	3	302,317
Wood_Paper	AC	1	1	1,049
Wood_Paper	AC	1	2	1,154
Wood_Paper	AC	1	3	1,258
Wood_Paper	AC	2	1	839
Wood_Paper	AC	2	2	923
Wood_Paper	AC	2	3	1,007
Wood_Paper	Engine	1	1	-
Wood_Paper	Engine	1	2	-
Wood_Paper	Engine	1	3	-
Wood_Paper	Engine	2	1	-
Wood_Paper	Engine	2	2	-
Wood_Paper	Engine	2	3	-
Wood_Paper	Other	1	1	-
Wood_Paper	Other	1	2	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Wood_Paper	Other	1	3	-
Wood_Paper	Other	2	1	-
Wood_Paper	Other	2	2	-
Wood_Paper	Other	2	3	-
Chemical	Fire_Tube_Boiler	1	1	374,525
Chemical	Fire_Tube_Boiler	1	2	411,977
Chemical	Fire_Tube_Boiler	1	3	449,430
Chemical	Fire_Tube_Boiler	2	1	299,620
Chemical	Fire_Tube_Boiler	2	2	329,582
Chemical	Fire_Tube_Boiler	2	3	359,544
Chemical	Water_Tube_Boiler	1	1	210,716
Chemical	Water_Tube_Boiler	1	2	231,788
Chemical	Water_Tube_Boiler	1	3	252,859
Chemical	Water_Tube_Boiler	2	1	168,573
Chemical	Water_Tube_Boiler	2	2	185,430
Chemical	Water_Tube_Boiler	2	3	202,287
Chemical	Space_Heat	1	1	11,116
Chemical	Space_Heat	1	2	12,228
Chemical	Space_Heat	1	3	13,339
Chemical	Space_Heat	2	1	8,893
Chemical	Space_Heat	2	2	9,782
Chemical	Space_Heat	2	3	10,672
Chemical	Water_Heat	1	1	8,713
Chemical	Water_Heat	1	2	9,584
Chemical	Water_Heat	1	3	10,456
Chemical	Water_Heat	2	1	6,970
Chemical	Water_Heat	2	2	7,668
Chemical	Water_Heat	2	3	8,365
Chemical	Dryer	1	1	8,457
Chemical	Dryer	1	2	9,303
Chemical	Dryer	1	3	10,148
Chemical	Dryer	2	1	6,766
Chemical	Dryer	2	2	7,442
Chemical	Dryer	2	3	8,119
Chemical	Furnace_Oven_Kiln	1	1	190,020
Chemical	Furnace_Oven_Kiln	1	2	209,022
Chemical	Furnace_Oven_Kiln	1	3	228,024
Chemical	Furnace_Oven_Kiln	2	1	152,016
Chemical	Furnace_Oven_Kiln	2	2	167,218
Chemical	Furnace_Oven_Kiln	2	3	182,419
Chemical	AC	1	1	519
Chemical	AC	1	2	571
Chemical	AC	1	3	622
Chemical	AC	2	1	415
Chemical	AC	2	2	456
Chemical	AC	2	3	498
Chemical	Engine	1	1	236
Chemical	Engine	1	2	260
Chemical	Engine	1	3	284
Chemical	Engine	2	1	189
Chemical	Engine	2	2	208
Chemical	Engine	2	3	227
Chemical	Other	1	1	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Chemical	Other	1	2	-
Chemical	Other	1	3	-
Chemical	Other	2	1	-
Chemical	Other	2	2	-
Chemical	Other	2	3	-
Petroleum	Fire_Tube_Boiler	1	1	461,658
Petroleum	Fire_Tube_Boiler	1	2	507,824
Petroleum	Fire_Tube_Boiler	1	3	553,990
Petroleum	Fire_Tube_Boiler	2	1	369,326
Petroleum	Fire_Tube_Boiler	2	2	406,259
Petroleum	Fire_Tube_Boiler	2	3	443,192
Petroleum	Water_Tube_Boiler	1	1	116,411
Petroleum	Water_Tube_Boiler	1	2	128,052
Petroleum	Water_Tube_Boiler	1	3	139,693
Petroleum	Water_Tube_Boiler	2	1	93,129
Petroleum	Water_Tube_Boiler	2	2	102,442
Petroleum	Water_Tube_Boiler	2	3	111,754
Petroleum	Space_Heat	1	1	4,748
Petroleum	Space_Heat	1	2	5,222
Petroleum	Space_Heat	1	3	5,697
Petroleum	Space_Heat	2	1	3,798
Petroleum	Space_Heat	2	2	4,178
Petroleum	Space_Heat	2	3	4,558
Petroleum	Water_Heat	1	1	6,427
Petroleum	Water_Heat	1	2	7,070
Petroleum	Water_Heat	1	3	7,713
Petroleum	Water_Heat	2	1	5,142
Petroleum	Water_Heat	2	2	5,656
Petroleum	Water_Heat	2	3	6,170
Petroleum	Dryer	1	1	4,158,697
Petroleum	Dryer	1	2	4,574,567
Petroleum	Dryer	1	3	4,990,436
Petroleum	Dryer	2	1	3,326,957
Petroleum	Dryer	2	2	3,659,653
Petroleum	Dryer	2	3	3,992,349
Petroleum	Furnace_Oven_Kiln	1	1	18,414
Petroleum	Furnace_Oven_Kiln	1	2	20,256
Petroleum	Furnace_Oven_Kiln	1	3	22,097
Petroleum	Furnace_Oven_Kiln	2	1	14,731
Petroleum	Furnace_Oven_Kiln	2	2	16,205
Petroleum	Furnace_Oven_Kiln	2	3	17,678
Petroleum	AC	1	1	-
Petroleum	AC	1	2	-
Petroleum	AC	1	3	-
Petroleum	AC	2	1	-
Petroleum	AC	2	2	-
Petroleum	AC	2	3	-
Petroleum	Engine	1	1	30,569
Petroleum	Engine	1	2	33,625
Petroleum	Engine	1	3	36,682
Petroleum	Engine	2	1	24,455
Petroleum	Engine	2	2	26,900
Petroleum	Engine	2	3	29,346

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Petroleum	Other	1	1	-
Petroleum	Other	1	2	-
Petroleum	Other	1	3	-
Petroleum	Other	2	1	-
Petroleum	Other	2	2	-
Petroleum	Other	2	3	-
Stone	Fire_Tube_Boiler	1	1	1,591,073
Stone	Fire_Tube_Boiler	1	2	1,750,181
Stone	Fire_Tube_Boiler	1	3	1,909,288
Stone	Fire_Tube_Boiler	2	1	1,272,859
Stone	Fire_Tube_Boiler	2	2	1,400,145
Stone	Fire_Tube_Boiler	2	3	1,527,431
Stone	Water_Tube_Boiler	1	1	316,231
Stone	Water_Tube_Boiler	1	2	347,854
Stone	Water_Tube_Boiler	1	3	379,477
Stone	Water_Tube_Boiler	2	1	252,985
Stone	Water_Tube_Boiler	2	2	278,283
Stone	Water_Tube_Boiler	2	3	303,582
Stone	Space_Heat	1	1	10,255
Stone	Space_Heat	1	2	11,281
Stone	Space_Heat	1	3	12,306
Stone	Space_Heat	2	1	8,204
Stone	Space_Heat	2	2	9,024
Stone	Space_Heat	2	3	9,845
Stone	Water_Heat	1	1	10,249
Stone	Water_Heat	1	2	11,273
Stone	Water_Heat	1	3	12,298
Stone	Water_Heat	2	1	8,199
Stone	Water_Heat	2	2	9,019
Stone	Water_Heat	2	3	9,839
Stone	Dryer	1	1	2,197,157
Stone	Dryer	1	2	2,416,873
Stone	Dryer	1	3	2,636,589
Stone	Dryer	2	1	1,757,726
Stone	Dryer	2	2	1,933,498
Stone	Dryer	2	3	2,109,271
Stone	Furnace_Oven_Kiln	1	1	2,000,409
Stone	Furnace_Oven_Kiln	1	2	2,200,450
Stone	Furnace_Oven_Kiln	1	3	2,400,491
Stone	Furnace_Oven_Kiln	2	1	1,600,327
Stone	Furnace_Oven_Kiln	2	2	1,760,360
Stone	Furnace_Oven_Kiln	2	3	1,920,393
Stone	AC	1	1	12,130
Stone	AC	1	2	13,343
Stone	AC	1	3	14,556
Stone	AC	2	1	9,704
Stone	AC	2	2	10,674
Stone	AC	2	3	11,645
Stone	Engine	1	1	-
Stone	Engine	1	2	-
Stone	Engine	1	3	-
Stone	Engine	2	1	-
Stone	Engine	2	2	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Stone	Engine	2	3	-
Stone	Other	1	1	-
Stone	Other	1	2	-
Stone	Other	1	3	-
Stone	Other	2	1	-
Stone	Other	2	2	-
Stone	Other	2	3	-
Prim_Metal	Fire_Tube_Boiler	1	1	54,853
Prim_Metal	Fire_Tube_Boiler	1	2	60,338
Prim_Metal	Fire_Tube_Boiler	1	3	65,823
Prim_Metal	Fire_Tube_Boiler	2	1	43,882
Prim_Metal	Fire_Tube_Boiler	2	2	48,270
Prim_Metal	Fire_Tube_Boiler	2	3	52,658
Prim_Metal	Water_Tube_Boiler	1	1	173,303
Prim_Metal	Water_Tube_Boiler	1	2	190,633
Prim_Metal	Water_Tube_Boiler	1	3	207,963
Prim_Metal	Water_Tube_Boiler	2	1	138,642
Prim_Metal	Water_Tube_Boiler	2	2	152,506
Prim_Metal	Water_Tube_Boiler	2	3	166,371
Prim_Metal	Space_Heat	1	1	17,381
Prim_Metal	Space_Heat	1	2	19,119
Prim_Metal	Space_Heat	1	3	20,857
Prim_Metal	Space_Heat	2	1	13,905
Prim_Metal	Space_Heat	2	2	15,295
Prim_Metal	Space_Heat	2	3	16,685
Prim_Metal	Water_Heat	1	1	4,105
Prim_Metal	Water_Heat	1	2	4,515
Prim_Metal	Water_Heat	1	3	4,926
Prim_Metal	Water_Heat	2	1	3,284
Prim_Metal	Water_Heat	2	2	3,612
Prim_Metal	Water_Heat	2	3	3,941
Prim_Metal	Dryer	1	1	8,022
Prim_Metal	Dryer	1	2	8,825
Prim_Metal	Dryer	1	3	9,627
Prim_Metal	Dryer	2	1	6,418
Prim_Metal	Dryer	2	2	7,060
Prim_Metal	Dryer	2	3	7,701
Prim_Metal	Furnace_Oven_Kiln	1	1	4,379,149
Prim_Metal	Furnace_Oven_Kiln	1	2	4,817,064
Prim_Metal	Furnace_Oven_Kiln	1	3	5,254,978
Prim_Metal	Furnace_Oven_Kiln	2	1	3,503,319
Prim_Metal	Furnace_Oven_Kiln	2	2	3,853,651
Prim_Metal	Furnace_Oven_Kiln	2	3	4,203,983
Prim_Metal	AC	1	1	20,859
Prim_Metal	AC	1	2	22,945
Prim_Metal	AC	1	3	25,031
Prim_Metal	AC	2	1	16,687
Prim_Metal	AC	2	2	18,356
Prim_Metal	AC	2	3	20,025
Prim_Metal	Engine	1	1	-
Prim_Metal	Engine	1	2	-
Prim_Metal	Engine	1	3	-
Prim_Metal	Engine	2	1	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Prim_Metal	Engine	2	2	-
Prim_Metal	Engine	2	3	-
Prim_Metal	Other	1	1	-
Prim_Metal	Other	1	2	-
Prim_Metal	Other	1	3	-
Prim_Metal	Other	2	1	-
Prim_Metal	Other	2	2	-
Prim_Metal	Other	2	3	-
Fab_Metal	Fire_Tube_Boiler	1	1	199,496
Fab_Metal	Fire_Tube_Boiler	1	2	219,446
Fab_Metal	Fire_Tube_Boiler	1	3	239,395
Fab_Metal	Fire_Tube_Boiler	2	1	159,597
Fab_Metal	Fire_Tube_Boiler	2	2	175,557
Fab_Metal	Fire_Tube_Boiler	2	3	191,516
Fab_Metal	Water_Tube_Boiler	1	1	194,739
Fab_Metal	Water_Tube_Boiler	1	2	214,212
Fab_Metal	Water_Tube_Boiler	1	3	233,686
Fab_Metal	Water_Tube_Boiler	2	1	155,791
Fab_Metal	Water_Tube_Boiler	2	2	171,370
Fab_Metal	Water_Tube_Boiler	2	3	186,949
Fab_Metal	Space_Heat	1	1	18,226
Fab_Metal	Space_Heat	1	2	20,049
Fab_Metal	Space_Heat	1	3	21,872
Fab_Metal	Space_Heat	2	1	14,581
Fab_Metal	Space_Heat	2	2	16,039
Fab_Metal	Space_Heat	2	3	17,497
Fab_Metal	Water_Heat	1	1	3,994
Fab_Metal	Water_Heat	1	2	4,393
Fab_Metal	Water_Heat	1	3	4,793
Fab_Metal	Water_Heat	2	1	3,195
Fab_Metal	Water_Heat	2	2	3,515
Fab_Metal	Water_Heat	2	3	3,834
Fab_Metal	Dryer	1	1	18,997
Fab_Metal	Dryer	1	2	20,896
Fab_Metal	Dryer	1	3	22,796
Fab_Metal	Dryer	2	1	15,197
Fab_Metal	Dryer	2	2	16,717
Fab_Metal	Dryer	2	3	18,237
Fab_Metal	Furnace_Oven_Kiln	1	1	686,883
Fab_Metal	Furnace_Oven_Kiln	1	2	755,571
Fab_Metal	Furnace_Oven_Kiln	1	3	824,260
Fab_Metal	Furnace_Oven_Kiln	2	1	549,507
Fab_Metal	Furnace_Oven_Kiln	2	2	604,457
Fab_Metal	Furnace_Oven_Kiln	2	3	659,408
Fab_Metal	AC	1	1	1,899
Fab_Metal	AC	1	2	2,089
Fab_Metal	AC	1	3	2,279
Fab_Metal	AC	2	1	1,519
Fab_Metal	AC	2	2	1,671
Fab_Metal	AC	2	3	1,823
Fab_Metal	Engine	1	1	-
Fab_Metal	Engine	1	2	-
Fab_Metal	Engine	1	3	-

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Fab_Metal	Engine	2	1	-
Fab_Metal	Engine	2	2	-
Fab_Metal	Engine	2	3	-
Fab_Metal	Other	1	1	-
Fab_Metal	Other	1	2	-
Fab_Metal	Other	1	3	-
Fab_Metal	Other	2	1	-
Fab_Metal	Other	2	2	-
Fab_Metal	Other	2	3	-
Transport	Fire_Tube_Boiler	1	1	27,156
Transport	Fire_Tube_Boiler	1	2	29,871
Transport	Fire_Tube_Boiler	1	3	32,587
Transport	Fire_Tube_Boiler	2	1	21,724
Transport	Fire_Tube_Boiler	2	2	23,897
Transport	Fire_Tube_Boiler	2	3	26,069
Transport	Water_Tube_Boiler	1	1	15,821
Transport	Water_Tube_Boiler	1	2	17,403
Transport	Water_Tube_Boiler	1	3	18,985
Transport	Water_Tube_Boiler	2	1	12,657
Transport	Water_Tube_Boiler	2	2	13,922
Transport	Water_Tube_Boiler	2	3	15,188
Transport	Space_Heat	1	1	10,868
Transport	Space_Heat	1	2	11,955
Transport	Space_Heat	1	3	13,042
Transport	Space_Heat	2	1	8,694
Transport	Space_Heat	2	2	9,564
Transport	Space_Heat	2	3	10,433
Transport	Water_Heat	1	1	3,231
Transport	Water_Heat	1	2	3,554
Transport	Water_Heat	1	3	3,877
Transport	Water_Heat	2	1	2,585
Transport	Water_Heat	2	2	2,843
Transport	Water_Heat	2	3	3,102
Transport	Dryer	1	1	81,394
Transport	Dryer	1	2	89,533
Transport	Dryer	1	3	97,673
Transport	Dryer	2	1	65,115
Transport	Dryer	2	2	71,627
Transport	Dryer	2	3	78,138
Transport	Furnace_Oven_Kiln	1	1	139,512
Transport	Furnace_Oven_Kiln	1	2	153,464
Transport	Furnace_Oven_Kiln	1	3	167,415
Transport	Furnace_Oven_Kiln	2	1	111,610
Transport	Furnace_Oven_Kiln	2	2	122,771
Transport	Furnace_Oven_Kiln	2	3	133,932
Transport	AC	1	1	518
Transport	AC	1	2	570
Transport	AC	1	3	621
Transport	AC	2	1	414
Transport	AC	2	2	456
Transport	AC	2	3	497
Transport	Engine	1	1	2,575
Transport	Engine	1	2	2,832

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
Efficiency =1 (stock), =2 (standard), =3 (high) and =4 (premium)

Business Type	End Use	Fuel	Efficiency	EQcost
Transport	Engine	1	3	3,090
Transport	Engine	2	1	2,060
Transport	Engine	2	2	2,266
Transport	Engine	2	3	2,472
Transport	Other	1	1	-
Transport	Other	1	2	-
Transport	Other	1	3	-
Transport	Other	2	1	-
Transport	Other	2	2	-
Transport	Other	2	3	-
Misc	Fire_Tube_Boiler	1	1	50,324
Misc	Fire_Tube_Boiler	1	2	55,356
Misc	Fire_Tube_Boiler	1	3	60,388
Misc	Fire_Tube_Boiler	2	1	40,259
Misc	Fire_Tube_Boiler	2	2	44,285
Misc	Fire_Tube_Boiler	2	3	48,311
Misc	Water_Tube_Boiler	1	1	35,392
Misc	Water_Tube_Boiler	1	2	38,931
Misc	Water_Tube_Boiler	1	3	42,470
Misc	Water_Tube_Boiler	2	1	28,313
Misc	Water_Tube_Boiler	2	2	31,145
Misc	Water_Tube_Boiler	2	3	33,976
Misc	Space_Heat	1	1	7,731
Misc	Space_Heat	1	2	8,504
Misc	Space_Heat	1	3	9,277
Misc	Space_Heat	2	1	6,185
Misc	Space_Heat	2	2	6,803
Misc	Space_Heat	2	3	7,422
Misc	Water_Heat	1	1	2,224
Misc	Water_Heat	1	2	2,446
Misc	Water_Heat	1	3	2,669
Misc	Water_Heat	2	1	1,779
Misc	Water_Heat	2	2	1,957
Misc	Water_Heat	2	3	2,135
Misc	Dryer	1	1	61,610
Misc	Dryer	1	2	67,771
Misc	Dryer	1	3	73,932
Misc	Dryer	2	1	49,288
Misc	Dryer	2	2	54,217
Misc	Dryer	2	3	59,145
Misc	Furnace_Oven_Kiln	1	1	341,739
Misc	Furnace_Oven_Kiln	1	2	375,913
Misc	Furnace_Oven_Kiln	1	3	410,087
Misc	Furnace_Oven_Kiln	2	1	273,391
Misc	Furnace_Oven_Kiln	2	2	300,731
Misc	Furnace_Oven_Kiln	2	3	328,070
Misc	AC	1	1	2,879
Misc	AC	1	2	3,167
Misc	AC	1	3	3,455
Misc	AC	2	1	2,303
Misc	AC	2	2	2,534
Misc	AC	2	3	2,764
Misc	Engine	1	1	5,988

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UEC, Equipment Cost and Efficiency Shares

Where Fuel = 1 (gas) and = 2 (electric), and
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Business Type	End Use	Fuel	Efficiency	EQcost
Misc	Engine	1	2	6,587
Misc	Engine	1	3	7,186
Misc	Engine	2	1	4,790
Misc	Engine	2	2	5,270
Misc	Engine	2	3	5,749
Misc	Other	1	1	-
Misc	Other	1	2	-
Misc	Other	1	3	-
Misc	Other	2	1	-
Misc	Other	2	2	-
Misc	Other	2	3	-

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Employment Forecast (in thousands)

YEAR	Mining	Food	Textile	Wood - Paper	Chemical	Petroleum	Stone	Primary - Metal	Fabricated - Metal	Transportation	Miscellaneous	Total
2005	0.4250	8.8875	1.3225	4.1058	3.8208	0.6833	3.3483	1.7983	10.0367	13.9417	56.2092	104.5750
2006	0.4450	8.8525	1.3108	4.1450	3.9142	0.6550	3.3958	1.8208	10.3883	13.9658	55.4367	104.3317
2007	0.4667	8.8583	1.2542	4.1608	3.9483	0.6850	3.4567	1.8100	10.7983	13.8667	53.3867	102.6933
2008	0.4700	8.8933	1.2142	4.1475	3.9883	0.6858	3.4550	1.7700	11.0658	13.9092	52.9158	102.5167
2009	0.4508	8.9283	1.1933	4.1342	4.0250	0.6708	3.4058	1.7450	11.3333	14.0200	52.6325	102.5358
2010	0.4250	8.9625	1.1817	4.1517	4.0617	0.6508	3.3533	1.7133	11.4233	14.0533	52.3308	102.3067
2011	0.3992	9.0108	1.1783	4.1733	4.0983	0.6275	3.3233	1.7033	11.5233	14.0208	51.8583	101.9208
2012	0.3825	9.0433	1.1775	4.1850	4.1367	0.6042	3.3133	1.6933	11.6842	13.9358	51.8017	101.9592
2013	0.3725	9.0683	1.1775	4.2025	4.1717	0.5833	3.3050	1.6692	11.7617	13.8275	51.9142	102.0550
2014	0.3608	9.0975	1.1825	4.2292	4.2142	0.5617	3.2917	1.6417	11.7875	13.7908	52.1050	102.2592
2015	0.3458	9.1292	1.1875	4.2608	4.2650	0.5408	3.2767	1.6158	11.8575	13.7558	52.3092	102.5475
2016	0.3350	9.1783	1.1975	4.2925	4.3300	0.5225	3.2625	1.5800	11.8458	13.7092	52.5358	102.7917
2017	0.3233	9.2358	1.2042	4.3133	4.4150	0.5058	3.2467	1.5500	11.7750	13.6733	52.7192	102.9667
2018	0.3117	9.3058	1.2125	4.3375	4.5058	0.4933	3.2525	1.5217	11.6450	13.6375	52.9033	103.1225
2019	0.2967	9.3683	1.2175	4.3558	4.5958	0.4783	3.2567	1.4925	11.4992	13.6033	53.0508	103.2142
2020	0.2825	9.4192	1.2233	4.3700	4.6783	0.4642	3.2583	1.4583	11.3025	13.5517	53.0942	103.1067
2021	0.2725	9.4692	1.2267	4.3833	4.7658	0.4492	3.2550	1.4267	11.1067	13.4983	53.1842	103.0325
2022	0.2633	9.5125	1.2275	4.3917	4.8458	0.4350	3.2492	1.3958	10.9125	13.4475	53.2917	102.9733
2023	0.2533	9.5533	1.2275	4.4017	4.9300	0.4208	3.2467	1.3683	10.7350	13.4008	53.4400	102.9825
2024	0.2483	9.5933	1.2283	4.4208	5.0108	0.4058	3.2442	1.3425	10.5483	13.3550	53.5867	102.9842
2025	0.2383	9.6358	1.2375	4.4542	5.0867	0.3917	3.2200	1.3142	10.3300	13.3067	53.7258	102.9375

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Core Industrial Demand Forecast (Mdth)
Average Temperature

YEAR	Model Output GN-3 - Ind	DSM	Ind G10
2005	1,859	0	1,859
2006	1,848	3	1,845
2007	1,821	7	1,814
2008	1,833	13	1,820
2009	1,847	19	1,829
2010	1,859	25	1,834
2011	1,866	32	1,834
2012	1,873	40	1,834
2013	1,882	48	1,834
2014	1,891	56	1,835
2015	1,901	64	1,837
2016	1,909	69	1,840
2017	1,915	73	1,842
2018	1,917	76	1,841
2019	1,919	78	1,841
2020	1,919	80	1,839
2021	1,920	81	1,839
2022	1,921	82	1,840
2023	1,923	82	1,841
2024	1,924	82	1,842
2025	1,927	82	1,845

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Core Industrial Demand Forecast (Mdth)
Cold Temperature

YEAR	Model Output GN-3 - Ind	DSM	Ind G10
2005	1,953	0	1,953
2006	1,942	4	1,939
2007	1,914	8	1,906
2008	1,926	13	1,913
2009	1,942	20	1,922
2010	1,953	26	1,927
2011	1,961	34	1,928
2012	1,969	42	1,927
2013	1,978	50	1,927
2014	1,987	59	1,929
2015	1,998	67	1,930
2016	2,006	72	1,934
2017	2,012	77	1,935
2018	2,015	80	1,935
2019	2,017	82	1,935
2020	2,017	84	1,933
2021	2,018	85	1,933
2022	2,019	86	1,933
2023	2,021	86	1,935
2024	2,022	86	1,936
2025	2,025	86	1,939

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Core Industrial Demand Forecast (Mdth)
Hot Temperature

YEAR	Model Output GN-3 - Ind	DSM	Ind G10
2005	1,764	0	1,764
2006	1,754	3	1,751
2007	1,728	7	1,721
2008	1,739	12	1,727
2009	1,753	18	1,736
2010	1,764	24	1,740
2011	1,771	30	1,741
2012	1,778	38	1,740
2013	1,786	45	1,741
2014	1,795	53	1,742
2015	1,804	61	1,743
2016	1,812	65	1,747
2017	1,817	69	1,748
2018	1,819	72	1,747
2019	1,821	74	1,747
2020	1,821	76	1,746
2021	1,823	77	1,746
2022	1,823	78	1,746
2023	1,825	78	1,747
2024	1,826	78	1,749
2025	1,829	78	1,751

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Core Industrial Demand Forecast (Mdth)
Base Temperature

YEAR	Model Output GN-3 - Ind	DSM	Ind G10
2005	1,533	0	1,533
2006	1,524	3	1,521
2007	1,502	6	1,496
2008	1,511	10	1,501
2009	1,523	15	1,508
2010	1,533	21	1,512
2011	1,539	26	1,512
2012	1,545	33	1,512
2013	1,552	39	1,512
2014	1,559	46	1,513
2015	1,568	53	1,515
2016	1,574	57	1,518
2017	1,579	60	1,519
2018	1,581	63	1,518
2019	1,582	65	1,518
2020	1,583	66	1,517
2021	1,584	67	1,517
2022	1,584	67	1,517
2023	1,585	67	1,518
2024	1,587	67	1,519
2025	1,589	67	1,522

2006 CALIFORNIA GAS REPORT

NONCORE COMMERCIAL AND INDUSTRIAL DEMAND FORECAST
JULY 2006

Noncore Commercial and Industrial Demand Forecast

The purpose of these workpapers is to document the methodology used to forecast demand for the noncore commercial and industrial demand forecast.

Data Sources

Monthly historical data for about 80 noncore commercial and industrial customers were obtained from SDG&E SYSCO billing records from 2004 to 2005. These customers were billed at GCORE, GTNC, and MULTI rates. Customers who were billed at MULTI rates were further disaggregates into GTNC rates and other rates, and only GTNC volumes were considered for this load. Customers who were billed at the GCORE rates were further disaggregated, and only noncore and non-EG volumes were considered for this load.

Methodology

Demand forecast for the noncore commercial and industrial load are estimated individually. Demand for each customer is projected to grow from the previous year's level by the anticipated employment growth of the customer's business. The employment growth for each business sector (classified by NAICS – North American Industry Classification System) is based on Global Insight's Winter 2005/2006 forecast in the San Diego area.

Gas demand fore individual facility is determined as the following:

Use (t), NAICS) = Use (t-1), NAICS) * Growth (t, NAICS) * (1 + (Gas Price Elasticity * (log(price (t)) – log(price (t-1))))

Where

1) gas price elasticity of -0.073 is estimated from an econometric model of SoCalGas' noncore commercial and industrial load, and
2) the gas price is estimated from methodology adopted by the CPUC in D.05-12-042.

Employment forecast is shown in Table I. Noncore commercial and industrial demand forecast before and after energy efficiency adjustment is shown in Table II.

Table 1
Noncore Commercial and Industrial Demand Forecast
Employment (000's)

	Agriculture	Construction, Resources and Mining	Service - Education and Health	Government - Federal	Service - Leasure and Hospitality	Manu-facturing	Military	Government - State and Local	Tranportation, Warehousing & Utilities
2005	10.91	92.94	123.78	38.76	149.28	103.70	115.67	178.03	28.52
2006	10.97	96.92	127.34	38.73	153.13	102.88	117.20	179.01	28.90
2007	11.02	99.27	130.01	38.72	156.01	101.76	118.95	181.70	29.42
2008	11.08	100.87	132.45	38.73	158.52	101.90	120.42	183.20	30.07
2009	11.14	101.54	134.26	38.89	161.09	102.02	122.05	186.07	30.92
2010	11.20	101.97	134.99	39.98	163.41	101.78	123.53	188.45	31.90
2011	11.26	102.61	135.72	38.83	165.41	101.43	124.78	190.94	32.83
2012	11.32	103.78	136.72	38.90	167.25	101.47	126.16	192.99	33.67
2013	11.38	105.32	138.08	38.90	169.06	101.60	127.74	195.83	34.52
2014	11.44	107.14	139.65	38.88	170.91	101.88	129.49	198.72	35.49
2015	11.50	109.09	141.46	38.86	172.86	102.31	131.28	201.40	36.55
2016	11.56	111.13	143.88	38.78	174.87	102.80	133.14	203.77	37.39
2017	11.63	113.11	147.03	38.68	176.87	103.27	135.01	206.06	38.02
2018	11.69	115.11	150.53	38.57	178.97	103.74	136.92	207.69	38.69
2019	11.75	117.03	154.23	38.54	181.25	104.10	138.79	209.21	39.41
2020	11.81	119.01	158.01	39.40	183.57	104.30	140.78	211.48	40.03
2021	11.88	120.86	162.13	38.28	185.72	104.52	142.69	213.47	40.70
2022	11.94	122.70	166.20	38.16	187.82	104.70	144.67	215.68	41.39
2023	12.00	124.60	170.16	38.04	189.91	104.95	146.67	217.87	42.10
2024	12.07	126.53	173.98	37.93	191.85	105.20	148.71	220.17	42.83
2025	12.13	128.65	178.01	37.82	193.67	105.43	150.83	222.67	43.64

Table 2
Noncore Commercial and Industrial Demand Forecast
Annual Demand (Mdth)

Year	Commercial Bundled	Commercial Bundled	Commercial Transport	Industrial Transport	- Com DSM	- Ind DSM	Net Com. Bundled	Net Ind. Bundled	Net Com. Transport	Net Ind Transport
2005	148.50	152.29	2,851.80	1,555.87	0.00	0.00	148.50	152.29	2,851.80	1,555.87
2006	145.85	142.02	2,487.08	1,579.07	2.55	22.96	145.71	140.07	2,484.67	1,558.06
2007	147.64	142.41	2,506.32	1,572.80	5.60	50.37	147.34	138.13	2,501.03	1,526.72
2008	151.41	146.03	2,567.26	1,588.78	6.65	59.88	151.04	140.94	2,560.98	1,533.99
2009	152.65	147.91	2,605.86	1,599.99	7.83	70.43	152.22	141.92	2,598.47	1,535.55
2010	153.16	148.36	2,631.64	1,604.89	9.11	82.00	152.66	141.39	2,623.03	1,529.86
2011	154.24	149.05	2,659.83	1,610.96	10.51	94.61	153.66	141.01	2,649.90	1,524.39
2012	155.64	149.63	2,682.49	1,616.85	12.03	108.24	154.97	140.43	2,671.13	1,517.81
2013	157.89	150.86	2,713.51	1,626.11	13.66	122.90	157.14	140.41	2,700.60	1,513.66
2014	160.54	152.31	2,747.09	1,636.86	15.28	137.56	159.70	140.62	2,732.65	1,510.99
2015	163.38	154.03	2,782.89	1,648.94	15.12	136.09	162.54	142.46	2,768.60	1,524.42
2016	165.97	155.94	2,815.21	1,659.52	14.20	127.79	165.19	145.08	2,801.80	1,542.59
2017	168.60	158.59	2,850.85	1,670.69	12.78	115.05	167.90	148.81	2,838.78	1,565.42
2018	171.09	161.38	2,884.93	1,679.89	13.36	120.20	170.35	151.16	2,872.31	1,569.92
2019	173.92	164.75	2,927.54	1,690.66	13.81	124.31	173.16	154.19	2,914.49	1,576.92
2020	176.98	168.29	2,974.20	1,702.45	14.16	127.40	176.20	157.46	2,960.83	1,585.88
2021	179.70	171.98	3,017.44	1,713.99	14.38	129.46	178.90	160.98	3,003.85	1,595.54
2022	182.33	175.55	3,059.19	1,725.01	14.50	130.48	181.53	164.45	3,045.49	1,605.61
2023	185.09	179.08	3,101.59	1,736.50	14.50	130.48	184.29	167.99	3,087.89	1,617.10
2024	187.91	182.50	3,142.96	1,747.95	14.50	130.48	187.11	171.41	3,129.26	1,628.56
2025	190.98	186.07	3,184.77	1,759.76	14.50	130.48	190.18	174.98	3,171.07	1,640.37

Noncore Commercial and Industrial Demand Forecast (Therms)

	AGR	CRM	EHS	LHS	MFG	MIL	NOC	SAL	TWU	Total
2004-Actual	847,915	6,409,571	5,875,884	12,283,486	8,494,428	3,263,137	3,864,551	1,360,482	789,321	43,188,775
2005-Actual	899,104	6,683,436	7,376,334	11,444,940	6,088,418	3,048,851	5,719,024	1,361,297	4,463,286	47,084,690
2006	851,668	6,656,313	7,092,554	11,774,221	6,044,022	3,091,785	5,675,521	1,415,768	938,375	43,540,225
2007	846,565	6,744,595	7,162,056	11,863,998	5,931,213	3,104,390	5,675,521	1,420,878	942,527	43,691,742
2008	859,678	6,916,374	7,367,108	12,170,924	5,967,886	3,171,543	5,675,521	1,447,112	958,734	44,534,880
2009	865,768	6,977,635	7,482,560	12,392,606	6,000,228	3,221,464	5,675,521	1,472,346	976,019	45,064,147
2010	869,743	7,006,067	7,519,821	12,565,977	6,004,318	3,260,349	5,675,521	1,490,082	988,667	45,380,544
2011	875,242	7,060,822	7,570,475	12,736,195	6,009,531	3,298,255	5,675,521	1,511,265	1,003,496	45,740,802
2012	878,104	7,131,397	7,613,506	12,855,968	6,023,773	3,330,215	5,675,521	1,524,389	1,013,179	46,046,051
2013	882,800	7,240,830	7,690,872	12,998,068	6,046,666	3,373,411	5,675,521	1,546,841	1,028,700	46,483,709
2014	887,505	7,368,909	7,780,212	13,142,787	6,077,943	3,420,962	5,675,521	1,569,684	1,044,506	46,968,030
2015	892,269	7,506,161	7,883,049	13,296,147	6,119,081	3,469,946	5,675,521	1,590,951	1,059,284	47,492,409
2016	894,980	7,632,230	8,001,731	13,423,670	6,149,861	3,512,612	5,675,521	1,605,981	1,069,933	47,966,517
2017	898,426	7,757,537	8,165,090	13,557,652	6,173,793	3,557,125	5,675,521	1,621,642	1,080,559	48,487,345
2018	900,960	7,874,700	8,338,768	13,684,156	6,183,911	3,598,170	5,675,521	1,630,428	1,086,311	48,972,923
2019	906,051	8,005,558	8,544,464	13,860,054	6,193,159	3,647,100	5,675,521	1,642,866	1,093,988	49,568,761
2020	911,925	8,147,711	8,762,378	14,051,304	6,198,741	3,702,376	5,675,521	1,662,631	1,106,601	50,219,188
2021	916,995	8,274,446	8,991,891	14,217,952	6,205,981	3,752,678	5,675,521	1,678,661	1,116,955	50,831,080
2022	921,696	8,397,523	9,215,206	14,374,320	6,209,345	3,803,396	5,675,521	1,695,689	1,128,016	51,420,711
2023	926,683	8,526,484	9,434,399	14,533,988	6,217,570	3,855,657	5,675,521	1,713,035	1,139,241	52,022,577
2024	931,726	8,658,314	9,646,540	14,683,370	6,226,458	3,908,835	5,675,521	1,731,337	1,151,115	52,613,216
2025	936,666	8,801,800	9,868,924	14,820,836	6,233,385	3,963,799	5,675,521	1,750,987	1,163,903	53,215,820

2006 CALIFORNIA GAS REPORT

NATURAL GAS VEHICLES
JULY 2006

Natural Gas Vehicles

YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL	RATE	DELCODE	NGVTYPE
2005	0.24	0.27	0.24	0.27	0.21	0.3	0.22	0.22	0.17	0.17	0.21	0.16	2.7	GNV	N	C
2006	0.27	0.30	0.27	0.30	0.24	0.33	0.25	0.25	0.20	0.20	0.24	0.19	3.0	GNV	N	C
2007	0.29	0.32	0.29	0.32	0.26	0.35	0.27	0.27	0.22	0.22	0.26	0.21	3.3	GNV	N	C
2008	0.32	0.35	0.32	0.35	0.29	0.38	0.30	0.30	0.25	0.25	0.29	0.24	3.7	GNV	N	C
2009	0.35	0.38	0.35	0.38	0.32	0.41	0.33	0.33	0.28	0.28	0.32	0.27	4.0	GNV	N	C
2010	0.38	0.41	0.38	0.41	0.35	0.44	0.36	0.36	0.31	0.31	0.35	0.30	4.3	GNV	N	C
2011	0.40	0.43	0.40	0.43	0.37	0.46	0.38	0.38	0.33	0.33	0.37	0.32	4.6	GNV	N	C
2012	0.43	0.46	0.43	0.46	0.40	0.49	0.41	0.41	0.36	0.36	0.40	0.35	4.9	GNV	N	C
2013	0.46	0.49	0.46	0.49	0.43	0.52	0.44	0.44	0.39	0.39	0.43	0.38	5.3	GNV	N	C
2014	0.48	0.51	0.48	0.51	0.45	0.54	0.46	0.46	0.41	0.41	0.45	0.40	5.6	GNV	N	C
2015	0.51	0.54	0.51	0.54	0.48	0.57	0.49	0.49	0.44	0.44	0.48	0.43	5.9	GNV	N	C
2016	0.54	0.57	0.54	0.57	0.51	0.60	0.52	0.52	0.47	0.47	0.51	0.46	6.2	GNV	N	C
2017	0.56	0.59	0.56	0.59	0.53	0.62	0.54	0.54	0.49	0.49	0.53	0.48	6.6	GNV	N	C
2018	0.59	0.62	0.59	0.62	0.56	0.65	0.57	0.57	0.52	0.52	0.56	0.51	6.9	GNV	N	C
2019	0.62	0.65	0.62	0.65	0.59	0.68	0.60	0.60	0.55	0.55	0.59	0.54	7.2	GNV	N	C
2020	0.65	0.68	0.65	0.68	0.62	0.71	0.63	0.63	0.58	0.58	0.62	0.57	7.5	GNV	N	C
2021	0.67	0.70	0.67	0.70	0.64	0.73	0.65	0.65	0.60	0.60	0.64	0.59	7.9	GNV	N	C
2022	0.70	0.73	0.70	0.73	0.67	0.76	0.68	0.68	0.63	0.63	0.67	0.62	8.2	GNV	N	C
2023	0.73	0.76	0.73	0.76	0.70	0.79	0.71	0.71	0.66	0.66	0.70	0.65	8.5	GNV	N	C
2024	0.75	0.78	0.75	0.78	0.72	0.81	0.73	0.73	0.68	0.68	0.72	0.67	8.8	GNV	N	C
2025	0.78	0.81	0.78	0.81	0.75	0.84	0.76	0.76	0.71	0.71	0.75	0.70	9.2	GNV	N	C
2005	71.78	67.06	73.3	73.9	76.54	74.43	75.67	82.95	83.03	84.97	84.51	81.88	930.0	GNV	N	U
2006	77.18	72.46	78.7	79.3	81.94	79.83	81.07	88.35	88.43	90.37	89.91	87.28	994.8	GNV	N	U
2007	79.25	74.53	80.77	81.37	84.01	81.90	83.14	90.42	90.50	92.44	91.98	89.35	1019.7	GNV	N	U
2008	81.33	76.61	82.85	83.45	86.09	83.98	85.22	92.50	92.58	94.52	94.06	91.43	1044.6	GNV	N	U
2009	83.40	78.68	84.92	85.52	88.16	86.05	87.29	94.57	94.65	96.59	96.13	93.50	1069.4	GNV	N	U
2010	85.47	80.75	86.99	87.59	90.23	88.12	89.36	96.64	96.72	98.66	98.20	95.57	1094.3	GNV	N	U
2011	87.54	82.82	89.06	89.66	92.30	90.19	91.43	98.71	98.79	100.73	100.27	97.64	1119.2	GNV	N	U
2012	89.62	84.90	91.14	91.74	94.38	92.27	93.51	100.79	100.87	102.81	102.35	99.72	1144.0	GNV	N	U
2013	91.69	86.97	93.21	93.81	96.45	94.34	95.58	102.86	102.94	104.88	104.42	101.79	1168.9	GNV	N	U
2014	93.76	89.04	95.28	95.88	98.52	96.41	97.65	104.93	105.01	106.95	106.49	103.86	1193.8	GNV	N	U
2015	95.83	91.11	97.35	97.95	100.59	98.48	99.72	107.00	107.08	109.02	108.56	105.93	1218.7	GNV	N	U
2016	97.91	93.19	99.43	100.03	102.67	100.56	101.80	109.08	109.16	111.10	110.64	108.01	1243.5	GNV	N	U
2017	99.98	95.26	101.50	102.10	104.74	102.63	103.87	111.15	111.23	113.17	112.71	110.08	1268.4	GNV	N	U
2018	102.05	97.33	103.57	104.17	106.81	104.70	105.94	113.22	113.30	115.24	114.78	112.15	1293.3	GNV	N	U
2019	104.12	99.40	105.64	106.24	108.88	106.77	108.01	115.29	115.37	117.31	116.85	114.22	1318.1	GNV	N	U
2020	106.20	101.48	107.72	108.32	110.96	108.85	110.09	117.37	117.45	119.39	118.93	116.30	1343.0	GNV	N	U
2021	108.27	103.55	109.79	110.39	113.03	110.92	112.16	119.44	119.52	121.46	121.00	118.37	1367.9	GNV	N	U
2022	110.34	105.62	111.86	112.46	115.10	112.99	114.23	121.51	121.59	123.53	123.07	120.44	1392.7	GNV	N	U

Natural Gas Vehicles

YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL	RATE	DELCODE	NGVTYPE
2023	112.41	107.69	113.93	114.53	117.17	115.06	116.30	123.58	123.66	125.60	125.14	122.51	1417.6	GNV	N	U
2024	114.49	109.77	116.01	116.61	119.25	117.14	118.38	125.66	125.74	127.68	127.22	124.59	1442.5	GNV	N	U
2025	116.56	111.84	118.08	118.68	121.32	119.21	120.45	127.73	127.81	129.75	129.29	126.66	1467.4	GNV	N	U
2005	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2006	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2007	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2008	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2009	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2010	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2011	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2012	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2013	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2014	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2015	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2016	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2017	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2018	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2019	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2020	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2021	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2022	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2023	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2024	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U
2025	0	0	0	0	0	0	0	0	0	0	0	0	0.0	GNV	T	U

2006 CGR
Compressed:
2005 throughput is actual from SDG&E tax report and provided by Jim Blake.
Compressed throughput growth is projected at 1.0% through 2025. SDG&E has three public access NGV stations and there are no plans to increase that number.

Uncompressed:
2005 throughput is actual provided by Jim Blake from SDG&E tax report.
2006 throughput is projected based on the first three months of 2006 and customer information provided by NGV AE.
Average growth rate for uncompressed throughput 2005 through 2025 is projected at 2.3%. The transit market accounts for about 56% of the throughput. The transit market is near its saturation, and therefore the throughput going forward is focused on school buses, shared rides and Government vehicles.

Expected average station growth rate 2005 through 2025 is 2.4% to a total of 53.

0.023972

2006 CALIFORNIA GAS REPORT

COGENERATION DEMAND FORECAST
JULY 2006

Cogeneration Demand Forecast

Cogeneration demand forecast described in these workpapers is for those self-generation customers who have installed equipment primarily to generate electricity for their own use, as well as sell the power to an electric utility.

Data Sources

Monthly historical data for about 80 noncore commercial and industrial customers were obtained from SDG&E SYSCO billing records from 2003 to 2005. These customers were billed at EG, GCORE, and MULTI rates. Customers who were billed at GCORE and MULTI rates were further disaggregated into EG rates and other rates, and only EG volumes were considered for this load.

Methodology

Demand forecast for the noncore commercial and industrial load are estimated from recorded load in 2005 and incremental annual demand growth. Annual growth from 2006 to 2025 is taken from incremental demand for self-generation from the CEC Report California Energy Demand 2006-2016 - Staff Draft Energy Demand Forecast (Publication Number CEC-400-2005-034-SD. Internet link http://www.energy.ca.gov/2005publications/CEC-400-2005-034/CEC-400-2005-034-SD.PDF) in GWh and converted into therm based on a cogeneration heat rate of 0.105 Therm/KWh.

Cogeneration Demand Forecast

SOURCE	YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
Ncore(CogenEG)	2006	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	1,661	19,935
Ncore(CogenEG)	2007	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	1,680	20,166
Ncore(CogenEG)	2008	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	20,397
Ncore(CogenEG)	2009	1,707	1,707	1,707	1,707	1,707	1,707	1,707	1,707	1,707	1,707	1,707	1,707	20,481
Ncore(CogenEG)	2010	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	1,712	20,544
Ncore(CogenEG)	2011	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	1,717	20,607
Ncore(CogenEG)	2012	1,722	1,722	1,722	1,722	1,722	1,722	1,722	1,722	1,722	1,722	1,722	1,722	20,670
Ncore(CogenEG)	2013	1,727	1,727	1,727	1,727	1,727	1,727	1,727	1,727	1,727	1,727	1,727	1,727	20,722
Ncore(CogenEG)	2014	1,732	1,732	1,732	1,732	1,732	1,732	1,732	1,732	1,732	1,732	1,732	1,732	20,785
Ncore(CogenEG)	2015	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	20,848
Ncore(CogenEG)	2016	1,742	1,742	1,742	1,742	1,742	1,742	1,742	1,742	1,742	1,742	1,742	1,742	20,901
Ncore(CogenEG)	2017	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	1,746	20,953
Ncore(CogenEG)	2018	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	21,006
Ncore(CogenEG)	2019	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	1,755	21,058
Ncore(CogenEG)	2020	1,759	1,759	1,759	1,759	1,759	1,759	1,759	1,759	1,759	1,759	1,759	1,759	21,111
Ncore(CogenEG)	2021	1,764	1,764	1,764	1,764	1,764	1,764	1,764	1,764	1,764	1,764	1,764	1,764	21,163
Ncore(CogenEG)	2022	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	1,768	21,216
Ncore(CogenEG)	2023	1,772	1,772	1,772	1,772	1,772	1,772	1,772	1,772	1,772	1,772	1,772	1,772	21,268
Ncore(CogenEG)	2024	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777	1,777	21,321
Ncore(CogenEG)	2025	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	1,781	21,373

CEC Self-Gen Demand Forecast
California Energy Demand Forecast 2006-2016 Staff Energy Forecast
Report: CEC-400-2005-034-SD June 2005. Table 1-2 Private Supply GWh

	Private Supply GWh	Incremental GWh	Incremental Therm	
2003	292		0.105	Therm/KWh
2004	326	34	3,570,000	
2005	348	22	2,310,000	
2006	370	22	2,310,000	
2007	392	22	2,310,000	
2008	400	8	840,000	
2009	406	6	630,000	
2010	412	6	630,000	
2011	418	6	630,000	
2012	423	5	525,000	
2013	429	6	630,000	
2014	435	6	630,000	
2015	440	5	525,000	
2016	445	5	525,000	
2017	450	5	525,000	
2018	455	5	525,000	
2019	460	5	525,000	
2020	465	5	525,000	
2021	470	5	525,000	
2022	475	5	525,000	
2023	480	5	525,000	
2024	485	5	525,000	
2025	490	5	525,000	
2026	495	5	525,000	
2027	500	5	525,000	
2028	505	5	525,000	
2029	510	5	525,000	
2030	515	5	525,000	

2006 CALIFORNIA GAS REPORT

ENERGY EFFICIENCY
JULY 2006

	2005 therms	2006 therms	2007 therms	2008 therms	2009 therms	2010 therms	2011 therms	2012 therms	2013 therms	2014 therms	2015 therms
SDG&E EE Programs TOTAL	**3,589,104**	**3,813,036**	**4,002,666**	**3,846,188**							
PUC Goal	**1,800,000**	**2,700,000**	**3,100,000**	**3,700,000**	4,100,000	4,500,000	4,900,000	5,300,000	5,700,000	5,700,000	5,700,000
Difference	**1,789,104**	**1,113,036**	**902,666**	**146,188**							

SDGE	2005 therms	2006 therms	2007 therms	2008 therms	2009 therms	2010 therms	2011 therms	2012 therms	2013 therms	2014 therms	2015 therms
Residential	1,807,176	1,013,099	1,073,524	993,132	1,058,670	1,161,955	1,265,240	1,368,524	1,471,809	1,471,809	1,471,809
Core Commercial	1,570,505	2,390,824	2,485,281	2,688,267	2,865,668	3,145,245	3,424,823	3,704,400	3,983,977	3,983,977	3,983,977
Core Industrial	32,168	48,912	50,892	55,135	58,774	64,508	70,242	75,976	81,710	81,710	81,710
Noncore Commercial	17,926	36,032	39,314	10,993	11,718	12,861	14,004	15,148	16,291	16,291	16,291
Noncore Industrial	161,330	324,289	353,827	98,933	105,461	115,750	126,039	136,328	146,617	146,617	146,617
Total	**3,589,104**	**3,813,156**	**4,002,838**	**3,846,460**	**4,100,291**	**4,500,319**	**4,900,347**	**5,300,376**	**5,700,404**	**5,700,404**	**5,700,404**

Proportionally scale it down to match PUC Goal for 2006,2007, and 2008

ANNUAL NET SAVINGS	2005 mdth	2006 mdth	2007 mdth	2008 mdth	2009 mdth	2010 mdth	2011 mdth	2012 mdth	2013 mdth	2014 mdth	2015 mdth
Residential	181	72	83	96	106	116	127	137	147	147	147
Core Commercial	157	169	192	259	287	315	342	370	398	398	398
Core Industrial	3	3	4	5	6	6	7	8	8	8	8
Noncore Commercial	2	3	3	1	1	1	1	2	2	2	2
Noncore Industrial	16	23	27	10	11	12	13	14	15	15	15
Total	359	270	310	370	410	450	490	530	570	570	570

Cumulative Savings mdth **SDGE**	2005 mdth	2006 mdth	2007 mdth	2008 mdth	2009 mdth	2010 mdth	2011 mdth	2012 mdth	2013 mdth	2014 mdth	2015 mdth
Residential	181	252	336	431	537	653	780	917	1,064	1,211	1,177
Core Commercial	157	326	519	777	1,064	1,379	1,721	2,091	2,490	2,888	3,130
Core Industrial	3	7	11	16	22	28	35	43	51	59	64
Noncore Commercial	-	3	6	7	8	9	11	12	14	15	15
Noncore Industrial	-	23	50	60	70	82	95	108	123	138	136
Total Load Impacts	**341**	**611**	**921**	**1,291**	**1,701**	**2,151**	**2,641**	**3,171**	**3,741**	**4,311**	**4,522**

Cumulative Savings MMCF MMCF factor: 1.012

SDGE	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Residential	179	249	332	426	531	645	770	906	1,051	1,197	1,163
Core Commercial	155	322	513	768	1,051	1,362	1,701	2,067	2,460	2,854	3,092
Core Industrial	3	7	10	16	22	28	35	42	50	59	63
Noncore Commercial	-	3	6	7	8	9	10	12	13	15	15
Noncore Industrial	-	23	50	59	70	81	93	107	121	136	134
Total Cumulative Load	**337**	**604**	**910**	**1,276**	**1,681**	**2,126**	**2,610**	**3,134**	**3,697**	**4,260**	**4,469**

File: [Workpapers_SoCalGas_SDGE_EE_Update(5-18-2006)_Starting2006.xls] SDGE_March_2006_Update

	2016 therms	2017 therms	2018 therms	2019 therms	2020 therms					
SDG&E EE Programs TOTAL										
PUC Goal	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000	5,700,000
Difference										

SDGE	2016 therms	2017 therms	2018 therms	2019 therms	2020 therms
Residential	1,471,809	1,471,809	1,471,809	1,471,809	1,471,809
Core Commercial	3,983,977	3,983,977	3,983,977	3,983,977	3,983,977
Core Industrial	81,710	81,710	81,710	81,710	81,710
Noncore Commercial	16,291	16,291	16,291	16,291	16,291
Noncore Industrial	146,617	146,617	146,617	146,617	146,617
Total	**5,700,404**	**5,700,404**	**5,700,404**	**5,700,404**	**5,700,404**

Proportionally scale it down t

ANNUAL NET SAVINGS	2016 mdth	2017 mdth	2018 mdth	2019 mdth	2020 mdth	2021 mdth	2022 mdth	2023 mdth	2024 mdth	2025 mdth
Residential	147	147	147	147	147	147	147	147	147	147
Core Commercial	398	398	398	398	398	398	398	398	398	398
Core Industrial	8	8	8	8	8	8	8	8	8	8
Noncore Commercial	2	2	2	2	2	2	2	2	2	2
Noncore Industrial	15	15	15	15	15	15	15	15	15	15
Total	570	570	570	570	570	570	570	570	570	570

Cumulative Savings mdth **SDGE**	2016 mdth	2017 mdth	2018 mdth	2019 mdth	2020 mdth	2021 mdth	2022 mdth	2023 mdth	2024 mdth	2025 mdth
Residential	1,253	1,317	1,369	1,410	1,441	1,461	1,472	1,472	1,472	1,472
Core Commercial	3,359	3,565	3,704	3,816	3,900	3,956	3,984	3,984	3,984	3,984
Core Industrial	69	73	76	78	80	81	82	82	82	82
Noncore Commercial	14	13	13	14	14	14	14	14	14	14
Noncore Industrial	128	115	120	124	127	129	130	130	130	130
Total Load Impacts	**4,822**	**5,082**	**5,282**	**5,442**	**5,562**	**5,642**	**5,682**	**5,682**	**5,682**	**5,682**

Cumulative Savings MMCF

SDGE	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Residential	1,238	1,301	1,352	1,393	1,424	1,444	1,454	1,454	1,454	1,454
Core Commercial	3,319	3,522	3,660	3,771	3,854	3,909	3,937	3,937	3,937	3,937
Core Industrial	68	72	75	77	79	80	81	81	81	81
Noncore Commercial	14	13	13	14	14	14	14	14	14	14
Noncore Industrial	126	114	119	123	126	128	129	129	129	129
Total Cumulative Load	**4,765**	**5,022**	**5,220**	**5,378**	**5,497**	**5,576**	**5,615**	**5,615**	**5,615**	**5,615**

File: [Workpapers_SoCalGas_SDGE_EE_Update(5-18-2006)_Starting2006.xls] SDGE_March_2006_Update

2006 CALIFORNIA GAS REPORT

PEAKDAY FORECAST
JULY 2006

SDG&E Heating Degree Day (HDD) Weather Designs
(Calendar Based)

	Cold		Average	Hot	
	1-in-35 exceedance	1-in-10 exceedance		1-in-10 year recur	1-in-35 year recur
January	345.5	318.7	267.7	216.8	190.0
February	283.8	261.8	219.9	178.1	156.0
March	245.5	226.4	190.2	154.0	135.0
April	143.9	132.7	111.5	90.3	79.1
May	66.5	61.4	51.5	41.7	36.6
June	15.1	13.9	11.7	9.5	8.3
July	0.4	0.4	0.3	0.2	0.2
August	0.0	0.0	0.0	0.0	0.0
September	2.9	2.7	2.3	1.8	1.6
October	27.2	25.1	21.1	17.1	15.0
November	179.5	165.6	139.1	112.7	98.7
December	364.5	336.2	282.5	228.7	200.4
	1675	1545	1298	1051	921

File: J:\forecast\SasProg\BMW
\Weather\Data\SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls(Hdd(OIR-Phase2_2006CGR_Designs));
BMW

2006-CGR Sales + Transport + Exchange for Month of DECEMBER (S:\California Gas Reports\2006cgr\BMWfiles\Out-Excel\, units=Mdth/Day)
Temp=January, Peak-Day

No. "CGR_B"	CLASS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	RESIDEN	337.9	339.1	340.3	343.9	346.8	350.9	355.0	358.1	361.9	365.5	369.0	372.7	375.5	377.9	380.9	383.5	386.1	389.2	391.8	394.4	397.3
2	Com G10	94.1	94.2	94.7	96.3	98.1	99.9	101.3	102.4	103.8	105.2	106.6	107.8	108.8	109.5	110.3	111.3	112.1	113.0	113.9	114.8	115.9
2	GAC 2/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	GEN 2/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Ind G10	9.4	9.4	9.3	9.3	9.4	9.4	9.5	9.5	9.6	9.6	9.7	9.7	9.7	9.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8
4	NGV 2/	3.4	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.7	4.8	4.9	5.0	5.1	5.2	5.3
Total:	MDth/day	444.8	446.3	448.0	453.3	458.2	464.2	469.8	474.2	479.5	484.7	489.7	494.7	498.6	501.9	505.7	509.4	512.9	517.0	520.6	524.2	528.3
	MMcf/day 4/	438.3	439.7	441.3	446.6	451.4	457.4	462.8	467.2	472.4	477.5	482.4	487.4	491.3	494.5	498.2	501.9	505.3	509.4	512.9	516.4	520.5
	Days per Mo	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
	Pk-Day Temp. (deg-F) =	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
	Hdd: December--ColdYr =	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5
	"Wkday/Wkend" Factor-Res:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
	"Wkday/Wkend" Factor-NonRes:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Zero-HDD Load/Day Seasonal "Scale-Up":		128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%

Use this Methodology for the 2006-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 41.4 degF)

2/ "Non-temperature" sensitive market segment.

3/ "Weekday/Weekend" Factor applies to the "raw" estimate.

4/ Dth/Mcf= 1.0150

File: [SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls] Temp=PkDay(by Detail_Market)

2006-CGR Sales + Transport + Exchange for Month of DECEMBER (S:\California Gas Reports\2006cgr\BMWfiles\Out-Excel\, units=Mdth/Day)
Temp=January, Peak-Day

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
CGR_B	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Residen	337.9	339.1	340.3	343.9	346.8	350.9	355.0	358.1	361.9	365.5	369.0	372.7	375.5	377.9	380.9	383.5	386.1	389.2	391.8	394.4	397.3
Com-core 4/	94.1	94.2	94.7	96.3	98.1	99.9	101.3	102.4	103.8	105.2	106.6	107.8	108.8	109.5	110.3	111.3	112.1	113.0	113.9	114.8	115.9
Ind-core	9.4	9.4	9.3	9.3	9.4	9.4	9.5	9.5	9.6	9.6	9.7	9.7	9.7	9.7	9.8	9.8	9.8	9.8	9.8	9.8	9.8
NGV 2/	3.4	3.6	3.7	3.8	3.9	4.0	4.0	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.7	4.8	4.9	5.0	5.1	5.2	5.3
Total: MDth/day	444.8	446.3	448.0	453.3	458.2	464.2	469.8	474.2	479.5	484.7	489.7	494.7	498.6	501.9	505.7	509.4	512.9	517.0	520.6	524.2	528.3
Peak-Day Dmd: MMcf/day 5/	438.3	439.7	441.3	446.6	451.4	457.4	462.8	467.2	472.4	477.5	482.4	487.4	491.3	494.5	498.2	501.9	505.3	509.4	512.9	516.4	520.5
Firm Storage Wdrl 6/ & 7/ : MMcf/day	225	225.7	226.6	229	232	234.8	238	240	243	245	247.7	250	252	254	256	258	259	262	263	265	267
Req. Flowing Supplies 8/ : MMcf/day	213	214.0	214.8	217	220	222.6	225	227	230	232	234.7	237	239	241	242	244	246	248	250	251	253
Days per Mo	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31
Pk-Day Temp. (deg-F) =	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
Hdd: December--ColdYr =	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5	364.5
"Wkday/Wkend" Factor-Res:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
"Wkday/Wkend" Factor-NonRes:	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Zero-HDD Load/Day Seasonal "Scale-Up":	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%	128.0%

Use this Methodology for the 2006-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 41.4 degF)

2/ "Non-temperature" sensitive market segment.

3/ "Weekday/Weekend" Factor applies to the "raw" estimate.

4/ Includes GAC **2/** and GEN **2/** market segments.

5/ Dth/Mcf= 1.015

6/ Allocated Core firm withdrawal rights for years 2002 through 2005 per term of Comprehensive Settlement Agreement for GIR.

7/ For 2006 and afterwards, growth is in proportion to the annual growth in "Peak-Day" demand.

8/ Calculated as the difference of "Peak-Day" demand and "Allocated Core firm withdrawal rights" for each respective year.

File: [SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls] Temp=PkDay(by CGR_Mkt)

3:40 PM Monday, May 22, 2006 2006-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, Cold Year

CLASS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Residen	5,785.6	5,805.9	5,826.5	5,887.6	5,937.3	6,008.2	6,077.3	6,131.8	6,196.7	6,258.3	6,317.9	6,380.8	6,429.8	6,470.9	6,521.3	6,566.3	6,611.5	6,664.3	6,708.2	6,752.2	6,802.3
Com GN3	1,818.3	1,820.5	1,830.4	1,861.7	1,896.9	1,931.2	1,957.6	1,980.1	2,006.7	2,033.9	2,060.5	2,083.7	2,102.6	2,117.0	2,132.4	2,151.8	2,166.5	2,184.2	2,201.9	2,219.8	2,240.9
GAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ind GN3	192.2	191.1	188.3	189.5	191.0	192.2	193.0	193.7	194.6	195.5	196.6	197.4	198.0	198.2	198.4	198.5	198.6	198.7	198.8	199.0	199.3
NGV	82.0	87.5	89.6	91.7	93.8	95.9	98.0	100.1	102.2	104.3	106.4	108.5	110.6	112.7	114.8	116.9	119.0	121.1	123.2	125.3	127.4
	7,878.1	7,905.0	7,934.8	8,030.5	8,119.0	8,227.4	8,325.9	8,405.6	8,500.2	8,592.0	8,681.3	8,770.4	8,841.0	8,898.8	8,966.9	9,033.4	9,095.5	9,168.2	9,232.0	9,296.2	9,369.9

File: [SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls] Temp=Col(by Detail_Market)

3:40 PM Monday, May 22, 2006 2006-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, "Base/Zero-Hdd" Year

CGR_B	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Residen	1,562.7	1,568.2	1,573.8	1,590.3	1,603.7	1,622.8	1,641.5	1,656.2	1,673.8	1,690.4	1,706.5	1,723.5	1,736.7	1,747.8	1,761.4	1,773.6	1,785.8	1,800.0	1,811.9	1,823.8	1,837.3
Com-core	1,008.1	1,009.3	1,014.8	1,032.1	1,051.7	1,070.7	1,085.4	1,097.8	1,112.6	1,127.6	1,142.4	1,155.2	1,165.7	1,173.7	1,182.2	1,193.0	1,201.2	1,211.0	1,220.8	1,230.7	1,242.4
Ind-core	127.7	127.0	125.1	125.9	127.0	127.7	128.2	128.7	129.3	129.9	130.6	131.2	131.6	131.7	131.9	131.9	132.0	132.0	132.1	132.2	132.4
NGV	82.0	87.5	89.6	91.7	93.8	95.9	98.0	100.1	102.2	104.3	106.4	108.5	110.6	112.7	114.8	116.9	119.0	121.1	123.2	125.3	127.4
	2,780.6	2,792.0	2,803.3	2,840.0	2,876.1	2,917.1	2,953.1	2,982.8	3,017.8	3,052.2	3,085.9	3,118.4	3,144.6	3,165.9	3,190.3	3,215.3	3,237.9	3,264.1	3,287.9	3,312.0	3,339.5

File: [SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls] Temp=Bas(by CGR_Mkt)

3:40 PM Monday, May 22, 2006 2006-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, Cold Year

CGR_B	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Residen	5,785.6	5,805.9	5,826.5	5,887.6	5,937.3	6,008.2	6,077.3	6,131.8	6,196.7	6,258.3	6,317.9	6,380.8	6,429.8	6,470.9	6,521.3	6,566.3	6,611.5	6,664.3	6,708.2	6,752.2	6,802.3
Com-core	1,818.3	1,820.5	1,830.4	1,861.7	1,896.9	1,931.2	1,957.6	1,980.1	2,006.7	2,033.9	2,060.5	2,083.7	2,102.6	2,117.0	2,132.4	2,151.8	2,166.5	2,184.2	2,201.9	2,219.8	2,240.9
Ind-core	192.2	191.1	188.3	189.5	191.0	192.2	193.0	193.7	194.6	195.5	196.6	197.4	198.0	198.2	198.4	198.5	198.6	198.7	198.8	199.0	199.3
NGV	82.0	87.5	89.6	91.7	93.8	95.9	98.0	100.1	102.2	104.3	106.4	108.5	110.6	112.7	114.8	116.9	119.0	121.1	123.2	125.3	127.4
	7,878.1	7,905.0	7,934.8	8,030.5	8,119.0	8,227.4	8,325.9	8,405.6	8,500.2	8,592.0	8,681.3	8,770.4	8,841.0	8,898.8	8,966.9	9,033.4	9,095.5	9,168.2	9,232.0	9,296.2	9,369.9

File: [SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls] Temp=Col(by CGR_Mkt)

3:40 PM Monday, May 22, 2006 2006-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, "Base/Zero-Hdd" Year

CLASS	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Residen	1,563	1,568	1,574	1,590	1,604	1,623	1,642	1,656	1,674	1,690	1,706	1,723	1,737	1,748	1,761	1,774	1,786	1,800	1,812	1,824	1,837
Com GN3	1,008	1,009	1,015	1,032	1,052	1,071	1,085	1,098	1,113	1,128	1,142	1,155	1,166	1,174	1,182	1,193	1,201	1,211	1,221	1,231	1,242
GAC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GEN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ind GN3	128	127	125	126	127	128	128	129	129	130	131	131	132	132	132	132	132	132	132	132	132
NGV	82	87	90	92	94	96	98	100	102	104	106	108	111	113	115	117	119	121	123	125	127
	2,781	2,792	2,803	2,840	2,876	2,917	2,953	2,983	3,018	3,052	3,086	3,118	3,145	3,166	3,190	3,215	3,238	3,264	3,288	3,312	3,340

File: [SdgeByTable-PeakDayDmd4PeakMo(22May2006).xls] Temp=Bas(by Detail_Market)

2006 CALIFORNIA GAS REPORT

SUPPORTING DATA
JULY 2006

2006 CALIFORNIA GAS REPORT

**WEATHER: HEATING DEGREE DAYS – AVERAGE AND "COLD" YEAR DESIGNS;
AND WINTER PEAK DAY DESIGN TEMPERATURES
JULY 2006**

Weather

I. Overview

San Diego Gas and Electric Company's service area for natural gas extends from southern Orange County throughout San Diego County to the Mexican border. To quantify the overall temperature experienced within this region, SDGandE aggregates daily temperature recordings from three U.S. Weather Bureau weather stations into one system average heating degree-day ("HDD") figure. The table below lists weather station locations along with a designated temperature zone as a mnemonic.

Table 1

Temperature Zones with Representative Weather Stations

Temperature Zone	Weight	Station Location
1. Inland (East)	0.3500	El Cajon
2. Coastal	0.3000	San Diego's Lindberg Field
3. Inland (North)	0.3500	Miramar Naval Air Station

SDGandE uses 65° Fahrenheit to calculate the number of HDDs. One heating degree-day is accumulated for each degree that the daily average is *below* 65° Fahrenheit. To arrive at the system average HDDs figure for its entire service area, SDGandE weights the HDD figure for each zone using the weights shown in Table 1. These weights are used in calculating the data shown from January 1983 to December 2002.

Daily maximum and minimum temperatures, for each individual weather station in the table above, are compiled from National Weather Service data. The web-site:

http://newweb.wrh.noaa.gov/sgx/obs/rtp/rtpmap.php?wfo=sgx

provides easy access to temperature data for San Diego and parts of surrounding counties. For each station, the average temperature is computed as the (maximum + minimum)/2 and this value is used to compute the heating degrees (i.e., the *daily* HDD) for each station as well. System average values of HDD are then computed using the weights for each respective station. Annual

and monthly HDDs for the entire SDGandE service area from 1983 to 2002 are listed in Table 2, below.

Table 2

Calendar Month Heating Degree-Days (Jan. 1983 through Dec. 2002)

Year	Month Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total "Cal-Year"
1983	207	185	171	163	47	13	0	0	0	0	137	227	1151
1984	210	207	112	78	11	2	0	0	0	27	178	325	1151
1985	320	275	261	74	44	7	0	0	1	9	193	237	1421
1986	142	198	161	115	46	0	0	0	20	26	87	244	1039
1987	330	227	203	75	40	4	2	1	0	4	134	395	1414
1988	289	164	136	101	61	30	0	0	7	9	174	309	1280
1989	362	281	169	60	45	17	0	0	3	24	84	225	1271
1990	275	302	205	66	54	5	0	0	0	1	107	312	1327
1991	259	148	283	121	95	25	0	0	1	32	109	248	1321
1992	243	118	161	14	1	0	0	0	0	3	115	353	1008
1993	269	227	132	65	16	9	0	0	2	7	123	266	1117
1994	229	233	160	125	91	2	0	0	0	31	291	310	1472
1995	267	117	165	128	108	23	0	0	0	7	43	223	1080
1996	237	190	177	73	18	3	0	0	1	75	143	244	1161
1997	258	253	145	103	2	2	0	0	0	17	96	292	1170
1998	256	260	207	197	95	23	1	0	5	32	172	342	1590
1999	279	271	285	225	112	49	3	0	4	4	146	245	1622
2000	249	219	224	94	28	3	0	0	0	51	241	228	1336
2001	355	300	199	197	28	5	0	0	0	9	128	328	1549
2002	318	226	248	156	88	12	0	0	2	54	82	298	1483
20-Yr-Avg (Jan1983-Dec2002)													
Avg.	**267.8**	**219.9**	**190.2**	**111.5**	**51.6**	**11.7**	**0.3**	**0.0**	**2.3**	**21.1**	**139.1**	**282.5**	**1298.0**
St.Dev.	**52.7**	**55.1**	**49.5**	**53.8**	**35.4**	**12.7**	**0.8**	**0.1**	**4.6**	**20.5**	**57.7**	**50.4**	**186.331**
Min.	**142.2**	**117.0**	**112.4**	**13.8**	**1.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**42.7**	**223.0**	**1007.5**
Max.	**362.0**	**302.0**	**285.2**	**225.2**	**111.5**	**48.6**	**3.2**	**0.7**	**20.1**	**75.3**	**290.6**	**394.9**	**1621.9**

II. Calculations to Define Our Average-Temperature Year

The simple average of the 20-year period (January 1983 through December 2002) was used to represent the Average Year total and the individual monthly values for HDD. The standard deviation of these 20 years of annual HDDs was used to design the two Cold Years based on a “1-in-10” and “1-in-35” chance, ***c***, that the respective annual “Cold Year” $\boldsymbol{hdd_c}$ value would be exceeded.

Our model for the annual HDD data is essentially a regression model where the only “explanatory” variable is the constant term. For example, the annual HDDs are modeled by the equation below:

$HDD_y = \beta_0 + e_y$; where β_0 represents the mean and the e_y is an error term.

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It turns out (e.g., see *Econometrics*, Wonnacott and Wonnacott, 1970, Wiley & Sons, Inc., 1970, p. 254) that the average of the annual HDD_y estimates β_0 and that the standard deviation of these HDDs about the mean, β_0, estimates the standard deviation, s_e, of the error term, e_y. Further, a probability model for the annual HDD is based on a T-Distribution with N-1 degrees of freedom, where, N is the number of years of HDD data we use:

$U = (HDD_y - \beta_0)/s_e$, has a T-Distribution with N-1 degrees of freedom.

III. Calculating the Cold-Temperature Year Weather Designs

Cold Year HDD Weather Designs

For SDGandE, cold-temperature-year HDD weather designs are developed with a 1-in-35 year chance of occurrence. In terms of probabilities this can be expressed as the following for a "1-in-35" cold-year HDD value in equation 1 and a "1-in-10" cold-year HDD value in equation 2, with Annual HDD as the random variable:

(1) Prob { Annual HDD > "1-in-35" Cold-Yr HDD } = 1/35 = 0.0286

(2) Prob { Annual HDD > "1-in-10" Cold-Yr HDD } = 1/10 = 0.1000

An area of 0.0286 under one tail of the T-Distribution translates to 2.025 standard deviations *above* an average-year based on a t-statistic with 19 degrees of freedom. Using the standard deviation of 186.3 HDD from the last 20 years of data, these equations yield values of about 1,675 HDD for a "1-in-35" cold year and 1,545 as the number of HDDs for a "1-in-10" cold year (an area of 0.1000 under one tail of the T-Distribution translates to 1.328 standard deviations *above* an average-year based on a t-statistic with 19 degrees of freedom). For example, the "1-in-35" cold-year HDD is calculated as follows:

(3) Cold-year HDD = 1,675 which equals approximately 1,298 average-year HDDs + 2.025 * 186.3

Table 3 shows monthly HDD figures for "1-in-35" cold year, "1-in-10" cold year and, average year temperature designs. The monthly average-temperature-year HDDs are calculated from weighted monthly HDDs from 1983 to 2002, as shown as the bottom of Table 2, above. For example, the average-year December value of 282.5 HDD equals the simple average of the 20 December

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HDD figures from 1983 to 2002, and represents 21.8 percent of the HDDs in an average-year. SDGandE calculates the cold--temperature-year monthly HDD values using the same shape of the average-year HDDs. For example, since 21.8 percent of average-temperature-year HDDs occurred in December, the estimated number of HDDs during December for a cold-year is equal to 1,675 HDDs multiplied by 21.8 percent, or 364.5 HDDs.

Table 3

Calendar Month Heating Degree-Day Designs

SDGandE Heating Degree Day (HDD) Weather Designs

(Calendar Based)

	Cold		Average
	1-in-35 exceedance	1-in-10 exceedance	
January	345.5	318.7	267.7
February	283.8	261.8	219.9
March	245.5	226.4	190.2
April	143.9	132.7	111.5
May	66.5	61.4	51.5
June	15.1	13.9	11.7
July	0.4	0.4	0.3
August	0.0	0.0	0.0
September	2.9	2.7	2.3
October	27.2	25.1	21.1
November	179.5	165.6	139.1
December	364.5	336.2	282.5
	1675	1545	1298

IV. Calculating the Peak-Day Design Temperature

SDGandE's Peak-Day design temperature of 41.4 degrees Fahrenheit, denoted "Deg-F," is determined from a statistical analysis of observed annual minimum daily system average temperatures constructed from daily temperature recordings from the three U.S. Weather Bureau weather stations discussed above. Since we have a time series of daily data by year, the following notation will be used for the remainder of this discussion:

(1) $AVG_{y,d}$ = system average value of Temperature for calendar year "y" and day "d".

The calendar year, y, can range from 1972 through 2002, while the day, d, can range from 1 to 365, for non leap years, or from 1 to 366 for leap years. The "upper" value for the day, d, thus depends on the calendar year, y, and will

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be denoted by n(y)=365, or 366, respectively, when y is a non-leap year or a leap year.

For each calendar year, we calculate the following statistic from our series of daily system average temperatures defined in equation (1) above:

$$(2) \qquad MinAVG_y = \min_{d=1}^{n(y)}\{ AVG_{y,d} \}, \text{ for } y=1972, 1973, \ldots, 2002.$$

(The notation used in equation 2 means "For a particular year, y, list all the daily values of system average temperature for that year, then pick the smallest one.")

The resulting minimum annual temperatures are shown in Table 4, below. Note that most of the minimum temperatures occur in the months of December or January; however, for some calendar years the minimums occurred in other months (the minimum for 1999 was observed in April).

The statistical methods we use to analyze this data employ software developed to fit three generic probability models: the Generalized Extreme Value (GEV) model, the Double-Exponential or GUMBEL (EV1) model and a 2-Parameter Students' T-Distribution (T-Dist) model. [The GEV and EV1 models have the same mathematical specification as those implemented in a DOS-based executable-only computer code that was developed by Richard L. Lehman and described in a paper published in the Proceedings of the Eighth Conference on Applied Climatology, January 17-22, 1993, Anaheim, California, pp. 270-273, by the American Meteorological Society, Boston, MA., with the title "Two Software Products for Extreme Value Analysis: System Overviews of ANYEX and DDEX." At the time he wrote the paper, Dr. Lehman was with the Climate Analysis Center, National Weather Service/NOAA in Washington, D.C., zip code 20233.] The Statistical Analysis Software (SAS) procedure for nonlinear statistical model estimation (PROC MODEL, from SAS V6.12) was used to do the calculations. Further, the calculation procedures were implemented to fit the probability models to observed *maximums* of data, like heating degrees. By recognizing that:

$$- MinAVG_y = - \min_{d=1}^{n(y)}\{AVG_{y,d}\} = \max_{d=1}^{n(y)}\{ -AVG_{y,d}\}, \text{ for } y=1972, \ldots, 2002;$$

this same software, when applied to the *negative* of the minimum temperature data, yields appropriate probability model estimation results.

The calculations done to fit any one of the three probability models chooses the parameter values that provide the "best fit" of the parametric probability model's calculated cumulative distribution function (CDF) to the empirical cumulative distribution function (ECDF). Note that the ECDF is constructed based on the variable "$-MinAVG_y$" (which is a *maximum* over a set of

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negative temperatures) with values of the variable $MinAVG_y$ that are the same as shown in Table 4.

In Table 5, the data for $-MinAVG_y$ are shown after they have been sorted from "lowest" to "highest" value. The ascending *ordinal* value is shown in the column labeled "RANK" and the empirical cumulative distribution function is calculated and shown in the next column. The formula used to calculate this function is:

$$ECDF = (RANK - \alpha)/[MaxRANK + (1 - 2\,\alpha)],$$

where the parameter "α" (shown as *alpha* in Table 5) is a "small" positive value (usually less than ½) that is used to bound the ECDF away from 0 and 1.

Of the three probability models considered (GEV, EV1, and T_Dist) the results obtained for the T_Dist model were selected since the fit to the ECDF was better than that of the EV1 model and essentially the same as that for the GEV model. (Convergence to stable parameter estimates was often a problem with fitting a GEV model to the ECDF.) A (random) variable that has a T_Dist probability model, for specified degrees of freedom *df*, has and expected value of zero and a standard deviation of one. The degrees of freedom, *df*, depends on the number of data points we have for analysis and the number of parameters in our model. The following mathematical expression specifies the T_Dist model we fit to the data for "$-MinAVG_y$ " shown in Table 5.

(3) $ECDF(-MinAVG_y) = T\_Dist(\, z;\, df\,)$,

where T_Dist is the cumulative distribution function for the Students-T distribution with degrees of freedom, *df*, and

(4) $z = (-MinAVG_y - \gamma) / \theta$, for each year, y, and

for parameters γ ("Gamma") and θ ("Theta") to be estimated. The estimated values for γ and θ are shown in Table 5 along with the fitted values of the model CDF (the column: "Fitted" Model CDF).

Now, to calculate a *peak-day design temperature*, $TPDD_\delta$, with a specified likelihood, δ, that a value less than $TPDD_\delta$ would be observed, we use the equation below:

(5) $\delta = Prob\ \{\ MinAVG_y \leq TPDD_\delta\ \}$, which is equivalent to

(6) $\delta = Prob\ \{\ [(-MinAVG_y - \gamma) / \theta] \geq [(-TPDD_\delta - \gamma) / \theta]\ \}$,

and in terms of our probability model,

(7) $\delta = 1 - T\_Dist(z_\delta\,;\, df)$, or $(1 - \delta) = T\_Dist(z_\delta\,;\, df)$,

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where $z_\delta = [(-TPDD_\delta - \gamma) / \theta]$. The implied equation for $TPDD_\delta$ is:

(8) $TPDD_\delta = - [\gamma + (z_\delta \cdot \theta)]$.

To calculate the minimum daily (system average) temperature to define our extreme weather event, we specify that this COLDEST-Day be one where the temperature would be lower with a "1-in-35" likelihood. This criterion translates into two equations to be solved based on equations (7) and (8) above:

(9) solve for "z_δ" from $(1-\delta) = (1 - 1/35) = 1 - 0.029 = T\_Dist(z_\delta ; df)$,

(10) solve for "$TPDD_\delta$" from $TPDD_\delta = - [\gamma + (z_\delta \cdot \theta)]$.

The value of $z_\delta = 1.981$ and $TPDD_\delta = - [\gamma + (z_\delta \cdot \theta)] = 41.4$ degrees Fahrenheit, with values for "γ" and "θ" in Table 5, below.

SDG&E's Peak-Day design temperature of 43.1 degrees Fahrenheit, is calculated in a methodologically similar way as for the 41.4 degree peak day temperature. The criteria specified in equation (9) above for a "1-in-35" likelihood would be replaced by a "1-in-10" likelihood.

(9') solve for "z_δ" from $(1-\delta) = (1 - 1/10) = 1 - 0.100 = T\_Dist(z_\delta ; df)$,

a "z_δ" value of $z_\delta = 1.311$ and, $TPDD_\delta = - [\gamma + (z_\delta \cdot \theta)] = 43.1$, with values for "γ" and "θ" in Table 5, below.

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Table 4

YEAR	MINAVG	Month(MinAvg)
1972	46.5625	Dec
1973	46.1375	Jan
1974	43.8000	Dec
1975	44.1375	Jan
1976	44.5875	Jan
1977	50.6625	Mar
1978	42.6375	Dec
1979	44.8500	Jan
1980	53.3750	Jan
1981	49.5000	Jan
1982	48.3500	Dec
1983	50.7000	Jan
1984	47.8500	Dec
1985	45.4000	Dec
1986	49.7250	Feb
1987	41.1750	Dec
1988	45.0750	Dec
1989	44.8750	Jan
1990	43.3750	Feb
1991	48.2500	Mar
1992	46.8750	Dec
1993	46.7500	Jan
1994	47.7500	Nov
1995	51.0000	Dec
1996	48.5250	Feb
1997	48.7250	Dec
1998	46.6750	Dec
1999	48.4250	Apr
2000	50.2500	Mar
2001	47.4250	Jan
2002	45.4000	Jan

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Table 5

alpha= 0.375

YEAR	Month(-MinAvg)	Days/Yr	-MinAvg	"RANK"	Empirical CDF	"Fitted" Model CDF
1980	Jan	366	-53.3750	1	0.0200	0.0150
1995	Dec	365	-51.0000	2	0.0520	0.0824
1983	Jan	365	-50.7000	3	0.0840	0.0992
1977	Mar	365	-50.6625	4	0.1160	0.1014
2000	Mar	366	-50.2500	5	0.1480	0.1290
1986	Feb	365	-49.7250	6	0.1800	0.1715
1981	Jan	365	-49.5000	7	0.2120	0.1924
1997	Dec	365	-48.7250	8	0.2440	0.2758
1996	Feb	366	-48.5250	9	0.2760	0.3000
1999	Apr	365	-48.4250	10	0.3080	0.3125
1982	Dec	365	-48.3500	11	0.3400	0.3221
1991	Mar	365	-48.2500	12	0.3720	0.3350
1984	Dec	366	-47.8500	13	0.4040	0.3884
1994	Nov	365	-47.7500	14	0.4360	0.4022
2001	Jan	365	-47.4250	15	0.4680	0.4478
1992	Dec	366	-46.8750	16	0.5000	0.5263
1993	Jan	365	-46.7500	17	0.5320	0.5441
1998	Dec	365	-46.6750	18	0.5640	0.5547
1972	Dec	366	-46.5625	19	0.5960	0.5706
1973	Jan	365	-46.1375	20	0.6280	0.6293
1985	Dec	365	-45.4000	21	0.6600	0.7233
2002	Jan	365	-45.4000	22	0.6920	0.7233
1988	Dec	366	-45.0750	23	0.7240	0.7605
1989	Jan	365	-44.8750	24	0.7560	0.7819
1979	Jan	365	-44.8500	25	0.7880	0.7845
1976	Jan	366	-44.5875	26	0.8200	0.8105
1975	Jan	365	-44.1375	27	0.8520	0.8502
1974	Dec	365	-43.8000	28	0.8840	0.8759
1990	Feb	365	-43.3750	29	0.9160	0.9034
1978	Dec	365	-42.6375	30	0.9480	0.9396
1987	Dec	365	-41.1750	31	0.9800	0.9790

Mean{-MinAvg}=	-47.06
St.Dev{-MinAvg}=	2.77
"Gamma" (Fitted) =	**-47.05**
"Theta" (Fitted) =	**2.85**
Deg. Freedom=	**29**