2010 California Gas Report Workpapers

REDACTED

Prepared by

SDGE

A Sempra Energy utility℠

TABLE OF CONTENTS

2010 CALIFORNIA GAS REPORT

HISTORICAL DATA
JULY 2010

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND SENDOUT (MMCF/DAY)
RECORDED YEARS 2005-2009

LINE			2005	2006	2007	2008	2009
	Actual Deliveries by End-Use						
1	**CORE**	Residential	86	86	89	86	82
2		Commercial	48	48	49	49	48
3		Industrial	0	0	0	0	0
4	*Subtotal -*	*CORE*	134	133	138	135	130
5	**NONCORE**	Commercial	0	0	0	0	0
6		Industrial	10	12	9	12	11
7		Non-EOR Cogen/EG	163	131	101	119	115
8		Electric Utilities	0	47	63	68	64
9	*Subtotal -*	*NONCORE*	174	189	173	199	191
10	**WHOLESALE**	All End Uses	0	0	0	0	0
11	*Subtotal -*	*Co Use & LUAF*	15	5	11	2	3
12	**SYSTEM TOTAL THROUGHPUT**		323	328	322	336	324
	Actual Transport & Exchange						
13	**CORE**	Residential	0	0	0	0	0
14		Commercial	2	3	4	6	8
15	**NONCORE**	Industrial	9	11	9	12	11
16		Non-EOR Cogen/EG	162	130	100	119	115
17		Electric Utilities	0	47	63	68	64
18	*Subtotal -*	*RETAIL*	174	191	176	205	199
19	**WHOLESALE**	All End Uses	0	0	0	0	0
20	**TOTAL TRANSPORT & EXCHANGE**		174	191	176	205	199
	Storage						
21		*Storage Injection*	12	13	15	15	0
22		*Storage Withdrawal*	21	8	15	15	0
	Actual Curtailment						
23		Residential	0	0	0	0	0
24		Com/Indl & Cogen	0	0	0	0	0
25		Electric Generation	0	0	0	0	0
26	**TOTAL CURTAILMENT**		0	0	0	0	0
27	**REFUSAL**		0	0	0	0	0
	ACTUAL DELIVERIES BY END-USE includes sales and transportation volumes						
		MMbtu/Mcf:	1.015	1.017	1.022	1.023	1.020

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY TAKEN (MMCF/DAY)
RECORDED YEARS 2002-2009

LINE		2005	2006	2007	2008	2009
	CAPACITY AVAILABLE					
1	**California Sources**					
	Out of State gas					
2	California Offshore (POPCO/PIOC)					
3	El Paso Natural Gas Company					
4	Transwestern Pipeline company					
5	Kern River/Mojave Pipeline Company					
6	TransCanada GTN/PG&E					
7	Other					
8	**TOTAL Output of State**					
9	Underground storage withdrawal					
10	**TOTAL Gas Supply available**					
	Gas Supply Taken	**2005**	**2006**	**2007**	**2008**	**2009**
	California Source Gas					
11	Regular Purchases	6	6	6	10	0
12	Received for Exchange/Transport	0	0	0	0	0
13	**Total California Source Gas**	6	6	6	10	0
14	**Purchases from Other Utilities**	0	0	0	0	0
	Out-of-State Gas					
15	Pacific Interstate Companies	0	0	0	0	0
16	Additional Core Supplies	0	0	0	0	0
17	Supplemental Supplies-Utility	143	131	140	119	125
18	Out-of-State Transport-Others	174	191	176	204	199
19	**Total Out-of-State Gas**	317	322	316	323	324
20	**TOTAL Gas Supply Taken & Transported**	323	328	322	334	324

(MMCFD)

SDG&E Sources & Distribution Summary

2009 Recorded Data

MMCF/Day

SDG&E	California Sources	El Paso	Transwestern	PGT / PG&E	Kern River	Mojave	Other	Total
Core	6.3	50.2	40.8	26.0	15.1	0.5	10.1	149
Noncore	0.1	95.3	77.4	0.2	0.1	0.0	0.1	173
Total	6	145	118	26	15	0	10	322

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
55% **El Paso** & **45%** **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

2009 Recorded Data

WORK PAPER CALCULATIONS

2009 Recorded Data

(MMBtu)

	California	El Paso	Transwestern	PGT / PG&E	Kern River	Mojave	Other	Total
End-Use Sales								
%/Source:								
Portfolio	0.04379	0.33035	0.26855	0.17969	0.10484	0.00314	0.06964	1.00
Volumes:								
Portfolio	**2,180,944**	**16,452,288**	**13,374,305**	**8,949,099**	**5,221,184**	**156,488**	**3,468,194**	49,802,502
Transportation								
%/Source:	0	0.55160	0.44840	0	0	0	0	1.00

(MMCFD)

SDG&E	California	El Paso	Transwestern	PGT / PG&E	Kern River	Storage	Other	Total
Core	6.3	50.2	40.8	26.0	15.1	0.5	10.1	**149.0**
Sales w/LUAF	6.3	47.7	38.8	26.0	15.1	0.5	10.1	**144.5**
Transp	0.0	2.5	2.0	0.0	0.0	0.0	0.0	**4.5**
	0.0425	**0.3371**	**0.2740**	**0.1742**	**0.1017**	**0.0030**	**0.0675**	**1.0000**
Noncore	0.1	95.3	77.4	0.2	0.1	0.0	0.1	**173.2**
Sales	0.1	0.4	0.3	0.2	0.1	0.0	0.1	**1.2**
Transp	0.0	94.9	77.1	0.0	0.0	0.0	0.0	**172.0**
	0.000304861	**0.550057732**	**0.447149958**	**0.00125094**	**0.000729837**	**2.18745E-05**	**0.000484798**	1
Total	6.4	145.5	118.3	26.2	15.3	0.5	10.1	322.2

DATA SOURCE:

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

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

2010 CALIFORNIA GAS REPORT

FORECAST OF REQUIREMENTS - SUMMARY
JULY 2010

2010 CALIFORNIA GAS REPORT

AVERAGE TEMPERATURE YEAR
JULY 2010

TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2010 THRU 2014

AVERAGE TEMPERATURE YEAR

LINE			2010	2011	2012	2013	2014	LINE
	CAPACITY AVAILABLE [1/ & 2/]							
1	California Source Gas		0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	3
	GAS SUPPLY TAKEN							
4	California Source Gas		0	0	0	0	0	4
5	Southern Zone of SoCalGas		364	341	339	339	339	5
6	TOTAL SUPPLY TAKEN		364	341	339	339	339	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	7
8	TOTAL THROUGHPUT		364	341	339	339	339	8
	REQUIREMENTS FORECAST BY END-USE [3/]							
9	CORE [4/]	Residential	81	80	80	80	80	9
10		Commercial	46	45	45	45	44	10
11		Industrial	4	4	4	4	4	11
12		NGV	4	4	4	4	4	12
13		Subtotal-CORE	135	133	133	133	132	13
14	NONCORE	Commercial	7	7	8	8	8	14
15		Industrial	4	4	4	4	4	15
16		Electric Generation (EG)	213	192	189	189	190	16
17		Subtotal-NONCORE	224	203	201	201	202	17
18		Co. Use & LUAF	5	5	5	5	5	18
19	SYSTEM TOTAL THROUGHPUT		364	341	339	339	339	19
	TRANSPORTATION AND EXCHANGE							
20	CORE	All End Uses	9	9	9	9	9	20
21	NONCORE	Commercial/Industrial	11	11	11	12	12	21
22		Electric Generation (EG)	213	192	189	189	190	22
23	TOTAL TRANSPORTATION & EXCHANGE		233	212	209	210	211	23
	CURTAILMENT							
24		Core	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	26

NOTES:

1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).

2/ For 2010 and after, assume capacity at same levels.

3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 128 126 126 126 125

TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2015 THRU 2030

AVERAGE TEMPERATURE YEAR

LINE			2015	2020	2025	2030	LINE
	CAPACITY AVAILABLE [1/ & 2/]						
1	California Source Gas		0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	3
	GAS SUPPLY TAKEN						
4	California Source Gas		0	0	0	0	4
5	Out-of-State		342	324	321	323	5
6	TOTAL SUPPLY TAKEN		342	324	321	323	6
7	Net Underground Storage Withdrawal		0	0	0	0	7
8	TOTAL THROUGHPUT		342	324	321	323	8
	REQUIREMENTS FORECAST BY END-USE [3/]						
9	CORE [4/]	Residential	81	82	83	85	9
10		Commercial	44	43	43	44	10
11		Industrial	4	4	3	3	11
12		NGV	4	4	4	5	12
13		Subtotal-CORE	133	133	133	137	13
14	NONCORE	Commercial	8	9	9	10	14
15		Industrial	4	4	3	3	15
16		Electric Generation (EG)	192	174	172	169	16
17		Subtotal-NONCORE	204	187	184	182	17
18		Co. Use & LUAF	5	4	4	4	18
19	SYSTEM TOTAL THROUGHPUT		342	324	321	323	19
	TRANSPORTATION AND EXCHANGE						
20	CORE	All End Uses	9	9	9	9	20
21	NONCORE	Commercial/Industrial	12	12	13	13	21
22		Electric Generation (EG)	192	174	172	169	22
23	TOTAL TRANSPORTATION & EXCHANGE		213	195	194	191	23
	CURTAILMENT						
24		Core	0	0	0	0	24
25		Noncore	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	26

NOTES:

1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).

2/ For 2010 and after, assume capacity at same levels.

3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 126 126 126 131

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE 1/ & 2/															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas 1/		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		434	410	368	319	290	314	362	364	360	340	380	439	364	5
6	TOTAL SUPPLY TAKEN		434	410	368	319	290	314	362	364	360	340	380	439	364	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		434	410	368	319	290	314	362	364	360	340	380	439	365	8
	REQUIREMENTS FORECAST BY END-USE 3/															
9	CORE 4/	Residential	131	125	107	86	63	49	45	45	45	54	89	136	81	9
10		Commercial	59	63	54	46	42	39	39	36	39	36	46	58	46	10
11		Industrial	5	6	5	4	4	4	3	3	4	4	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	199	198	171	142	113	97	90	87	90	96	142	202	135	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	229	206	192	172	172	213	267	272	265	238	232	231	224	17
18		Co. Use & LUAF	6	6	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		434	410	368	319	290	314	362	364	360	340	380	439	365	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	9	8	8	8	8	8	9	11	9	20
21																21
22	NONCORE	All End Uses	229	206	192	172	172	213	267	272	265	238	232	231	224	22
23	TOTAL TRANSPORTATION & EXCHANGE		240	218	202	182	181	221	275	280	273	246	242	242	234	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 192 190 164 136 107 91 83 81 84 90 135 194 129

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		398	374	332	284	256	295	348	352	352	330	350	427	341	5
6	TOTAL SUPPLY TAKEN		398	374	332	284	256	295	348	352	352	330	350	427	341	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		398	374	332	284	256	295	348	352	352	330	350	427	342	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	130	124	107	86	62	49	45	45	45	53	88	135	80	9
10		Commercial	58	62	53	46	41	39	38	35	38	36	45	57	45	10
11		Industrial	5	5	4	4	4	4	3	3	3	4	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	197	196	169	141	112	96	89	86	89	95	140	200	134	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	197	173	158	139	141	195	255	262	258	231	205	222	203	17
18		Co. Use & LUAF	5	5	5	4	3	4	5	5	5	4	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		398	374	332	284	256	295	348	352	352	330	350	427	342	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	8	8	8	7	8	8	9	11	9	20
21																21
22	NONCORE	All End Uses	197	173	158	139	141	195	255	262	258	231	205	222	203	22
23	TOTAL TRANSPORTATION & EXCHANGE		207	185	168	148	149	203	263	269	266	238	214	233	212	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:

1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).

2/ For 2010 and after, assume capacity at same levels.

3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.

4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 190 188 162 134 106 90 82 80 83 89 134 192 127

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		390	361	337	285	262	296	328	330	332	336	363	431	339	5
6	TOTAL SUPPLY TAKEN		390	361	337	285	262	296	328	330	332	336	363	431	339	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		390	361	337	285	262	296	328	330	332	336	363	431	338	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	129	120	107	86	62	49	45	45	45	53	88	135	80	9
10		Commercial	58	59	53	45	41	38	38	35	38	35	45	56	45	10
11		Industrial	5	5	5	4	4	4	3	3	4	4	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	196	189	169	140	112	96	88	85	89	95	140	199	133	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	189	167	163	140	146	196	236	240	238	236	217	226	200	17
18		Co. Use & LUAF	5	5	5	4	4	4	4	4	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		390	361	337	285	262	296	328	330	332	336	363	431	338	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	11	10	9	8	8	8	7	8	8	9	11	9	20
21																21
22	NONCORE	All End Uses	189	167	163	140	146	196	236	240	238	236	217	226	200	22
23	TOTAL TRANSPORTATION & EXCHANGE		200	178	173	149	155	204	244	248	246	244	227	236	209	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 189 181 162 134 105 89 82 79 83 89 134 192 127

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2013

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		392	373	333	285	257	299	328	332	334	334	365	432	339	5
6	TOTAL SUPPLY TAKEN		392	373	333	285	257	299	328	332	334	334	365	432	339	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		392	373	333	285	257	299	328	332	334	334	365	432	339	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	129	124	106	86	62	49	45	45	45	53	88	135	80	9
10		Commercial	57	60	52	45	41	38	37	34	37	35	45	56	45	10
11		Industrial	5	6	4	4	4	4	3	3	4	4	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	196	195	168	140	111	95	88	85	89	94	140	198	133	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	191	173	160	141	142	200	236	242	240	234	220	228	201	17
18		Co. Use & LUAF	5	5	5	4	3	4	4	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		392	373	333	285	257	299	328	332	334	334	365	432	339	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	8	8	8	7	8	8	9	11	9	20
21																21
22	NONCORE	All End Uses	191	173	160	141	142	200	236	242	240	234	220	228	201	22
23	TOTAL TRANSPORTATION & EXCHANGE		202	185	170	150	151	208	244	250	248	242	229	238	210	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 189 187 161 133 105 89 82 79 82 89 133 191 126

Work Paper: TABLE 1-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2014

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		392	374	333	288	261	296	329	334	335	335	361	429	339	5
6	TOTAL SUPPLY TAKEN		392	374	333	288	261	296	329	334	335	335	361	429	339	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		392	374	333	288	261	296	329	334	335	335	361	429	339	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	129	124	107	86	62	49	45	45	45	53	88	135	80	9
10		Commercial	56	60	52	44	40	38	37	34	37	35	44	55	44	10
11		Industrial	5	5	4	4	4	4	3	3	3	4	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	195	194	168	139	111	95	88	85	88	94	139	198	133	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	192	175	161	145	146	197	237	244	242	236	217	225	202	17
18		Co. Use & LUAF	5	5	5	4	4	4	4	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		392	374	333	288	261	296	329	334	335	335	361	429	339	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	8	8	8	7	8	7	9	11	9	20
21																21
22	NONCORE	All End Uses	192	175	161	145	146	197	237	244	242	236	217	225	202	22
23	TOTAL TRANSPORTATION & EXCHANGE		203	186	171	154	155	205	245	252	250	243	226	236	211	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 188 186 161 133 105 89 81 79 82 88 133 191 126

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		396	379	337	283	259	296	332	335	335	339	362	433	342	5
6	TOTAL SUPPLY TAKEN		396	379	337	283	259	296	332	335	335	339	362	433	342	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		396	379	337	283	259	296	332	335	335	339	362	433	340	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	130	124	107	86	62	49	45	45	45	53	88	136	81	9
10		Commercial	56	59	51	44	40	37	36	34	36	34	43	54	44	10
11		Industrial	5	5	4	4	4	4	3	3	3	3	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	195	194	167	139	111	95	87	84	88	94	139	197	132	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	196	180	165	140	144	197	239	245	242	240	218	229	203	17
18		Co. Use & LUAF	5	5	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		396	379	337	283	259	296	332	335	335	339	362	433	340	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	11	10	9	8	8	8	7	8	7	9	11	9	20
21																21
22	NONCORE	All End Uses	196	180	165	140	144	197	239	245	242	240	218	229	203	22
23	TOTAL TRANSPORTATION & EXCHANGE		207	191	175	149	152	205	247	253	250	247	227	240	212	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 188 186 160 133 104 88 81 78 81 88 132 191 126

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		396	361	333	283	256	273	305	312	308	311	326	410	324	5
6	TOTAL SUPPLY TAKEN		396	361	333	283	256	273	305	312	308	311	326	410	324	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		396	361	333	283	256	273	305	312	308	311	326	410	323	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	132	122	109	88	63	50	46	46	46	54	90	138	82	9
10		Commercial	54	56	50	43	39	36	36	33	36	33	43	53	43	10
11		Industrial	4	5	4	4	4	3	3	3	3	3	4	4	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	196	188	168	140	111	95	87	84	88	94	140	199	132	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	194	168	159	139	142	174	214	224	216	213	182	205	186	17
18		Co. Use & LUAF	5	5	5	4	3	4	4	4	4	4	4	6	4	18
19	SYSTEM TOTAL THROUGHPUT		396	361	333	283	256	273	305	312	308	311	326	410	323	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	11	10	9	8	8	8	7	8	7	9	11	9	20
21																21
22	NONCORE	All End Uses	194	168	159	139	142	174	214	224	216	213	182	205	186	22
23	TOTAL TRANSPORTATION & EXCHANGE		205	179	169	148	150	182	222	231	224	221	191	215	195	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 189 181 162 134 105 89 81 79 82 88 133 192 126

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		396	374	333	283	255	272	304	311	307	310	325	410	321	5
6	TOTAL SUPPLY TAKEN		396	374	333	283	255	272	304	311	307	310	325	410	321	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		396	374	333	283	255	272	304	311	307	310	325	410	323	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	134	129	111	89	64	50	46	46	47	55	91	140	83	9
10		Commercial	55	59	51	43	39	37	36	33	36	34	43	54	43	10
11		Industrial	4	5	4	4	3	3	3	3	3	3	4	4	3	11
12		NGV	5	6	5	6	6	6	3	3	3	3	3	3	4	12
13		Subtotal-CORE	199	198	170	142	113	96	88	85	89	95	141	201	134	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	192	171	157	137	140	172	212	222	214	211	179	203	184	17
18		Co. Use & LUAF	5	5	5	4	3	4	4	4	4	4	4	6	4	18
19	SYSTEM TOTAL THROUGHPUT		396	374	333	283	255	272	304	311	307	310	325	410	323	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	8	8	8	8	8	8	9	11	9	20
21																21
22	NONCORE	All End Uses	192	171	157	137	140	172	212	222	214	211	179	203	184	22
23	TOTAL TRANSPORTATION & EXCHANGE		203	183	167	146	148	180	220	229	222	218	189	213	193	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 192 190 164 135 106 90 82 79 82 89 135 194 128

Work Paper: TABLE 2-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2030

AVERAGE TEMPERATURE with BASE HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		397	375	333	283	255	272	303	310	306	309	325	411	323	5
6	TOTAL SUPPLY TAKEN		397	375	333	283	255	272	303	310	306	309	325	411	323	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		397	375	333	283	255	272	303	310	306	309	325	411	323	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	136	131	112	90	65	51	47	47	47	56	93	142	85	9
10		Commercial	56	60	52	44	40	37	37	34	37	34	44	55	44	10
11		Industrial	4	4	4	3	3	3	3	3	3	3	3	4	3	11
12		NGV	6	6	6	6	6	6	3	3	3	3	3	3	5	12
13		Subtotal-CORE	202	201	173	144	114	98	90	87	90	97	143	204	136	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	190	169	155	135	138	170	210	220	212	209	177	201	182	17
18		Co. Use & LUAF	5	5	5	4	3	4	4	4	4	4	4	6	4	18
19	SYSTEM TOTAL THROUGHPUT		397	375	333	283	255	272	303	310	306	309	325	411	323	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	9	8	8	8	8	8	9	11	9	20
21																21
22	NONCORE	All End Uses	190	169	155	135	138	170	210	220	212	209	177	201	182	22
23	TOTAL TRANSPORTATION & EXCHANGE		201	181	165	144	146	178	218	227	220	217	187	212	192	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 194 192 166 137 108 91 83 81 83 90 136 197 130

2010 CALIFORNIA GAS REPORT

COLD TEMPERATURE YEAR
JULY 2010

TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2010 THRU 2014

COLD TEMPERATURE YEAR & DRY HYDRO YEAR

LINE			2010	2011	2012	2013	2014	LINE
	CAPACITY AVAILABLE [1/ & 2/]							
1	California Source Gas		0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	3
	GAS SUPPLY TAKEN							
4	California Source Gas		0	0	0	0	0	4
5	Southern Zone of SoCalGas		377	368	364	364	364	5
6	TOTAL SUPPLY TAKEN		377	368	364	364	364	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	7
8	TOTAL THROUGHPUT		377	368	364	364	364	8
	REQUIREMENTS FORECAST BY END-USE [3/]							
9	CORE [4/]	Residential	90	89	89	89	89	9
10		Commercial	50	49	48	48	47	10
11		Industrial	4	4	4	4	4	11
12		NGV	4	4	4	4	4	12
13		Subtotal-CORE	148	146	145	145	144	13
14	NONCORE	Commercial	7	7	8	8	8	14
15		Industrial	4	4	4	4	4	15
16		Electric Generation (EG)	213	206	202	202	203	16
17		Subtotal-NONCORE	224	217	214	214	215	17
18		Co. Use & LUAF	5	5	5	5	5	18
19	SYSTEM TOTAL THROUGHPUT		377	368	364	364	364	19
	TRANSPORTATION AND EXCHANGE							
20	CORE	All End Uses	10	10	10	10	9	20
21	NONCORE	Commercial/Industrial	11	11	11	12	12	21
22		Electric Generation (EG)	213	206	202	202	203	22
23	TOTAL TRANSPORTATION & EXCHANGE		234	227	223	224	224	23
	CURTAILMENT							
24		Core	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 141 139 138 138 138

TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED YEARS 2015 THRU 2030

COLD TEMPERATURE YEAR & DRY HYDRO YEAR

LINE			2015	2020	2025	2030	LINE
	CAPACITY AVAILABLE [1/ & 2/]						
1	California Source Gas		0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	3
	GAS SUPPLY TAKEN						
4	California Source Gas		0	0	0	0	4
5	Out-of-State		369	345	344	345	5
6	TOTAL SUPPLY TAKEN		369	345	344	345	6
7	Net Underground Storage Withdrawal		0	0	0	0	7
8	TOTAL THROUGHPUT		369	345	344	345	8
	REQUIREMENTS FORECAST BY END-USE [3/]						
9	CORE [4/]	Residential	89	90	92	93	9
10		Commercial	47	46	46	47	10
11		Industrial	4	4	4	3	11
12		NGV	4	4	4	5	12
13		Subtotal-CORE	144	144	146	148	13
14	NONCORE	Commercial	8	9	9	10	14
15		Industrial	4	4	3	3	15
16		Electric Generation (EG)	208	183	181	179	16
17		Subtotal-NONCORE	220	196	193	192	17
18		Co. Use & LUAF	5	5	5	5	18
19	SYSTEM TOTAL THROUGHPUT		369	345	344	345	19
	TRANSPORTATION AND EXCHANGE						
20	CORE	All End Uses	9	9	10	10	20
21	NONCORE	Commercial/Industrial	12	12	13	13	21
22		Electric Generation (EG)	208	183	181	179	22
23	TOTAL TRANSPORTATION & EXCHANGE		229	204	204	202	23
	CURTAILMENT						
24		Core	0	0	0	0	24
25		Noncore	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 138 138 139 141

Work Paper: **TABLE 3-SDGE**

SAN DIEGO GAS & ELECTRIC COMPANY

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

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		463	437	389	332	305	315	360	362	357	341	393	469	377	5
6	TOTAL SUPPLY TAKEN		463	437	389	332	305	315	360	362	357	341	393	469	377	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		463	437	389	332	305	315	360	362	357	341	393	469	377	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	152	145	123	96	66	49	44	44	44	55	99	160	90	9
10		Commercial	65	69	59	48	54	40	39	36	37	36	49	64	50	10
11		Industrial	5	6	5	5	4	4	3	3	4	4	5	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	227	225	192	154	129	98	89	85	88	98	155	231	147	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	229	206	192	172	172	213	267	272	265	238	232	231	224	17
18		Co. Use & LUAF	6	6	5	5	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		463	437	389	332	305	315	360	362	357	341	393	469	377	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	13	11	10	10	8	8	8	8	8	10	12	10	20
21																21
22	NONCORE	All End Uses	229	206	192	172	172	213	267	272	265	238	232	231	224	22
23	TOTAL TRANSPORTATION & EXCHANGE		241	219	203	182	183	221	275	280	273	246	242	243	234	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 220 217 184 147 121 91 82 79 81 92 149 224 140

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		438	422	367	313	290	318	363	364	358	337	380	463	368	5
6	TOTAL SUPPLY TAKEN		438	422	367	313	290	318	363	364	358	337	380	463	368	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		438	422	367	313	290	318	363	364	358	337	380	463	368	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	151	144	122	96	66	49	43	43	44	54	99	158	89	9
10		Commercial	64	68	58	47	53	39	38	35	36	36	48	63	49	10
11		Industrial	5	6	5	5	4	4	3	3	4	4	5	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	225	223	190	152	128	97	87	84	87	96	154	229	146	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	208	193	172	156	159	218	271	275	267	236	221	228	217	17
18		Co. Use & LUAF	6	6	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		438	422	367	313	290	318	363	364	358	337	380	463	368	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	13	11	9	10	8	8	7	8	8	10	12	10	20
21																21
22	NONCORE	All End Uses	208	193	172	156	159	218	271	275	267	236	221	228	217	22
23	TOTAL TRANSPORTATION & EXCHANGE		219	206	183	166	169	226	279	282	275	244	231	240	227	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 217 214 182 146 120 90 81 78 80 91 147 221 139

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		434	408	375	316	296	318	340	341	336	339	386	466	364	5
6	TOTAL SUPPLY TAKEN		434	408	375	316	296	318	340	341	336	339	386	466	364	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		434	408	375	316	296	318	340	341	336	339	386	466	363	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	151	139	122	95	66	49	43	43	44	54	98	158	89	9
10		Commercial	64	65	58	47	53	39	38	35	36	35	47	62	48	10
11		Industrial	5	6	5	5	4	4	3	3	4	4	5	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	224	215	189	152	127	97	87	84	86	96	153	228	145	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	204	187	181	160	165	217	247	252	245	238	227	232	213	17
18		Co. Use & LUAF	6	6	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		434	408	375	316	296	318	340	341	336	339	386	466	363	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	12	11	9	10	8	8	7	8	8	10	12	10	20
21																21
22	NONCORE	All End Uses	204	187	181	160	165	217	247	252	245	238	227	232	213	22
23	TOTAL TRANSPORTATION & EXCHANGE		215	199	192	169	175	226	255	259	253	245	237	244	223	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 217 207 182 146 119 90 81 78 80 90 147 221 138

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2013

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		434	418	369	315	293	319	342	340	338	340	384	467	364	5
6	TOTAL SUPPLY TAKEN		434	418	369	315	293	319	342	340	338	340	384	467	364	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		434	418	369	315	293	319	342	340	338	340	384	467	363	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	151	144	122	95	65	49	43	43	44	54	98	158	89	9
10		Commercial	63	66	57	46	52	39	37	34	36	35	47	62	48	10
11		Industrial	5	6	5	5	4	4	3	3	4	4	5	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	224	222	189	152	127	96	87	84	86	96	153	228	145	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	205	191	175	160	162	219	250	252	247	239	227	233	213	17
18		Co. Use & LUAF	6	6	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		434	418	369	315	293	319	342	340	338	340	384	467	363	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	13	11	9	10	8	8	7	8	8	9	12	10	20
21																21
22	NONCORE	All End Uses	205	191	175	160	162	219	250	252	247	239	227	233	213	22
23	TOTAL TRANSPORTATION & EXCHANGE		216	203	186	169	172	227	258	259	255	247	236	245	223	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 216 213 181 145 119 90 80 78 80 90 146 220 138

Work Paper: TABLE 3-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2014

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Southern Zone of SoCalGas		436	417	368	313	292	315	344	348	342	341	386	464	364	5
6	TOTAL SUPPLY TAKEN		436	417	368	313	292	315	344	348	342	341	386	464	364	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		436	417	368	313	292	315	344	348	342	341	386	464	364	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	151	144	122	95	66	49	43	43	44	54	98	158	89	9
10		Commercial	62	66	56	46	52	38	37	34	35	35	46	61	47	10
11		Industrial	5	6	5	5	4	4	3	3	4	4	5	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	223	221	188	151	126	96	86	83	86	95	152	227	144	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	207	190	175	158	162	216	253	259	251	240	229	231	215	17
18		Co. Use & LUAF	6	6	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		436	417	368	313	292	315	344	348	342	341	386	464	364	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	12	11	9	10	8	8	7	8	8	9	12	9	20
21																21
22	NONCORE	All End Uses	207	190	175	158	162	216	253	259	251	240	229	231	215	22
23	TOTAL TRANSPORTATION & EXCHANGE		219	202	186	167	172	224	261	267	259	248	238	243	224	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 216 213 181 145 118 89 80 78 79 90 146 220 137

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		441	426	375	314	291	317	353	356	344	350	394	468	369	5
6	TOTAL SUPPLY TAKEN		441	426	375	314	291	317	353	356	344	350	394	468	369	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		441	426	375	314	291	317	353	356	344	350	394	468	369	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	151	145	122	96	66	49	44	43	44	54	99	159	89	9
10		Commercial	61	65	56	45	51	38	36	34	35	34	46	60	47	10
11		Industrial	5	6	5	5	4	4	3	3	3	4	5	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	223	220	188	151	126	95	86	83	85	95	152	227	144	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	212	199	183	159	161	218	262	268	253	250	237	235	220	17
18		Co. Use & LUAF	6	6	5	4	4	4	5	5	5	5	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		441	426	375	314	291	317	353	356	344	350	394	468	369	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	12	10	9	10	8	8	7	8	7	9	11	9	20
21																21
22	NONCORE	All End Uses	212	199	183	159	161	218	262	268	253	250	237	235	220	22
23	TOTAL TRANSPORTATION & EXCHANGE		224	212	193	169	171	226	270	275	261	257	247	247	229	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 215 212 181 144 118 89 80 77 79 89 145 219 137

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		435	395	364	309	284	284	316	325	312	318	351	440	345	5
6	TOTAL SUPPLY TAKEN		435	395	364	309	284	284	316	325	312	318	351	440	345	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		435	395	364	309	284	284	316	325	312	318	351	440	345	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	154	142	125	98	67	50	44	44	45	55	101	162	90	9
10		Commercial	60	61	55	44	50	37	36	33	34	34	45	59	46	10
11		Industrial	5	5	4	4	4	4	3	3	3	3	4	5	4	11
12		NGV	5	5	5	5	5	5	3	3	3	3	3	3	4	12
13		Subtotal-CORE	224	214	189	152	126	96	86	83	85	95	153	228	144	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	204	176	170	153	154	185	226	237	223	218	193	206	196	17
18		Co. Use & LUAF	6	5	5	4	4	4	4	4	4	4	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		435	395	364	309	284	284	316	325	312	318	351	440	345	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	11	12	10	9	10	8	8	7	8	7	9	11	9	20
21																21
22	NONCORE	All End Uses	204	176	170	153	154	185	226	237	223	218	193	206	196	22
23	TOTAL TRANSPORTATION & EXCHANGE		216	187	180	162	164	193	234	245	231	226	202	217	205	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 217 206 182 145 118 89 80 77 79 90 146 221 138

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

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

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		435	410	364	309	284	283	315	323	311	317	350	441	344	5
6	TOTAL SUPPLY TAKEN		435	410	364	309	284	283	315	323	311	317	350	441	344	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		435	410	364	309	284	283	315	323	311	317	350	441	345	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	157	150	126	99	68	50	45	45	45	56	102	164	92	9
10		Commercial	61	64	55	45	51	37	36	33	35	34	45	60	46	10
11		Industrial	4	5	4	4	3	3	3	3	3	3	4	4	4	11
12		NGV	5	6	5	6	6	6	3	3	3	3	3	3	4	12
13		Subtotal-CORE	227	225	191	154	128	97	87	84	86	97	155	231	146	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	202	179	167	151	152	182	224	235	221	216	190	204	194	17
18		Co. Use & LUAF	6	6	5	4	4	4	4	4	4	4	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		435	410	364	309	284	283	315	323	311	317	350	441	345	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	12	11	9	10	8	8	8	8	8	10	12	10	20
21																21
22	NONCORE	All End Uses	202	179	167	151	152	182	224	235	221	216	190	204	194	22
23	TOTAL TRANSPORTATION & EXCHANGE		214	192	178	160	162	191	232	242	228	224	200	215	203	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 220 216 184 147 120 90 81 78 80 91 148 224 140

Work Paper: TABLE 4-SDGE

SAN DIEGO GAS & ELECTRIC COMPANY

ANNUAL GAS SUPPLY AND REQUIREMENTS - MMCF/DAY
ESTIMATED FOR YEAR: 2030

COLD TEMPERATURE with DRY HYDRO YEAR

LINE			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg	LINE
	CAPACITY AVAILABLE [1/ & 2/]															
1	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	Southern Zone of SoCalGas [1/]		607	607	607	607	607	607	607	607	607	607	607	607	607	2
3	TOTAL CAPACITY AVAILABLE		607	607	607	607	607	607	607	607	607	607	607	607	607	3
	GAS SUPPLY TAKEN															
4	California Source Gas		0	0	0	0	0	0	0	0	0	0	0	0	0	4
5	Out-of-State		437	411	365	309	283	283	314	322	310	316	350	442	345	5
6	TOTAL SUPPLY TAKEN		437	411	365	309	283	283	314	322	310	316	350	442	345	6
7	Net Underground Storage Withdrawal		0	0	0	0	0	0	0	0	0	0	0	0	0	7
8	TOTAL THROUGHPUT		437	411	365	309	283	283	314	322	310	316	350	442	345	8
	REQUIREMENTS FORECAST BY END-USE [3/]															
9	CORE [4/]	Residential	159	152	128	100	69	51	46	46	46	57	104	167	93	9
10		Commercial	62	66	56	46	51	38	37	34	35	35	46	61	47	10
11		Industrial	4	5	4	4	3	3	3	3	3	3	4	4	3	11
12		NGV	6	6	6	6	6	6	3	3	3	3	3	3	5	12
13		Subtotal-CORE	231	228	194	156	129	98	88	85	87	98	157	235	149	13
14																14
15																15
16																16
17	NONCORE	Subtotal-NONCORE	200	177	165	149	150	180	222	233	218	214	188	202	192	17
18		Co. Use & LUAF	6	6	5	4	4	4	4	4	4	4	5	6	5	18
19	SYSTEM TOTAL THROUGHPUT		437	411	365	309	283	283	314	322	310	316	350	442	345	19
	TRANSPORTATION AND EXCHANGE															
20	CORE	All End Uses	12	13	11	10	10	8	8	8	8	8	10	12	10	20
21																21
22	NONCORE	All End Uses	200	177	165	149	150	180	222	233	218	214	188	202	192	22
23	TOTAL TRANSPORTATION & EXCHANGE		212	190	176	158	160	189	230	241	226	222	198	214	202	23
	CURTAILMENT															
24		Core	0	0	0	0	0	0	0	0	0	0	0	0	0	24
25		Noncore	0	0	0	0	0	0	0	0	0	0	0	0	0	25
26		TOTAL - Curtailment	0	0	0	0	0	0	0	0	0	0	0	0	0	26

NOTES:
1/ Capacity to receive gas from the Southern Zone of SoCalGas is an annual value based on weighting winter and non-winter season values: 607 = (630 winter) x (151/365) + (590 non-winter) x (214/365).
2/ For 2010 and after, assume capacity at same levels.
3/ Requirement forecast by end-use includes sales, transportation, and exchange volumes.
4/ Core end-use demand exclusive of core aggregation transportation (CAT) in MDth/d: 223 219 187 149 121 92 82 79 81 92 150 227 141

2010 CALIFORNIA GAS REPORT

FORECAST OF REQUIREMENTS – DETAIL
JULY 2010

2010 CALIFORNIA GAS REPORT

CUSTOMER FORECAST
JULY 2010

SAN DIEGO GAS and ELECTRIC COMPANY: CUSTOMER FORECAST
2010 CGR
(annual averages)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Residential	812,174	816,876	822,196	829,373	838,541	849,634	861,956	874,904	887,872	900,719	913,397	925,886
Core C/I	30,123	30,033	30,109	30,173	30,231	30,292	30,366	30,452	30,534	30,617	30,701	30,781
NGV	26	27	30	31	32	33	34	35	36	37	38	39
Non-Core C/I	55	58	58	58	58	58	59	59	59	59	59	59
Electric Generation	64	68	72	74	77	80	83	86	89	92	95	98
TOTAL	842,442	847,063	852,465	859,709	868,938	880,098	892,497	905,535	918,589	931,523	944,289	956,863
Net Gain	3,589	4,621	5,402	7,244	9,230	11,159	12,399	13,038	13,054	12,934	12,766	12,574
Meter Growth	0.43%	0.55%	0.64%	0.85%	1.07%	1.28%	1.41%	1.46%	1.44%	1.41%	1.37%	1.33%

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

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Residential	938,268	950,554	962,690	974,680	986,585	998,486	1,010,352	1,022,102	1,033,698	1,045,269	1,056,982	1,068,788
Core C/I	30,856	30,933	31,018	31,107	31,197	31,290	31,388	31,486	31,582	31,680	31,778	31,879
NGV	40	41	42	43	44	45	46	47	48	49	50	51
Non-Core C/I	59	60	60	60	60	60	60	61	61	61	61	61
Electric Generation	101	104	107	110	113	116	119	122	125	128	131	134
TOTAL	969,324	981,691	993,916	1,005,999	1,018,000	1,029,998	1,041,965	1,053,818	1,065,514	1,077,187	1,089,002	1,100,913
Net Gain	12,461	12,367	12,225	12,083	12,000	11,998	11,967	11,853	11,696	11,673	11,815	11,911
Meter Growth	1.30%	1.28%	1.25%	1.22%	1.19%	1.18%	1.16%	1.14%	1.11%	1.10%	1.10%	1.09%

2010 CALIFORNIA GAS REPORT

EUFORECASTER
JULY 2010

Refer to the 2010 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.

2010 CALIFORNIA GAS REPORT

RESIDENTIAL DEMAND FORECAST
JULY 2010

Core Residential End-Use Model
2010 California Gas Report

Introduction:

SDG&E used the End Use Forecaster model to generate annual gas demand forecasts for the residential market from 2009 through 2030. 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.

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 2009 weather-adjusted demand. Next, the annual forecast was parceled out to a series of monthly forecasts by a process which involves two steps. These two 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 entire year. An adjustment to the forecast offsets the throughput by the energy efficiency savings. Annual conservation benefits associated with AMI are estimated by SDGE to represent 1% of the core gas throughput in the post deployment period which starts after 2012. During the deployment period of 2009-2011, 1/3 of 1% of the load will have been conserved due to AMI. After 2011, 1% of the load will have been conserved due to AMI energy savings. The residential load was reduced by the AMI expected energy savings.

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 2009 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 2009 data is in Figure 7.

Meter Counts, Growth and Decay:

Regression equations were developed for each of the 5 building types. The meter count forecast is a company-specific forecast based on actual meter counts within the SoCalGas service territory. Data on meter decay rates were obtained from the Energy Information Administration (EIA). See Figure 8 for the meter 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.

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 segment 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 residential customer class were developed by SDG&E's electricity rate analysis group for 2009 through 2030.

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 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, MF2 and MF3 housing types, 1.034 for the MM housing type and 1.125 for the SM housing type. These various ratios ware estimated from analyses of SCE Schedule D rate schedule for housing types SF, MF2 and MF3; SCE Schedule DM for housing type MM; and SCE Schedule D as applied to sub-metered buildings for housing type SM. Copies of these rate schedules were obtained from the SCE web-site. Figure 11 illustrates the electricity price forecasts.

Price elasticities for each building type were based on the SoCalGas 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 SDGE 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 SoCalGas 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 SoCalGas company data files and the most recent 2004 RASS Update. Please see Figures 16-19 for saturations, fuel, and efficiency shares.

AMI:

Mass deployment of AMI gas modules began in 2009. The conservtion benefits estimated by SDGE represent approximately 1% of core gas throughput in 2012 (post deployment year). The conservation benefits were incorporated in the forecast as a post-model adjustment.

RESIDENTIAL DATA

San Diego Gas & Electric
2010 California Gas Report
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

ResAvg

San Diego Gas and Electric													
2010 California Gas Report													
Figure 3: Average Year Demand Forecast (Mdth)													
YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009	4,244	3,673	3,493	2,718	2,035	1,544	1,464	1,461	1,426	1,741	2,793	4,434	31,027
2010	4,128	3,573	3,397	2,644	1,980	1,502	1,424	1,421	1,387	1,693	2,717	4,313	30,176
2011	4,094	3,543	3,369	2,622	1,963	1,490	1,412	1,409	1,376	1,679	2,694	4,278	29,930
2012	4,091	3,541	3,367	2,621	1,962	1,489	1,411	1,408	1,375	1,678	2,693	4,275	29,911
2013	4,087	3,537	3,363	2,618	1,960	1,487	1,410	1,407	1,374	1,676	2,690	4,270	29,879
2014	4,091	3,541	3,367	2,620	1,962	1,489	1,411	1,408	1,375	1,678	2,693	4,275	29,909
2015	4,102	3,550	3,376	2,627	1,967	1,493	1,415	1,412	1,379	1,682	2,700	4,286	29,989
2016	4,112	3,559	3,384	2,634	1,972	1,496	1,418	1,415	1,382	1,687	2,706	4,296	30,062
2017	4,121	3,567	3,392	2,640	1,977	1,500	1,422	1,419	1,385	1,690	2,713	4,306	30,131
2018	4,142	3,585	3,409	2,653	1,986	1,507	1,429	1,426	1,392	1,699	2,726	4,328	30,281
2019	4,162	3,602	3,425	2,666	1,996	1,514	1,436	1,433	1,399	1,707	2,739	4,349	30,429
2020	4,183	3,620	3,442	2,679	2,006	1,522	1,443	1,440	1,406	1,716	2,753	4,370	30,580
2021	4,203	3,638	3,459	2,692	2,016	1,529	1,450	1,447	1,412	1,724	2,766	4,391	30,726
2022	4,225	3,657	3,477	2,706	2,026	1,537	1,457	1,454	1,420	1,733	2,781	4,414	30,887
2023	4,244	3,673	3,492	2,718	2,035	1,544	1,464	1,461	1,426	1,741	2,793	4,434	31,025
2024	4,230	3,661	3,481	2,709	2,029	1,539	1,459	1,456	1,422	1,735	2,784	4,420	30,925
2025	4,244	3,673	3,493	2,718	2,035	1,544	1,464	1,461	1,426	1,741	2,793	4,434	31,028
2026	4,258	3,685	3,504	2,727	2,042	1,549	1,469	1,466	1,431	1,746	2,802	4,449	31,129
2027	4,271	3,697	3,515	2,736	2,048	1,554	1,473	1,470	1,435	1,752	2,811	4,463	31,226
2028	4,283	3,707	3,525	2,744	2,054	1,558	1,478	1,474	1,440	1,757	2,819	4,475	31,315
2029	4,295	3,717	3,534	2,751	2,060	1,563	1,481	1,478	1,443	1,761	2,826	4,487	31,397
2030	4,306	3,727	3,543	2,758	2,065	1,567	1,485	1,482	1,447	1,766	2,834	4,499	31,478

ResCol

San Diego Gas and Electric													
2010 California Gas Report													
Figure 4: Cold Year Demand Forecast													
YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009	4,950	4,269	3,998	3,029	2,149	1,541	1,424	1,421	1,391	1,776	3,124	5,191	34,264
2010	4,815	4,152	3,888	2,946	2,090	1,498	1,385	1,382	1,353	1,727	3,038	5,049	33,325
2011	4,775	4,118	3,857	2,922	2,073	1,486	1,374	1,371	1,342	1,713	3,014	5,008	33,053
2012	4,772	4,115	3,854	2,920	2,072	1,485	1,373	1,370	1,341	1,712	3,012	5,004	33,032
2013	4,767	4,111	3,850	2,917	2,070	1,484	1,372	1,369	1,340	1,710	3,008	4,999	32,996
2014	4,772	4,115	3,854	2,920	2,072	1,485	1,373	1,370	1,341	1,712	3,012	5,004	33,030
2015	4,785	4,126	3,864	2,928	2,077	1,489	1,377	1,374	1,345	1,716	3,020	5,018	33,118
2016	4,796	4,136	3,874	2,935	2,082	1,493	1,380	1,377	1,348	1,721	3,027	5,030	33,198
2017	4,807	4,146	3,883	2,942	2,087	1,496	1,383	1,380	1,351	1,725	3,034	5,041	33,275
2018	4,831	4,166	3,902	2,957	2,098	1,504	1,390	1,387	1,358	1,733	3,049	5,066	33,441
2019	4,855	4,186	3,921	2,971	2,108	1,511	1,397	1,394	1,364	1,742	3,064	5,091	33,604
2020	4,879	4,207	3,940	2,986	2,118	1,518	1,404	1,401	1,371	1,750	3,079	5,116	33,770
2021	4,902	4,227	3,959	3,000	2,128	1,526	1,411	1,407	1,378	1,759	3,094	5,141	33,932
2022	4,928	4,249	3,980	3,016	2,140	1,534	1,418	1,415	1,385	1,768	3,110	5,168	34,110
2023	4,950	4,268	3,998	3,029	2,149	1,540	1,424	1,421	1,391	1,776	3,124	5,191	34,262
2024	4,934	4,255	3,985	3,019	2,142	1,535	1,420	1,417	1,387	1,770	3,114	5,174	34,151
2025	4,950	4,269	3,998	3,030	2,149	1,541	1,424	1,421	1,391	1,776	3,124	5,191	34,265
2026	4,967	4,283	4,011	3,039	2,156	1,546	1,429	1,426	1,396	1,782	3,134	5,208	34,377
2027	4,982	4,296	4,024	3,049	2,163	1,550	1,433	1,430	1,400	1,787	3,144	5,224	34,484
2028	4,996	4,308	4,035	3,058	2,169	1,555	1,438	1,434	1,404	1,792	3,153	5,239	34,582
2029	5,009	4,320	4,046	3,066	2,175	1,559	1,441	1,438	1,408	1,797	3,161	5,253	34,673
2030	5,022	4,331	4,056	3,073	2,181	1,563	1,445	1,442	1,411	1,802	3,170	5,267	34,763

ResHot

San Diego Gas and Electric													
2010 California Gas Report													
Figure 5: Hot Temperature Demand Forecast													
YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009	3,459	3,007	2,909	2,331	1,841	1,471	1,423	1,421	1,384	1,626	2,385	3,598	26,857
2010	3,364	2,925	2,829	2,267	1,791	1,431	1,384	1,382	1,346	1,582	2,320	3,500	26,121
2011	3,337	2,901	2,806	2,248	1,776	1,419	1,373	1,371	1,335	1,569	2,301	3,471	25,907
2012	3,335	2,899	2,804	2,247	1,775	1,418	1,372	1,370	1,334	1,568	2,300	3,469	25,891
2013	3,331	2,896	2,801	2,244	1,773	1,417	1,371	1,369	1,333	1,566	2,297	3,465	25,863
2014	3,335	2,899	2,804	2,247	1,775	1,418	1,372	1,370	1,334	1,568	2,300	3,469	25,889
2015	3,344	2,907	2,812	2,253	1,779	1,422	1,376	1,374	1,337	1,572	2,306	3,478	25,958
2016	3,352	2,914	2,819	2,258	1,784	1,425	1,379	1,377	1,341	1,576	2,311	3,486	26,021
2017	3,359	2,920	2,825	2,263	1,788	1,429	1,382	1,380	1,344	1,579	2,317	3,494	26,082
2018	3,376	2,935	2,839	2,275	1,797	1,436	1,389	1,387	1,351	1,587	2,328	3,512	26,211
2019	3,393	2,949	2,853	2,286	1,806	1,443	1,396	1,394	1,357	1,595	2,339	3,529	26,339
2020	3,409	2,964	2,867	2,297	1,814	1,450	1,403	1,401	1,364	1,603	2,351	3,546	26,470
2021	3,426	2,978	2,881	2,308	1,823	1,457	1,410	1,407	1,370	1,611	2,362	3,563	26,596
2022	3,444	2,994	2,896	2,320	1,833	1,464	1,417	1,415	1,378	1,619	2,375	3,582	26,736
2023	3,459	3,007	2,909	2,331	1,841	1,471	1,423	1,421	1,384	1,626	2,385	3,598	26,855
2024	3,448	2,997	2,899	2,323	1,835	1,466	1,419	1,417	1,379	1,621	2,378	3,586	26,768
2025	3,459	3,007	2,909	2,331	1,841	1,471	1,423	1,421	1,384	1,626	2,386	3,598	26,858
2026	3,471	3,017	2,919	2,338	1,847	1,476	1,428	1,426	1,388	1,632	2,393	3,610	26,945
2027	3,481	3,026	2,928	2,346	1,853	1,481	1,432	1,430	1,393	1,637	2,401	3,621	27,029
2028	3,491	3,035	2,936	2,352	1,858	1,485	1,437	1,434	1,397	1,641	2,408	3,632	27,106
2029	3,501	3,043	2,944	2,359	1,863	1,489	1,440	1,438	1,400	1,646	2,414	3,641	27,178
2030	3,510	3,051	2,951	2,365	1,868	1,493	1,444	1,442	1,404	1,650	2,420	3,651	27,248

ResBas

San Diego Gas and Electric
2010 California Gas Report
Figure 6: Base Year (Zero Hdd) Forecast

YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009	1,421	1,284	1,421	1,375	1,421	1,375	1,421	1,421	1,375	1,421	1,375	1,421	16,733
2010	1,382	1,248	1,382	1,338	1,382	1,338	1,382	1,382	1,338	1,382	1,338	1,382	16,275
2011	1,371	1,238	1,371	1,327	1,371	1,327	1,371	1,371	1,327	1,371	1,327	1,371	16,142
2012	1,370	1,237	1,370	1,326	1,370	1,326	1,370	1,370	1,326	1,370	1,326	1,370	16,132
2013	1,369	1,236	1,369	1,324	1,369	1,324	1,369	1,369	1,324	1,369	1,324	1,369	16,114
2014	1,370	1,237	1,370	1,326	1,370	1,326	1,370	1,370	1,326	1,370	1,326	1,370	16,131
2015	1,374	1,241	1,374	1,329	1,374	1,329	1,374	1,374	1,329	1,374	1,329	1,374	16,174
2016	1,377	1,244	1,377	1,333	1,377	1,333	1,377	1,377	1,333	1,377	1,333	1,377	16,213
2017	1,380	1,247	1,380	1,336	1,380	1,336	1,380	1,380	1,336	1,380	1,336	1,380	16,251
2018	1,387	1,253	1,387	1,342	1,387	1,342	1,387	1,387	1,342	1,387	1,342	1,387	16,332
2019	1,394	1,259	1,394	1,349	1,394	1,349	1,394	1,394	1,349	1,394	1,349	1,394	16,411
2020	1,401	1,265	1,401	1,356	1,401	1,356	1,401	1,401	1,356	1,401	1,356	1,401	16,492
2021	1,407	1,271	1,407	1,362	1,407	1,362	1,407	1,407	1,362	1,407	1,362	1,407	16,571
2022	1,415	1,278	1,415	1,369	1,415	1,369	1,415	1,415	1,369	1,415	1,369	1,415	16,658
2023	1,421	1,284	1,421	1,375	1,421	1,375	1,421	1,421	1,375	1,421	1,375	1,421	16,732
2024	1,417	1,279	1,417	1,371	1,417	1,371	1,417	1,417	1,371	1,417	1,371	1,417	16,679
2025	1,421	1,284	1,421	1,375	1,421	1,375	1,421	1,421	1,375	1,421	1,375	1,421	16,734
2026	1,426	1,288	1,426	1,380	1,426	1,380	1,426	1,426	1,380	1,426	1,380	1,426	16,789
2027	1,430	1,292	1,430	1,384	1,430	1,384	1,430	1,430	1,384	1,430	1,384	1,430	16,841
2028	1,434	1,296	1,434	1,388	1,434	1,388	1,434	1,434	1,388	1,434	1,388	1,434	16,889
2029	1,438	1,299	1,438	1,392	1,438	1,392	1,438	1,438	1,392	1,438	1,392	1,438	16,933
2030	1,442	1,302	1,442	1,395	1,442	1,395	1,442	1,442	1,395	1,442	1,395	1,442	16,977

San Diego Gas & Electric
2010 California Gas Report
Figure 7: 2009 Historical Data

	Single Family	Multi-Family	Master Meter	Sub Meter
Total Therm Sales	224,295,822	41,448,214	34,294,689	10,227,058
Meter Count				
Pre-1979 Customers	544,199	144,279	11,350	470
1979 - 2004 Customers	78,265	27,944	245	1
2005-2009 Customers	2,870	1,414	18	1
TOTAL	626,446	173,642	11,614	472
Use Per Customer (UPC, therms)				
Pre-1979 Customers	346	239	2,766	21,370
1979 - 2004 Customers	402	222	9,302	20,657
2005-2009 Customers	293	177	5,398	0
Price Elasticity	-0.105	-0.071	-0.069	-0.105

San Diego Gas & Electric
2010 California Gas Report
Figure 8: Meter Count Forecast

Year

	Total	Single Family	Multi-Family	Master Meter	Sub Meter
2009	817,776	636,325	169,138	11,831	482
2010	826,189	643,035	170,842	11,831	482
2011	836,695	651,412	172,969	11,831	482
2012	848,148	660,546	175,288	11,831	482
2013	860,004	670,002	177,689	11,831	482
2014	872,224	679,748	180,163	11,831	482
2015	884,665	689,669	182,683	11,831	482
2016	897,269	699,721	185,235	11,831	482
2017	909,922	709,812	187,797	11,831	482
2018	922,587	719,912	190,362	11,831	482
2019	935,292	730,045	192,935	11,831	482
2020	948,007	740,185	195,509	11,831	482
2021	960,689	750,299	198,077	11,831	482
2022	973,311	760,365	200,633	11,831	482
2023	985,859	770,371	203,175	11,831	482
2024	998,357	780,339	205,706	11,831	482
2025	1,010,882	790,327	208,242	11,831	482
2026	1,023,542	800,422	210,806	11,831	482
2027	1,036,301	810,598	213,390	11,831	482
2028	1,049,037	820,755	215,969	11,831	482
2029	1,061,680	830,838	218,530	11,831	482
2030	1,074,321	840,919	221,090	11,831	482

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

San Diego Gas & Electric
2010 California Gas Report
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	-

San Diego Gas and Electric
2010 California Gas Report
Average and Marginal Gas Prices ($/therm)

Year	Res Price Deflator	R SF Average Price	R MF2 Average Price	R MF3 Average Price	R MM Average Price	R SM Average Price
2009	100.00	1.1806	0.0000	1.1680	1.1628	1.1809
2010	100.59	1.4196	0.0000	1.4070	1.4019	1.4199
2011	102.33	1.4721	0.0000	1.4596	1.4544	1.4725
2012	104.52	1.4949	0.0000	1.4824	1.4772	1.4952
2013	106.76	1.5427	0.0000	1.5300	1.5248	1.5431
2014	108.74	1.5802	0.0000	1.5674	1.5621	1.5805
2015	111.27	1.6167	0.0000	1.6038	1.5984	1.6170
2016	113.73	1.6612	0.0000	1.6481	1.6427	1.6615
2017	116.13	1.7068	0.0000	1.6936	1.6881	1.7071
2018	118.42	1.7525	0.0000	1.7392	1.7336	1.7529
2019	120.64	1.7998	0.0000	1.7863	1.7807	1.8002
2020	122.75	1.8474	0.0000	1.8337	1.8281	1.8477
2021	124.87	1.8959	0.0000	1.8821	1.8764	1.8963
2022	127.09	1.9382	0.0000	1.9243	1.9185	1.9386
2023	129.31	1.9896	0.0000	1.9755	1.9696	1.9899
2024	131.72	2.1561	0.0000	2.1419	2.1360	2.1565
2025	134.23	2.2273	0.0000	2.2129	2.2070	2.2277
2026	136.83	2.3013	0.0000	2.2867	2.2806	2.3017
2027	139.51	2.3787	0.0000	2.3639	2.3578	2.3791
2028	142.32	2.4611	0.0000	2.4461	2.4399	2.4615
2029	145.21	2.5470	0.0000	2.5318	2.5255	2.5474
2030	148.18	2.6354	0.0000	2.6201	2.6138	2.6359

	Res Price Deflator	R SF Marginal Price	R MF2 Marginal Price	R MF3 Marginal Price	R MM Marginal Price	R SM Marginal Price
2009	100.00	1.2010	1.2010	1.2010	1.2010	1.2010
2010	100.59	1.4400	1.4400	1.4400	1.4400	1.4400
2011	102.33	1.4925	1.4925	1.4925	1.4925	1.4925
2012	104.52	1.5152	1.5152	1.5152	1.5152	1.5152
2013	106.76	1.5634	1.5634	1.5634	1.5634	1.5634
2014	108.74	1.6009	1.6009	1.6009	1.6009	1.6009
2015	111.27	1.6377	1.6377	1.6377	1.6377	1.6377
2016	113.73	1.6824	1.6824	1.6824	1.6824	1.6824
2017	116.13	1.7283	1.7283	1.7283	1.7283	1.7283
2018	118.42	1.7743	1.7743	1.7743	1.7743	1.7743
2019	120.64	1.8218	1.8218	1.8218	1.8218	1.8218
2020	122.75	1.8696	1.8696	1.8696	1.8696	1.8696
2021	124.87	1.9184	1.9184	1.9184	1.9184	1.9184
2022	127.09	1.9609	1.9609	1.9609	1.9609	1.9609
2023	129.31	2.0125	2.0125	2.0125	2.0125	2.0125
2024	131.72	2.1793	2.1793	2.1793	2.1793	2.1793
2025	134.23	2.2508	2.2508	2.2508	2.2508	2.2508
2026	136.83	2.3250	2.3250	2.3250	2.3250	2.3250
2027	139.51	2.4027	2.4027	2.4027	2.4027	2.4027
2028	142.32	2.4854	2.4854	2.4854	2.4854	2.4854
2029	145.21	2.5716	2.5716	2.5716	2.5716	2.5716
2030	148.18	2.6604	2.6604	2.6604	2.6604	2.6604

San Diego Gas and Electric
2010 California Gas Report
Average and Marginal Electric Prices (cents/kwh)

Year	R SF Average Price	R MF2 Average Price	R MF3 Average Price	R MM Average Price	R SM Average Price
2009	18.26	0.00	18.07	17.99	18.27
2010	18.03	0.00	17.87	17.81	18.04
2011	16.98	0.00	16.83	16.77	16.98
2012	17.95	0.00	17.80	17.74	17.96
2013	19.04	0.00	18.88	18.82	19.04
2014	21.49	0.00	21.31	21.24	21.49
2015	22.12	0.00	21.94	21.87	22.13
2016	22.81	0.00	22.63	22.56	22.81
2017	23.64	0.00	23.45	23.38	23.64
2018	23.15	0.00	22.97	22.90	23.15
2019	23.33	0.00	23.15	23.08	23.33
2020	23.92	0.00	23.74	23.67	23.92
2021	23.42	0.00	23.25	23.18	23.43
2022	24.13	0.00	23.96	23.89	24.14
2023	24.86	0.00	24.69	24.62	24.87
2024	24.48	0.00	24.32	24.25	24.49
2025	25.22	0.00	25.06	24.99	25.23
2026	25.99	0.00	25.82	25.75	25.99
2027	25.59	0.00	25.43	25.37	25.60
2028	26.37	0.00	26.21	26.14	26.37
2029	27.17	0.00	27.00	26.94	27.17
2030	26.76	0.00	26.60	26.54	26.76

	R SF Marginal Price	R MF2 Marginal Price	R MF3 Marginal Price	R MM Marginal Price	R SM Marginal Price
2009	27.64	0.00	27.34	18.60	20.56
2010	27.29	0.00	27.05	18.41	20.30
2011	25.69	0.00	25.47	17.34	19.11
2012	27.16	0.00	26.94	18.34	20.21
2013	28.81	0.00	28.57	19.46	21.43
2014	32.51	0.00	32.25	21.96	24.19
2015	33.47	0.00	33.21	22.62	24.90
2016	34.52	0.00	34.24	23.32	25.67
2017	35.77	0.00	35.49	24.17	26.60
2018	35.03	0.00	34.76	23.68	26.06
2019	35.30	0.00	35.04	23.87	26.26
2020	36.19	0.00	35.93	24.47	26.92
2021	35.44	0.00	35.19	23.97	26.36
2022	36.52	0.00	36.26	24.70	27.16
2023	37.62	0.00	37.36	25.45	27.99
2024	37.05	0.00	36.80	25.08	27.56
2025	38.17	0.00	37.92	25.84	28.39
2026	39.32	0.00	39.07	26.63	29.25
2027	38.73	0.00	38.49	26.23	28.81
2028	39.90	0.00	39.66	27.03	29.68
2029	41.11	0.00	40.86	27.85	30.58
2030	40.49	0.00	40.25	27.44	30.11

San Diego Gas & Electric
2010 California Gas Report
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

San Diego Gas & Electric
2010 California Gas Report
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

San Diego Gas & Electric
2010 California Gas Report
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

San Diego Gas & Electric
2010 California Gas Report
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 - 2004	17	10	17	11	15	11	16	11	16
	2005-2007	17	3	17	4	15	4	16	4	16
Water Heat	Pre-1979	7	7	7	6	8	6	8	6	8
	1979 - 2004	7	7	7	8	8	8	8	8	8
	2005-2007	7	3	7	4	8	4	8	4	8
Cooking	Pre-1979	12	12	12	10	11	14	14	14	14
	1979 - 2004	12	10	12	11	11	11	14	11	14
	2005-2007	12	2	12	4	11	3	14	3	14
Drying	Pre-1979	8	8	8	6	8	8	8	8	8
	1979 - 2004	8	8	8	8	8	8	8	8	8
	2005-2007	8	6	8	3	8	4	8	4	8
Pool	Pre-1979	13	13	13	13	13	13	13	13	13
	1979 - 2004	13	9	13	9	13	9	13	9	13
	2005-2007	13	3	13	3	13	3	13	3	13
Spa	Pre-1979	11	11	11	11	11	11	11	11	11
	1979 - 2004	11	8	11	8	11	8	11	8	11
	2005-2007	11	3	11	3	11	3	11	3	11
Fireplace	Pre-1979	15	15	15	15	15	15	15	15	15
	1979 - 2004	15	15	15	15	15	15	15	15	15
	2005-2007	15	15	15	15	15	15	15	15	15
BBQ	Pre-1979	7	7	7	5	5	5	9	5	9
	1979 - 2004	7	7	7	5	5	9	9	9	9
	2005-2007	7	5	7	5	5	2	9	2	9
Other	Pre-1979	15	15	15	15	15	15	15	15	15
	1979 - 2004	15	15	15	15	15	15	15	15	15
	2005-2007	15	15	15	15	15	15	15	15	15

San Diego Gas & Electric
2010 California Gas Report
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 - 2004	0.9969	1.0000	0.9183	1.0000
	2005-2009	0.9917	1.0000	1.0000	1.0000
Water Heat	Pre-1979	1.0000	0.9915	0.9561	1.0000
	1979 - 2004	1.0000	1.0000	0.9800	1.0000
	2005-2009	1.0000	1.0000	1.0000	1.0000
Cooking	Pre-1979	0.9892	0.9890	0.9745	0.6000
	1979 - 2004	0.9895	0.9788	0.9622	0.6000
	2005-2009	1.0000	1.0000	1.0000	1.0000
Drying	Pre-1979	0.8714	0.7781	0.9067	0.8000
	1979 - 2004	0.9301	0.8422	0.8679	0.8000
	2005-2009	0.9733	0.8672	0.5000	0.5000
Pool	Pre-1979	0.0711	0.1045	0.1179	0.1179
	1979 - 2004	0.1686	0.1941	0.0053	0.0053
	2005-2009	0.2414	0.1941	0.0053	0.0053
Spa	Pre-1979	0.1299	0.0668	0.1329	0.1329
	1979 - 2004	0.2802	0.2896	0.2012	0.2012
	2005-2009	0.2750	0.2896	0.2012	0.2012
Fireplace	Pre-1979	0.5493	0.1519	0.1894	0.1894
	1979 - 2004	0.7149	0.4775	0.4156	0.4156
	2005-2009	0.7149	0.4775	0.4156	0.4156
Barbecue	Pre-1979	0.5240	0.2706	0.1875	0.4000
	1979 - 2004	0.6040	0.3838	0.3600	0.0000
	2005-2009	0.6497	0.4576	0.0000	0.0000

San Diego Gas & Electric
2010 California Gas Report
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

San Diego Gas & Electric
2010 California Gas Report
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

San Diego Gas & Electric
2010 California Gas Report
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

2010 CALIFORNIA GAS REPORT

CORE COMMERCIAL AND INDUSTRIAL DEMAND FORECAST
JULY 2010

Introduction

The core commercial and Industrial GN-3 gas demand forecast used the EUForecaster model to generate annual gas demand forecasts for the years 2009 through 2030.

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 1,314 for an Average Year. The gas demand forecasts under Cold, Hot and Base temperature were then constructed based on Cold Year (Hdd = 1,666), Hot Year (Hdd=962) 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 2009 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. Historical Year 2009 Sales:

The historical data are extracted from the billing tables in the Customer Information System (CIS). The gas consumption by business type was adjusted to 1,314 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.

C. Gas Price Data:

~~Average a~~nd 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 GN-3 consumption tiers.

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.

D. Electric Price Data:

Both average prices (cents/kWh) and marginal prices (cents/kWh) were developed as electricity price inputs. Forecasts for the SDG&E retail electricity rates by customer class were developed from the CEC's July 2007 report CEC-200-2007-013-SD, Appendix B: Utility-Specific Retail Price Forecast Tables at page 4 for SDG&E. Forecasts for the SDG&E small/medium commercial and industrial customer classes were developed by SDG&E's electricity rate analysis group through 2030. These were the average electricity prices for the GN-3 core commercial and industrial markets.

The marginal prices were calculated by multiplying each year's respective average price by a ratio. These ratios, 1.000 for commercial and 0.789 for industrial, are the same as ratio used for the SoCalGas core commercial and industrial G-10 end-use models.

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

E.. 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

F. 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. The low efficiency share in the existing equipment stock was set equal to 50%. Medium ranged from 40% to 45%, and high from 5% to10%.

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

G. 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

San Diego Gas and Electric Company
2010 California Gas Report - Commercial GN3
The Year the Equipment Was Installed by Business Types

Sector	Space Heater	Water Heater	Cooktop	Griddle	Fryer	Other Cooking Equipment	Kitchen Equipment	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

San Diego Gas and Electric
2010 California Gas Report
Incremental Meter Forecast by business type

Year	Office	Restaurant	Retail	Laundry	Warehouse	School	College	Health	Lodging	Misc	Government	TCU	Construction
2010	59	57	31	6	6	9	3	7	9	52	13	6	7
2011	-2	-2	-1	0	0	0	0	0	0	-2	0	0	0
2012	-11	-11	-6	-1	-1	-2	-1	-1	-2	-10	-2	-1	-1
2013	-8	-7	-4	-1	-1	-1	0	-1	-1	-7	-2	-1	-1
2014	-1	-1	0	0	0	0	0	0	0	0	0	0	0
2015	4	4	2	0	0	1	0	1	1	4	1	0	1
2016	11	11	6	1	1	2	1	1	2	10	2	1	1
2017	15	14	8	2	1	2	1	2	2	13	3	2	2
2018	16	16	9	2	2	2	1	2	2	14	4	2	2
2019	17	17	9	2	2	3	1	2	3	15	4	2	2
2020	18	17	9	2	2	3	1	2	3	16	4	2	2
2021	18	17	9	2	2	3	1	2	3	16	4	2	2
2022	18	18	10	2	2	3	1	2	3	16	4	2	2
2023	17	17	9	2	2	3	1	2	3	15	4	2	2
2024	18	17	9	2	2	3	1	2	3	15	4	2	2
2025	19	18	10	2	2	3	1	2	3	16	4	2	2
2026	19	18	10	2	2	3	1	2	3	17	4	2	2
2027	19	18	10	2	2	3	1	2	3	17	4	2	2
2028	19	19	10	2	2	3	1	2	3	17	4	2	2
2029	20	19	10	2	2	3	1	2	3	17	4	2	2
2030	19	19	10	2	2	3	1	2	3	17	4	2	2

File: Com_Core _Source_Data.xls(ElecPriceForecast) 07/22/2010 12:52 PM

San Diego Gas and Electric
2010 California Gas Report
Average and Marginal Electric Prices (cents/kwh)

Year	C Agriculture Average Price	C College Average Price	C Construction Average Price	C Government Average Price	C Health Average Price	C Laundry Average Price	C Lodging Average Price	C Misc Average Price	C Office Average Price	C Restaurant Average Price	C Retail Average Price	C School Average Price	C TCU Average Price	C Warehouse Average Price
2010	18.36	20.83	19.15	19.98	18.43	19.94	16.97	18.23	17.93	20.87	16.80	17.33	16.94	17.03
2011	17.91	18.98	18.35	18.52	17.96	18.62	17.10	17.70	17.53	19.38	17.06	17.47	17.24	17.11
2012	16.76	17.74	17.16	17.32	16.81	17.41	16.02	16.57	16.42	18.09	15.98	16.36	16.15	16.04
2013	18.22	19.39	18.69	18.90	18.28	18.99	17.37	18.02	17.84	19.77	17.33	17.75	17.51	17.39
2014	19.27	20.50	19.76	19.99	19.33	20.08	18.38	19.06	18.88	20.88	18.33	18.77	18.52	18.40
2015	22.13	23.54	22.68	22.95	22.19	23.05	21.12	21.89	21.69	23.95	21.06	21.55	21.27	21.14
2016	23.28	24.77	23.86	24.15	23.34	24.25	22.23	23.04	22.82	25.18	22.16	22.67	22.38	22.25
2017	23.97	25.50	24.56	24.87	24.03	24.97	22.90	23.73	23.51	25.91	22.83	23.35	23.05	22.92
2018	24.84	26.42	25.44	25.78	24.91	25.87	23.74	24.60	24.37	26.82	23.67	24.20	23.90	23.76
2019	25.25	26.85	25.86	26.21	25.32	26.30	24.16	25.02	24.79	27.24	24.09	24.61	24.31	24.18
2020	25.49	27.09	26.10	26.45	25.56	26.54	24.41	25.26	25.04	27.47	24.34	24.85	24.55	24.43
2021	26.12	27.74	26.73	27.09	26.19	27.18	25.03	25.89	25.67	28.11	24.95	25.47	25.17	25.05
2022	26.62	28.24	27.23	27.60	26.68	27.68	25.52	26.39	26.16	28.61	25.45	25.96	25.66	25.54
2023	27.39	29.06	28.02	28.40	27.46	28.48	26.28	27.17	26.94	29.42	26.20	26.72	26.42	26.30
2024	28.19	29.89	28.83	29.22	28.26	29.30	27.07	27.97	27.74	30.25	26.99	27.51	27.20	27.09
2025	28.71	30.30	29.30	29.68	28.77	29.74	27.66	28.51	28.29	30.62	27.59	28.07	27.78	27.68
2026	29.55	31.16	30.14	30.53	29.61	30.60	28.49	29.35	29.13	31.47	28.42	28.90	28.62	28.52
2027	30.42	32.05	31.01	31.41	30.48	31.48	29.36	30.22	30.00	32.35	29.28	29.76	29.47	29.38
2028	30.97	32.60	31.56	31.97	31.03	32.03	29.91	30.78	30.55	32.89	29.84	30.31	30.03	29.94
2029	31.88	33.53	32.48	32.90	31.94	32.95	30.82	31.69	31.46	33.81	30.74	31.21	30.93	30.84
2030	32.82	34.49	33.42	33.85	32.88	33.90	31.75	32.63	32.40	34.76	31.67	32.14	31.86	31.77

Year	C Agriculture Marginal Price	C College Marginal Price	C Construction Marginal Price	C Government Marginal Price	C Health Marginal Price	C Laundry Marginal Price	C Lodging Marginal Price	C Misc Marginal Price	C Office Marginal Price	C Restaurant Marginal Price	C Retail Marginal Price	C School Marginal Price	C TCU Marginal Price	C Warehouse Marginal Price
2010	18.29	20.70	18.98	19.61	18.28	19.78	17.13	18.18	17.96	20.70	17.16	17.43	17.40	17.19
2011	17.83	18.88	18.14	18.41	17.84	18.47	17.34	17.77	17.69	18.89	17.36	17.48	17.47	17.37
2012	16.69	17.65	16.97	17.21	16.69	17.28	16.24	16.64	16.56	17.66	16.25	16.36	16.36	16.26
2013	18.15	19.29	18.48	18.77	18.15	18.84	17.62	18.08	17.99	19.29	17.63	17.76	17.75	17.64
2014	19.19	20.39	19.54	19.85	19.19	19.92	18.63	19.12	19.02	20.40	18.65	18.79	18.78	18.66
2015	22.04	23.41	22.44	22.79	22.04	22.88	21.40	21.96	21.85	23.41	21.42	21.58	21.57	21.43
2016	23.19	24.63	23.61	23.98	23.19	24.07	22.52	23.11	22.99	24.64	22.54	22.70	22.69	22.54
2017	23.88	25.36	24.31	24.69	23.88	24.78	23.19	23.79	23.67	25.37	23.21	23.38	23.36	23.22
2018	24.75	26.27	25.19	25.58	24.75	25.68	24.04	24.66	24.54	26.28	24.06	24.23	24.22	24.07
2019	25.17	26.70	25.62	26.00	25.17	26.10	24.45	25.08	24.95	26.71	24.47	24.65	24.64	24.48
2020	25.41	26.94	25.85	26.24	25.41	26.34	24.69	25.32	25.19	26.94	24.72	24.89	24.88	24.72
2021	26.04	27.59	26.49	26.88	26.04	26.98	25.31	25.95	25.82	27.59	25.34	25.51	25.50	25.34
2022	26.53	28.09	26.99	27.38	26.54	27.48	25.81	26.44	26.31	28.10	25.83	26.00	25.99	25.84
2023	27.31	28.91	27.77	28.18	27.31	28.28	26.57	27.22	27.09	28.91	26.59	26.77	26.76	26.60
2024	28.11	29.73	28.58	29.00	28.11	29.10	27.35	28.02	27.88	29.74	27.38	27.56	27.55	27.39
2025	28.64	30.15	29.07	29.46	28.64	29.56	27.93	28.55	28.42	30.15	27.95	28.12	28.11	27.96
2026	29.48	31.00	29.92	30.31	29.48	30.41	28.76	29.39	29.26	31.01	28.78	28.96	28.95	28.79
2027	30.34	31.89	30.79	31.18	30.35	31.28	29.62	30.26	30.13	31.89	29.64	29.82	29.81	29.65
2028	30.90	32.44	31.35	31.74	30.90	31.84	30.18	30.81	30.68	32.44	30.20	30.37	30.36	30.21
2029	31.81	33.37	32.26	32.66	31.81	32.76	31.08	31.72	31.59	33.37	31.10	31.28	31.27	31.11
2030	32.75	34.32	33.20	33.60	32.75	33.71	32.01	32.66	32.52	34.32	32.03	32.21	32.20	32.04

San Diego Gas And Electric
2010 California Gas Report
Average and Marginal Gas Prices

Year	Com Price Deflator	C Agriculture Average Price	C College Average Price	C Construction Average Price	C Government Average Price	C Health Average Price	C Laundry Average Price	C Lodging Average Price	C Misc Average Price	C Office Average Price	C Restaurant Average Price	C Retail Average Price	C School Average Price	C TCU Average Price	C Warehouse Average Price
2010	100.00	0.7106	0.8063	0.7411	0.7732	0.7133	0.7717	0.6567	0.7054	0.6940	0.8076	0.6503	0.6707	0.6557	0.6590
2011	100.59	0.9808	1.0394	1.0049	1.0140	0.9838	1.0196	0.9365	0.9693	0.9602	1.0611	0.9343	0.9569	0.9443	0.9372
2012	102.33	1.0410	1.1022	1.0658	1.0760	1.0440	1.0814	0.9954	1.0295	1.0201	1.1235	0.9930	1.0160	1.0031	0.9961
2013	104.52	1.0069	1.0714	1.0326	1.0442	1.0100	1.0495	0.9599	0.9955	0.9858	1.0922	0.9573	0.9807	0.9675	0.9607
2014	106.76	1.0432	1.1099	1.0695	1.0820	1.0463	1.0871	0.9951	1.0318	1.0218	1.1303	0.9923	1.0160	1.0026	0.9959
2015	108.74	1.0768	1.1454	1.1037	1.1169	1.0799	1.1219	1.0279	1.0654	1.0553	1.1655	1.0249	1.0489	1.0353	1.0287
2016	111.27	1.1030	1.1736	1.1304	1.1445	1.1062	1.1493	1.0532	1.0917	1.0814	1.1933	1.0502	1.0744	1.0606	1.0541
2017	113.73	1.1365	1.2092	1.1645	1.1795	1.1397	1.1842	1.0857	1.1252	1.1147	1.2286	1.0826	1.1070	1.0930	1.0867
2018	116.13	1.1724	1.2469	1.2009	1.2166	1.1756	1.2212	1.1208	1.1611	1.1504	1.2660	1.1175	1.1422	1.1280	1.1217
2019	118.42	1.2089	1.2852	1.2380	1.2544	1.2122	1.2588	1.1565	1.1977	1.1868	1.3040	1.1531	1.1780	1.1637	1.1575
2020	120.64	1.2466	1.3246	1.2762	1.2933	1.2500	1.2976	1.1935	1.2354	1.2244	1.3432	1.1900	1.2151	1.2006	1.1946
2021	122.75	1.2859	1.3655	1.3159	1.3337	1.2893	1.3379	1.2321	1.2748	1.2635	1.3838	1.2285	1.2538	1.2391	1.2332
2022	124.87	1.3265	1.4077	1.3569	1.3753	1.3299	1.3794	1.2719	1.3154	1.3040	1.4257	1.2682	1.2937	1.2788	1.2730
2023	127.09	1.3589	1.4418	1.3898	1.4089	1.3623	1.4129	1.3035	1.3478	1.3362	1.4595	1.2997	1.3255	1.3104	1.3047
2024	129.31	1.4020	1.4866	1.4334	1.4532	1.4055	1.4571	1.3459	1.3909	1.3792	1.5040	1.3420	1.3679	1.3527	1.3471
2025	131.72	1.5582	1.6447	1.5902	1.6107	1.5617	1.6145	1.5013	1.5472	1.5352	1.6618	1.4973	1.5234	1.5081	1.5025
2026	134.23	1.6191	1.7075	1.6516	1.6729	1.6227	1.6765	1.5613	1.6081	1.5960	1.7243	1.5572	1.5836	1.5680	1.5626
2027	136.83	1.6829	1.7733	1.7159	1.7381	1.6865	1.7416	1.6242	1.6720	1.6596	1.7897	1.6200	1.6466	1.6308	1.6256
2028	139.51	1.7499	1.8423	1.7835	1.8065	1.7536	1.8099	1.6903	1.7390	1.7264	1.8585	1.6859	1.7128	1.6969	1.6917
2029	142.32	1.8203	1.9148	1.8545	1.8784	1.8240	1.8816	1.7597	1.8094	1.7967	1.9306	1.7552	1.7824	1.7662	1.7612
2030	145.21	1.8941	1.9908	1.9289	1.9537	1.8978	1.9567	1.8325	1.8832	1.8702	2.0062	1.8278	1.8553	1.8389	1.8340

Year	C Agriculture Marginal Price	C College Marginal Price	C Construction Marginal Price	C Government Marginal Price	C Health Marginal Price	C Laundry Marginal Price	C Lodging Marginal Price	C Misc Marginal Price	C Office Marginal Price	C Restaurant Marginal Price	C Retail Marginal Price	C School Marginal Price	C TCU Marginal Price	C Warehouse Marginal Price
2010	0.6544	0.7407	0.6792	0.7017	0.6542	0.7076	0.6130	0.6504	0.6426	0.7408	0.6139	0.6237	0.6227	0.6150
2011	0.9333	0.9881	0.9492	0.9631	0.9333	0.9667	0.9076	0.9301	0.9255	0.9882	0.9084	0.9146	0.9142	0.9087
2012	0.9922	1.0494	1.0088	1.0233	0.9923	1.0270	0.9655	0.9889	0.9841	1.0495	0.9663	0.9727	0.9723	0.9666
2013	0.9567	1.0168	0.9742	0.9894	0.9568	0.9933	0.9287	0.9533	0.9483	1.0169	0.9295	0.9363	0.9358	0.9298
2014	0.9920	1.0540	1.0100	1.0257	0.9921	1.0298	0.9630	0.9884	0.9833	1.0541	0.9639	0.9709	0.9704	0.9642
2015	1.0248	1.0884	1.0433	1.0594	1.0248	1.0636	0.9950	1.0211	1.0158	1.0886	0.9959	1.0031	1.0026	0.9963
2016	1.0502	1.1155	1.0692	1.0857	1.0502	1.0900	1.0196	1.0464	1.0410	1.1156	1.0205	1.0280	1.0275	1.0209
2017	1.0828	1.1499	1.1023	1.1193	1.0828	1.1237	1.0513	1.0789	1.0733	1.1501	1.0523	1.0599	1.0594	1.0526
2018	1.1178	1.1866	1.1378	1.1553	1.1179	1.1597	1.0856	1.1138	1.1081	1.1867	1.0866	1.0944	1.0939	1.0870
2019	1.1536	1.2239	1.1740	1.1919	1.1537	1.1964	1.1207	1.1495	1.1437	1.2240	1.1217	1.1297	1.1292	1.1221
2020	1.1906	1.2623	1.2115	1.2297	1.1907	1.2343	1.1571	1.1865	1.1805	1.2625	1.1581	1.1662	1.1657	1.1585
2021	1.2292	1.3023	1.2505	1.2690	1.2293	1.2738	1.1950	1.2250	1.2189	1.3025	1.1961	1.2043	1.2038	1.1965
2022	1.2691	1.3436	1.2907	1.3097	1.2692	1.3145	1.2342	1.2648	1.2586	1.3438	1.2352	1.2437	1.2431	1.2357
2023	1.3007	1.3767	1.3228	1.3421	1.3008	1.3470	1.2652	1.2963	1.2900	1.3769	1.2663	1.2749	1.2743	1.2667
2024	1.3431	1.4205	1.3656	1.3853	1.3432	1.3903	1.3069	1.3387	1.3322	1.4207	1.3080	1.3168	1.3162	1.3084
2025	1.4986	1.5776	1.5215	1.5416	1.4986	1.5467	1.4616	1.4940	1.4874	1.5778	1.4627	1.4717	1.4711	1.4631
2026	1.5587	1.6393	1.5821	1.6026	1.5587	1.6078	1.5209	1.5540	1.5473	1.6395	1.5220	1.5312	1.5306	1.5225
2027	1.6216	1.7040	1.6455	1.6665	1.6217	1.6718	1.5830	1.6168	1.6100	1.7042	1.5842	1.5935	1.5929	1.5846
2028	1.6877	1.7719	1.7122	1.7335	1.6878	1.7390	1.6483	1.6828	1.6758	1.7721	1.6495	1.6591	1.6584	1.6500
2029	1.7572	1.8432	1.7822	1.8040	1.7573	1.8096	1.7169	1.7522	1.7450	1.8434	1.7181	1.7279	1.7272	1.7186
2030	1.8300	1.9179	1.8555	1.8779	1.8301	1.8836	1.7888	1.8249	1.8176	1.9181	1.7901	1.8000	1.7994	1.7906

San Diego Gas and Electric
2010 California Gas Report
2009 Historical Data

Segment	2009 Therm Sales	2009 Meter Count	2009 Meter Count, Existing/Old customers	2009 Meter Count New Customers	Avg Use Per Meter Existing Customers	Avg Use Per Meter New Customers	Price Elasticity
Office	34110157	6459	6392	67	4476.420	4558.630	-0.072000
Restaurant	39203205	5034	4969	65	6603.190	6543.960	-0.001000
Retail	11773883	3273	3250	23	3042.650	4057.620	-0.032000
Laundry	6281740	516	512	4	10336.030	8408.110	-0.026000
Warehouse	3109425	652	648	4	4063.880	696.710	-0.000010
School	4164756	770	768	2	4577.700	7610.100	-0.103000
College	6271597	318	309	9	17068.780	4758.680	-0.090000
Health	11605331	722	720	2	13633.700	11387.350	-0.052000
Lodging	17949741	770	766	4	19717.100	28637.910	-0.013000
Misc	17191864	4795	4676	119	2933.990	7193.130	-0.030000
Government	16110912	1527	1513	14	8940.840	9385.310	-0.061000
TCU	6895586	685	677	8	8580.990	4596.350	-0.062000
Construction	1330673	820	791	29	1344.600	2226.560	-0.179000
Agriculture	3365130	139	139	0	20524.950	0.000	-0.059000

San Diego Gas and Electric Company
2010 California Gas Report - Commercial GN3
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	1,932	802	98	33	25	101	22	33	96	28	1,926	5,096
Restaurant	2,976	1,236	151	50	38	156	33	51	148	42	2,968	7,850
Retail	1,384	575	70	23	18	73	16	24	69	20	1,380	3,651
Laundry	4,888	2,030	248	82	63	256	55	84	244	70	4,874	12,893
Warehouse	1,988	825	101	33	26	104	22	34	99	28	1,982	5,243
School	2,080	864	105	35	27	109	23	36	104	30	2,074	5,487
College	8,228	3,416	417	139	106	431	92	141	410	117	8,204	21,701
Health	5,307	2,203	269	89	68	278	60	91	265	76	5,292	13,997
Lodging	9,006	3,739	456	152	116	472	101	154	449	128	8,980	23,753
Misc	768	319	39	13	10	40	9	13	38	11	765	2,025
Government	6,805	2,825	345	115	87	356	76	117	339	97	6,785	17,948
TCU	741	308	38	12	10	39	8	13	37	11	739	1,954
Construction	990	411	50	17	13	52	11	17	49	14	988	2,612
Agriculture	8,746	3,631	443	147	112	458	98	150	436	125	8,721	23,068

San Diego Gas and Electric Company
2010 California Gas Report - Commercial GN3
Use Per Meter for New Customers therms

Sector	Space Heater	Water Heater	Cooktop	Griddle	Fryer	Other Cooking Equipment	Kitchen Equipment	AC	Dryer	Engine	Other	Total Building
Office	5,400	17,920	708	3,655	3	1,461	270	3	3	3	32	29,446
Restaurant	2,225	7,385	292	1,506	1	602	111	1	1	1	13	12,135
Retail	1,871	6,209	245	1,266	1	506	93	1	1	1	11	10,202
Laundry	4,735	15,713	620	3,205	3	1,281	237	3	3	3	28	25,819
Warehouse	13,683	45,407	1,793	9,261	7	3,702	683	7	7	7	81	74,610
School	846	2,808	111	573	0	229	42	0	0	0	5	4,613
College	3,830	12,711	502	2,592	2	1,036	191	2	2	2	23	20,886
Health	0	1	0	0	0	0	0	0	0	0	0	1
Lodging	11,847	39,315	1,552	8,018	6	3,205	592	6	6	6	70	64,599
Misc	631	2,094	83	427	0	171	32	0	0	0	4	3,440
Government	11,138	36,961	1,459	7,538	6	3,013	556	6	6	6	66	60,732
TCU	64	213	8	43	0	17	3	0	0	0	0	349
Construction	0	1	0	0	0	0	0	0	0	0	0	1
Agriculture	0	1	0	0	0	0	0	0	0	0	0	1

San Diego Gas and Electric Company
2010 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
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

Business Types	End Use	Fuel	Efficiency	uec (therm/SqFt)	Equipment Cost	efficiency shares
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
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

Business Types	End Use	Fuel	Efficiency	uec (therm/SqFt)	Equipment Cost	efficiency shares
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
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

Business Types	End Use	Fuel	Efficiency	uec (therm/SqFt)	Equipment Cost	efficiency shares
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
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
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

Business Types	End Use	Fuel	Efficiency	uec (therm/SqFt)	Equipment Cost	efficiency shares
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
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

Business Types	End Use	Fuel	Efficiency	uec (therm/SqFt)	Equipment Cost	efficiency shares
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
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

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

San Diego Gas and Electric Company
2010 California Gas Report- Commercial GN3
Fuel Market Share

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
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

Business Types	End Use	Fuel	Share
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
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

Business Types	End Use	Fuel	Share
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
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

San Diego Gas and Electric Company
2010 California Gas Report - Commercial GN3
Efficiency Shares

bname	nname	fname	Stock	Standard	High	Premium
Agriculture	Drying	Electric	0.65	0.35	N/A	N/A
Agriculture	Drying	Natural_Gas	0.65	0.35	N/A	N/A
Agriculture	Engine	Electric	0.65	0.35	N/A	N/A
Agriculture	Engine	Natural_Gas	0.65	0.35	N/A	N/A
Agriculture	Other	Natural_Gas	1	N/A	N/A	N/A
Agriculture	Space_Heat	Electric	1	N/A	N/A	N/A
Agriculture	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Agriculture	Water_Heat	Electric	0.4	0.5	0.08	0.02
Agriculture	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
College	AC_Compressor	Electric	0.65	0.35	N/A	N/A
College	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
College	Cook_top	Electric	0.65	0.35	N/A	N/A
College	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
College	Fryer	Electric	0.65	0.35	N/A	N/A
College	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
College	Griddle	Electric	0.65	0.35	N/A	N/A
College	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
College	Other	Natural_Gas	1	N/A	N/A	N/A
College	Other_Cooking	Electric	0.65	0.35	N/A	N/A
College	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
College	Space_Heat	Electric	1	N/A	N/A	N/A
College	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
College	Water_Heat	Electric	0.4	0.5	0.08	0.02
College	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Construction	Other	Natural_Gas	1	N/A	N/A	N/A
Construction	Space_Heat	Electric	1	N/A	N/A	N/A
Construction	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Construction	Water_Heat	Electric	0.4	0.5	0.08	0.02
Construction	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Government	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Government	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Government	Cook_top	Electric	0.65	0.35	N/A	N/A

bname	nname	fname	Stock	Standard	High	Premium
Government	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
Government	Fryer	Electric	0.65	0.35	N/A	N/A
Government	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
Government	Griddle	Electric	0.65	0.35	N/A	N/A
Government	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
Government	Other	Natural_Gas	1	N/A	N/A	N/A
Government	Other_Cooking	Electric	0.65	0.35	N/A	N/A
Government	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Government	Space_Heat	Electric	1	N/A	N/A	N/A
Government	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Government	Water_Heat	Electric	0.4	0.5	0.08	0.02
Government	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Grocery	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Grocery	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Grocery	Cook_top	Electric	0.65	0.35	N/A	N/A
Grocery	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
Grocery	Fryer	Electric	0.65	0.35	N/A	N/A
Grocery	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
Grocery	Griddle	Electric	0.65	0.35	N/A	N/A
Grocery	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
Grocery	Other	Natural_Gas	1	N/A	N/A	N/A
Grocery	Other_Cooking	Electric	0.65	0.35	N/A	N/A
Grocery	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Grocery	Space_Heat	Electric	1	N/A	N/A	N/A
Grocery	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Grocery	Water_Heat	Electric	0.4	0.5	0.08	0.02
Grocery	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Health	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Health	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Health	Cook_top	Electric	0.65	0.35	N/A	N/A
Health	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
Health	Drying	Electric	0.65	0.35	N/A	N/A
Health	Drying	Natural_Gas	0.65	0.35	N/A	N/A
Health	Fryer	Electric	0.65	0.35	N/A	N/A
Health	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
Health	Griddle	Electric	0.65	0.35	N/A	N/A

bname	nname	fname	Stock	Standard	High	Premium
Health	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
Health	Other	Natural_Gas	1	N/A	N/A	N/A
Health	Other_Cooking	Electric	0.65	0.35	N/A	N/A
Health	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Health	Space_Heat	Electric	1	N/A	N/A	N/A
Health	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Health	Water_Heat	Electric	0.4	0.5	0.08	0.02
Health	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Laundry	Drying	Electric	0.65	0.35	N/A	N/A
Laundry	Drying	Natural_Gas	0.65	0.35	N/A	N/A
Laundry	Other	Natural_Gas	1	N/A	N/A	N/A
Laundry	Space_Heat	Electric	1	N/A	N/A	N/A
Laundry	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Laundry	Water_Heat	Electric	0.4	0.5	0.08	0.02
Laundry	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Lodging	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Lodging	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Lodging	Cook_top	Electric	0.65	0.35	N/A	N/A
Lodging	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
Lodging	Drying	Electric	0.65	0.35	N/A	N/A
Lodging	Drying	Natural_Gas	0.65	0.35	N/A	N/A
Lodging	Fryer	Electric	0.65	0.35	N/A	N/A
Lodging	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
Lodging	Griddle	Electric	0.65	0.35	N/A	N/A
Lodging	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
Lodging	Other	Natural_Gas	1	N/A	N/A	N/A
Lodging	Other_Cooking	Electric	0.65	0.35	N/A	N/A
Lodging	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Lodging	Space_Heat	Electric	1	N/A	N/A	N/A
Lodging	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Lodging	Water_Heat	Electric	0.4	0.5	0.08	0.02
Lodging	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Misc	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Misc	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Misc	Cook_top	Electric	0.65	0.35	N/A	N/A
Misc	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A

bname	nname	fname	Stock	Standard	High	Premium
Misc	Fryer	Electric	0.65	0.35	N/A	N/A
Misc	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
Misc	Griddle	Electric	0.65	0.35	N/A	N/A
Misc	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
Misc	Other	Natural_Gas	1	N/A	N/A	N/A
Misc	Other_Cooking	Electric	0.65	0.35	N/A	N/A
Misc	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Misc	Space_Heat	Electric	1	N/A	N/A	N/A
Misc	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Misc	Water_Heat	Electric	0.4	0.5	0.08	0.02
Misc	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Office	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Office	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Office	Cooking	Electric	0.65	0.35	N/A	N/A
Office	Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Office	Other	Natural_Gas	1	N/A	N/A	N/A
Office	Space_Heat	Electric	1	N/A	N/A	N/A
Office	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Office	Water_Heat	Electric	0.4	0.5	0.08	0.02
Office	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Restaurant	AC_Compressor	Electric	0.65	0.35	N/A	N/A
Restaurant	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
Restaurant	Cook_top	Electric	0.65	0.35	N/A	N/A
Restaurant	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
Restaurant	Fryer	Electric	0.65	0.35	N/A	N/A
Restaurant	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
Restaurant	Griddle	Electric	0.65	0.35	N/A	N/A
Restaurant	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
Restaurant	Other	Natural_Gas	1	N/A	N/A	N/A
Restaurant	Other_Cooking	Electric	0.65	0.35	N/A	N/A
Restaurant	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Restaurant	Space_Heat	Electric	1	N/A	N/A	N/A
Restaurant	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Restaurant	Water_Heat	Electric	0.4	0.5	0.08	0.02
Restaurant	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Retail	Cooking	Electric	0.65	0.35	N/A	N/A

bname	nname	fname	Stock	Standard	High	Premium
Retail	Cooking	Natural_Gas	0.65	0.35	N/A	N/A
Retail	Other	Natural_Gas	1	N/A	N/A	N/A
Retail	Space_Heat	Electric	1	N/A	N/A	N/A
Retail	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Retail	Water_Heat	Electric	0.4	0.5	0.08	0.02
Retail	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
School	AC_Compressor	Electric	0.65	0.35	N/A	N/A
School	AC_Compressor	Natural_Gas	0.65	0.35	N/A	N/A
School	Cook_top	Electric	0.65	0.35	N/A	N/A
School	Cook_top	Natural_Gas	0.65	0.35	N/A	N/A
School	Fryer	Electric	0.65	0.35	N/A	N/A
School	Fryer	Natural_Gas	0.65	0.35	N/A	N/A
School	Griddle	Electric	0.65	0.35	N/A	N/A
School	Griddle	Natural_Gas	0.65	0.35	N/A	N/A
School	Other	Natural_Gas	1	N/A	N/A	N/A
School	Other_Cooking	Electric	0.65	0.35	N/A	N/A
School	Other_Cooking	Natural_Gas	0.65	0.35	N/A	N/A
School	Space_Heat	Electric	1	N/A	N/A	N/A
School	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
School	Water_Heat	Electric	0.4	0.5	0.08	0.02
School	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
TCU	Engine	Electric	0.65	0.35	N/A	N/A
TCU	Engine	Natural_Gas	0.65	0.35	N/A	N/A
TCU	Other	Natural_Gas	1	N/A	N/A	N/A
TCU	Space_Heat	Electric	1	N/A	N/A	N/A
TCU	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
TCU	Water_Heat	Electric	0.4	0.5	0.08	0.02
TCU	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02
Warehouse	Engine	Electric	0.65	0.35	N/A	N/A
Warehouse	Engine	Natural_Gas	0.65	0.35	N/A	N/A
Warehouse	Other	Natural_Gas	1	N/A	N/A	N/A
Warehouse	Space_Heat	Electric	1	N/A	N/A	N/A
Warehouse	Space_Heat	Natural_Gas	0.65	0.3	0.04	0.01
Warehouse	Water_Heat	Electric	0.4	0.5	0.08	0.02
Warehouse	Water_Heat	Natural_Gas	0.4	0.5	0.08	0.02

San Diego Gas and Electric Company
2008 California Gas Report - Commercial GN3
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
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

Business Type	End Use	saturation
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

2010 California Gas Report - Commercial GN3
Equipment Cost Data

b	n	f	e	bname	nname	EQcost
1	1	1	1	Office	Space_Heat	4.3149
1	1	1	2	Office	Space_Heat	4.7464
1	1	1	3	Office	Space_Heat	5.1779
1	1	1	4	Office	Space_Heat	5.6094
1	1	2	1	Office	Space_Heat	3.4519
1	1	2	2	Office	Space_Heat	3.7971
1	1	2	3	Office	Space_Heat	4.1423
1	1	2	4	Office	Space_Heat	4.4875
1	2	1	1	Office	Water_Heat	0.6712
1	2	1	2	Office	Water_Heat	0.7384
1	2	1	3	Office	Water_Heat	0.8055
1	2	1	4	Office	Water_Heat	0.8726
1	2	2	1	Office	Water_Heat	0.537
1	2	2	2	Office	Water_Heat	0.5907
1	2	2	3	Office	Water_Heat	0.6444
1	2	2	4	Office	Water_Heat	0.6981
1	3	1	1	Office	Cooking	0.4899
1	3	1	2	Office	Cooking	0.5389
1	3	2	1	Office	Cooking	0.3919
1	3	2	2	Office	Cooking	0.4311
1	10	1	1	Office	AC_Compressor	1.4773
1	10	1	2	Office	AC_Compressor	1.6251
1	10	2	1	Office	AC_Compressor	1.1819
1	10	2	2	Office	AC_Compressor	1.3
1	11	1	1	Office	Other	0
1	11	2	1	Office	Other	0
2	1	1	1	Restaurant	Space_Heat	1.5841
2	1	1	2	Restaurant	Space_Heat	1.7425
2	1	1	3	Restaurant	Space_Heat	1.9009
2	1	1	4	Restaurant	Space_Heat	2.0593
2	1	2	1	Restaurant	Space_Heat	1.2673
2	1	2	2	Restaurant	Space_Heat	1.394
2	1	2	3	Restaurant	Space_Heat	1.5207
2	1	2	4	Restaurant	Space_Heat	1.6474
2	2	1	1	Restaurant	Water_Heat	11.666
2	2	1	2	Restaurant	Water_Heat	12.8326
2	2	1	3	Restaurant	Water_Heat	13.9992
2	2	1	4	Restaurant	Water_Heat	15.1658
2	2	2	1	Restaurant	Water_Heat	9.3328
2	2	2	2	Restaurant	Water_Heat	10.2661
2	2	2	3	Restaurant	Water_Heat	11.1994
2	2	2	4	Restaurant	Water_Heat	12.1327
2	4	1	1	Restaurant	Cook_top	16.1343
2	4	1	2	Restaurant	Cook_top	17.7477
2	4	2	1	Restaurant	Cook_top	12.9074
2	4	2	2	Restaurant	Cook_top	14.1981
2	5	1	1	Restaurant	Fryer	14.5274
2	5	1	2	Restaurant	Fryer	15.9802
2	5	2	1	Restaurant	Fryer	11.622
2	5	2	2	Restaurant	Fryer	12.7841
2	6	1	1	Restaurant	Griddle	12.2603
2	6	1	2	Restaurant	Griddle	13.4863
2	6	2	1	Restaurant	Griddle	9.8082
2	6	2	2	Restaurant	Griddle	10.789
2	7	1	1	Restaurant	Other_Cooking	13.0747
2	7	1	2	Restaurant	Other_Cooking	14.3822
2	7	2	1	Restaurant	Other_Cooking	10.4598
2	7	2	2	Restaurant	Other_Cooking	11.5057
2	10	1	1	Restaurant	AC_Compressor	2.7306
2	10	1	2	Restaurant	AC_Compressor	3.0036
2	10	2	1	Restaurant	AC_Compressor	2.1844
2	10	2	2	Restaurant	AC_Compressor	2.4029
2	11	1	1	Restaurant	Other	0
2	11	2	1	Restaurant	Other	0
3	1	1	1	Retail	Space_Heat	3.5122
3	1	1	2	Retail	Space_Heat	3.8634
3	1	1	3	Retail	Space_Heat	4.2146
3	1	1	4	Retail	Space_Heat	4.5658
3	1	2	1	Retail	Space_Heat	2.8097
3	1	2	2	Retail	Space_Heat	3.0907

b	a	f	e	bname	nname	EQcost
	3	1	2	3 Retail	Space_Heat	3.3717
	3	1	2	4 Retail	Space_Heat	3.6527
	3	2	1	1 Retail	Water_Heat	1.563
	3	2	1	2 Retail	Water_Heat	1.7193
	3	2	1	3 Retail	Water_Heat	1.8756
	3	2	1	4 Retail	Water_Heat	2.0319
	3	2	2	1 Retail	Water_Heat	1.2504
	3	2	2	2 Retail	Water_Heat	1.3754
	3	2	2	3 Retail	Water_Heat	1.5004
	3	2	2	4 Retail	Water_Heat	1.6255
	3	3	1	1 Retail	Cooking	4.4039
	3	3	1	2 Retail	Cooking	4.8443
	3	3	2	1 Retail	Cooking	3.5231
	3	3	2	2 Retail	Cooking	3.875
	3	11	1	1 Retail	Other	0
	3	11	2	1 Retail	Other	0
	4	1	1	1 Laundry	Space_Heat	1.836
	4	1	1	2 Laundry	Space_Heat	2.02
	4	1	1	3 Laundry	Space_Heat	2.203
	4	1	1	4 Laundry	Space_Heat	2.387
	4	1	2	1 Laundry	Space_Heat	1.469
	4	1	2	2 Laundry	Space_Heat	1.616
	4	1	2	3 Laundry	Space_Heat	1.763
	4	1	2	4 Laundry	Space_Heat	1.909
	4	2	1	1 Laundry	Water_Heat	34.512
	4	2	1	2 Laundry	Water_Heat	37.963
	4	2	1	3 Laundry	Water_Heat	41.414
	4	2	1	4 Laundry	Water_Heat	44.865
	4	2	2	1 Laundry	Water_Heat	27.609
	4	2	2	2 Laundry	Water_Heat	30.37
	4	2	2	3 Laundry	Water_Heat	33.131
	4	2	2	4 Laundry	Water_Heat	35.892
	4	8	1	1 Laundry	Drying	186.738
	4	8	1	2 Laundry	Drying	205.412
	4	8	2	1 Laundry	Drying	149.39
	4	8	2	2 Laundry	Drying	164.329
	4	11	1	1 Laundry	Other	0
	4	11	2	1 Laundry	Other	0
	5	1	1	1 Warehouse	Space_Heat	7.909
	5	1	1	2 Warehouse	Space_Heat	8.7
	5	1	1	3 Warehouse	Space_Heat	9.491
	5	1	1	4 Warehouse	Space_Heat	10.282
	5	1	2	1 Warehouse	Space_Heat	6.327
	5	1	2	2 Warehouse	Space_Heat	6.96
	5	1	2	3 Warehouse	Space_Heat	7.593
	5	1	2	4 Warehouse	Space_Heat	8.225
	5	2	1	1 Warehouse	Water_Heat	2.608
	5	2	1	2 Warehouse	Water_Heat	2.869
	5	2	1	3 Warehouse	Water_Heat	3.13
	5	2	1	4 Warehouse	Water_Heat	3.39
	5	2	2	1 Warehouse	Water_Heat	2.086
	5	2	2	2 Warehouse	Water_Heat	2.295
	5	2	2	3 Warehouse	Water_Heat	2.504
	5	2	2	4 Warehouse	Water_Heat	2.712
	5	9	1	1 Warehouse	Engine	113.127
	5	9	1	2 Warehouse	Engine	124.44
	5	9	2	1 Warehouse	Engine	90.502
	5	9	2	2 Warehouse	Engine	99.552
	5	11	1	1 Warehouse	Other	0
	5	11	2	1 Warehouse	Other	0
	6	1	1	1 School	Space_Heat	1.225
	6	1	1	2 School	Space_Heat	1.348
	6	1	1	3 School	Space_Heat	1.471
	6	1	1	4 School	Space_Heat	1.593
	6	1	2	1 School	Space_Heat	0.98
	6	1	2	2 School	Space_Heat	1.078
	6	1	2	3 School	Space_Heat	1.176
	6	1	2	4 School	Space_Heat	1.274
	6	2	1	1 School	Water_Heat	1.635
	6	2	1	2 School	Water_Heat	1.799
	6	2	1	3 School	Water_Heat	1.962
	6	2	1	4 School	Water_Heat	2.126
	6	2	2	1 School	Water_Heat	1.308
	6	2	2	2 School	Water_Heat	1.439
	6	2	2	3 School	Water_Heat	1.57
	6	2	2	4 School	Water_Heat	1.701
	6	4	1	1 School	Cook_top	0.61
	6	4	1	2 School	Cook_top	0.671

b	c	d	e	bname	nname	EQcost
	6	4	2	1 School	Cook_top	0.488
	6	4	2	2 School	Cook_top	0.537
	6	5	1	1 School	Fryer	0.612
	6	5	1	2 School	Fryer	0.673
	6	5	2	1 School	Fryer	0.489
	6	5	2	2 School	Fryer	0.538
	6	6	1	1 School	Griddle	0.612
	6	6	1	2 School	Griddle	0.673
	6	6	2	1 School	Griddle	0.489
	6	6	2	2 School	Griddle	0.538
	6	7	1	1 School	Other_Cooking	0.61
	6	7	1	2 School	Other_Cooking	0.671
	6	7	2	1 School	Other_Cooking	0.488
	6	7	2	2 School	Other_Cooking	0.537
	6	10	1	1 School	AC_Compressor	0.866
	6	10	1	2 School	AC_Compressor	0.953
	6	10	2	1 School	AC_Compressor	0.693
	6	10	2	2 School	AC_Compressor	0.762
	6	11	1	1 School	Other	0
	6	11	2	1 School	Other	0
	7	1	1	1 College	Space_Heat	3.14441
	7	1	1	2 College	Space_Heat	3.45885
	7	1	1	3 College	Space_Heat	3.77329
	7	1	1	4 College	Space_Heat	4.08773
	7	1	2	1 College	Space_Heat	2.51553
	7	1	2	2 College	Space_Heat	2.76708
	7	1	2	3 College	Space_Heat	3.01863
	7	1	2	4 College	Space_Heat	3.27018
	7	2	1	1 College	Water_Heat	3.38894
	7	2	1	2 College	Water_Heat	3.72784
	7	2	1	3 College	Water_Heat	4.06673
	7	2	1	4 College	Water_Heat	4.40563
	7	2	2	1 College	Water_Heat	2.71116
	7	2	2	2 College	Water_Heat	2.98227
	7	2	2	3 College	Water_Heat	3.25339
	7	2	2	4 College	Water_Heat	3.5245
	7	4	1	1 College	Cook_top	0.57358
	7	4	1	2 College	Cook_top	0.63093
	7	4	2	1 College	Cook_top	0.45886
	7	4	2	2 College	Cook_top	0.50475
	7	5	1	1 College	Fryer	0.57322
	7	5	1	2 College	Fryer	0.63055
	7	5	2	1 College	Fryer	0.45858
	7	5	2	2 College	Fryer	0.50444
	7	6	1	1 College	Griddle	0.57322
	7	6	1	2 College	Griddle	0.63055
	7	6	2	1 College	Griddle	0.45858
	7	6	2	2 College	Griddle	0.50444
	7	7	1	1 College	Other_Cooking	0.57358
	7	7	1	2 College	Other_Cooking	0.63093
	7	7	2	1 College	Other_Cooking	0.45886
	7	7	2	2 College	Other_Cooking	0.50475
	7	10	1	1 College	AC_Compressor	1.3949
	7	10	1	2 College	AC_Compressor	1.53439
	7	10	2	1 College	AC_Compressor	1.11592
	7	10	2	2 College	AC_Compressor	1.22752
	7	11	1	1 College	Other	0
	7	11	2	1 College	Other	0
	8	1	1	1 Health	Space_Heat	0.8825
	8	1	1	2 Health	Space_Heat	0.97075
	8	1	1	3 Health	Space_Heat	1.059
	8	1	1	4 Health	Space_Heat	1.14725
	8	1	2	1 Health	Space_Heat	0.706
	8	1	2	2 Health	Space_Heat	0.7766
	8	1	2	3 Health	Space_Heat	0.8472
	8	1	2	4 Health	Space_Heat	0.9178
	8	2	1	1 Health	Water_Heat	5.33917
	8	2	1	2 Health	Water_Heat	5.87309
	8	2	1	3 Health	Water_Heat	6.407
	8	2	1	4 Health	Water_Heat	6.94092
	8	2	2	1 Health	Water_Heat	4.27134
	8	2	2	2 Health	Water_Heat	4.69847
	8	2	2	3 Health	Water_Heat	5.1256
	8	2	2	4 Health	Water_Heat	5.55274
	8	4	1	1 Health	Cook_top	3.37409
	8	4	1	2 Health	Cook_top	3.7115
	8	4	2	1 Health	Cook_top	2.69927
	8	4	2	2 Health	Cook_top	2.9692

b	a	f	e	bname	nname	EQcost
	8	5	1	1 Health	Fryer	3.37409
	8	5	1	2 Health	Fryer	3.7115
	8	5	2	1 Health	Fryer	2.69927
	8	5	2	2 Health	Fryer	2.9692
	8	6	1	1 Health	Griddle	3.37409
	8	6	1	2 Health	Griddle	3.7115
	8	6	2	1 Health	Griddle	2.69927
	8	6	2	2 Health	Griddle	2.9692
	8	7	1	1 Health	Other_Cooking	0.33743
	8	7	1	2 Health	Other_Cooking	0.37118
	8	7	2	1 Health	Other_Cooking	0.26995
	8	7	2	2 Health	Other_Cooking	0.29694
	8	8	1	1 Health	Drying	1.86871
	8	8	1	2 Health	Drying	2.05558
	8	8	2	1 Health	Drying	1.49497
	8	8	2	2 Health	Drying	1.64446
	8	10	1	1 Health	AC_Compressor	1.45749
	8	10	1	2 Health	AC_Compressor	1.60324
	8	10	2	1 Health	AC_Compressor	1.16599
	8	10	2	2 Health	AC_Compressor	1.28259
	8	11	1	1 Health	Other	0
	8	11	2	1 Health	Other	0
	9	1	1	1 Lodging	Space_Heat	4.85892
	9	1	1	2 Lodging	Space_Heat	5.3448
	9	1	1	3 Lodging	Space_Heat	5.8307
	9	1	1	4 Lodging	Space_Heat	6.3166
	9	1	2	1 Lodging	Space_Heat	3.8871
	9	1	2	2 Lodging	Space_Heat	4.2759
	9	1	2	3 Lodging	Space_Heat	4.6646
	9	1	2	4 Lodging	Space_Heat	5.0533
	9	2	1	1 Lodging	Water_Heat	8.6651
	9	2	1	2 Lodging	Water_Heat	9.5317
	9	2	1	3 Lodging	Water_Heat	10.3982
	9	2	1	4 Lodging	Water_Heat	11.2647
	9	2	2	1 Lodging	Water_Heat	6.9321
	9	2	2	2 Lodging	Water_Heat	7.6253
	9	2	2	3 Lodging	Water_Heat	8.3185
	9	2	2	4 Lodging	Water_Heat	9.0118
	9	4	1	1 Lodging	Cook_top	4.0305
	9	4	1	2 Lodging	Cook_top	4.4335
	9	4	2	1 Lodging	Cook_top	3.2244
	9	4	2	2 Lodging	Cook_top	3.5468
	9	5	1	1 Lodging	Fryer	5.2524
	9	5	1	2 Lodging	Fryer	5.7777
	9	5	2	1 Lodging	Fryer	4.2019
	9	5	2	2 Lodging	Fryer	4.6221
	9	6	1	1 Lodging	Griddle	5.2524
	9	6	1	2 Lodging	Griddle	5.7777
	9	6	2	1 Lodging	Griddle	4.2019
	9	6	2	2 Lodging	Griddle	4.6221
	9	7	1	1 Lodging	Other_Cooking	0.5148
	9	7	1	2 Lodging	Other_Cooking	0.5663
	9	7	2	1 Lodging	Other_Cooking	0.4118
	9	7	2	2 Lodging	Other_Cooking	0.453
	9	8	1	1 Lodging	Drying	2.1663
	9	8	1	2 Lodging	Drying	2.3829
	9	8	2	1 Lodging	Drying	1.733
	9	8	2	2 Lodging	Drying	1.9063
	9	10	1	1 Lodging	AC_Compressor	0.7157
	9	10	1	2 Lodging	AC_Compressor	0.7872
	9	10	2	1 Lodging	AC_Compressor	0.5725
	9	10	2	2 Lodging	AC_Compressor	0.6298
	9	11	1	1 Lodging	Other	0
	9	11	2	1 Lodging	Other	0
	10	1	1	1 Misc	Space_Heat	2.1455
	10	1	1	2 Misc	Space_Heat	2.36
	10	1	1	3 Misc	Space_Heat	2.5746
	10	1	1	4 Misc	Space_Heat	2.7891
	10	1	2	1 Misc	Space_Heat	1.7164
	10	1	2	2 Misc	Space_Heat	1.888
	10	1	2	3 Misc	Space_Heat	2.0597
	10	1	2	4 Misc	Space_Heat	2.2313
	10	2	1	1 Misc	Water_Heat	2.9412
	10	2	1	2 Misc	Water_Heat	3.2354
	10	2	1	3 Misc	Water_Heat	3.5295
	10	2	1	4 Misc	Water_Heat	3.8236
	10	2	2	1 Misc	Water_Heat	2.353
	10	2	2	2 Misc	Water_Heat	2.5883

b	a	f	e	bname	nname	EQcost
	10	2	2	3 Misc	Water_Heat	2.8236
	10	2	2	4 Misc	Water_Heat	3.0589
	10	4	1	1 Misc	Cook_top	0.6282
	10	4	1	2 Misc	Cook_top	0.691
	10	4	2	1 Misc	Cook_top	0.5025
	10	4	2	2 Misc	Cook_top	0.5528
	10	5	1	1 Misc	Fryer	0.6285
	10	5	1	2 Misc	Fryer	0.6913
	10	5	2	1 Misc	Fryer	0.5028
	10	5	2	2 Misc	Fryer	0.5531
	10	6	1	1 Misc	Griddle	0.6285
	10	6	1	2 Misc	Griddle	0.6913
	10	6	2	1 Misc	Griddle	0.5028
	10	6	2	2 Misc	Griddle	0.5531
	10	7	1	1 Misc	Other_Cooking	0.6282
	10	7	1	2 Misc	Other_Cooking	0.691
	10	7	2	1 Misc	Other_Cooking	0.5025
	10	7	2	2 Misc	Other_Cooking	0.5528
	10	10	1	1 Misc	AC_Compressor	1.9306
	10	10	1	2 Misc	AC_Compressor	2.1237
	10	10	2	1 Misc	AC_Compressor	1.5445
	10	10	2	2 Misc	AC_Compressor	1.6989
	10	11	1	1 Misc	Other	0
	10	11	2	1 Misc	Other	0
	11	1	1	1 Government	Space_Heat	3.815
	11	1	1	2 Government	Space_Heat	4.1965
	11	1	1	3 Government	Space_Heat	4.578
	11	1	1	4 Government	Space_Heat	4.9595
	11	1	2	1 Government	Space_Heat	3.052
	11	1	2	2 Government	Space_Heat	3.3572
	11	1	2	3 Government	Space_Heat	3.6624
	11	1	2	4 Government	Space_Heat	3.9676
	11	2	1	1 Government	Water_Heat	0.5935
	11	2	1	2 Government	Water_Heat	0.6528
	11	2	1	3 Government	Water_Heat	0.7122
	11	2	1	4 Government	Water_Heat	0.7715
	11	2	2	1 Government	Water_Heat	0.4748
	11	2	2	2 Government	Water_Heat	0.5222
	11	2	2	3 Government	Water_Heat	0.5697
	11	2	2	4 Government	Water_Heat	0.6172
	11	4	1	1 Government	Cook_top	0.4333
	11	4	1	2 Government	Cook_top	0.4766
	11	4	2	1 Government	Cook_top	0.3466
	11	4	2	2 Government	Cook_top	0.3813
	11	5	1	1 Government	Fryer	0.4332
	11	5	1	2 Government	Fryer	0.4765
	11	5	2	1 Government	Fryer	0.3465
	11	5	2	2 Government	Fryer	0.3812
	11	6	1	1 Government	Griddle	0.4332
	11	6	1	2 Government	Griddle	0.4765
	11	6	2	1 Government	Griddle	0.3465
	11	6	2	2 Government	Griddle	0.3812
	11	7	1	1 Government	Other_Cooking	0.4333
	11	7	1	2 Government	Other_Cooking	0.4766
	11	7	2	1 Government	Other_Cooking	0.3466
	11	7	2	2 Government	Other_Cooking	0.3813
	11	10	1	1 Government	AC_Compressor	1.3062
	11	10	1	2 Government	AC_Compressor	1.4368
	11	10	2	1 Government	AC_Compressor	1.0449
	11	10	2	2 Government	AC_Compressor	1.1494
	11	11	1	1 Government	Other	0
	11	11	2	1 Government	Other	0
	12	1	1	1 TCU	Space_Heat	1.8457
	12	1	1	2 TCU	Space_Heat	2.0303
	12	1	1	3 TCU	Space_Heat	2.2149
	12	1	1	4 TCU	Space_Heat	2.3995
	12	1	2	1 TCU	Space_Heat	1.4766
	12	1	2	2 TCU	Space_Heat	1.6242
	12	1	2	3 TCU	Space_Heat	1.7719
	12	1	2	4 TCU	Space_Heat	1.9196
	12	2	1	1 TCU	Water_Heat	2.5303
	12	2	1	2 TCU	Water_Heat	2.7833
	12	2	1	3 TCU	Water_Heat	3.0364
	12	2	1	4 TCU	Water_Heat	3.2894
	12	2	2	1 TCU	Water_Heat	2.0243
	12	2	2	2 TCU	Water_Heat	2.2267
	12	2	2	3 TCU	Water_Heat	2.4291
	12	2	2	4 TCU	Water_Heat	2.6315

b	a	f	e	bname	nname	EQcost
	12	9	1	1 TCU	Engine	30.6768
	12	9	1	2 TCU	Engine	33.7445
	12	9	2	1 TCU	Engine	24.5415
	12	9	2	2 TCU	Engine	26.9956
	12	11	1	1 TCU	Other	0
	12	11	2	1 TCU	Other	0
	13	1	1	1 Construction	Space_Heat	2.2951
	13	1	1	2 Construction	Space_Heat	2.5246
	13	1	1	3 Construction	Space_Heat	2.7542
	13	1	1	4 Construction	Space_Heat	2.9837
	13	1	2	1 Construction	Space_Heat	1.8361
	13	1	2	2 Construction	Space_Heat	2.0197
	13	1	2	3 Construction	Space_Heat	2.2033
	13	1	2	4 Construction	Space_Heat	2.3869
	13	2	1	1 Construction	Water_Heat	3.1464
	13	2	1	2 Construction	Water_Heat	3.461
	13	2	1	3 Construction	Water_Heat	3.7757
	13	2	1	4 Construction	Water_Heat	4.0903
	13	2	2	1 Construction	Water_Heat	2.5171
	13	2	2	2 Construction	Water_Heat	2.7688
	13	2	2	3 Construction	Water_Heat	3.0205
	13	2	2	4 Construction	Water_Heat	3.2722
	13	11	1	1 Construction	Other	0
	13	11	2	1 Construction	Other	0
	14	1	1	1 Agriculture	Space_Heat	1.6583
	14	1	1	2 Agriculture	Space_Heat	1.8242
	14	1	1	3 Agriculture	Space_Heat	1.99
	14	1	1	4 Agriculture	Space_Heat	2.1558
	14	1	2	1 Agriculture	Space_Heat	1.3267
	14	1	2	2 Agriculture	Space_Heat	1.4593
	14	1	2	3 Agriculture	Space_Heat	1.592
	14	1	2	4 Agriculture	Space_Heat	1.7247
	14	2	1	1 Agriculture	Water_Heat	2.2734
	14	2	1	2 Agriculture	Water_Heat	2.5008
	14	2	1	3 Agriculture	Water_Heat	2.7281
	14	2	1	4 Agriculture	Water_Heat	2.9554
	14	2	2	1 Agriculture	Water_Heat	1.8187
	14	2	2	2 Agriculture	Water_Heat	2.0006
	14	2	2	3 Agriculture	Water_Heat	2.1825
	14	2	2	4 Agriculture	Water_Heat	2.3644
	14	8	1	1 Agriculture	Drying	2.2734
	14	8	1	2 Agriculture	Drying	2.5008
	14	8	2	1 Agriculture	Drying	1.8187
	14	8	2	2 Agriculture	Drying	2.0006
	14	9	1	1 Agriculture	Engine	9.7757
	14	9	1	2 Agriculture	Engine	10.7533
	14	9	2	1 Agriculture	Engine	7.8206
	14	9	2	2 Agriculture	Engine	8.6026
	14	11	1	1 Agriculture	Other	0
	14	11	2	1 Agriculture	Other	0

San Diego Gas and Electric
2010 California Gas Report
Employment forecast (in millions)

YEAR	Office	Restaurant	Retail	Laundry	Warehouse	School	College	Health	Lodging	Misc
2009	0.30597904	0.10869901	0.15245649	0.0158742	0.04982921	0.09394176	0.0346943	0.11161916	0.03264669	0.059828781
2010	0.31190235	0.10733908	0.15123835	0.0161743	0.04961942	0.09560302	0.0353084	0.11361663	0.03223804	0.060987737
2011	0.32728572	0.10802519	0.15635526	0.0161294	0.04936192	0.09758828	0.0360421	0.11597772	0.0324439	0.060818784
2012	0.34037904	0.10970273	0.15982907	0.0161196	0.04995553	0.09933437	0.0366858	0.11804252	0.03294743	0.060781094
2013	0.35146011	0.11164024	0.16131514	0.0162217	0.0504119	0.1005223	0.0371244	0.11945407	0.03352948	0.061166356
2014	0.35928967	0.11308951	0.16271769	0.0164225	0.05076808	0.1017368	0.037573	0.12089608	0.03396483	0.061925126
2015	0.36558029	0.11424669	0.16383882	0.016577	0.05094879	0.10311414	0.0380818	0.12253605	0.03431244	0.062507016
2016	0.37353904	0.11533059	0.16399945	0.0166845	0.05124357	0.10488774	0.0387374	0.12464508	0.03463796	0.062912267
2017	0.38149999	0.116394	0.16459834	0.0167994	0.05153024	0.10691743	0.0394872	0.12705756	0.03495738	0.063345684
2018	0.39063178	0.11741574	0.16518893	0.0168981	0.05188149	0.10913605	0.0403066	0.12969451	0.03526421	0.063717878
2019	0.40162496	0.11864433	0.16537216	0.0169484	0.05226793	0.11135105	0.0411246	0.13232596	0.03563317	0.063907115
2020	0.41289214	0.11986275	0.1658325	0.0170227	0.05244668	0.11335055	0.041863	0.13469943	0.03599909	0.06418695
2021	0.42465985	0.12110226	0.16672986	0.0171543	0.05255514	0.11536316	0.042606	0.13709207	0.03637136	0.064683487
2022	0.43432794	0.12249392	0.16764872	0.0172787	0.05304801	0.11721777	0.0432908	0.13929436	0.0367893	0.065152411
2023	0.44453721	0.12393172	0.16857773	0.0173991	0.05352001	0.11910166	0.0439866	0.14153386	0.03722118	0.065606484
2024	0.45527217	0.12529545	0.16941394	0.0175244	0.05406329	0.12094736	0.0446682	0.14372588	0.03763073	0.066079006
2025	0.46623376	0.12667436	0.17043602	0.0176511	0.05463182	0.1230143	0.0454319	0.14618478	0.03804489	0.066556663
2026	0.47680915	0.12811207	0.17160784	0.0177765	0.05500955	0.12522581	0.0462487	0.14881232	0.03847663	0.067029265
2027	0.48733035	0.12965634	0.17306025	0.0179058	0.05546005	0.12746828	0.0470768	0.15147753	0.03894045	0.067516671
2028	0.4982351	0.13124266	0.17467898	0.0180514	0.05590756	0.12961625	0.0478699	0.15402893	0.03941685	0.06806564
2029	0.50989364	0.13292018	0.17630481	0.018204	0.05632459	0.13174628	0.0486565	0.15656011	0.03992067	0.068641036
2030	0.5222831	0.13455011	0.17782022	0.0183633	0.056652	0.1337595	0.0493999	0.15895143	0.04041019	0.069241728

YEAR	Government	TCU	Construction	Agriculture	Total
2009	0.122112632	0.06453493	0.076123193	0.01093352	1.2392729
2010	0.122675874	0.06224489	0.071291817	0.01098819	1.24122808
2011	0.120317697	0.06429467	0.073597355	0.01104313	1.26928117
2012	0.12159412	0.06625428	0.081315836	0.01109834	1.3040397
2013	0.124235777	0.06772201	0.090583053	0.01115384	1.33654032
2014	0.126366631	0.06900103	0.095687915	0.01120961	1.3606485
2015	0.127693137	0.07020859	0.099322739	0.01126565	1.38023315
2016	0.128624458	0.07136989	0.101612639	0.01132198	1.39954655
2017	0.129680267	0.07254878	0.103668914	0.01137859	1.41986378
2018	0.130968404	0.07345175	0.105906535	0.01143548	1.44189753
2019	0.132388085	0.07395764	0.108421865	0.01149266	1.46545996
2020	0.134289818	0.07424343	0.111422909	0.01155013	1.48966214
2021	0.134497081	0.07498832	0.114508492	0.01160788	1.51391928
2022	0.135876311	0.07600613	0.117219289	0.01166592	1.53730961
2023	0.137196096	0.07722529	0.119718544	0.01172425	1.5612797
2024	0.138404949	0.07846432	0.122109033	0.01178287	1.58538162
2025	0.139646917	0.07962475	0.124429492	0.01184178	1.61040251
2026	0.140937394	0.08073757	0.12671	0.01190099	1.63539375
2027	0.142157392	0.08184769	0.129283315	0.01196049	1.66114139
2028	0.143347147	0.08291562	0.131374004	0.0120203	1.68677036
2029	0.144489893	0.08354008	0.132991363	0.0120804	1.71227354
2030	0.146484085	0.08402578	0.134313299	0.0121408	1.73839541

San Diego Gas and Electric
2010 California Gas Report
SDGE Average Year Forecast with AMI and EE adjustments

	EU SDGE Commercial FCST therms	AMI therms	SCG Core Comm fcst after AMI (therms)	EE savings (therms)	Forecast SDGE GN3 (therms)	Forecast GN3 in mdth
2009	179,364,000	0	179,364,000	0	179,364,000	17,936
2010	176,033,206	1,144,216	174,888,990	2,360,000	172,528,990	17,253
2011	175,937,315	1,759,373	174,177,942	4,910,000	169,267,942	16,927
2012	177,543,011	1,775,430	175,767,581	7,630,000	168,137,581	16,814
2013	178,543,783	1,785,438	176,758,345	10,350,000	166,408,345	16,641
2014	179,230,927	1,792,309	177,438,618	13,060,000	164,378,618	16,438
2015	179,790,943	1,797,909	177,993,034	15,780,000	162,213,034	16,221
2016	180,242,878	1,802,429	178,440,449	18,500,000	159,940,449	15,994
2017	180,706,893	1,807,069	178,899,824	21,220,000	157,679,824	15,768
2018	181,219,168	1,812,192	179,406,976	21,580,000	157,826,976	15,783
2019	181,838,276	1,818,383	180,019,893	21,750,000	158,269,893	15,827
2020	182,502,978	1,825,030	180,677,948	21,750,000	158,927,948	15,893
2021	182,990,001	1,829,900	181,160,101	21,750,000	159,410,101	15,941
2022	183,702,353	1,837,024	181,865,329	21,750,000	160,115,329	16,012
2023	184,352,726	1,843,527	182,509,199	21,750,000	160,759,199	16,076
2024	184,034,369	1,840,344	182,194,025	21,750,000	160,444,025	16,044
2025	184,578,221	1,845,782	182,732,439	21,750,000	160,982,439	16,098
2026	185,129,739	1,851,297	183,278,442	21,750,000	161,528,442	16,153
2027	185,701,713	1,857,017	183,844,696	21,750,000	162,094,696	16,209
2028	186,286,531	1,862,865	184,423,666	21,750,000	162,673,666	16,267
2029	186,894,282	1,868,943	185,025,339	21,750,000	163,275,339	16,328
2030	187,591,356	1,875,914	185,715,442	21,750,000	163,965,442	16,397

Com3Avg

San Diego Gas and Electric
2010 California Gas Report
Average Year Forecast Mdth

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
2009	1,940.5	1,860.9	1,782.5	1,477.8	1,383.5	1,254.4	1,271.6	1,172.4	1,230.1	1,191.8	1,468.2	1,902.6	17,936.4
2010	1,866.5	1,790.0	1,714.6	1,421.5	1,330.7	1,206.6	1,223.2	1,127.8	1,183.2	1,146.3	1,412.3	1,830.1	17,252.9
2011	1,831.3	1,756.2	1,682.2	1,394.6	1,305.6	1,183.8	1,200.1	1,106.4	1,160.9	1,124.7	1,385.6	1,795.5	16,926.8
2012	1,819.0	1,744.5	1,670.9	1,385.3	1,296.9	1,175.9	1,192.0	1,099.1	1,153.1	1,117.2	1,376.3	1,783.5	16,813.8
2013	1,800.3	1,726.5	1,653.7	1,371.0	1,283.5	1,163.8	1,179.8	1,087.8	1,141.3	1,105.7	1,362.2	1,765.2	16,640.8
2014	1,778.4	1,705.5	1,633.6	1,354.3	1,267.9	1,149.6	1,165.4	1,074.5	1,127.3	1,092.2	1,345.6	1,743.7	16,437.9
2015	1,754.9	1,683.0	1,612.0	1,336.5	1,251.2	1,134.5	1,150.0	1,060.3	1,112.5	1,077.8	1,327.9	1,720.7	16,221.3
2016	1,730.4	1,659.4	1,589.5	1,317.8	1,233.6	1,118.6	1,133.9	1,045.5	1,096.9	1,062.7	1,309.2	1,696.6	15,994.0
2017	1,705.9	1,635.9	1,567.0	1,299.1	1,216.2	1,102.8	1,117.9	1,030.7	1,081.4	1,047.7	1,290.7	1,672.6	15,768.0
2018	1,707.5	1,637.5	1,568.5	1,300.3	1,217.3	1,103.8	1,118.9	1,031.7	1,082.4	1,048.7	1,291.9	1,674.2	15,782.7
2019	1,712.3	1,642.1	1,572.9	1,304.0	1,220.8	1,106.9	1,122.1	1,034.6	1,085.5	1,051.6	1,295.6	1,678.9	15,827.0
2020	1,719.4	1,648.9	1,579.4	1,309.4	1,225.8	1,111.5	1,126.7	1,038.9	1,090.0	1,056.0	1,301.0	1,685.8	15,892.8
2021	1,724.6	1,653.9	1,584.2	1,313.4	1,229.5	1,114.9	1,130.2	1,042.0	1,093.3	1,059.2	1,304.9	1,691.0	15,941.0
2022	1,732.2	1,661.2	1,591.2	1,319.2	1,235.0	1,119.8	1,135.2	1,046.6	1,098.1	1,063.9	1,310.7	1,698.4	16,011.5
2023	1,739.2	1,667.9	1,597.6	1,324.5	1,240.0	1,124.3	1,139.7	1,050.8	1,102.5	1,068.1	1,315.9	1,705.3	16,075.9
2024	1,735.8	1,664.6	1,594.5	1,321.9	1,237.5	1,122.1	1,137.5	1,048.8	1,100.4	1,066.0	1,313.4	1,701.9	16,044.4
2025	1,741.6	1,670.2	1,599.8	1,326.3	1,241.7	1,125.9	1,141.3	1,052.3	1,104.1	1,069.6	1,317.8	1,707.6	16,098.2
2026	1,747.5	1,675.9	1,605.2	1,330.8	1,245.9	1,129.7	1,145.2	1,055.9	1,107.8	1,073.3	1,322.2	1,713.4	16,152.8
2027	1,753.7	1,681.8	1,610.9	1,335.5	1,250.3	1,133.7	1,149.2	1,059.6	1,111.7	1,077.0	1,326.9	1,719.4	16,209.5
2028	1,759.9	1,687.8	1,616.6	1,340.3	1,254.7	1,137.7	1,153.3	1,063.3	1,115.7	1,080.9	1,331.6	1,725.6	16,267.4
2029	1,766.4	1,694.0	1,622.6	1,345.2	1,259.4	1,141.9	1,157.6	1,067.3	1,119.8	1,084.9	1,336.5	1,732.0	16,327.5
2030	1,773.9	1,701.2	1,629.5	1,350.9	1,264.7	1,146.7	1,162.5	1,071.8	1,124.5	1,089.4	1,342.2	1,739.3	16,396.5

Com3Col

San Diego Gas and Electric
2010 California Gas Report
Cold Year Forecast Mdth

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
2009	2,146.4	2,045.6	1,946.1	1,532.0	1,780.0	1,276.2	1,271.6	1,172.4	1,179.6	1,196.9	1,547.4	2,098.2	19,192.6
2010	2,064.6	1,967.6	1,872.0	1,473.6	1,712.1	1,227.6	1,223.2	1,127.8	1,134.7	1,151.3	1,488.5	2,018.3	18,461.2
2011	2,025.6	1,930.4	1,836.6	1,445.7	1,679.8	1,204.4	1,200.1	1,106.4	1,113.2	1,129.5	1,460.3	1,980.1	18,112.3
2012	2,012.0	1,917.6	1,824.3	1,436.1	1,668.6	1,196.4	1,192.0	1,099.1	1,105.8	1,122.0	1,450.6	1,966.9	17,991.3
2013	1,991.3	1,897.8	1,805.6	1,421.3	1,651.4	1,184.1	1,179.8	1,087.8	1,094.4	1,110.5	1,435.7	1,946.7	17,806.3
2014	1,967.1	1,874.7	1,783.5	1,404.0	1,631.3	1,169.6	1,165.4	1,074.5	1,081.1	1,096.9	1,418.2	1,922.9	17,589.1
2015	1,941.1	1,850.0	1,760.1	1,385.5	1,609.8	1,154.2	1,150.0	1,060.3	1,066.8	1,082.5	1,399.5	1,897.6	17,357.4
2016	1,913.9	1,824.1	1,735.4	1,366.1	1,587.2	1,138.0	1,133.9	1,045.5	1,051.9	1,067.3	1,379.9	1,871.0	17,114.2
2017	1,886.9	1,798.3	1,710.9	1,346.8	1,564.8	1,122.0	1,117.9	1,030.7	1,037.0	1,052.2	1,360.4	1,844.6	16,872.3
2018	1,888.7	1,800.0	1,712.5	1,348.0	1,566.2	1,123.0	1,118.9	1,031.7	1,038.0	1,053.2	1,361.6	1,846.3	16,888.0
2019	1,894.0	1,805.0	1,717.3	1,351.8	1,570.6	1,126.2	1,122.1	1,034.6	1,040.9	1,056.2	1,365.5	1,851.5	16,935.4
2020	1,901.8	1,812.5	1,724.4	1,357.4	1,577.2	1,130.8	1,126.7	1,038.9	1,045.2	1,060.5	1,371.1	1,859.2	17,005.9
2021	1,907.6	1,818.0	1,729.6	1,361.5	1,582.0	1,134.3	1,130.2	1,042.0	1,048.4	1,063.8	1,375.3	1,864.8	17,057.4
2022	1,916.0	1,826.1	1,737.3	1,367.6	1,589.0	1,139.3	1,135.2	1,046.6	1,053.1	1,068.5	1,381.4	1,873.0	17,132.9
2023	1,923.7	1,833.4	1,744.3	1,373.1	1,595.3	1,143.9	1,139.7	1,050.8	1,057.3	1,072.8	1,386.9	1,880.6	17,201.8
2024	1,920.0	1,829.8	1,740.9	1,370.4	1,592.2	1,141.6	1,137.5	1,048.8	1,055.2	1,070.7	1,384.2	1,876.9	17,168.1
2025	1,926.4	1,836.0	1,746.7	1,375.0	1,597.6	1,145.5	1,141.3	1,052.3	1,058.8	1,074.3	1,388.9	1,883.2	17,225.7
2026	1,932.9	1,842.2	1,752.6	1,379.6	1,603.0	1,149.3	1,145.2	1,055.9	1,062.3	1,077.9	1,393.6	1,889.6	17,284.1
2027	1,939.7	1,848.6	1,758.8	1,384.5	1,608.6	1,153.4	1,149.2	1,059.6	1,066.1	1,081.7	1,398.5	1,896.2	17,344.7
2028	1,946.6	1,855.2	1,765.0	1,389.4	1,614.3	1,157.5	1,153.3	1,063.3	1,069.9	1,085.5	1,403.4	1,903.0	17,406.7
2029	1,953.8	1,862.1	1,771.6	1,394.5	1,620.3	1,161.8	1,157.6	1,067.3	1,073.8	1,089.6	1,408.6	1,910.0	17,471.0
2030	1,962.1	1,870.0	1,779.1	1,400.4	1,627.2	1,166.7	1,162.5	1,071.8	1,078.4	1,094.2	1,414.6	1,918.1	17,544.9

Com3Hot

San Diego Gas and Electric
2010 California Gas Report
Hot Year Forecast Mdth

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
2009	1,735	1,677	1,619	1,396	1,327	1,233	1,239	1,172	1,176	1,187	1,389	1,707	16,856
2010	1,669	1,613	1,557	1,343	1,276	1,186	1,191	1,128	1,131	1,141	1,336	1,642	16,214
2011	1,637	1,582	1,528	1,317	1,252	1,163	1,169	1,106	1,110	1,120	1,311	1,611	15,907
2012	1,626	1,572	1,518	1,309	1,244	1,155	1,161	1,099	1,103	1,112	1,302	1,600	15,801
2013	1,610	1,555	1,502	1,295	1,231	1,144	1,149	1,088	1,091	1,101	1,289	1,584	15,638
2014	1,590	1,536	1,484	1,279	1,216	1,130	1,135	1,074	1,078	1,087	1,273	1,564	15,448
2015	1,569	1,516	1,464	1,263	1,200	1,115	1,120	1,060	1,064	1,073	1,256	1,544	15,244
2016	1,547	1,495	1,444	1,245	1,183	1,099	1,104	1,045	1,049	1,058	1,239	1,522	15,031
2017	1,525	1,474	1,423	1,227	1,166	1,084	1,089	1,031	1,034	1,043	1,221	1,501	14,818
2018	1,527	1,475	1,425	1,228	1,167	1,085	1,090	1,032	1,035	1,044	1,222	1,502	14,832
2019	1,531	1,479	1,429	1,232	1,171	1,088	1,093	1,035	1,038	1,047	1,226	1,506	14,874
2020	1,537	1,486	1,435	1,237	1,175	1,092	1,097	1,039	1,042	1,051	1,231	1,513	14,935
2021	1,542	1,490	1,439	1,241	1,179	1,095	1,101	1,042	1,045	1,055	1,235	1,517	14,981
2022	1,549	1,497	1,445	1,246	1,184	1,100	1,106	1,047	1,050	1,059	1,240	1,524	15,047
2023	1,555	1,503	1,451	1,251	1,189	1,105	1,110	1,051	1,054	1,064	1,245	1,530	15,107
2024	1,552	1,500	1,448	1,249	1,187	1,103	1,108	1,049	1,052	1,061	1,243	1,527	15,078
2025	1,557	1,505	1,453	1,253	1,191	1,106	1,112	1,052	1,056	1,065	1,247	1,532	15,128
2026	1,562	1,510	1,458	1,257	1,195	1,110	1,115	1,056	1,059	1,069	1,251	1,537	15,180
2027	1,568	1,515	1,463	1,262	1,199	1,114	1,119	1,060	1,063	1,072	1,255	1,543	15,233
2028	1,573	1,521	1,468	1,266	1,203	1,118	1,123	1,063	1,067	1,076	1,260	1,548	15,287
2029	1,579	1,526	1,474	1,271	1,208	1,122	1,127	1,067	1,071	1,080	1,264	1,554	15,344
2030	1,586	1,533	1,480	1,276	1,213	1,127	1,132	1,072	1,075	1,085	1,270	1,560	15,409

Com3Bas

San Diego Gas and Electric
2010 California Gas Report
Base Year Forecast Mdth

YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
2009	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	1,172	14,069
2010	1,128	1,128	1,128	1,128	1,128	1,128	1,128	1,128	1,128	1,128	1,128	1,128	13,533
2011	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	1,106	13,277
2012	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099	1,099	13,189
2013	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088	1,088	13,053
2014	1,074	1,074	1,074	1,074	1,074	1,074	1,074	1,074	1,074	1,074	1,074	1,074	12,894
2015	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	12,724
2016	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	1,045	12,546
2017	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	12,368
2018	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	1,032	12,380
2019	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	1,035	12,415
2020	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	1,039	12,466
2021	1,042	1,042	1,042	1,042	1,042	1,042	1,042	1,042	1,042	1,042	1,042	1,042	12,504
2022	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	1,047	12,559
2023	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	1,051	12,610
2024	1,049	1,049	1,049	1,049	1,049	1,049	1,049	1,049	1,049	1,049	1,049	1,049	12,585
2025	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	1,052	12,627
2026	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056	12,670
2027	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	1,060	12,715
2028	1,063	1,063	1,063	1,063	1,063	1,063	1,063	1,063	1,063	1,063	1,063	1,063	12,760
2029	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	1,067	12,807
2030	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	1,072	12,861

GN3 Industrial DATA TABLES

San Diego Gas and Electric Company

2010 CGR - 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
Mining	1981	1974	1978	1978	1968	1980	1973	1980	1975
Food	1980	1982	1975	1978	1976	1983	1970	1987	1977
Textile	1985	1979	1977	1978	1981	1976	1976	.	1979
Wood_Paper	1979	1975	1975	1976	1976	1976	1976	.	1980
Chemical	1980	1980	1976	1977	1967	1976	1974	1980	1979
Petroleum	1980	1981	1974	1977	1975	1979	.	1972	1978
Stone	1980	1973	1975	1977	1980	1978	1982	.	1977
Prim_Metal	1986	1979	1975	1976	1976	1977	1978	.	1974
Fab_Metal	1982	1981	1976	1977	1979	1979	1976	1972	1976
Transport	1980	1978	1976	1976	1980	1980	1974	1988	1976
Misc	1979	1980	1976	1976	1978	1978	1976	1979	1977

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Electric Price Forecasat **(Cent/KWH)**

(a) Average Price Forecast

Year	Chemical	Fab_Metal	Food	Mining	Petroleum	_Prim_Metal	Stone	Textile	Transport	Wood_Paper	Misc
2009	16.32	16.00	17.17	16.16	15.42	17.62	15.76	16.34	16.67	14.84	15.72
2010	15.24	15.15	15.73	15.23	14.81	15.87	14.99	15.24	15.47	14.56	15.02
2011	14.01	13.93	14.45	14.00	13.63	14.57	13.79	14.01	14.21	13.40	13.81
2012	15.02	14.92	15.52	15.00	14.57	15.67	14.76	15.02	15.25	14.31	14.78
2013	15.87	15.76	16.39	15.85	15.40	16.55	15.60	15.87	16.11	15.13	15.62
2014	18.03	17.90	18.61	18.00	17.50	18.80	17.72	18.03	18.29	17.20	17.74
2015	18.84	18.71	19.45	18.81	18.29	19.64	18.52	18.85	19.12	17.97	18.54
2016	19.39	19.25	20.01	19.36	18.83	20.21	19.06	19.40	19.67	18.50	19.08
2017	20.15	20.01	20.78	20.11	19.57	20.99	19.81	20.16	20.43	19.23	19.83
2018	19.86	19.72	20.48	19.83	19.30	20.68	19.53	19.87	20.14	18.97	19.55
2019	20.12	19.98	20.73	20.08	19.56	20.94	19.79	20.13	20.39	19.23	19.81
2020	20.62	20.48	21.24	20.58	20.06	21.45	20.29	20.63	20.90	19.72	20.30
2021	20.34	20.19	20.93	20.29	19.78	21.14	20.01	20.34	20.60	19.45	20.02
2022	20.93	20.78	21.53	20.88	20.36	21.75	20.59	20.93	21.20	20.03	20.61
2023	21.54	21.39	22.15	21.49	20.96	22.37	21.20	21.54	21.81	20.62	21.21
2024	21.05	20.91	21.59	21.01	20.54	21.80	20.75	21.06	21.29	20.23	20.76
2025	21.66	21.53	22.21	21.62	21.15	22.42	21.36	21.67	21.91	20.84	21.37
2026	22.30	22.15	22.84	22.25	21.77	23.06	21.99	22.30	22.54	21.46	21.99
2027	21.80	21.66	22.32	21.75	21.30	22.53	21.50	21.81	22.03	21.00	21.51
2028	22.44	22.30	22.96	22.39	21.93	23.17	22.13	22.44	22.67	21.63	22.14
2029	23.09	22.95	23.62	23.04	22.58	23.83	22.79	23.10	23.32	22.27	22.79
2030	22.58	22.44	23.08	22.53	22.09	23.29	22.29	22.59	22.80	21.80	22.29

(b) Marginal Price Forecasat

Year	Chemical	Fab_Metal	Food	Mining	Petroleum	_Prim_Metal	Stone	Textile	Transport	Wood_Paper	Misc
2009	12.69	12.86	13.33	12.96	12.24	13.35	12.69	12.80	13.13	11.89	12.48
2010	11.96	12.05	12.23	12.07	11.78	12.23	11.96	12.00	12.14	11.65	11.89
2011	10.99	11.07	11.24	11.10	10.84	11.24	10.99	11.03	11.16	10.71	10.93
2012	11.78	11.87	12.06	11.90	11.59	12.07	11.78	11.82	11.97	11.45	11.70
2013	12.44	12.54	12.74	12.57	12.25	12.75	12.44	12.49	12.65	12.10	12.37
2014	14.13	14.25	14.47	14.28	13.92	14.48	14.14	14.19	14.37	13.75	14.05
2015	14.77	14.89	15.13	14.93	14.55	15.14	14.77	14.83	15.02	14.37	14.68
2016	15.20	15.32	15.57	15.36	14.97	15.58	15.20	15.27	15.45	14.79	15.11
2017	15.80	15.92	16.17	15.96	15.56	16.18	15.80	15.86	16.05	15.37	15.70
2018	15.57	15.69	15.94	15.73	15.34	15.95	15.57	15.63	15.82	15.16	15.48
2019	15.77	15.89	16.14	15.93	15.54	16.15	15.78	15.84	16.02	15.36	15.68
2020	16.17	16.29	16.54	16.33	15.93	16.55	16.17	16.23	16.42	15.75	16.07
2021	15.94	16.06	16.30	16.10	15.71	16.31	15.95	16.01	16.19	15.53	15.85
2022	16.41	16.53	16.78	16.57	16.17	16.79	16.41	16.47	16.66	15.99	16.31
2023	16.89	17.01	17.26	17.05	16.65	17.27	16.89	16.95	17.14	16.46	16.79
2024	16.51	16.62	16.85	16.66	16.30	16.86	16.51	16.57	16.74	16.13	16.43
2025	16.99	17.11	17.33	17.14	16.78	17.34	17.00	17.05	17.23	16.61	16.91
2026	17.49	17.60	17.83	17.64	17.27	17.84	17.49	17.55	17.73	17.10	17.40
2027	17.10	17.21	17.43	17.24	16.89	17.44	17.10	17.16	17.33	16.73	17.02
2028	17.60	17.71	17.94	17.75	17.39	17.94	17.60	17.66	17.83	17.23	17.52
2029	18.12	18.23	18.45	18.26	17.91	18.46	18.12	18.18	18.35	17.74	18.03
2030	17.72	17.82	18.04	17.86	17.51	18.05	17.72	17.77	17.94	17.35	17.64

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Gas Price Forecasat ($/Therm)

(a) Average Price Forecast

Year	Price Deflator	Chemical	Fabricated Metal	Food	Mining	Petroleum	Primary Metal	Stone	Textile	Transport	Wood Paper	Misc
2009	100.00	0.7077	0.6937	0.7443	0.7009	0.6688	0.7641	0.6835	0.7085	0.7230	0.6435	0.6817
2010	100.59	0.9704	0.9645	1.0019	0.9699	0.9430	1.0104	0.9547	0.9705	0.9849	0.9274	0.9563
2011	102.33	1.0306	1.0243	1.0630	1.0298	1.0022	1.0721	1.0143	1.0308	1.0455	0.9859	1.0158
2012	104.52	0.9967	0.9899	1.0301	0.9956	0.9671	1.0399	0.9796	0.9969	1.0119	0.9500	0.9810
2013	106.76	1.0330	1.0259	1.0670	1.0317	1.0026	1.0774	1.0154	1.0333	1.0485	0.9849	1.0167
2014	108.74	1.0667	1.0593	1.1013	1.0652	1.0356	1.1121	1.0486	1.0670	1.0824	1.0174	1.0499
2015	111.27	1.0930	1.0853	1.1282	1.0914	1.0612	1.1395	1.0745	1.0933	1.1090	1.0426	1.0756
2016	113.73	1.1266	1.1186	1.1624	1.1247	1.0940	1.1742	1.1075	1.1269	1.1428	1.0748	1.1087
2017	116.13	1.1625	1.1543	1.1990	1.1605	1.1292	1.2111	1.1430	1.1629	1.1790	1.1096	1.1441
2018	118.42	1.1991	1.1906	1.2361	1.1970	1.1652	1.2487	1.1792	1.1995	1.2158	1.1451	1.1802
2019	120.64	1.2369	1.2282	1.2744	1.2346	1.2024	1.2874	1.2166	1.2374	1.2538	1.1819	1.2176
2020	122.75	1.2763	1.2673	1.3143	1.2738	1.2412	1.3276	1.2556	1.2768	1.2934	1.2203	1.2565
2021	124.87	1.3169	1.3077	1.3554	1.3143	1.2812	1.3691	1.2959	1.3174	1.3342	1.2599	1.2967
2022	127.09	1.3494	1.3399	1.3883	1.3466	1.3130	1.4024	1.3279	1.3499	1.3668	1.2913	1.3287
2023	129.31	1.3926	1.3828	1.4320	1.3896	1.3556	1.4465	1.3707	1.3931	1.4102	1.3335	1.3714
2024	131.72	1.5489	1.5389	1.5889	1.5457	1.5112	1.6039	1.5265	1.5494	1.5667	1.4886	1.5272
2025	134.23	1.6098	1.5996	1.6505	1.6065	1.5715	1.6658	1.5871	1.6104	1.6280	1.5484	1.5877
2026	136.83	1.6737	1.6632	1.7150	1.6702	1.6346	1.7308	1.6505	1.6743	1.6921	1.6111	1.6511
2027	139.51	1.7408	1.7299	1.7827	1.7371	1.7009	1.7990	1.7171	1.7414	1.7594	1.6769	1.7176
2028	142.32	1.8113	1.8001	1.8538	1.8074	1.7706	1.8706	1.7871	1.8120	1.8301	1.7461	1.7875
2029	145.21	1.8851	1.8736	1.9283	1.8810	1.8437	1.9456	1.8604	1.8858	1.9042	1.8185	1.8607
2030	148.18	1.9626	1.9507	2.0064	1.9582	1.9203	2.0242	1.9373	1.9633	1.9819	1.8946	1.9376

(b) Marginal Price Forecasat

Year	Price Deflator	Chemical	Fabricated Metal	Food	Mining	Petroleum	Primary Metal	Stone	Textile	Transport	Wood Paper	Misc
2009	100.00	0.6450	0.6536	0.6776	0.6590	0.6223	0.6784	0.6450	0.6506	0.6673	0.6043	0.6346
2010	100.59	0.9262	0.9331	0.9472	0.9353	0.9129	0.9478	0.9263	0.9298	0.9406	0.9024	0.9209
2011	102.33	0.9849	0.9921	1.0068	0.9943	0.9710	1.0074	0.9850	0.9886	0.9999	0.9600	0.9793
2012	104.52	0.9491	0.9566	0.9721	0.9590	0.9345	0.9727	0.9492	0.9530	0.9648	0.9229	0.9432
2013	106.76	0.9841	0.9919	1.0078	0.9943	0.9690	1.0084	0.9842	0.9882	1.0003	0.9571	0.9780
2014	108.74	1.0166	1.0246	1.0410	1.0271	1.0012	1.0417	1.0167	1.0208	1.0333	0.9889	1.0104
2015	111.27	1.0418	1.0500	1.0668	1.0526	1.0259	1.0675	1.0419	1.0461	1.0589	1.0134	1.0354
2016	113.73	1.0742	1.0826	1.0999	1.0852	1.0578	1.1006	1.0743	1.0786	1.0918	1.0449	1.0676
2017	116.13	1.1090	1.1177	1.1354	1.1203	1.0923	1.1361	1.1091	1.1136	1.1270	1.0791	1.1023
2018	118.42	1.1446	1.1534	1.1715	1.1562	1.1275	1.1723	1.1447	1.1492	1.1630	1.1140	1.1377
2019	120.64	1.1815	1.1905	1.2089	1.1932	1.1640	1.2097	1.1816	1.1862	1.2002	1.1502	1.1744
2020	122.75	1.2199	1.2291	1.2479	1.2319	1.2021	1.2487	1.2200	1.2247	1.2391	1.1881	1.2127
2021	124.87	1.2596	1.2689	1.2881	1.2718	1.2414	1.2889	1.2597	1.2645	1.2791	1.2271	1.2523
2022	127.09	1.2910	1.3006	1.3201	1.3035	1.2725	1.3209	1.2912	1.2960	1.3109	1.2580	1.2836
2023	129.31	1.3333	1.3430	1.3629	1.3460	1.3144	1.3637	1.3334	1.3384	1.3535	1.2995	1.3257
2024	131.72	1.4885	1.4984	1.5187	1.5015	1.4692	1.5195	1.4886	1.4937	1.5092	1.4541	1.4807
2025	134.23	1.5484	1.5585	1.5793	1.5616	1.5287	1.5801	1.5485	1.5537	1.5695	1.5132	1.5404
2026	136.83	1.6111	1.6214	1.6426	1.6246	1.5910	1.6435	1.6112	1.6165	1.6327	1.5752	1.6030
2027	139.51	1.6769	1.6875	1.7092	1.6908	1.6564	1.7100	1.6771	1.6825	1.6990	1.6403	1.6687
2028	142.32	1.7462	1.7570	1.7792	1.7604	1.7252	1.7800	1.7464	1.7519	1.7687	1.7087	1.7378
2029	145.21	1.8188	1.8298	1.8525	1.8332	1.7974	1.8533	1.8189	1.8246	1.8418	1.7804	1.8101
2030	148.18	1.8949	1.9061	1.9293	1.9097	1.8730	1.9302	1.8950	1.9008	1.9184	1.8557	1.8861

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Historical Throughput and Customer Counts

Business Type	therms_ 2009 Temp. Adj.	meters_ 2009	meters_ 2009 ExCust	meters_ 2009 NewCust	avgUse_ 2009 ExCust	avgUse_ 2009 NewCust	Price Elasticity	Employment Elasticity
Mining	54005.00	8	8	0	6751	0	0.000000	0.321451
Food	2873505.62	326	322	4	8552	29975	-0.190795	1.242506
Textile	62386.86	30	30	0	2080	0	0.000000	0.033325
Wood_Paper	126789.08	20	20	0	6339	0	0.000000	0.508272
Chemical	2165470.79	95	94	1	22995	3934	-0.080517	0.650067
Petroleum	104741.45	10	9	1	10251	12485	-0.180563	0.084537
Stone	466301.61	37	37	0	12603	0	0.000000	0.416909
Prim_Metal	268656.34	15	15	0	17910	0	0.000000	0.956685
Fab_Metal	1150275.05	178	175	3	6488	4980	-0.137441	1.023881
Transport	2004315.01	62	61	1	32730	7811	0.000000	0.402505
Misc	7245725.81	684	680	4	10538	19988	-0.108307	0.879307
Total	16,522,173	1,465	1,451					

San Diego Gas and Electric Company
2010 CGR - 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
Mining	4366.6	42.6	491.8	121.7	1553.1	1535.6	11.0	1218.1	4169.3	13509.8
Food	16172.7	3829.2	1397.9	549.5	1970.7	4751.6	95.4	397.2	3383.0	32547.2
Textile	13453.1	3495.6	435.2	874.1	8247.0	1773.6	282.9	0.0	904.9	29466.4
Wood_Paper	4003.5	1313.9	895.2	91.2	727.6	1271.4	12.3	0.0	1333.4	9648.5
Chemical	5933.3	3338.2	757.4	575.4	49.0	1093.9	6.3	0.3	3051.2	14805.0
Petroleum	7748.0	1953.7	342.9	449.8	25523.9	112.3	0.0	34.5	10240.9	46406.0
Stone	1797.2	357.2	697.5	675.5	3176.5	6897.1	127.4	0.0	1204.3	14932.7
Prim_Metal	442.0	1396.6	1205.0	287.3	59.1	25647.9	237.4	0.0	2342.9	31618.2
Fab_Metal	1535.4	1498.7	1207.0	266.6	133.7	3842.0	20.7	0.0	2434.7	10938.7
Transport	387.3	225.6	666.8	192.0	424.5	723.0	5.7	2.5	373.0	3000.4
Misc	750.9	528.1	496.4	138.2	336.2	1853.1	33.0	6.0	952.2	5094.1

San Diego Gas and Electric Company
2010 CGR - 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
Mining	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35872.2	0.0	35872.2
Food	13791.7	2.8	205.1	225.3	0.0	0.0	0.0	0.0	0.0	14224.8
Textile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wood_Paper	.	.	.	.	.	.	.	.	.	0.0
Chemical	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17866.6	17866.6
Petroleum	0.0	0.0	0.0	0.0	140409.4	0.0	0.0	0.0	0.0	140409.4
Stone	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prim_Metal	0.0	0.0	0.0	891.7	0.0	14986.1	0.0	0.0	4995.4	20873.2
Fab_Metal	0.0	0.0	558.2	0.0	0.0	3041.6	0.0	0.0	8110.9	11710.8
Transport	0.0	0.0	0.0	0.0	0.0	2306.4	0.0	0.0	331.4	2637.8
Misc	612.3	0.0	0.0	5.0	2182.2	1428.8	0.0	0.0	983.8	5212.0

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Electric UEC (Kwh/SqFt)

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Mining	12053557	117480	22540	4117	3349437	1388699	3261	2871579	.
Food	992080	234899	77958	15939	1062552	781260	24817	1163891	.
Textile	1428304	371125	20797	30369	3811277	1069238	74615	0	.
Wood_Paper	11051345	3626956	48301	2915	523062	985476	3282	0	.
Chemical	1169880	658201	34723	19440	26417	593554	1620	738	.
Petroleum	1527674	385215	15711	15192	13761553	60935	0	101154	.
Stone	4960873	985989	31975	22824	6850607	6237158	37820	0	.
Primary_Metal	174313	550730	55233	9317	25494	13916258	66288	0	.
Fabricated_Metal	605450	591011	55315	8658	57653	2084618	5763	0	.
Transportation	76358	44486	30560	6490	228869	392291	1456	7240	.
Miscellaneous	148060	104128	22745	4673	181266	1005453	8471	17618	.

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Gas UEC **(Therm per SqFt.)**

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Mining	587697	5728	1099	281	163309	67709	159	140010	4169
Food	48371	11453	3801	1088	51807	38092	1210	56748	3383
Textile	69640	18095	1014	2073	185827	52133	3638	0	905
Wood_Paper	538832	176840	2355	199	25503	48049	160	0	1333
Chemical	57040	32092	1693	1327	1288	28940	79	36	3051
Petroleum	74485	18782	766	1037	670974	2971	0	4932	10241
Stone	241878	48074	1559	1558	334016	304106	1844	0	1204
Primary_Metal	8499	26852	2693	636	1243	678517	3232	0	2343
Fabricated_Metal	29520	28816	2697	591	2811	101640	281	0	2435
Transportation	3723	2169	1490	443	11159	19127	71	353	373
Miscellaneous	7219	5077	1109	319	8838	49023	413	859	

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
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

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Saturation Rate

Business Type	Fire_ Tube_ Boiler	Water_ Tube_ Boiler	Space_ Heat	Water_ Heat	Dryer	Furnace_ Oven_ Kiln	AC	Engine	Other
Mining	0.01	0.01	0.73	0.73	0.03	0.06	0.64	0.87	1.00
Food	0.45	0.45	0.60	0.85	0.12	0.33	0.73	0.70	1.00
Textile	0.26	0.26	0.70	0.71	0.14	0.09	0.72	0.46	1.00
Wood_Paper	0.01	0.01	0.62	0.77	0.09	0.07	0.71	0.50	1.00
Chemical	0.14	0.14	0.73	0.73	0.12	0.10	0.74	0.70	1.00
Petroleum	0.14	0.14	0.73	0.73	0.12	0.10	0.74	0.70	1.00
Stone	0.01	0.01	0.73	0.73	0.03	0.06	0.64	0.87	1.00
Prim_Metal	0.07	0.07	0.73	0.76	0.15	0.10	0.68	0.86	1.00
Fab_Metal	0.07	0.07	0.73	0.76	0.15	0.10	0.68	0.86	1.00
Transport	0.14	0.14	0.73	0.73	0.12	0.10	0.74	0.70	1.00
Misc	0.14	0.14	0.73	0.73	0.12	0.10	0.74	0.70	1.00

San Diego Gas and Electric Company
2010 CGR - 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
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	-
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	-
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	-
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	-
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	-
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
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	-
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	-
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	-
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
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
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	-

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Employment Forecast (in thousands)

YEAR	Mining	Food	Textile	Wood_Paper	Chemical	Petroleum	Stone	Primary_Metal	Fabricated_Metal	Transportation	Miscellaneous	Total
2009	2515	14787	4331	2667	4643	761	2387	1186	10935	9467	48080	101760
2010	2435	14670	4101	2617	4750	773	2299	1215	10226	9059	47720	99865
2011	2382	14807	4161	2816	4904	764	2447	1320	10208	9220	49102	102130
2012	2414	14916	4275	3024	5029	752	2609	1370	11003	9527	50239	105159
2013	2456	14930	4309	3111	5119	736	2770	1369	12090	9789	51324	108003
2014	2438	14870	4270	3117	5162	716	2822	1367	12951	9922	51334	108968
2015	2392	14772	4209	3108	5227	696	2815	1357	13433	9907	51323	109240
2016	2343	14755	4172	3144	5316	684	2813	1349	13659	9749	51495	109478
2017	2290	14747	4154	3169	5409	672	2829	1349	13735	9623	51581	109558
2018	2225	14741	4149	3205	5513	660	2863	1354	13732	9580	51734	109757
2019	2158	14698	4146	3233	5602	645	2885	1359	13803	9552	51562	109643
2020	2115	14641	4148	3252	5671	627	2884	1361	13823	9496	51141	109158
2021	2080	14560	4133	3250	5728	608	2871	1353	13782	9405	50696	108467
2022	2042	14455	4115	3233	5768	597	2850	1334	13675	9309	50154	107531
2023	2008	14351	4117	3212	5804	593	2828	1306	13488	9217	49570	106493
2024	1975	14249	4125	3190	5834	591	2804	1280	13337	9125	49118	105628
2025	1948	14156	4154	3186	5856	588	2799	1254	13180	9054	48678	104854
2026	1934	14062	4183	3188	5882	583	2803	1230	13049	9004	48070	103987
2027	1923	13965	4207	3164	5911	576	2798	1208	12930	8950	47412	103044
2028	1915	13883	4223	3126	5949	569	2787	1186	12776	8895	46888	102198
2029	1909	13810	4224	3096	5985	560	2781	1165	12631	8840	46438	101440
2030	1900	13729	4231	3098	6010	550	2785	1134	12482	8789	46009	100717

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Core Industrial Demand Forecast (Mdth)
Average Temperature

YEAR	Model Output GN-3 - Ind	DSM	AMI	GN-3 - Ind
2009	1652.2	0.0	0.0	1652.2
2010	1554.7	5.5	10.1	1539.1
2011	1545.2	11.3	15.5	1518.4
2012	1565.9	17.1	15.7	1533.1
2013	1568.6	22.9	15.7	1530.0
2014	1560.6	28.7	15.6	1516.3
2015	1550.4	34.5	15.5	1500.4
2016	1539.1	40.3	15.4	1483.5
2017	1526.5	46.1	15.3	1465.2
2018	1514.3	46.4	15.1	1452.8
2019	1499.9	46.3	15.0	1438.6
2020	1482.7	46.3	14.8	1421.5
2021	1463.7	46.3	14.6	1402.7
2022	1444.6	46.3	14.4	1383.9
2023	1422.8	46.3	14.2	1362.3
2024	1382.8	46.3	13.8	1322.6
2025	1361.3	46.3	13.6	1301.4
2026	1339.8	46.3	13.4	1280.1
2027	1318.1	46.3	13.2	1258.6
2028	1297.5	46.3	13.0	1238.2
2029	1277.8	46.3	12.8	1218.7
2030	1258.6	46.3	12.6	1199.7

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Core Industrial Demand Forecast (Mdth)
Cold Temperature

YEAR	Model Output GN-3 - Ind	DSM	AMI	GN-3 - Ind
2009	1737.6	0.0	0.0	1737.6
2010	1635.0	5.8	10.6	1618.6
2011	1625.1	11.9	16.3	1596.9
2012	1646.8	18.0	16.5	1612.3
2013	1649.7	24.1	16.5	1609.1
2014	1641.2	30.2	16.4	1594.6
2015	1630.6	36.3	16.3	1578.0
2016	1618.7	42.4	16.2	1560.1
2017	1605.4	48.5	16.1	1540.9
2018	1592.6	48.8	15.9	1527.8
2019	1577.5	48.7	15.8	1513.0
2020	1559.3	48.7	15.6	1495.0
2021	1539.3	48.7	15.4	1475.2
2022	1519.3	48.7	15.2	1455.4
2023	1496.4	48.7	15.0	1432.7
2024	1454.2	48.7	14.5	1391.0
2025	1431.7	48.7	14.3	1368.7
2026	1409.1	48.7	14.1	1346.2
2027	1386.2	48.7	13.9	1323.6
2028	1364.5	48.7	13.6	1302.1
2029	1343.9	48.7	13.4	1281.7
2030	1323.6	48.7	13.2	1261.7

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Core Industrial Demand Forecast (Mdth)
Hot Temperature

YEAR	Model Output GN-3 - Ind	DSM	AMI	GN-3 - Ind
2009	1566.8	0.0	0.0	1566.8
2010	1474.3	5.2	9.6	1459.5
2011	1465.4	10.8	14.7	1439.9
2012	1484.9	16.3	14.8	1453.8
2013	1487.6	21.7	14.9	1451.0
2014	1479.9	27.2	14.8	1437.9
2015	1470.3	32.7	14.7	1422.9
2016	1459.6	38.2	14.6	1406.8
2017	1447.6	43.7	14.5	1389.4
2018	1436.0	44.0	14.4	1377.7
2019	1422.4	43.9	14.2	1364.3
2020	1406.1	43.9	14.1	1348.1
2021	1388.0	43.9	13.9	1330.2
2022	1370.0	43.9	13.7	1312.3
2023	1349.3	43.9	13.5	1291.9
2024	1311.3	43.9	13.1	1254.3
2025	1291.0	43.9	12.9	1234.1
2026	1270.6	43.9	12.7	1213.9
2027	1250.0	43.9	12.5	1193.5
2028	1230.4	43.9	12.3	1174.2
2029	1211.8	43.9	12.1	1155.8
2030	1193.5	43.9	11.9	1137.7

San Diego Gas and Electric Company
2010 CGR - Industrial GN3
Core Industrial Demand Forecast (Mdth)
Base Temperature

YEAR	Model Output GN-3 - Ind	DSM	AMI	GN-3 - Ind
2009	1333.5	0.0	0.0	1333.5
2010	1254.8	4.7	8.2	1241.9
2011	1247.1	9.2	12.5	1225.4
2012	1263.8	13.6	12.6	1237.5
2013	1266.0	18.5	12.7	1234.9
2014	1259.5	23.3	12.6	1223.6
2015	1251.3	28.0	12.5	1210.8
2016	1242.2	32.8	12.4	1197.0
2017	1232.0	37.5	12.3	1182.2
2018	1222.2	37.7	12.2	1172.2
2019	1210.6	37.7	12.1	1160.7
2020	1196.7	37.8	12.0	1146.9
2021	1181.3	37.9	11.8	1131.6
2022	1165.9	37.9	11.7	1116.4
2023	1148.4	38.0	11.5	1098.9
2024	1116.0	38.5	11.2	1066.4
2025	1098.7	38.0	11.0	1049.8
2026	1081.3	38.0	10.8	1032.5
2027	1063.8	38.0	10.6	1015.2
2028	1047.2	38.0	10.5	998.7
2029	1031.3	38.0	10.3	983.1
2030	1015.8	38.0	10.2	967.7

2010 CALIFORNIA GAS REPORT

NONCORE COMMERCIAL AND INDUSTRIAL DEMAND FORECAST
JULY 2010

SDG&E Non-Core Demand Equations—before DSM adjustments (Mdth)

Cogeneration (MDTH_CGNNC_SD)

```
 Cochrane-Orcutt
 MONTHLY data for   47 periods from  FEB 2006 to  DEC 2009

 mdth_cgnnc_sd

   =    19.9306 * eisd/1000
       (4.02798)

 Sum Sq    3413770   Std Err   275.426   LHS Mean  1660.19
 R Sq       0.6333   R Bar Sq   0.6252   F  2, 45  38.8615
 D.W.( 1)   1.9948   D.W.(12)   0.9729

 AR_0 =  + 0.88234 * AR_1
          (8.98022)
```

****

Commercial (MDTH_COMNC_SD)

```
 Cochrane-Orcutt
 MONTHLY data for   47 periods from  FEB 2006 to  DEC 2009

 mdth_comnc_sd

   =    0.17492 * ecsd/1000
       (9.04377)

 Sum Sq    55256.6   Std Err   35.0415   LHS Mean  232.884
 R Sq       0.7283   R Bar Sq   0.7223   F  2, 45  60.3155
 D.W.( 1)   2.2172   D.W.(12)   0.9655

 AR_0 =  + 0.77403 * AR_1
          (11.3105)
```

****

Industrial (MDTH_INDNC_SD)

```
 Cochrane-Orcutt
 MONTHLY data for   46 periods from  MAR 2006 to  DEC 2009

 mdth_indnc_sd

   =    1.32735 * eisd/1000
       (10.9496)

 Sum Sq    11085.9   Std Err   16.0564   LHS Mean  134.028
 R Sq       0.5477   R Bar Sq   0.5267   F  3, 43  17.3577
 D.W.( 1)   1.9087   D.W.(12)   1.0582

 AR_0 =  + 0.51227 * AR_1 + 0.29439 * AR_2
          (3.39954)         (1.89812)
```

ANNUAL SUMMARY

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
2006	16,300	3,757	1,374	1,208,058	104,417	0.0	0.0
2007	19,920	2,560	1,483	1,216,525	102,500	0.0	0.0
2008	18,929	2,546	1,886	1,228,251	103,081	0.0	0.0
2009	23,606	2,536	1,670	1,239,273	101,760	0.0	0.0
2010	30,427	2,670	1,447	1,241,228	99,863	5.0	17.0
2011	25,278	2,772	1,357	1,269,281	102,130	10.3	35.6
2012	24,736	2,842	1,367	1,304,040	105,159	15.5	56.4
2013	25,134	2,905	1,389	1,336,540	108,002	20.7	77.2
2014	25,302	2,950	1,384	1,360,649	108,968	25.9	98.0
2015	25,353	2,986	1,367	1,380,233	109,241	31.1	118.8
2016	25,406	3,021	1,350	1,399,547	109,477	36.3	139.6
2017	25,425	3,058	1,330	1,419,864	109,557	41.4	160.4
2018	25,472	3,103	1,330	1,441,898	109,756	41.6	164.2
2019	25,445	3,153	1,326	1,465,460	109,643	41.5	166.4
2020	25,329	3,203	1,318	1,489,662	109,157	41.5	166.4
2021	25,164	3,254	1,307	1,513,919	108,466	41.5	166.4
2022	24,940	3,302	1,292	1,537,310	107,530	41.5	166.4
2023	24,692	3,352	1,276	1,561,280	106,492	41.5	166.4
2024	24,485	3,402	1,262	1,585,382	105,627	41.5	166.4
2025	24,300	3,454	1,250	1,610,402	104,853	41.5	166.4
2026	24,092	3,506	1,236	1,635,394	103,986	41.5	166.4
2027	23,867	3,560	1,221	1,661,141	103,044	41.5	166.4
2028	23,665	3,613	1,207	1,686,770	102,198	41.5	166.4
2029	23,483	3,667	1,195	1,712,274	101,439	41.5	166.4
2030	23,310	3,721	1,184	1,738,395	100,716	41.5	166.4

MONTHLY

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
Jan-06	726.9	453.7	119.7	1,183,900	103,700	0.0	0.0
Feb-06	773.8	449.3	128.8	1,193,300	104,300	0.0	0.0
Mar-06	693.2	409.3	108.2	1,199,800	104,900	0.0	0.0
Apr-06	750.4	474.6	130.8	1,201,800	104,500	0.0	0.0
May-06	1,210.4	351.8	134.1	1,210,300	104,700	0.0	0.0
Jun-06	1,716.4	244.8	126.5	1,218,400	105,200	0.0	0.0
Jul-06	1,695.0	231.9	133.6	1,203,900	105,000	0.0	0.0
Aug-06	1,788.4	206.3	98.9	1,208,400	104,600	0.0	0.0
Sep-06	1,778.3	222.2	117.8	1,213,400	104,400	0.0	0.0
Oct-06	1,803.7	214.9	97.9	1,214,200	103,800	0.0	0.0
Nov-06	1,733.6	257.5	96.4	1,223,800	104,000	0.0	0.0
Dec-06	1,630.1	240.2	80.9	1,225,500	103,900	0.0	0.0
Jan-07	1,806.8	235.9	100.4	1,195,300	103,000	0.0	0.0
Feb-07	1,746.5	274.8	127.9	1,204,500	102,800	0.0	0.0
Mar-07	1,542.7	236.5	97.4	1,212,800	103,100	0.0	0.0
Apr-07	1,523.2	263.3	123.3	1,211,700	101,800	0.0	0.0
May-07	1,640.0	228.3	122.3	1,220,000	102,000	0.0	0.0
Jun-07	1,757.6	207.0	123.9	1,227,400	102,400	0.0	0.0
Jul-07	1,634.3	169.5	118.6	1,215,400	103,000	0.0	0.0
Aug-07	1,739.6	167.8	127.4	1,218,800	102,500	0.0	0.0
Sep-07	1,768.7	172.0	141.3	1,217,800	102,000	0.0	0.0
Oct-07	1,739.9	162.9	118.7	1,222,100	102,200	0.0	0.0
Nov-07	1,599.3	201.1	140.0	1,225,400	102,500	0.0	0.0
Dec-07	1,421.7	240.6	142.0	1,227,100	102,700	0.0	0.0
Jan-08	1,726.7	244.4	138.1	1,212,204	103,117	0.0	0.0
Feb-08	1,629.8	263.2	147.7	1,220,900	103,099	0.0	0.0
Mar-08	1,576.5	233.0	165.5	1,228,832	103,582	0.0	0.0
Apr-08	1,578.0	234.3	164.5	1,228,481	102,639	0.0	0.0
May-08	1,530.6	192.1	166.6	1,235,250	102,841	0.0	0.0
Jun-08	1,443.4	208.4	171.5	1,241,007	103,244	0.0	0.0
Jul-08	1,552.3	171.2	169.1	1,227,002	104,018	0.0	0.0

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
Aug-08	1,611.5	182.4	172.7	1,228,924	103,345	0.0	0.0
Sep-08	1,551.3	196.6	170.8	1,226,285	102,673	0.0	0.0
Oct-08	1,453.5	209.0	150.2	1,227,403	102,967	0.0	0.0
Nov-08	1,553.0	238.4	145.6	1,230,652	102,839	0.0	0.0
Dec-08	1,722.6	172.6	124.2	1,232,074	102,612	0.0	0.0
Jan-09	1,753.0	216.3	117.6	1,214,985	102,232	0.0	0.0
Feb-09	1,717.4	224.2	123.4	1,225,034	102,159	0.0	0.0
Mar-09	1,287.6	232.7	149.7	1,234,243	102,583	0.0	0.0
Apr-09	1,617.9	235.2	143.8	1,234,133	101,718	0.0	0.0
May-09	1,284.3	274.0	118.7	1,243,355	101,740	0.0	0.0
Jun-09	1,822.4	181.9	110.2	1,251,381	101,960	0.0	0.0
Jul-09	1,728.2	176.4	147.9	1,241,183	102,352	0.0	0.0
Aug-09	1,923.2	174.7	146.0	1,243,679	101,701	0.0	0.0
Sep-09	1,694.0	204.6	159.0	1,241,794	101,052	0.0	0.0
Oct-09	2,133.5	204.3	146.9	1,244,172	101,392	0.0	0.0
Nov-09	3,441.1	198.1	171.5	1,247,781	101,240	0.0	0.0
Dec-09	3,203.8	214.1	135.5	1,249,535	100,989	0.0	0.0
Jan-10	2,978.6	205.9	128.8	1,187,204	97,105	0.4	1.4
Feb-10	2,859.1	211.2	125.2	1,203,573	97,650	0.4	1.4
Mar-10	2,764.6	215.8	124.3	1,219,063	98,681	0.4	1.4
Apr-10	2,660.9	218.5	121.8	1,226,169	98,568	0.4	1.4
May-10	2,582.6	222.3	120.6	1,241,193	99,133	0.4	1.4
Jun-10	2,518.8	225.7	119.9	1,255,221	99,898	0.4	1.4
Jul-10	2,469.8	226.8	119.9	1,257,564	100,935	0.4	1.4
Aug-10	2,404.8	227.7	118.4	1,259,285	100,761	0.4	1.4
Sep-10	2,347.0	227.8	117.2	1,257,275	100,585	0.4	1.4
Oct-10	2,319.5	228.3	117.6	1,257,740	101,610	0.4	1.4
Nov-10	2,279.3	229.6	117.0	1,263,332	101,715	0.4	1.4
Dec-10	2,242.2	230.5	116.3	1,267,118	101,721	0.4	1.4
Jan-11	2,136.7	219.6	109.4	1,206,306	98,079	0.9	3.0
Feb-11	2,123.2	222.9	109.9	1,224,265	98,858	0.9	3.0
Mar-11	2,123.0	226.0	111.2	1,241,209	100,132	0.9	3.0
Apr-11	2,101.9	227.4	111.0	1,248,897	100,210	0.9	3.0
May-11	2,098.8	230.5	111.8	1,266,220	101,055	0.9	3.0
Jun-11	2,102.2	233.4	112.9	1,282,524	102,106	0.9	3.0
Jul-11	2,116.3	234.3	114.7	1,287,734	103,595	0.9	3.0
Aug-11	2,101.4	234.9	114.4	1,290,886	103,535	0.9	3.0
Sep-11	2,088.1	234.8	114.2	1,289,940	103,473	0.9	3.0
Oct-11	2,102.1	235.2	115.7	1,292,453	104,710	0.9	3.0
Nov-11	2,095.9	236.3	115.8	1,298,452	104,873	0.9	3.0
Dec-11	2,088.9	237.0	115.7	1,302,488	104,935	0.9	3.0
Jan-12	2,010.9	225.8	109.2	1,240,150	101,389	1.3	4.7
Feb-12	2,018.3	228.9	110.1	1,258,503	102,089	1.3	4.7
Mar-12	2,036.7	232.0	111.6	1,275,849	103,298	1.3	4.7
Apr-12	2,028.9	233.4	111.4	1,283,911	103,159	1.3	4.7
May-12	2,042.0	236.4	112.5	1,301,406	104,035	1.3	4.7
Jun-12	2,059.8	239.3	113.9	1,317,811	105,126	1.3	4.7
Jul-12	2,089.2	240.1	116.0	1,322,408	106,773	1.3	4.7
Aug-12	2,082.9	240.6	115.8	1,325,752	106,613	1.3	4.7
Sep-12	2,077.0	240.5	115.6	1,324,721	106,450	1.3	4.7
Oct-12	2,093.5	240.9	116.8	1,326,958	107,397	1.3	4.7
Nov-12	2,097.3	241.9	117.2	1,333,269	107,692	1.3	4.7
Dec-12	2,099.2	242.7	117.4	1,337,738	107,882	1.3	4.7
Jan-13	2,029.1	231.4	111.1	1,275,012	104,448	1.7	6.4
Feb-13	2,042.7	234.6	112.1	1,293,227	105,200	1.7	6.4
Mar-13	2,066.9	237.6	113.8	1,310,489	106,477	1.7	6.4
Apr-13	2,068.1	238.9	113.9	1,318,382	106,596	1.7	6.4
May-13	2,081.1	241.9	114.9	1,335,478	107,300	1.7	6.4
Jun-13	2,098.6	244.7	116.1	1,351,552	108,221	1.7	6.4
Jul-13	2,126.8	245.4	118.0	1,355,704	109,674	1.7	6.4
Aug-13	2,119.6	245.8	117.5	1,358,047	109,343	1.7	6.4
Sep-13	2,112.3	245.4	117.1	1,355,793	109,012	1.7	6.4
Oct-13	2,130.1	245.6	118.3	1,356,814	109,930	1.7	6.4

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
Nov-13	2,130.1	246.5	118.3	1,362,206	109,954	1.7	6.4
Dec-13	2,128.0	247.2	118.2	1,365,779	109,870	1.7	6.4
Jan-14	2,049.7	235.4	111.3	1,300,466	105,955	2.2	8.2
Feb-14	2,062.3	238.5	112.2	1,318,496	106,605	2.2	8.2
Mar-14	2,085.5	241.5	113.7	1,335,746	107,785	2.2	8.2
Apr-14	2,085.1	242.9	113.7	1,343,553	107,779	2.2	8.2
May-14	2,097.1	245.8	114.5	1,360,417	108,390	2.2	8.2
Jun-14	2,113.4	248.6	115.6	1,376,341	109,219	2.2	8.2
Jul-14	2,140.1	249.2	117.4	1,380,152	110,565	2.2	8.2
Aug-14	2,131.6	249.5	116.9	1,381,988	110,148	2.2	8.2
Sep-14	2,123.2	249.0	116.3	1,379,077	109,731	2.2	8.2
Oct-14	2,139.8	249.1	117.4	1,379,462	110,571	2.2	8.2
Nov-14	2,138.5	250.0	117.3	1,384,499	110,513	2.2	8.2
Dec-14	2,135.2	250.5	117.1	1,387,585	110,348	2.2	8.2
Jan-15	2,054.1	238.4	110.0	1,320,491	106,287	2.6	9.9
Feb-15	2,066.5	241.6	110.8	1,338,604	106,911	2.6	9.9
Mar-15	2,089.5	244.6	112.4	1,355,870	108,066	2.6	9.9
Apr-15	2,088.0	245.9	112.3	1,363,445	107,993	2.6	9.9
May-15	2,100.3	248.8	113.1	1,380,365	108,616	2.6	9.9
Jun-15	2,117.1	251.6	114.2	1,396,316	109,458	2.6	9.9
Jul-15	2,144.1	252.2	116.0	1,399,917	110,816	2.6	9.9
Aug-15	2,136.0	252.5	115.5	1,401,538	110,411	2.6	9.9
Sep-15	2,127.8	251.9	114.9	1,398,341	110,004	2.6	9.9
Oct-15	2,144.4	251.9	116.0	1,398,276	110,836	2.6	9.9
Nov-15	2,143.9	252.8	116.0	1,403,288	110,811	2.6	9.9
Dec-15	2,141.2	253.3	115.8	1,406,346	110,677	2.6	9.9
Jan-16	2,061.9	241.1	108.8	1,338,216	106,700	3.0	11.6
Feb-16	2,073.7	244.3	109.6	1,356,755	107,293	3.0	11.6
Mar-16	2,096.1	247.4	111.1	1,374,408	108,418	3.0	11.6
Apr-16	2,094.1	248.7	111.0	1,382,169	108,318	3.0	11.6
May-16	2,105.7	251.7	111.7	1,399,452	108,902	3.0	11.6
Jun-16	2,121.7	254.5	112.8	1,415,805	109,705	3.0	11.6
Jul-16	2,147.5	255.2	114.5	1,419,645	111,000	3.0	11.6
Aug-16	2,139.1	255.5	114.0	1,421,356	110,576	3.0	11.6
Sep-16	2,130.6	255.0	113.4	1,418,262	110,151	3.0	11.6
Oct-16	2,146.8	255.0	114.5	1,418,453	110,962	3.0	11.6
Nov-16	2,146.0	255.9	114.4	1,423,482	110,923	3.0	11.6
Dec-16	2,143.1	256.4	114.2	1,426,556	110,777	3.0	11.6
Jan-17	2,063.4	244.0	107.2	1,357,552	106,781	3.5	13.4
Feb-17	2,075.0	247.3	108.0	1,376,433	107,363	3.5	13.4
Mar-17	2,097.2	250.4	109.4	1,394,365	108,478	3.5	13.4
Apr-17	2,094.5	251.8	109.3	1,402,233	108,340	3.5	13.4
May-17	2,106.4	254.8	110.1	1,419,762	108,940	3.5	13.4
Jun-17	2,122.8	257.7	111.1	1,436,336	109,760	3.5	13.4
Jul-17	2,149.1	258.3	112.9	1,440,041	111,079	3.5	13.4
Aug-17	2,140.8	258.6	112.3	1,441,824	110,665	3.5	13.4
Sep-17	2,132.6	258.1	111.8	1,438,835	110,251	3.5	13.4
Oct-17	2,149.2	258.1	112.9	1,439,015	111,084	3.5	13.4
Nov-17	2,148.4	259.1	112.8	1,444,323	111,047	3.5	13.4
Dec-17	2,145.5	259.6	112.7	1,447,647	110,901	3.5	13.4
Jan-18	2,065.5	247.6	107.0	1,378,080	106,886	3.5	13.7
Feb-18	2,077.5	250.9	107.8	1,397,407	107,486	3.5	13.7
Mar-18	2,100.1	254.1	109.3	1,415,706	108,620	3.5	13.7
Apr-18	2,097.5	255.5	109.1	1,423,660	108,494	3.5	13.7
May-18	2,110.0	258.6	110.0	1,441,639	109,117	3.5	13.7
Jun-18	2,126.8	261.5	111.1	1,458,614	109,962	3.5	13.7
Jul-18	2,154.1	262.2	112.9	1,462,535	111,332	3.5	13.7
Aug-18	2,145.8	262.5	112.4	1,464,389	110,916	3.5	13.7
Sep-18	2,137.5	262.0	111.8	1,461,458	110,498	3.5	13.7
Oct-18	2,154.8	262.0	113.0	1,461,619	111,366	3.5	13.7
Nov-18	2,153.3	263.0	112.9	1,467,105	111,291	3.5	13.7
Dec-18	2,149.6	263.6	112.6	1,470,558	111,108	3.5	13.7
Jan-19	2,068.9	251.4	107.1	1,400,164	107,055	3.5	13.9

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
Feb-19	2,080.0	254.8	107.8	1,419,986	107,614	3.5	13.9
Mar-19	2,101.8	258.1	109.2	1,438,673	108,707	3.5	13.9
Apr-19	2,098.9	259.5	109.1	1,446,897	108,563	3.5	13.9
May-19	2,110.0	262.7	109.8	1,465,142	109,120	3.5	13.9
Jun-19	2,125.5	265.7	110.8	1,482,388	109,896	3.5	13.9
Jul-19	2,151.2	266.3	112.5	1,486,064	111,188	3.5	13.9
Aug-19	2,141.8	266.7	111.9	1,488,145	110,713	3.5	13.9
Sep-19	2,132.3	266.2	111.3	1,485,437	110,237	3.5	13.9
Oct-19	2,147.9	266.3	112.3	1,486,212	111,019	3.5	13.9
Nov-19	2,145.7	267.2	112.2	1,491,559	110,909	3.5	13.9
Dec-19	2,141.3	267.8	111.9	1,494,852	110,692	3.5	13.9
Jan-20	2,059.8	255.3	106.5	1,422,774	106,603	3.5	13.9
Feb-20	2,070.6	258.9	107.2	1,443,344	107,143	3.5	13.9
Mar-20	2,092.0	262.2	108.6	1,462,720	108,214	3.5	13.9
Apr-20	2,088.0	263.9	108.3	1,472,229	108,018	3.5	13.9
May-20	2,099.5	267.0	109.1	1,490,330	108,591	3.5	13.9
Jun-20	2,115.2	270.0	110.1	1,507,442	109,382	3.5	13.9
Jul-20	2,141.4	270.5	111.9	1,510,305	110,697	3.5	13.9
Aug-20	2,132.2	270.9	111.3	1,512,340	110,231	3.5	13.9
Sep-20	2,122.9	270.4	110.6	1,509,568	109,765	3.5	13.9
Oct-20	2,139.0	270.5	111.7	1,510,145	110,576	3.5	13.9
Nov-20	2,136.5	271.4	111.6	1,515,663	110,449	3.5	13.9
Dec-20	2,131.8	272.0	111.2	1,519,085	110,215	3.5	13.9
Jan-21	2,050.6	259.4	105.8	1,446,555	106,140	3.5	13.9
Feb-21	2,060.8	263.0	106.5	1,467,122	106,649	3.5	13.9
Mar-21	2,081.4	266.4	107.9	1,486,454	107,686	3.5	13.9
Apr-21	2,077.5	267.8	107.6	1,494,782	107,489	3.5	13.9
May-21	2,087.7	271.1	108.3	1,513,733	108,002	3.5	13.9
Jun-21	2,102.3	274.2	109.3	1,531,648	108,731	3.5	13.9
Jul-21	2,126.9	274.9	110.9	1,535,759	109,968	3.5	13.9
Aug-21	2,116.8	275.2	110.2	1,537,606	109,460	3.5	13.9
Sep-21	2,106.7	274.7	109.6	1,534,586	108,953	3.5	13.9
Oct-21	2,120.9	274.8	110.5	1,534,940	109,667	3.5	13.9
Nov-21	2,118.4	275.7	110.4	1,540,294	109,541	3.5	13.9
Dec-21	2,113.8	276.3	110.0	1,543,552	109,310	3.5	13.9
Jan-22	2,033.5	263.5	104.7	1,469,818	105,281	3.5	13.9
Feb-22	2,043.3	267.1	105.3	1,490,554	105,773	3.5	13.9
Mar-22	2,063.5	270.4	106.7	1,509,966	106,788	3.5	13.9
Apr-22	2,059.4	271.8	106.4	1,518,039	106,582	3.5	13.9
May-22	2,069.3	275.2	107.1	1,537,158	107,076	3.5	13.9
Jun-22	2,083.4	278.3	108.0	1,555,236	107,784	3.5	13.9
Jul-22	2,107.0	279.0	109.6	1,559,144	108,970	3.5	13.9
Aug-22	2,097.2	279.3	108.9	1,561,017	108,476	3.5	13.9
Sep-22	2,087.3	278.8	108.3	1,557,940	107,983	3.5	13.9
Oct-22	2,102.4	278.8	109.3	1,558,163	108,736	3.5	13.9
Nov-22	2,099.3	279.8	109.1	1,563,647	108,585	3.5	13.9
Dec-22	2,094.2	280.3	108.7	1,567,033	108,328	3.5	13.9
Jan-23	2,013.7	267.4	103.4	1,492,330	104,288	3.5	13.9
Feb-23	2,023.3	271.1	104.0	1,513,544	104,771	3.5	13.9
Mar-23	2,043.3	274.5	105.3	1,533,365	105,772	3.5	13.9
Apr-23	2,039.2	275.9	105.1	1,541,694	105,565	3.5	13.9
May-23	2,048.8	279.3	105.7	1,561,162	106,047	3.5	13.9
Jun-23	2,062.6	282.5	106.6	1,579,595	106,742	3.5	13.9
Jul-23	2,085.7	283.2	108.2	1,583,722	107,901	3.5	13.9
Aug-23	2,076.0	283.6	107.5	1,585,567	107,414	3.5	13.9
Sep-23	2,066.3	283.0	106.9	1,582,399	106,928	3.5	13.9
Oct-23	2,080.6	283.1	107.8	1,582,635	107,644	3.5	13.9
Nov-23	2,078.3	284.0	107.7	1,588,001	107,528	3.5	13.9
Dec-23	2,073.9	284.6	107.4	1,591,343	107,307	3.5	13.9
Jan-24	1,995.1	271.4	102.1	1,515,399	103,354	3.5	13.9
Feb-24	2,004.9	275.1	102.8	1,537,034	103,849	3.5	13.9
Mar-24	2,025.1	278.6	104.1	1,557,178	104,858	3.5	13.9
Apr-24	2,021.3	280.1	103.9	1,565,736	104,669	3.5	13.9

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
May-24	2,031.2	283.5	104.5	1,585,409	105,165	3.5	13.9
Jun-24	2,045.3	286.8	105.5	1,604,029	105,871	3.5	13.9
Jul-24	2,068.7	287.4	107.0	1,607,944	107,047	3.5	13.9
Aug-24	2,059.3	287.8	106.4	1,609,871	106,574	3.5	13.9
Sep-24	2,049.8	287.2	105.8	1,606,704	106,100	3.5	13.9
Oct-24	2,064.4	287.3	106.8	1,606,935	106,830	3.5	13.9
Nov-24	2,062.1	288.2	106.6	1,612,424	106,715	3.5	13.9
Dec-24	2,057.7	288.8	106.3	1,615,917	106,497	3.5	13.9
Jan-25	1,979.2	275.5	101.1	1,539,069	102,555	3.5	13.9
Feb-25	1,989.3	279.3	101.8	1,561,147	103,065	3.5	13.9
Mar-25	2,009.7	282.9	103.1	1,581,646	104,088	3.5	13.9
Apr-25	2,007.1	284.4	102.9	1,590,277	103,954	3.5	13.9
May-25	2,016.6	287.9	103.6	1,610,373	104,433	3.5	13.9
Jun-25	2,030.3	291.2	104.5	1,629,385	105,120	3.5	13.9
Jul-25	2,053.1	291.9	106.0	1,633,564	106,263	3.5	13.9
Aug-25	2,043.6	292.2	105.4	1,635,459	105,789	3.5	13.9
Sep-25	2,034.2	291.7	104.7	1,632,216	105,316	3.5	13.9
Oct-25	2,048.8	291.7	105.7	1,632,560	106,048	3.5	13.9
Nov-25	2,046.2	292.6	105.5	1,637,897	105,919	3.5	13.9
Dec-25	2,041.6	293.2	105.2	1,641,236	105,686	3.5	13.9
Jan-26	1,963.4	279.6	100.0	1,562,897	101,762	3.5	13.9
Feb-26	1,973.1	283.5	100.7	1,585,411	102,251	3.5	13.9
Mar-26	1,992.9	287.1	102.0	1,606,230	103,247	3.5	13.9
Apr-26	1,989.5	288.7	101.8	1,615,019	103,074	3.5	13.9
May-26	1,999.0	292.2	102.4	1,635,363	103,552	3.5	13.9
Jun-26	2,012.7	295.5	103.3	1,654,626	104,238	3.5	13.9
Jul-26	2,035.5	296.2	104.8	1,658,611	105,383	3.5	13.9
Aug-26	2,026.1	296.6	104.2	1,660,659	104,910	3.5	13.9
Sep-26	2,016.7	296.0	103.6	1,657,509	104,437	3.5	13.9
Oct-26	2,031.2	296.1	104.5	1,658,029	105,168	3.5	13.9
Nov-26	2,028.4	297.1	104.4	1,663,454	105,027	3.5	13.9
Dec-26	2,023.6	297.7	104.0	1,666,918	104,784	3.5	13.9
Jan-27	1,945.7	283.9	98.8	1,587,580	100,876	3.5	13.9
Feb-27	1,955.2	287.9	99.5	1,610,491	101,354	3.5	13.9
Mar-27	1,974.8	291.6	100.8	1,631,663	102,334	3.5	13.9
Apr-27	1,971.2	293.1	100.5	1,640,663	102,154	3.5	13.9
May-27	1,980.5	296.7	101.2	1,661,240	102,622	3.5	13.9
Jun-27	1,993.9	300.1	102.1	1,680,748	103,297	3.5	13.9
Jul-27	2,016.5	300.8	103.6	1,684,656	104,427	3.5	13.9
Aug-27	2,007.0	301.1	102.9	1,686,679	103,951	3.5	13.9
Sep-27	1,997.5	300.6	102.3	1,683,495	103,474	3.5	13.9
Oct-27	2,011.4	300.6	103.2	1,684,051	104,171	3.5	13.9
Nov-27	2,008.8	301.6	103.1	1,689,481	104,044	3.5	13.9
Dec-27	2,004.3	302.2	102.8	1,692,949	103,817	3.5	13.9
Jan-28	1,927.2	288.2	97.6	1,612,377	99,949	3.5	13.9
Feb-28	1,937.1	292.3	98.3	1,635,669	100,443	3.5	13.9
Mar-28	1,956.8	296.0	99.6	1,657,153	101,435	3.5	13.9
Apr-28	1,953.9	297.6	99.4	1,666,360	101,286	3.5	13.9
May-28	1,963.4	301.2	100.0	1,687,123	101,763	3.5	13.9
Jun-28	1,977.0	304.6	100.9	1,706,788	102,444	3.5	13.9
Jul-28	1,999.4	305.2	102.4	1,710,477	103,572	3.5	13.9
Aug-28	1,990.4	305.6	101.8	1,712,492	103,118	3.5	13.9
Sep-28	1,981.3	305.0	101.2	1,709,229	102,664	3.5	13.9
Oct-28	1,995.8	305.1	102.2	1,709,795	103,390	3.5	13.9
Nov-28	1,993.4	306.0	102.0	1,715,171	103,268	3.5	13.9
Dec-28	1,988.9	306.6	101.7	1,718,610	103,045	3.5	13.9
Jan-29	1,912.5	292.4	96.6	1,636,770	99,212	3.5	13.9
Feb-29	1,922.3	296.5	97.3	1,660,424	99,703	3.5	13.9
Mar-29	1,942.0	300.3	98.6	1,682,208	100,689	3.5	13.9
Apr-29	1,939.1	301.9	98.4	1,691,392	100,547	3.5	13.9
May-29	1,948.5	305.6	99.0	1,712,553	101,016	3.5	13.9
Jun-29	1,961.9	309.1	99.9	1,732,594	101,688	3.5	13.9
Jul-29	1,984.1	309.8	101.4	1,736,532	102,804	3.5	13.9

SDG&E Noncore Commercial & Industrial Demand (MDth)				San Diego County	San Diego County	Cumulative	Cumulative
	Cogeneration	Commercial	Industrial	Comcl Employment	Indstl Employment	DSM Cmcl	DSM Indl.
	MDTH_CGNNC_SD	MDTH_COMNC_SD	MDTH_INDNC_SD	ECSD	EISD	(MDth)	(MDth)
Aug-29	1,975.1	310.1	100.8	1,738,525	102,350	3.5	13.9
Sep-29	1,966.0	309.5	100.2	1,735,161	101,896	3.5	13.9
Oct-29	1,980.3	309.6	101.1	1,735,602	102,610	3.5	13.9
Nov-29	1,977.8	310.5	101.0	1,741,010	102,487	3.5	13.9
Dec-29	1,973.4	311.1	100.7	1,744,513	102,266	3.5	13.9
Jan-30	1,897.6	296.7	95.6	1,661,123	98,463	3.5	13.9
Feb-30	1,907.3	300.9	96.3	1,685,617	98,947	3.5	13.9
Mar-30	1,926.7	304.8	97.6	1,708,173	99,922	3.5	13.9
Apr-30	1,923.3	306.7	97.4	1,718,747	99,751	3.5	13.9
May-30	1,933.0	310.3	98.0	1,739,899	100,241	3.5	13.9
Jun-30	1,946.8	313.8	98.9	1,759,841	100,932	3.5	13.9
Jul-30	1,969.5	314.4	100.4	1,763,344	102,068	3.5	13.9
Aug-30	1,960.9	314.7	99.9	1,764,993	101,639	3.5	13.9
Sep-30	1,952.3	314.0	99.3	1,761,266	101,209	3.5	13.9
Oct-30	1,967.2	314.0	100.3	1,761,262	101,955	3.5	13.9
Nov-30	1,964.9	315.0	100.1	1,766,559	101,839	3.5	13.9
Dec-30	1,960.6	315.5	99.8	1,769,921	101,624	3.5	13.9

2010 CALIFORNIA GAS REPORT

NATURAL GAS VEHICLES
JULY 2010

San Diego Gas and Electric
2010 Californi Gas Report
NGV Data and Forecast

Growth	1.02												
YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009 therms	9,349	8,479	9,408	8,589	9,174	9,565	10,434	11,159	10,737	12,224	12,105	11,511	122,734
2009	0.93	0.85	0.94	0.86	0.92	0.96	1.04	1.12	1.07	1.22	1.21	1.15	12.3
2010	0.94	0.86	0.95	0.87	0.93	0.97	1.05	1.13	1.08	1.23	1.22	1.16	12.4
2011	0.95	0.86	0.96	0.88	0.94	0.98	1.06	1.14	1.10	1.25	1.23	1.17	12.5
2012	0.96	0.87	0.97	0.88	0.95	0.99	1.08	1.15	1.11	1.26	1.25	1.19	12.6
2013	0.97	0.88	0.98	0.89	0.95	1.00	1.09	1.16	1.12	1.27	1.26	1.20	12.8
2014	0.98	0.89	0.99	0.90	0.96	1.01	1.10	1.17	1.13	1.28	1.27	1.21	12.9
2015	0.99	0.90	1.00	0.91	0.97	1.02	1.11	1.18	1.14	1.30	1.28	1.22	13.0
2016	1.00	0.91	1.01	0.92	0.98	1.03	1.12	1.20	1.15	1.31	1.30	1.23	13.2
2017	1.01	0.92	1.02	0.93	0.99	1.04	1.13	1.21	1.16	1.32	1.31	1.25	13.3
2018	1.02	0.93	1.03	0.94	1.00	1.05	1.14	1.22	1.17	1.34	1.32	1.26	13.4
2019	1.03	0.94	1.04	0.95	1.01	1.06	1.15	1.23	1.19	1.35	1.34	1.27	13.6
2020	1.04	0.95	1.05	0.96	1.02	1.07	1.16	1.24	1.20	1.36	1.35	1.28	13.7
2021	1.05	0.96	1.06	0.97	1.03	1.08	1.18	1.26	1.21	1.38	1.36	1.30	13.8
2022	1.06	0.96	1.07	0.98	1.04	1.09	1.19	1.27	1.22	1.39	1.38	1.31	14.0
2023	1.07	0.97	1.08	0.99	1.05	1.10	1.20	1.28	1.23	1.41	1.39	1.32	14.1
2024	1.09	0.98	1.09	1.00	1.07	1.11	1.21	1.30	1.25	1.42	1.41	1.34	14.2
2025	1.10	0.99	1.10	1.01	1.08	1.12	1.22	1.31	1.26	1.43	1.42	1.35	14.4
2026	1.11	1.00	1.11	1.02	1.09	1.13	1.24	1.32	1.27	1.45	1.43	1.36	14.5
2027	1.12	1.01	1.13	1.03	1.10	1.14	1.25	1.33	1.28	1.46	1.45	1.38	14.7
2028	1.13	1.02	1.14	1.04	1.11	1.16	1.26	1.35	1.30	1.48	1.46	1.39	14.8
2029	1.14	1.03	1.15	1.05	1.12	1.17	1.27	1.36	1.31	1.49	1.48	1.40	15.0
2030	1.15	1.04	1.16	1.06	1.13	1.18	1.29	1.38	1.32	1.51	1.49	1.42	15.1

YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009 therms	834,037	773,515	894,048	819,708	843,163	824,362	183,907	193,074	147,421	217,692	137,379	163,266	6,031,572
2009	83.40	77.35	89.40	81.97	84.32	82.44	18.39	19.31	14.74	21.77	13.74	16.33	603
2010	84.24	78.13	90.30	82.79	85.16	83.26	18.57	19.50	14.89	21.99	13.88	16.49	609
2011	85.08	78.91	91.20	83.62	86.01	84.09	18.76	19.70	15.04	22.21	14.01	16.65	615
2012	85.93	79.70	92.11	84.45	86.87	84.93	18.95	19.89	15.19	22.43	14.15	16.82	621
2013	86.79	80.49	93.03	85.30	87.74	85.78	19.14	20.09	15.34	22.65	14.30	16.99	628
2014	87.66	81.30	93.97	86.15	88.62	86.64	19.33	20.29	15.49	22.88	14.44	17.16	634
2015	88.53	82.11	94.90	87.01	89.50	87.51	19.52	20.50	15.65	23.11	14.58	17.33	640
2016	89.42	82.93	95.85	87.88	90.40	88.38	19.72	20.70	15.81	23.34	14.73	17.50	647
2017	90.31	83.76	96.81	88.76	91.30	89.27	19.91	20.91	15.96	23.57	14.88	17.68	653
2018	91.22	84.60	97.78	89.65	92.22	90.16	20.11	21.12	16.12	23.81	15.02	17.86	660
2019	92.13	85.44	98.76	90.55	93.14	91.06	20.31	21.33	16.28	24.05	15.18	18.03	666
2020	93.05	86.30	99.75	91.45	94.07	91.97	20.52	21.54	16.45	24.29	15.33	18.22	673
2021	93.98	87.16	100.74	92.37	95.01	92.89	20.72	21.76	16.61	24.53	15.48	18.40	680
2022	94.92	88.03	101.75	93.29	95.96	93.82	20.93	21.97	16.78	24.78	15.64	18.58	686
2023	95.87	88.91	102.77	94.22	96.92	94.76	21.14	22.19	16.95	25.02	15.79	18.77	693
2024	96.83	89.80	103.80	95.17	97.89	95.71	21.35	22.42	17.12	25.27	15.95	18.95	700
2025	97.80	90.70	104.83	96.12	98.87	96.66	21.56	22.64	17.29	25.53	16.11	19.14	707
2026	98.78	91.61	105.88	97.08	99.86	97.63	21.78	22.87	17.46	25.78	16.27	19.34	714
2027	99.76	92.52	106.94	98.05	100.85	98.61	22.00	23.09	17.63	26.04	16.43	19.53	721
2028	100.76	93.45	108.01	99.03	101.86	99.59	22.22	23.33	17.81	26.30	16.60	19.72	729
2029	101.77	94.38	109.09	100.02	102.88	100.59	22.44	23.56	17.99	26.56	16.76	19.92	736
2030	102.79	95.33	110.18	101.02	103.91	101.59	22.66	23.79	18.17	26.83	16.93	20.12	743

YEAR	MDTH1	MDTH2	MDTH3	MDTH4	MDTH5	MDTH6	MDTH7	MDTH8	MDTH9	MDTH10	MDTH11	MDTH12	TOTAL
2009 therms	0.00	0.00	0.00	0.00	0.00	0.00	652,230	677,165	705,709	653,536	664,307	619,019	3,971,966
2009	0.00	0.00	0.00	0.00	0.00	0.00	65.22	67.72	70.57	65.35	66.43	61.90	397
2010	61.22	63.46	56.81	64.87	66.20	66.39	66.20	66.20	66.20	66.20	66.20	66.20	776
2011	61.83	64.09	57.38	65.52	66.86	67.06	66.86	66.86	66.86	66.86	66.86	66.86	784
2012	62.45	64.74	57.95	66.18	67.53	67.73	67.53	67.53	67.53	67.53	67.53	67.53	792
2013	63.07	65.38	58.53	66.84	68.21	68.41	68.21	68.21	68.21	68.21	68.21	68.21	800
2014	63.70	66.04	59.12	67.51	68.89	69.09	68.89	68.89	68.89	68.89	68.89	68.89	808
2015	64.34	66.70	59.71	68.18	69.58	69.78	69.58	69.58	69.58	69.58	69.58	69.58	816
2016	64.98	67.36	60.31	68.86	70.27	70.48	70.27	70.27	70.27	70.27	70.27	70.27	824
2017	65.63	68.04	60.91	69.55	70.97	71.18	70.97	70.97	70.98	70.98	70.98	70.98	832
2018	66.29	68.72	61.52	70.25	71.68	71.90	71.68	71.68	71.69	71.69	71.69	71.69	840
2019	66.95	69.41	62.13	70.95	72.40	72.61	72.40	72.40	72.40	72.40	72.40	72.40	849
2020	67.62	70.10	62.76	71.66	73.13	73.34	73.13	73.13	73.13	73.13	73.13	73.13	857
2021	68.30	70.80	63.38	72.38	73.86	74.07	73.86	73.86	73.86	73.86	73.86	73.86	866
2022	68.98	71.51	64.02	73.10	74.60	74.82	74.60	74.60	74.60	74.60	74.60	74.60	875
2023	69.67	72.22	64.66	73.83	75.34	75.56	75.34	75.34	75.34	75.34	75.34	75.34	883
2024	70.37	72.95	65.30	74.57	76.09	76.32	76.09	76.09	76.10	76.10	76.10	76.10	892
2025	71.07	73.68	65.96	75.31	76.86	77.08	76.86	76.86	76.86	76.86	76.86	76.86	901
2026	71.78	74.41	66.62	76.07	77.62	77.85	77.62	77.62	77.62	77.62	77.62	77.62	910
2027	72.50	75.16	67.28	76.83	78.40	78.63	78.40	78.40	78.40	78.40	78.40	78.40	919
2028	73.22	75.91	67.96	77.60	79.18	79.42	79.18	79.18	79.18	79.18	79.18	79.18	928
2029	73.96	76.67	68.63	78.37	79.98	80.21	79.98	79.98	79.98	79.98	79.98	79.98	938
2030	74.70	77.43	69.32	79.16	80.78	81.01	80.78	80.78	80.78	80.78	80.78	80.78	947

San Diego Gas and Electric
2010 California Gas Report
Notes NGV

Compressed:
2009 throughput is actual from SDG&Ebilling department(Christopher Hermath) .
Compressed throughput growth is projected at 1.0% through 2030.

Uncompressed:
2009 throughput is actual from SDG&E billing department-Christopher Hermath.

Uncompressed throughput forecast is expected to grow at the annual compounded rate of 1.0% for the next 20 years, from 603 Mdtherms in 2010 to 743 Mdtherms in 2030.
Throughput growth is expected to come mainly from Port trucks which serve the San Diego Port. Additional load through 2030 is expected from shared rides such as taxis, and airport shuttles.
Aggregated transport provided by Brownie Buckett.
Arggregated transpot is expected to grow at a 1% rate through 2030 from 397 at the end of 2009 to 947 in 2030. Growth will be mainly from transits.

NGV stations are expected to grow from a 2009 level of 30 to approximately 35 by 2030, an annual compounded growth rate of 1.0% per year to accommodate the throughput growth.

1.1% Actual throughput growth rate, 2008 through 2009.

1.0% Throughput is expected to grow at 1.0% over the next 20 years, 2010 thru 2030. The growth is based on the throughput experienced 2008 through 2009. Transit districts are reducing their yearly miles travelled, which is expected to surpress the throughput growth over the next several years.

2010 CALIFORNIA GAS REPORT

ENERGY EFFICIENCY
JULY 2010

San Diego Gas and Electric
2010 California Gas Report
EE Savings Forecast

Proportionally scale it down to match PUC Goals for 2010 - 2012

ANNUAL NET SAVINGS	2010 mdth	2011 mdth	2012 mdth	2013 mdth	2014 mdth	2015 mdth	2016 mdth	2017 mdth
Residential	87	95	106	106	106	106	106	106
Core Commercial	236	255	272	272	272	272	272	272
Core Industrial	5	6	6	6	6	6	6	6
Noncore Commercial	5	5	5	5	5	5	5	5
Noncore Industrial	17	19	21	21	21	21	21	21
Total	**350**	**380**	**410**	**410**	**410**	**410**	**410**	**410**

Cumulative Savings (mdth) SDGE	2010 mdth	2011 mdth	2012 mdth	2013 mdth	2014 mdth	2015 mdth	2016 mdth	2017 mdth
Residential	87	182	288	395	501	607	714	820
Core Commercial	236	491	763	1,035	1,306	1,578	1,850	2,122
Core Industrial	5	11	17	23	29	35	40	46
Noncore Commercial	5	10	16	21	26	31	36	41
Noncore Industrial	17	36	56	77	98	119	140	160
Total Load Impacts	**350**	**730**	**1,140**	**1,550**	**1,960**	**2,370**	**2,780**	**3,190**

Cumulative Savings (MMCF)	MMCF factor:	1.01961						
SDGE	2010	2011	2012	2013	2014	2015	2016	2017
Residential	85	178	283	387	491	596	700	804
Core Commercial	231	481	748	1,015	1,281	1,548	1,815	2,081
Core Industrial	5	11	17	22	28	34	40	45
Noncore Commercial	5	10	15	20	25	30	36	41
Noncore Industrial	17	35	55	76	96	116	137	157
Total Cumulative Load	**343**	**716**	**1,118**	**1,520**	**1,922**	**2,324**	**2,727**	**3,129**

Proportionally scale it down to m

ANNUAL NET SAVINGS	2018 mdth	2019 mdth	2020 mdth	2021 mdth	2022 mdth	2023 mdth	2024 mdth	2025 mdth
Residential	106	106	106	106	106	106	106	106
Core Commercial	272	272	272	272	272	272	272	272
Core Industrial	6	6	6	6	6	6	6	6
Noncore Commercial	5	5	5	5	5	5	5	5
Noncore Industrial	21	21	21	21	21	21	21	21
Total	**410**	**410**	**410**	**410**	**410**	**410**	**410**	**410**

Cumulative Savings (mdth) SDGE	2018 mdth	2019 mdth	2020 mdth	2021 mdth	2022 mdth	2023 mdth	2024 mdth	2025 mdth
Residential	839	851	851	851	851	851	851	851
Core Commercial	2,158	2,175	2,175	2,175	2,175	2,175	2,175	2,175
Core Industrial	46	46	46	46	46	46	46	46
Noncore Commercial	42	41	41	41	41	41	41	41
Noncore Industrial	164	166	166	166	166	166	166	166
Total Load Impacts	**3,250**	**3,280**	**3,280**	**3,280**	**3,280**	**3,280**	**3,280**	**3,280**

Cumulative Savings (MMCF) SDGE	2018	2019	2020	2021	2022	2023	2024	2025
Residential	823	834	834	834	834	834	834	834
Core Commercial	2,117	2,133	2,133	2,133	2,133	2,133	2,133	2,133
Core Industrial	45	45	45	45	45	45	45	45
Noncore Commercial	41	41	41	41	41	41	41	41
Noncore Industrial	161	163	163	163	163	163	163	163
Total Cumulative Load	**3,187**	**3,217**	**3,217**	**3,217**	**3,217**	**3,217**	**3,217**	**3,217**

Proportionally scale it down to m

ANNUAL NET SAVINGS	2026 mdth	2027 mdth	2028 mdth	2029 mdth	2030 mdth
Residential	106	106	106	106	106
Core Commercial	272	272	272	272	272
Core Industrial	6	6	6	6	6
Noncore Commercial	5	5	5	5	5
Noncore Industrial	21	21	21	21	21
Total	**410**	**410**	**410**	**410**	**410**

Cumulative Savings (mdth) SDGE	2026 mdth	2027 mdth	2028 mdth	2029 mdth	2030 mdth
Residential	851	851	851	851	851
Core Commercial	2,175	2,175	2,175	2,175	2,175
Core Industrial	46	46	46	46	46
Noncore Commercial	41	41	41	41	41
Noncore Industrial	166	166	166	166	166
Total Load Impacts	**3,280**	**3,280**	**3,280**	**3,280**	**3,280**

Cumulative Savings (MMCF) SDGE	2026	2027	2028	2029	2030
Residential	834	834	834	834	834
Core Commercial	2,133	2,133	2,133	2,133	2,133
Core Industrial	45	45	45	45	45
Noncore Commercial	41	41	41	41	41
Noncore Industrial	163	163	163	163	163
Total Cumulative Load	**3,217**	**3,217**	**3,217**	**3,217**	**3,217**

2010 CALIFORNIA GAS REPORT

SUPPORTING DATA
JULY 2010

2010 CALIFORNIA GAS REPORT

PEAKDAY FORECAST
JULY 2010

SDG&E Heating Degree Day (HDD) Weather Designs

(Calendar Based)

	Cold		Average [1/]	Hot	
	1-in-35 exceedance	1-in-10 exceedance		1-in-10 exceedance	1-in-35 exceedance
January	335.4	311.0	264.5	218.0	193.7
February	283.7	263.1	223.7	184.4	163.8
March	244.9	227.1	193.1	159.2	141.4
April	157.2	145.7	124.0	102.2	90.8
May	69.2	64.1	54.6	45.0	39.9
June	15.7	14.6	12.4	10.2	9.1
July	0.3	0.3	0.3	0.2	0.2
August	0.0	0.0	0.0	0.0	0.0
September	1.5	1.4	1.2	0.9	0.8
October	33.7	31.3	26.6	21.9	19.5
November	166.2	154.1	131.1	108.0	96.0
December	358.3	332.3	282.6	232.9	206.9
	1666.0	1545.0	**1314.0**	1083.0	962.0

Notes:

1/ 20-Yr-Avg (Jan1990-Dec2009)
2/ Daily system wide temperature based on simple average of three locations: Lindberg Field, Mirimar NAS and El Cajon.

2010-CGR Sales + Transport + Exchange for Month of DECEMBER
(units=Mdth/Day)
"1-in-2" Likelihood Cold Day Temperature

No.	"CGR_B"	CLASS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1		RESIDEN	230.0	223.7	221.8	221.7	221.4	221.7	222.3	222.8	223.3	224.4	225.5
2		Com GN3	83.0	79.9	78.4	77.8	77.0	76.1	75.1	74.0	73.0	73.1	73.3
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
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
3		Ind GN3	6.7	6.2	6.1	6.2	6.2	6.1	6.1	6.0	5.9	5.9	5.8
4		NGV 2/	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9	3.0
	Total:	MDth/day	322.2	312.4	309.1	308.5	307.5	306.7	306.3	305.7	305.1	306.3	307.6
		MMcf/day 4/	316.0	306.4	303.1	302.5	301.5	300.8	300.4	299.8	299.3	300.4	301.7
		Days per Mo	31	31	31	31	31	31	31	31	31	31	31
		Pk-Day Temp. (deg-F) =	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
		Hdd: December--ColdYr =	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
		"Wkday/Wkend" Factor-Res:	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%
		Zero-HDD Load/Day Seasonal "Scale-Up":	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Use this Methodology for the 2010-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 47.5 degF)

2/ "Non-temperature" sensitive market segment.

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

4/ Dth/Mcf= 1.0196

2010-CGR Sales + Transport + Exchange for Month of DECEMBER
(units=Mdth/Day)
"1-in-2" Likelihood Cold Day Temperature

No.	"CGR_B"	CLASS	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	RESIDEN		226.6	227.7	228.9	229.9	229.2	230.0	230.7	231.4	232.1	232.7	233.3
2	Com GN3		73.6	73.8	74.1	74.4	74.3	74.5	74.8	75.0	75.3	75.6	75.9
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
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
3	Ind GN3		5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0	4.9	4.9
4	NGV 2/		3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3
Total:		MDth/day	308.9	310.2	311.7	312.9	311.9	312.9	313.8	314.8	315.6	316.5	317.4
		MMcf/day 4/	303.0	304.2	305.7	306.9	305.9	306.9	307.8	308.7	309.6	310.4	311.3
		Days per Mo	31	31	31	31	31	31	31	31	31	31	31
		Pk-Day Temp. (deg-F) =	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5	47.5
		Hdd: December--ColdYr =	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
		"Wkday/Wkend" Factor-Res:	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%
		Zero-HDD Load/Day Seasonal "Scale-Up":	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Use this Methodology for the 2010-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 47.5 degF)

2/ "Non-temperature" sensitive market segment.

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

4/ Dth/Mcf= 1.0196

2010-CGR Sales + Transport + Exchange for Month of DECEMBER
(units=Mdth/Day)
"1-in-10" Likelihood Cold Day Temperature

No.	"CGR_B"	CLASS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1		RESIDEN	269.9	262.5	260.4	260.2	259.9	260.2	260.9	261.5	262.1	263.4	264.7
2		Com GN3	92.8	89.3	87.6	87.0	86.1	85.1	84.0	82.8	81.6	81.7	81.9
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
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
3		Ind GN3	7.4	6.9	6.8	6.8	6.8	6.8	6.7	6.6	6.5	6.5	6.4
4		NGV 2/	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9	3.0
	Total:	MDth/day	372.7	361.4	357.5	356.8	355.7	354.9	354.4	353.8	353.2	354.5	356.0
		MMcf/day 4/	365.5	354.5	350.6	350.0	348.8	348.0	347.6	347.0	346.4	347.7	349.2
		Days per Mo	31	31	31	31	31	31	31	31	31	31	31
		Pk-Day Temp. (deg-F) =	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
		Hdd: December--ColdYr =	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
		"Wkday/Wkend" Factor-Res:	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%
		Zero-HDD Load/Day Seasonal "Scale-Up":	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Use this Methodology for the 2010-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 43.7 degF)

2/ "Non-temperature" sensitive market segment.

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

4/ Dth/Mcf= 1.0196

2010-CGR Sales + Transport + Exchange for Month of DECEMBER
(units=Mdth/Day)
"1-in-10" Likelihood Cold Day Temperature

No.	"CGR_B"	CLASS	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1		RESIDEN	266.0	267.3	268.7	269.9	269.0	269.9	270.8	271.7	272.4	273.2	273.9
2		Com GN3	82.3	82.5	82.9	83.2	83.1	83.3	83.6	83.9	84.2	84.5	84.9
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
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
3		Ind GN3	6.3	6.2	6.2	6.1	5.9	5.8	5.7	5.6	5.5	5.4	5.3
4		NGV 2/	3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3
	Total:	MDth/day	357.6	359.1	360.8	362.3	361.1	362.2	363.3	364.4	365.4	366.4	367.4
		MMcf/day 4/	350.8	352.2	353.9	355.3	354.2	355.2	356.3	357.4	358.4	359.3	360.3
		Days per Mo	31	31	31	31	31	31	31	31	31	31	31
		Pk-Day Temp. (deg-F) =	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
		Hdd: December--ColdYr =	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
		"Wkday/Wkend" Factor-Res:	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%
		Zero-HDD Load/Day Seasonal "Scale-Up":	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Use this Methodology for the 2010-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 43.7 degF)

2/ "Non-temperature" sensitive market segment.

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

4/ Dth/Mcf= 1.0196

2010-CGR Sales + Transport + Exchange for Month of DECEMBER
(units=Mdth/Day)
"1-in-35" Likelihood Cold Day Temperature

No.	"CGR_B"	CLASS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1		RESIDEN	289.9	282.0	279.7	279.5	279.2	279.5	280.2	280.9	281.6	283.0	284.3
2		Com GN3	97.8	94.0	92.3	91.6	90.7	89.6	88.4	87.2	85.9	86.0	86.3
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
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
3		Ind GN3	7.7	7.2	7.1	7.1	7.1	7.1	7.0	6.9	6.8	6.8	6.7
4		NGV 2/	2.6	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.9	3.0
	Total:	MDth/day	397.9	385.9	381.7	381.0	379.8	378.9	378.5	377.9	377.2	378.7	380.3
		MMcf/day 4/	390.3	378.5	374.4	373.7	372.5	371.7	371.2	370.6	370.0	371.4	372.9
		Days per Mo	31	31	31	31	31	31	31	31	31	31	31
		Pk-Day Temp. (deg-F) =	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8
		Hdd: December--ColdYr =	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
		"Wkday/Wkend" Factor-Res:	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%
		Zero-HDD Load/Day Seasonal "Scale-Up":	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Use this Methodology for the 2010-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 41.8 degF)

2/ "Non-temperature" sensitive market segment.

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

4/ Dth/Mcf= 1.0196

2010-CGR Sales + Transport + Exchange for Month of DECEMBER
(units=Mdth/Day)
"1-in-35" Likelihood Cold Day Temperature

No.	"CGR_B"	CLASS	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	RESIDEN		285.7	287.1	288.6	289.9	289.0	289.9	290.9	291.8	292.6	293.4	294.1
2	Com GN3		86.6	86.9	87.3	87.6	87.4	87.7	88.0	88.3	88.7	89.0	89.4
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
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
3	Ind GN3		6.6	6.5	6.4	6.3	6.2	6.1	6.0	5.9	5.8	5.7	5.6
4	NGV 2/		3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3
Total:		MDth/day	382.0	383.5	385.4	386.9	385.7	386.9	388.0	389.2	390.3	391.3	392.4
		MMcf/day 4/	374.6	376.2	378.0	379.5	378.3	379.4	380.6	381.7	382.8	383.8	384.8
		Days per Mo	31	31	31	31	31	31	31	31	31	31	31
		Pk-Day Temp. (deg-F) =	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8	41.8
		Hdd: December--ColdYr =	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3	358.3
		"Wkday/Wkend" Factor-Res:	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%
		Zero-HDD Load/Day Seasonal "Scale-Up":	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Use this Methodology for the 2010-CGR Res and C&I Calculations

Notes:

1/ =("Cold-Dec" / 31 days)+[("Cold-Dec" - "Base-Dec")
/ "Cold-Dec_Hdd"]*(65 degF - 41.8 degF)

2/ "Non-temperature" sensitive market segment.

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

4/ Dth/Mcf= 1.0196

Friday, May 28, 2010 2010-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, Cold-HDD Year

No.	"CGR_CLASS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Residen	5191.2	5048.9	5007.7	5004.5	4999.1	5004.2	5017.6	5029.7	5041.4	5066.5	5091.2
2	Com GN3	2098.2	2018.3	1980.1	1966.9	1946.7	1922.9	1897.6	1871.0	1844.6	1846.3	1851.5
2	GAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	GEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Ind GN3	174.6	162.6	160.4	162.0	161.7	160.2	158.5	156.7	154.8	153.5	152.0
4	NGV	79.4	83.9	84.7	85.5	86.4	87.3	88.1	89.0	89.9	90.8	91.7
		7543	7314	7233	7219	7194	7175	7162	7147	7131	7157	7186
	2010 CGR: Mdth/Hdd	13	13	13	13	13	13	13	13	13	13	13

Friday, May 28, 2010 2010-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, Cold-HDD Year

No.	"CGR_CLASS	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Residen	5116.4	5140.9	5167.8	5190.9	5174.1	5191.4	5208.3	5224.5	5239.4	5253.2	5266.8
2	Com GN3	1859.2	1864.8	1873.0	1880.6	1876.9	1883.2	1889.6	1896.2	1903.0	1910.0	1918.1
2	GAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	GEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Ind GN3	150.2	148.2	146.2	143.9	139.8	137.5	135.3	133.0	130.8	128.8	126.8
4	NGV	92.6	93.6	94.5	95.4	96.4	97.4	98.3	99.3	100.3	101.3	102.3
		7218	7247	7282	7311	7287	7309	7331	7353	7373	7393	7414
	2010 CGR: Mdth/Hdd	13	13	13	13	13	13	13	13	13	13	13

Friday, May 28, 2010 2010-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, "Base/Zero-Hdd" Year

No.	"CGR_CLASS	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
1	Residen	1421.2	1382.3	1371.0	1370.1	1368.6	1370.0	1373.7	1377.0	1380.2	1387.1	1393.8
2	Com GN3	1172.4	1127.8	1106.4	1099.1	1087.8	1074.5	1060.3	1045.5	1030.7	1031.7	1034.6
2	GAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	GEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Ind GN3	111.1	103.5	102.1	103.1	102.9	102.0	100.9	99.8	98.5	97.7	96.7
4	NGV	79.4	83.9	84.7	85.5	86.4	87.3	88.1	89.0	89.9	90.8	91.7
		2784	2697	2664	2658	2646	2634	2623	2611	2599	2607	2617

Friday, May 28, 2010 2010-CGR Sales + Transport + Exchange for Month of DECEMBER (units=mdth)
Temp=December, "Base/Zero-Hdd" Year

No.	"CGR_CLASS	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
1	Residen	1400.7	1407.4	1414.8	1421.1	1416.5	1421.3	1425.9	1430.3	1434.4	1438.2	1441.9
2	Com GN3	1038.9	1042.0	1046.6	1050.8	1048.8	1052.3	1055.9	1059.6	1063.3	1067.3	1071.8
2	GAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	GEN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	Ind GN3	95.6	94.3	93.0	91.6	88.9	87.5	86.0	84.6	83.2	81.9	80.6
4	NGV	92.6	93.6	94.5	95.4	96.4	97.4	98.3	99.3	100.3	101.3	102.3
		2628	2637	2649	2659	2651	2658	2666	2674	2681	2689	2697

2010 CALIFORNIA GAS REPORT

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

JULY 2010

SDGE
A Sempra Energy utility™

Weather for SDG&E: Heating Degree Days – Average and "Cold" Year Designs; and Winter Peak Day Design Temperatures

July 2010

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)	1/3	El Cajon
2. Coastal	1/3	San Diego's Lindberg Field
3. Inland (North)	1/3	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 1990 to December 2009.

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 1990 to 2009 are listed in Table 2, below.

Table 2

Calendar Month Heating Degree-Days (Jan. 1990 through Dec. 2009)

	Month												Total
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	"Cal-Year"
1990	274	301	205	66	54	5	0	0	0	1	106	310	1322
1991	258	148	282	121	96	26	0	0	1	32	108	247	1319
1992	243	118	160	14	1	0	0	0	0	3	114	350	1002
1993	268	226	132	65	16	9	0	0	2	7	123	264	1111
1994	229	233	160	125	92	2	0	0	0	30	289	308	1468
1995	266	117	164	128	107	23	0	0	0	7	44	222	1078
1996	236	189	175	72	18	3	0	0	1	74	142	244	1155
1997	256	250	145	102	2	2	0	0	0	16	95	290	1159
1998	254	258	206	195	94	22	1	0	5	31	172	340	1576
1999	277	267	281	223	113	50	3	0	4	4	146	244	1612
2000	247	217	223	93	28	3	0	0	0	50	238	227	1327
2001	353	299	199	197	29	5	0	0	0	9	127	326	1544
2002	316	225	247	156	89	12	0	0	2	53	81	296	1478
2003	142	202	179	185	94	31	0	0	0	7	158	276	1273
2004	273	270	97	66	14	4	1	0	0	52	202	267	1246
2005	246	199	160	118	33	5	0	0	4	38	95	231	1128
2006	275	204	307	145	32	0	0	0	1	36	89	288	1377
2007	366	225	154	137	62	19	0	0	4	28	111	341	1446
2008	331	277	186	130	89	16	0	0	0	13	58	289	1389
2009	178	248	202	142	29	11	0	0	0	41	124	293	1267
20-Yr-Avg (Jan1990-Dec2009)													
Avg.	**264.5**	**223.7**	**193.1**	**124.0**	**54.6**	**12.4**	**0.3**	**0.0**	**1.2**	**26.6**	**131.1**	**282.6**	**1313.9**
St.Dev.	**52.2**	**52.3**	**53.6**	**52.6**	**38.3**	**12.9**	**0.8**	**0.0**	**1.6**	**20.8**	**58.9**	**39.1**	**173.917**
Min.	**142.0**	**117.0**	**96.7**	**13.7**	**1.3**	**0.0**	**0.0**	**0.0**	**0.0**	**1.3**	**43.7**	**222.3**	**1002.3**
Max.	**366.0**	**300.7**	**307.0**	**223.3**	**113.0**	**49.7**	**3.3**	**0.0**	**4.7**	**74.0**	**289.0**	**349.7**	**1612.0**

II. Average-Temperature Year

The simple average of the 20-year period (January 1990 through December 2009) 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.

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. 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 173.917 HDD from the last 20 years of data, these equations yield values of about 1,666 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 = 1,666 which equals approximately
1,314 average-year HDDs + 2.025 * 173.917

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 1990 to 2009, as shown as the bottom of Table 2, above. For example, the average-year December value of 282.6 HDD equals the simple average of the 20 December HDD figures from 1990 to 2009, and represents 21.5 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 21.5 percent of average-temperature-year HDDs occurred in December, the estimated number of HDDs during December for a cold-year is equal to 1,666 HDDs multiplied by 21.5 percent, or 358.3 HDDs.

Table 3

Calendar Month Heating Degree-Day Designs

	Cold		Average	Hot	
	1-in-35 Design	1-in-10 Design		1-in-10 Design	1-in-35 Design
January	335.4	311.0	264.5	218.0	193.7
February	283.7	263.1	223.7	184.4	163.8
March	244.9	227.1	193.1	159.2	141.4
April	157.2	145.7	124.0	102.2	90.8
May	69.2	64.1	54.6	45.0	39.9
June	15.7	14.6	12.4	10.2	9.1
July	0.3	0.3	0.3	0.2	0.2
August	0.0	0.0	0.0	0.0	0.0
September	1.5	1.4	1.2	0.9	0.8
October	33.7	31.3	26.6	21.9	19.5
November	166.2	154.1	131.1	108.0	96.0
December	358.3	332.3	282.6	232.9	206.9
	1666	1545	1314	1083	962

IV. Calculating the Peak-Day Design Temperature

For the 2010 CGR, the peak day temperature design values developed for the 2009 BCAP were used. These values are 41.8°F and 43.7°F, for "1-in-35" and "1-in-10" likelihood exceedances, respectively. The subsequent discussion is reproduced from our 2009 BCAP work papers.

SDGandE's Peak-Day design temperature of 41.8 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 2006, 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 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:

$$(2)\quad MinAVG_y = \min_{d=1}^{n(y)}\{ AVG_{y,d} \},\ \text{for } y=1972, 1973, \ldots, 2006.$$

(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 1991 was observed in March).

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:

$$- \text{MinAVG}_y = - \min_{d=1}^{n(y)}\{\text{AVG}_{y,d}\} = \max_{d=1}^{n(y)}\{ -\text{AVG}_{y,d}\}, \text{ for y=1972, …, 2006;}$$

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 "$-\text{MinAVG}_y$" (which is a *maximum* over a set of *negative* temperatures) with values of the variable MinAVG_y that are the same as shown in Table 4.

In Table 5, the data for $-\text{MinAVG}_y$ 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:

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

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 GEV model were selected since the fit to the ECDF was better than that of either the EV1 model or the T_Dist model. (Convergence to stable parameter estimates was occasionally a problem with fitting a GEV model to the ECDF; however, convergence was obtained in this case.)

The following mathematical expression specifies the GEV model we fit to the data for "$-\text{MinAVG}_y$ " shown in Table 5.

(3) $$\text{ECDF}(-\text{MinAVG}_y) = \text{Prob}\{ -T < -\text{MinAVG}_y \} = \exp[-((1- k \bullet z)\,(1/k))],$$

where “exp[.]” is the exponential function, and

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

the parameters “k”, “γ” and “θ” are estimated for the GEV model. The estimated values for k, 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) $\delta = Prob\{ T \leq TPDD_\delta \}$, which is equivalent to

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

where $z_\delta = [(-TPDD_\delta - \gamma) / \theta]$. In terms of our probability model,

(7) $\delta = 1 - exp[-((1- k \bullet z_\delta) (1/k))]$, or $(1- \delta) = exp[-((1- k \bullet z_\delta) (1/k))]$,

which yields the following equation for z_δ,

(7’) $z_\delta = \{1 - [(-\ln(1- \delta))^{(k)} \} (1/k)$, where “ln[.]” is the natural

logarithm function. 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 equation (7’) above with $(1-\delta) = (1 - 1/35) = 1 - 0.0286$,

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

The value of $z_\delta = 2.676$ and $TPDD_\delta = - [\gamma + (z_\delta \cdot \theta)] = 41.8$ degrees Fahrenheit, with values for “k”, “γ” and “θ” in Table 5, below.

SDG&E’s Peak-Day design temperature of 43.7 degrees Fahrenheit, is calculated in a methodologically similar way as for the 41.8 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 equation (7’) above with $(1-\delta) = (1 - 1/10) = 1 - 0.1000$,

which yields a “z_δ” value of $z_\delta = 1.877$ and, $TPDD_\delta = - [\gamma + (z_\delta \cdot \theta)] = 43.7$, with values for “k”, “γ” and “θ” in Table 5, below.

A plot of the cumulative distribution function for $MinAVG_y$ based on the fitted model parameters “k”, “γ” and “θ” in Table 5, below, is shown in Figure 1.

Table 4

YEAR	MINAVG	Month(MinAvg)
1972	46.5833	Dec
1973	46.0833	Jan
1974	44.0000	Dec
1975	44.0833	Jan
1976	44.9167	Jan
1977	50.5833	Mar
1978	42.5833	Dec
1979	45.0000	Jan
1980	53.6667	Jan
1981	49.6667	Jan
1982	48.6667	Dec
1983	51.3333	Jan
1984	48.3333	Dec
1985	46.0000	Dec
1986	50.0000	Feb
1987	41.3333	Dec
1988	45.3333	Dec
1989	45.0000	Jan
1990	43.6667	Feb
1991	48.6667	Mar
1992	47.0000	Dec
1993	46.6667	Jan
1994	48.0000	Nov
1995	51.0000	Dec
1996	48.6667	Feb
1997	49.0000	Dec
1998	46.6667	Dec
1999	48.6667	Jan
2000	50.3333	Jan
2001	47.6667	Jan
2002	45.6667	Jan
2003	49.0000	Dec
2004	47.6667	Nov
2005	47.6667	Jan
2006	48.3333	Dec

Table 5

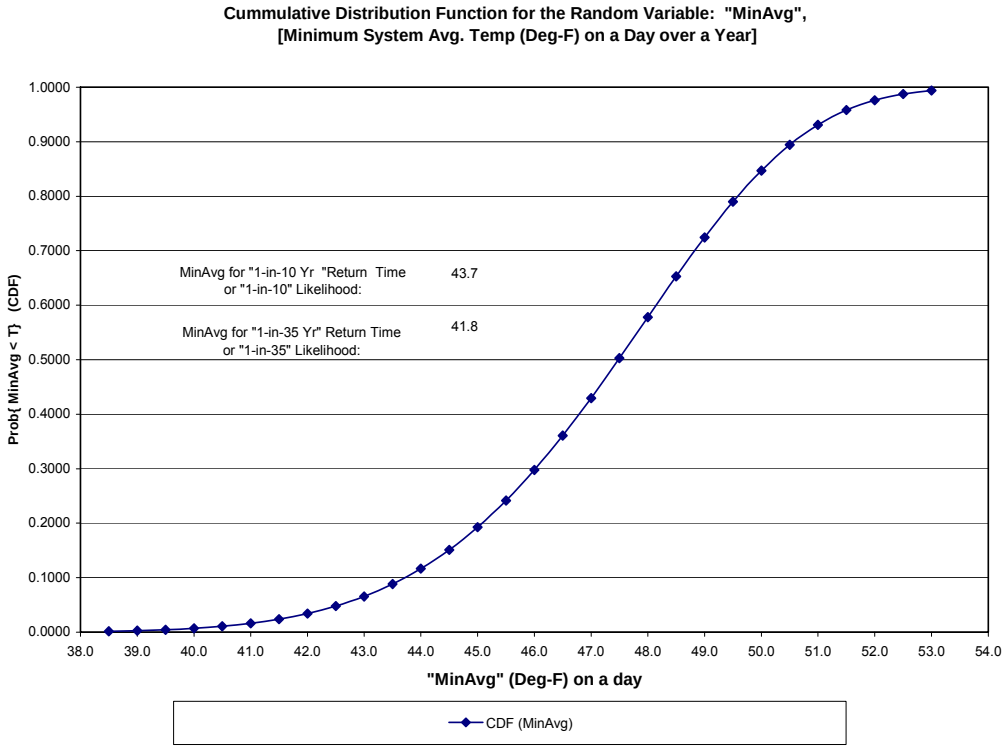
alpha= 0.375

YEAR	Month (-MinAvg)	Days/Yr	-MinAvg	"Rank"	Empirical CDF	"Fitted" Model CDF
1980	Jan	366	-53.6667	1	0.01773	0.00188
1983	Jan	365	-51.3333	2	0.04610	0.05003
1995	Dec	365	-51.0000	3	0.07447	0.06900
1977	Mar	365	-50.5833	4	0.10284	0.09897
2000	Jan	366	-50.3333	5	0.13121	0.12043
1986	Feb	365	-50.0000	6	0.15957	0.15309
1981	Jan	365	-49.6667	7	0.18794	0.19016
1997	Dec	365	-49.0000	8	0.21631	0.27570
2003	Dec	365	-49.0000	9	0.24468	0.27570
1982	Dec	365	-48.6667	10	0.27305	0.32287
1991	Mar	365	-48.6667	11	0.30142	0.32287
1996	Feb	366	-48.6667	12	0.32979	0.32287
1999	Jan	365	-48.6667	13	0.35816	0.32287
1984	Dec	366	-48.3333	14	0.38652	0.37193
2006	Dec	365	-48.3333	15	0.41489	0.37193
1994	Nov	365	-48.0000	16	0.44326	0.42204
2001	Jan	365	-47.6667	17	0.47163	0.47236
2004	Nov	366	-47.6667	18	0.50000	0.47236
2005	Jan	365	-47.6667	19	0.52837	0.47236
1992	Dec	366	-47.0000	20	0.55674	0.57051
1993	Jan	365	-46.6667	21	0.58511	0.61702
1998	Dec	365	-46.6667	22	0.61348	0.61702
1972	Dec	366	-46.5833	23	0.64184	0.62829
1973	Jan	365	-46.0833	24	0.67021	0.69237
1985	Dec	365	-46.0000	25	0.69858	0.70242
2002	Jan	365	-45.6667	26	0.72695	0.74066
1988	Dec	366	-45.3333	27	0.75532	0.77569
1979	Jan	365	-45.0000	28	0.78369	0.80744
1989	Jan	365	-45.0000	29	0.81206	0.80744
1976	Jan	366	-44.9167	30	0.84043	0.81487
1975	Jan	365	-44.0833	31	0.86879	0.87831
1974	Dec	365	-44.0000	32	0.89716	0.88362
1990	Feb	365	-43.6667	33	0.92553	0.90312
1978	Dec	365	-42.5833	34	0.95390	0.94959
1987	Dec	365	-41.3333	35	0.98227	0.97900

Mean{-MinAvg}=	-47.3571
St.Dev{-MinAvg}=	2.6523

"Gamma": "Data Analysis Fitted Est."=	**-48.36**
"Theta": "Data Analysis Fitted Est."=	**2.47**
"Kappa": "Data Analysis Fitted Est."=	**0.17**

Figure 1


Cummulative Distribution Function for the Random Variable: "MinAvg",
[Minimum System Avg. Temp (Deg-F) on a Day over a Year]
MinAvg for "1-in-10 Yr "Return Time or "1-in-10" Likelihood:
43.7
MinAvg for "1-in-35 Yr" Return Time or "1-in-35" Likelihood:
41.8
Prob{ MinAvg < T} (CDF)
1.0000
0.9000
0.8000
0.7000
0.6000
0.5000
0.4000
0.3000
0.2000
0.1000
0.0000
38.0
39.0
40.0
41.0
42.0
43.0
44.0
45.0
46.0
47.0
48.0
49.0
50.0
51.0
52.0
53.0
54.0
"MinAvg" (Deg-F) on a day
CDF (MinAvg)

V. Estimating the Uncertainty in the Peak-Day Design Temperature

The calculated peak-day design temperatures in section IV above also have a statistical uncertainty associated with them. The estimated measures of uncertainty recommended for our use are calculated from the fitted model for the probability distribution and are believed to be reasonable, although rough, approximations.

The basic approach used the estimated parameters for the probability distribution (see the results provided in Table 5, above) to calculate the fitted temperatures as a function of the empirical CDF listed in Table 5. These fitted temperatures are then "compared" with the observed temperatures by calculating the difference = "observed" – "fitted" values. The full set of differences are then separated into the lower third (L), the middle third (M) and the upper third (U) of the distribution. Finally, calculate values of the root-mean-square error (RMSE) of the differences in each third of the distribution, along with the entire set of differences overall. The data in Table 6, below, show the temperature data and the resulting RMSE values.

The formula below is used to calculate the RMSE for a specified set of "N" data differences:

$$\text{RMSE} = \text{SQRT}\left\{ \left(\sum_{i=1,\ldots,N} e[\,i\,]^{2} \right) / (N-3) \right\},$$

where e[i] = *observed* less *fitted* value of temperature, T[i]. The number of estimated paramters (3 for the GEV model) is subtracted from the respective number of data differences, N, in the denominator of the RMSE expression.

Since both the "1-in-35" and "1-in-10" peak-day temperature values are in the lower third quantile of the fitted distribution, the calculated standard error for these estimates is 0.3 Deg-F.

Table 6

Quantile: (Lower, Middle, Upper 3rd's)	Observed "T[i]" Temp. Ranked	"Fitted Value" of "T[i]"	Residual "e[i]": Obs'd. less Fitted Value of "T[i]"	Square of "e[i]":
U	53.6667	52.2373	1.4294	2.0431
U	51.3333	51.4135	-0.0802	0.0064
U	51.0000	50.9160	0.0840	0.0071
U	50.5833	50.5360	0.0474	0.0022
U	50.3333	50.2181	0.1152	0.0133
U	50.0000	49.9388	0.0612	0.0037
U	49.6667	49.6856	-0.0189	0.0004
U	49.0000	49.4509	-0.4509	0.2033
U	49.0000	49.2299	-0.2299	0.0529
U	48.6667	49.0192	-0.3526	0.1243
U	48.6667	48.8162	-0.1496	0.0224
U	48.6667	48.6190	0.0477	0.0023
M	48.6667	48.4260	0.2407	0.0579
M	48.3333	48.2358	0.0975	0.0095
M	48.3333	48.0473	0.2860	0.0818
M	48.0000	47.8596	0.1404	0.0197
M	47.6667	47.6715	-0.0048	0.0000
M	47.6667	47.4822	0.1845	0.0340
M	47.6667	47.2907	0.3760	0.1414
M	47.0000	47.0960	-0.0960	0.0092
M	46.6667	46.8970	-0.2304	0.0531
M	46.6667	46.6927	-0.0260	0.0007
M	46.5833	46.4815	0.1019	0.0104
L	46.0833	46.2619	-0.1786	0.0319
L	46.0000	46.0320	-0.0320	0.0010
L	45.6667	45.7894	-0.1227	0.0151
L	45.3333	45.5309	-0.1976	0.0390
L	45.0000	45.2525	-0.2525	0.0638
L	45.0000	44.9485	0.0515	0.0027
L	44.9167	44.6106	0.3061	0.0937
L	44.0833	44.2261	-0.1428	0.0204
L	44.0000	43.7736	0.2264	0.0513
L	43.6667	43.2123	0.4544	0.2065
L	42.5833	42.4461	0.1373	0.0188
L	41.3333	41.1143	0.2190	0.0480

Overall RMSE ($e_{[\,i\,]}$):	0.3 °F
Lower 3rd RMSE ($e_{[\,i\,]}$):	0.3 °F
Middle 3rd RMSE ($e_{[\,i\,]}$):	0.2 °F
Upper 3rd RMSE ($e_{[\,i\,]}$):	0.5 °F

VI. The Relationship between Annual Likelihoods for Peak-Day Temperatures and "Expected Return Time"

The event whose probability distribution we've modeled is the likelihood that the minimum daily temperature over a calendar year is less than a specified value. And, in particular, we've used this probability model to infer the value of a temperature, our *peak-day design temperature* ($TPDD_{\delta}$), that corresponds to a pre-defined likelihood, δ, that the observed minimum temperature is less than or equal to this design temperature.

(1) δ = Prob{ Minimum Daily Temperature over the Year < $TPDD_{\delta}$ }.

For some applications, it is useful to think of how this specified likelihood (or "risk level" δ) relates to the expected number of years until this Peak-Day event would first occur. This expected number of years is what is meant by the *return period*. The results stated below are found in the book: ***Statistics of Extremes***, E.J. Gumbel, Columbia University Press, 1958, on pages 21-25.

(2) E[#Yrs for Peak-Day Event to Occur] = 1 / δ,

1 / Prob{ Minimum Daily Temperature over the Year < $TPDD_{\delta}$ }.

For our peak-day design temperature (41.8°F) associated with a 1-in-35 annual likelihood, the return period is 35 years (δ=1/35). For the 43.7°F peak-day design temperature, the return period is 10 years (δ=1/10). Occasionally, a less precise terminology is used. For example, the 41.8°F peak-day design temperature may be referred to as a "1-in-35 year cold day"; and the 43.7°F peak-day design temperature may be referred to as a "1-in-10 year cold day."

The probability model for the *return period*, as a random variable, is a geometric (discrete) distribution with positive integer values for the *return period*. The parameter δ = Prob{ Minimum Daily Temperature over the Year < $TPDD_{\delta}$ }.

(3) Prob{ *return period* = r } = $(1 - \delta)^{(r-1)}\ \delta$, for r = 1, 2, 3, . . .

The expected value of the *return period* is already given in (2) above; the variance of the *return period* is:

(4) Var[*return period*] = $\left(E[\text{ return period }]\right)^2 \times \left(1 - (1 / E[\text{ return period }])\right)$,

(4') Var[*return period*] = $\left(E[\text{ return period }]\right) \times \left(E[\text{ return period }] - 1\right)$.

Equations (4) and (4') indicate that the standard deviation (square root of the variance) of the *return period* is nearly equal to its expected value. Thus, there is substantial variability about the expected value—a *return period* is not very precise.

VII. Calculation of Likelihoods for Peak-Day Temperature Events Over a Specified Number of Years

With a specified annual likelihood (i.e., a level of risk) for a peak-day temperature event, several forward-looking questions can be posed:

1). What is the probability that we observe *no* peak-day event over the next N years?

2). What is the probability that we observe *at least one* specified peak-day event over the next N years?"

3). What is the probability that we observe exactly one peak-day event over the next N years?

4). What is the underlying peak-day temperature associated with the annual likelihood computed from setting the probability in question 3 above to a specified value?

To calculate the probabilities to answer questions 1-3, we use a binomial probability model:

(1) $BiNomial(s, N, \delta) = \{ N! / [(s!) (N-s)!]\} [\delta]^{(s)} [1 - \delta]^{(N-s)}$, where

N = # of years, s = # of peak-day events and δ = Annual Likelihood of a peak-day event.; the notation "N!" means the product "N(N-1)(N-2) ... (2)(1)" in the formula.

The binomial probability model is the one that applies here since for a specified number of years in the future, N, and a specified annual likelihood, δ, for the peak-day event, there are typically a number of ways that a specified number of annual peak-day events can occur out of the total, N, regardless of the order in which the outcomes might occur.

For δ=0.1, N=10 years the answer to question 1) is calculated from:

(2) Prob{ *No* peak-day event over 10 years } = BiNomial(0, 10, 0.1) = 0.3487

The answer to question 2) is simply:

(3) Prob{ *At Least* One peak-day event over 10 years } =

1 - Prob{ No peak-day event over 10 years } = 1 – 0.3487 = 0.6513

The answer to question 3) is calculated from:

(4) Prob{ *Exactly One* peak-day event over 10 years } = BiNomial(1, 10, 0.1)

(4') Prob{ *Exactly One* peak-day event over 10 years } = 0.3874

Finally, to find an answer to question 4) where there's a 1/10 chance that only one peak-day event occurs over a ten-year period, we solve for δ in the equation:

(5) 0.1000 = BiNomial(1, 10, δ).

A numerical solution to this equation yields δ = 0.0011, approximately, for the annual likelihood of a peak-day event. Our estimation results of Section IV, above, allow us to calculate the peak-day design temperature for this value of δ. The resulting calculations yield $TPDD_{\delta}$ = 40.5°F. A similar set of calculations for the case where we want to find the annual likelihood of a peak-day where only one peak-day event occurs over a thirty-five year period with a chance of 1/35=0.0286. The resulting value of δ = 0.000841 with $TPDD_{\delta}$ = 38.1°F for this value of δ.

VIII. Attachment 1: SAS Program Execution Log

```
NOTE: Copyright (c) 1989-1996 by SAS Institute Inc., Cary, NC, USA.
NOTE: SAS (r) Proprietary Software Release 6.12  TS020
      Licensed to SAN DIEGO GAS & ELECTRIC CO, Site 0009311007.



1    Title1 "Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded)." ;
2    Title2 "Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods." ;
3
4    /*************************************************************************************************************/
5    /*                                                                                                           */
6    /*                                                                                                           */
7    /*                                                                                                           */
8    /* FILE SAVED: "S:\Weather\2009Bcap\SDGandE\GEV4DlyTemp(NLReg2)_Sdge4WP.sas"                                 */
9    /*                                                                                                           */
10   /*             Sep. 19th,2007 for Annual Max of Negative of Min. Temp.                                       */
11   /*             Also, separately for and each of twelve(12) calendar months Jan-Dec.                          */
12   /*             Fit GEV models (3-parameter and 2-parameter), plus a simple T-Dist. model.                    */
13   /*                                                                                                           */
14   /*************************************************************************************************************/
15
16
17
18
19
20
21   options mprint ;
22   /* %cour8p */
23      %cour8l
MPRINT(COUR8L):   DM 'dlgprtsetup orient=landscape nodisplay';
MPRINT(COUR8L):   OPTIONS LS=158 PS=72;
24
25
26    options ls=211 ps=69 ; **<<LANDSCAPE:  SAS-Monospace w/Roman 6pt. Font >>**;
27   *options ls=160 ps=90 ; **<<PORTRAIT:   SAS-Monospace w/Roman 6pt. Font >>**;
28
29   options date number notes ;
30
31
32
33   libname out2 'S:\Weather\2009Bcap\SDGandE\' ;
NOTE: Libref OUT2 was successfully assigned as follows:
      Engine:        V612
      Physical Name: S:\Weather\2009Bcap\SDGandE
34
35
36   proc contents data=out2.SAvgSDGE ;
37   run ;

NOTE: The PROCEDURE CONTENTS used 0.12 seconds.


38
39   data seriesD ;
40     set out2.SAvgSDGE ;
41     year = year(date) ;
42     month = month(date) ;
43     posAvg = avg ;
44     negAvg = -avg ;
45   run ;

NOTE: The data set WORK.SERIESD has 12996 observations and 10 variables.
NOTE: The DATA statement used 0.42 seconds.


46
47
48   proc means data=seriesD noprint nway ;
49    class year month ;
50     var posAvg negAvg ;
51    output out=mostat
52                     mean=posAvg  negAvg
53                      max=MxPosAvg MxNegAvg
54                      min=MnPosAvg MnNegAvg    ;
55   run;

NOTE: The data set WORK.MOSTAT has 427 observations and 10 variables.
```

```
NOTE: The PROCEDURE MEANS used 0.11 seconds.


56
57
58   proc sort data=mostat ;
59      by year month ;
60   run ;

NOTE: The data set WORK.MOSTAT has 427 observations and 10 variables.
NOTE: The PROCEDURE SORT used 0.14 seconds.


61
62
63   data mostat ;
64      set mostat ;
65      MxPRatio = MxPosAvg/ PosAvg  ;
66      MnPRatio = MnPosAvg/ PosAvg  ;
67      MxNRatio = MxNegAvg/ NegAvg  ;
68      MnNRatio = MnNegAvg/ NegAvg  ;
69   run ;

NOTE: The data set WORK.MOSTAT has 427 observations and 14 variables.
NOTE: The DATA statement used 0.15 seconds.


70
71
72
73
74
75
76
77   /****************
78   ***<< Print Summary Tables of Means/Minimums/Maximums of daily NEGATIVE-Temperatures (degrees-F). >>*** ;
79
80   proc transpose data=mostat out=AvTData prefix=AvT_ ;
81      where (year < 2007) ;
82      by year;
83      id month ;
84      var NegAvg  ;
85   run ;
86
87   data AvTData ;
88      set AvTData ;
89
90    if (mod(year,4)=0) then do ;
91           AvTyr = (AvT_1 + AvT_3 + AvT_5 + AvT_7 + AvT_8 + AvT_10 + AvT_12)*31
92                  + (AvT_4 + AvT_6 + AvT_9 + AvT_11)*30
93                  + (AvT_2)*29 ;
94           AvTyr = AvTyr / 366 ;
95           end ;
96    else do ;
97           AvTyr = (AvT_1 + AvT_3 + AvT_5 + AvT_7 + AvT_8 + AvT_10 + AvT_12)*31
98                  + (AvT_4 + AvT_6 + AvT_9 + AvT_11)*30
99                  + (AvT_2)*28 ;
100          AvTyr = AvTyr / 365 ;
101          end ;
102
103  run ;
104
105  proc print data=AvTData ;
106   id year ;
107   var AvTyr AvT_1-AvT_12 ;
108  title3 'Monthly Mean NEGATIVE Temperature (Deg-F) from 1972 thru 2006.';
109  run ;
110
111
112
113
114
115  proc transpose data=mostat out=MnTData prefix=MnT_ ;
116     where (year < 2007) ;
117     by year;
118     id month ;
119     var MnNegAvg ;
```

```
120  run ;
121
122  data MnTData ;
123     set MnTData ;
124   MnTyr = min(of MnT_1-MnT_12) ;
125  run ;
126
127  proc print data=MnTData ;
128   id year ;
129   var MnTyr MnT_1-MnT_12 ;
130  title3 'Monthly MINIMUM NEGATIVE-Temperature (Deg-F) from 1972 thru 2006.';
131  run ;
132  ****************/
133
134
135
136
137
138  proc transpose data=mostat out=MxTData prefix=MxT_ ;
139     where (year < 2007) ;
140     by year;
141     id month ;
142     var MxNegAvg ;
143  run ;

NOTE: The data set WORK.MXTDATA has 35 observations and 14 variables.
NOTE: The PROCEDURE TRANSPOSE used 0.1 seconds.


144
145  data MxTData ;
146     set MxTData ;
147   MxTyr = max(of MxT_1-MxT_12) ;
148  run ;

NOTE: The data set WORK.MXTDATA has 35 observations and 15 variables.
NOTE: The DATA statement used 0.12 seconds.


149
150  proc print data=MxTData ;
151   id year ;
152   var MxTyr MxT_1-MxT_12 ;
153  title3 'Monthly MAXIMUM NEGATIVE-Temperature (Deg-F) from 1972 thru 2006.';
154  run ;

NOTE: The PROCEDURE PRINT used 0.01 seconds.


155
156
157
158
159
160
161
162
163
164
165  /****************
166  ***<< Descriptive Statistics: Maximums of daily NEGATIVE-Temperatures (Deg-F) for Year and each calendar month.
>>*** ;
167
168
169  proc corr data=MxTData ;
170    var MxTyr MxT_1 - MxT_12 ;
171  title3 'Correlation Matrix of Monthly Maximum NEGATIVE-Temperatures (Deg-F) within same year.';
172  run ;
173
174  proc arima data=MxTData ;
175    identify var=MxTyr ;
176    identify var=MxT_1 ;
177    identify var=MxT_2 ;
178    identify var=MxT_3 ;
179    identify var=MxT_4 ;
180    identify var=MxT_5 ;
181    identify var=MxT_6 ;
```

```
182    identify var=MxT_7 ;
183    identify var=MxT_8 ;
184    identify var=MxT_9 ;
185    identify var=MxT_10 ;
186    identify var=MxT_11 ;
187    identify var=MxT_12 ;
188  title3 "Auto-correlation analysis of each calendar month's Maximum NEGATIVE-Temperatures (Deg-F) within same
year.";
189  run ;
190
191  proc univariate normal data=MxTData plot ;
192    id year ;
193    var MxTyr MxT_1 - MxT_12 ;
194  title3 "Probability plots and tests for NORMALity by each calendar month's Maximun NEGATIVE-Temperatures (Deg-F)
time series.";
195  run ;
196
197
198  proc means data=MxTData ;
199    var MxT_1 - MxT_12  MxTYr ;
200  run ;
201  ***************/
202
203
204
205
206
207
208
209
210  ***<< Statistical Estimation of GEV Models: Maximums of daily heating degrees for Year and each calendar month.
>>*** ;
211
212  %macro RankIt(file=MxTData,var=MxTYr,rank=RankYr,prob=PrMxTYr,Nobser=35,PltValue=0.375) ;
213  proc sort data=&file ;
214    by &var ;
215  run ;
216
217  data &file ;
218     set &file ;
219     retain &rank 0     alpha &pltvalue ;
220
221    &rank = &rank + 1 ;
222    &prob =  (&rank - alpha) / (&Nobser +(1 - 2*alpha)) ;
223  run ;
224
225  proc print data=&file ;
226    var &var &rank &prob alpha year ;
227  run ;
228  %mend RankIt ;
229
230
231
232
233  %macro GEVfit(file=MxTData,ofile=MxTNL1,outfit=fit1,outest=est1,depvar=PrMxTYr,var=MxTYr,typeGEV=1,
234                KappaI=0.25,GammaI=-47.05,ThetaI=2.77,YrLo=1972,YrHi=2006) ;
235  proc sort data=&file ;
236     by year ;
237  run ;
238
239
240
241  proc model data=&file converge=0.001
242             maxit=500 dw ;  outmodel=&ofile ;
243       range year = &YrLo to &YrHi ;  **<< Dropped Jan-Jul 2007 data. >>** ;
244
245
246       y = (&var - Gamma) / Theta ;
247
248      %if &typeGEV=1 %then %do ;  ***<< 3-parameter GEV Model. >>>*** ;
249          &depvar = exp( -(1 - Kappa * (y))**(1/Kappa) ) ;
250          %let typmod = 3-parameter GEV Model. ;
251          %end ;
252
253      %if &typeGEV=2 %then %do ;  **<< 2-parameter "Double Exponential" or  "Gumbel" Model. >>** ;
254          &depvar = exp( -exp(-(y)) ) ;
255          %let typmod = 2-parameter Double Exponential or Gumbel Model. ;
```

```
256          %end ;
257
258      %if (&typeGEV NE 1) AND (&typeGEV NE 2) %then  %do ; **<< 2-parameter "T-Dist" Model. >>** ;
259          dft=(&YrHi - &YrLo) +1 -2 ;
260          &depvar = probt(y,dft) ;
261          %let typmod = 2-parameter T-Dist Model. ;
262          %end ;
263
264
265    %if &typeGEV = 1 %then %do ;
266    parms
267          Kappa  &KappaI
268          Gamma  &GammaI
269          Theta  &ThetaI ;
270    %end ;
271
272    %if (&typeGEV NE 1)  %then %do ;
273    parms
274          Gamma  &GammaI
275          Theta  &ThetaI ;
276    %end ;
277
278
279    fit &depvar   /out=&outfit  outall
280                   outest=&outest corrb corrs outcov ;
281
282  title3 "Non-linear Estimation of &&typmod: for Maximum NEGATIVE Temperature (Deg-F)." ;
283  run ;
284  %mend GEVfit ;
285
286
287
288
289
290
291
292  /****************
293  ****************/
294
295  proc means data=MxTData ;
296    var MxT_1 - MxT_12  MxTYr ;
297   output out=VarStat
298          mean=mean1-mean12 meanYr
299          std=stdev1-stdev12 stdevYr;
300  title3 "Calc. Means and Standard Deviantions to use as Starting Values in Non-Linear Estimations." ;
301  run ;

NOTE: The data set WORK.VARSTAT has 1 observations and 28 variables.
NOTE: The PROCEDURE MEANS used 0.07 seconds.


302
303
304  proc print data=VarStat ;
305  run ;

NOTE: The PROCEDURE PRINT used 0.14 seconds.


306
307
308  data _null_ ;
309     set VarStat ;
310
311    call symput('gamma_Yr',meanYr) ;
312    call symput('theta_Yr',stdevYr) ;
313
314    call symput('gamma_12',mean12) ;
315    call symput('theta_12',stdev12) ;
316
317    call symput('gamma_11',mean11) ;
318    call symput('theta_11',stdev11) ;
319
320    call symput('gamma_10',mean10) ;
321    call symput('theta_10',stdev10) ;
322
323    call symput('gamma_9',mean9) ;
```

```
324    call symput('theta_9',stdev9) ;
325
326    call symput('gamma_8',mean8) ;
327    call symput('theta_8',stdev8) ;
328
329    call symput('gamma_7',mean7) ;
330    call symput('theta_7',stdev7) ;
331
332    call symput('gamma_6',mean6) ;
333    call symput('theta_6',stdev6) ;
334
335    call symput('gamma_5',mean5) ;
336    call symput('theta_5',stdev5) ;
337
338    call symput('gamma_4',mean4) ;
339    call symput('theta_4',stdev4) ;
340
341    call symput('gamma_3',mean3) ;
342    call symput('theta_3',stdev3) ;
343
344    call symput('gamma_2',mean2) ;
345    call symput('theta_2',stdev2) ;
346
347    call symput('gamma_1',mean1) ;
348    call symput('theta_1',stdev1) ;
349
350  run ;

NOTE: Numeric values have been converted to character values at the places given by: (Line):(Column).
      311:26   312:26   314:26   315:26   317:26   318:26   320:26   321:26   323:25   324:25   326:25   327:25
329:25   330:25   332:25   333:25   335:25   336:25   338:25   339:25   341:25   342:25
      344:25   345:25   347:25   348:25
NOTE: The DATA statement used 0.06 seconds.


351
352
353
354
355
356
357  *********<<< Analysis for "Annual" Data  (i.e., SUFIX "mm" = "_Yr"  >>>******************;
358
359
360
361
362
363  %RankIt(file=MxTData,var=MxTYr,rank=RankYr,prob=PrMxTYr,Nobser=35,PltValue=0.375) ;
MPRINT(RANKIT):   PROC SORT DATA=MXTDATA ;
MPRINT(RANKIT):   BY MXTYR ;
MPRINT(RANKIT):   RUN ;

NOTE: The data set WORK.MXTDATA has 35 observations and 15 variables.
NOTE: The PROCEDURE SORT used 0.17 seconds.


MPRINT(RANKIT):   DATA MXTDATA ;
MPRINT(RANKIT):   SET MXTDATA ;
MPRINT(RANKIT):   RETAIN RANKYR 0 ALPHA 0.375 ;
MPRINT(RANKIT):   RANKYR = RANKYR + 1 ;
MPRINT(RANKIT):   PRMXTYR = (RANKYR - ALPHA) / (35 +(1 - 2*ALPHA)) ;
MPRINT(RANKIT):   RUN ;

NOTE: The data set WORK.MXTDATA has 35 observations and 18 variables.
NOTE: The DATA statement used 0.18 seconds.


MPRINT(RANKIT):   PROC PRINT DATA=MXTDATA ;
MPRINT(RANKIT):   VAR MXTYR RANKYR PRMXTYR ALPHA YEAR ;
MPRINT(RANKIT):   RUN ;

NOTE: The PROCEDURE PRINT used 0.0 seconds.


364
365
366
```

```
367
368
369
370
371
372
373  %GEVfit(file=MxTData,ofile=MxTNL1,outfit=fit1,outest=est1,depvar=PrMxTYr,var=MxTYr,typeGEV=1,
374          KappaI=0.25,GammaI=&gamma_Yr,ThetaI=&theta_Yr,YrLo=1972,YrHi=2006) ;
MPRINT(GEVFIT):   PROC SORT DATA=MXTDATA ;
MPRINT(GEVFIT):   BY YEAR ;
MPRINT(GEVFIT):   RUN ;

NOTE: The data set WORK.MXTDATA has 35 observations and 18 variables.
NOTE: The PROCEDURE SORT used 0.14 seconds.


MPRINT(GEVFIT):   PROC MODEL DATA=MXTDATA CONVERGE=0.001 MAXIT=500 DW ;
MPRINT(GEVFIT):   OUTMODEL%MXTNL1 ;
MPRINT(GEVFIT):   RANGE YEAR = 1972 TO 2006 ;
MPRINT(GEVFIT):   **<< DROPPED JAN-JUL 2007 DATA. >>** ;
MPRINT(GEVFIT):   Y % (MXTYR - GAMMA) / THETA ;
MPRINT(GEVFIT):   ***<< 3-PARAMETER GEV MODEL. >>>*** ;
MPRINT(GEVFIT):   PRMXTYR % EXP( -(1 - KAPPA * (Y))**(1/KAPPA) ) ;
MPRINT(GEVFIT):   PARMS KAPPA 0.25 GAMMA -47.35714286 THETA 2.6523490813 ;

MPRINT(GEVFIT):   FIT PRMXTYR /OUT=FIT1 OUTALL OUTEST=EST1 CORRB CORRS OUTCOV ;
MPRINT(GEVFIT):   TITLE3 "Non-linear Estimation of 3-parameter GEV Model.: for Maximum NEGATIVE Temperature (Deg-F)." ;
MPRINT(GEVFIT):   RUN ;

NOTE: At OLS Iteration 3 CONVERGE=0.001 Criteria Met.
NOTE: The data set WORK.FIT1 has 105 observations and 6 variables.
NOTE: The data set WORK.EST1 has 4 observations and 6 variables.
375
376

NOTE: The PROCEDURE MODEL used 0.15 seconds.


377  proc print data=fit1 ;
378  run ;

NOTE: The PROCEDURE PRINT used 0.0 seconds.


379
380
381
382  proc transpose data=fit1 out=pred1 prefix=probP ;
383     where (_type_ = "PREDICT" ) ;
384     by year;
385     var prmxtyr ;
386  run ;

NOTE: The data set WORK.PRED1 has 35 observations and 3 variables.
NOTE: The PROCEDURE TRANSPOSE used 0.06 seconds.


387
388  data comb1 ;
389     merge MxTData pred1 ;
390    by year ;
391     ProbP = ProbP1 ;
392    keep year MxTYr PrMxTYr ProbP ;
393  run ;

NOTE: The data set WORK.COMB1 has 35 observations and 4 variables.
NOTE: The DATA statement used 0.12 seconds.


394
395
396  proc print data=comb1 ;
397  run ;

NOTE: The PROCEDURE PRINT used 0.0 seconds.
```

```
398
399
400  proc plot data=comb1 ;
401    plot prmxtyr*MxTYr='*'
402         ProbP*MxTYr='-' / overlay ;
403  run ;

404
405
406

NOTE: The PROCEDURE PLOT used 0.01 seconds.


407  proc print data=est1 ;
408  run ;

NOTE: The PROCEDURE PRINT used 0.0 seconds.


409
410
411  /*****************
412  data out2.est1_Yr ;   ***<<< Save a copy of the "G.E.V. Model" estimation results!  >>>*** ;
413    set est1 ;
414  run ;
415  *****************/
416
417
418
419
420
421
422
423
424
425
426
427
428  data comb  ;
429     merge MxTData pred1 ;
430    by year ;
431
432   ***<< "Log(PrMxTYr) - Log(ProgP)" to calc. RMSE of Proportional Errors Models! >>** ;
433     LgPrRat1 = Log(PrMxTYr/ProbP1) ;
434
435   label   LgPrRat1 = "Log(PrMxTYr/ProbP1)- GEV" ;
436
437     if (PrMxTYr <= (1/3)) then Quantile=1 ;  **<< "Lower Third" >>** ;
438     if (PrMxTYr > (1/3)) AND (PrMxTYr <= (2/3)) then Quantile=2 ; **<< "Middle Third" >>** ;
439     if (PrMxTYr > (2/3)) then Quantile=3 ;  **<< "Upper Third" >>** ;
440
441    keep year MxTYr Quantile PrMxTYr ProbP1 LgPrRat1 ;
442  run ;

NOTE: The data set WORK.COMB has 35 observations and 6 variables.
NOTE: The DATA statement used 0.17 seconds.


443
444
445  proc print data=comb  ;
446    var year MxTYr Quantile  PrMxTYr ProbP1  LgPrRat1 ;
447  title3 "Est'd CDFs and Logarithms of 'Empirical CDF rel. to Fitted CDF' values by Models." ;
448  run ;

NOTE: The PROCEDURE PRINT used 0.0 seconds.


449
450
451
452  proc means data=comb  n mean std min max var uss ;
453    var LgPrRat1 ;
454  title3 "Stats for Logarithms of 'Empirical CDF rel. to Fitted CDF' values by Models to calc. RMSE of Prop. Model
Spec" ;
455  run ;
```

```
NOTE: The PROCEDURE MEANS used 0.0 seconds.


456
457
458  proc sort data=comb ;
459    by Quantile ;
460  run ;

NOTE: The data set WORK.COMB has 35 observations and 6 variables.
NOTE: The PROCEDURE SORT used 0.1 seconds.


461
462
463  proc means data=comb  n mean std min max var uss ;
464    by Quantile ;
465    var LgPrRat1 ;
466  title3 "Stats By Quantile for Logarithms of 'Empirical CDF rel. to Fitted CDF' values by Models to calc. RMSE of
Prop. Model Spec" ;
467  run ;

NOTE: The PROCEDURE MEANS used 0.0 seconds.


468
469
470
471
472
473  quit ;
```

IX. Attachment 2: SAS Program Output

CONTENTS PROCEDURE

Data Set Name:	OUT2.SAVGSDGE	Observations:	12996
Member Type:	DATA	Variables:	6
Engine:	V612	Indexes:	0
Created:	11:54 Thursday, August 16, 2007	Observation Length:	48
Last Modified:	11:54 Thursday, August 16, 2007	Deleted Observations:	0
Protection:		Compressed:	NO
Data Set Type:		Sorted:	NO
Label:			

-----Engine/Host Dependent Information-----

Data Set Page Size:	8192
Number of Data Set Pages:	78
File Format:	607
First Data Page:	1
Max Obs per Page:	169
Obs in First Data Page:	147

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Format	Informat	Label
2	AVG	Num	8	8			Syst-Avg. Avg
6	CDD	Num	8	40			Syst-Avg. Cdd
1	DATE	Num	8	0	DATE9.	DATE12.	
5	HDD	Num	8	32			Syst-Avg. Hdd
3	MAX	Num	8	16			Syst-Avg. Max
4	MIN	Num	8	24			Syst-Avg. Min

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 2
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Monthly MAXIMUM NEGATIVE-Temperature (Deg-F) from 1972 thru 2006.

YEAR	MXTYR	MXT_1	MXT_2	MXT_3	MXT_4	MXT_5	MXT_6	MXT_7	MXT_8	MXT_9	MXT_10	MXT_11	MXT_12
1972	-46.5833	-46.9167	-50.0000	-54.5833	-56.5833	-59.0833	-63.5833	-69.4167	-67.6667	-66.0000	-55.4167	-54.0833	-46.5833
1973	-46.0833	-46.0833	-54.0000	-52.9167	-56.0000	-57.6667	-63.5833	-67.6667	-69.0000	-66.0000	-61.6667	-52.0000	-51.9167
1974	-44.0000	-48.0000	-51.0000	-52.3333	-57.4167	-60.0000	-64.4167	-67.0833	-69.3333	-67.0000	-57.4167	-54.5833	-44.0000
1975	-44.0833	-44.0833	-48.9167	-48.0833	-51.0833	-57.0000	-60.3333	-66.4167	-68.0833	-66.0000	-60.0000	-49.9167	-50.0000
1976	-44.9167	-44.9167	-54.0000	-49.6667	-55.0000	-60.0000	-63.0000	-69.5833	-68.5833	-68.0833	-61.5833	-49.6667	-52.4167
1977	-50.5833	-51.5833	-52.0833	-50.5833	-53.9167	-58.5833	-65.5833	-68.9167	-71.6667	-67.9167	-63.0000	-56.0000	-56.0000
1978	-42.5833	-52.0000	-53.0000	-55.4167	-54.9167	-60.0000	-66.3333	-68.0000	-68.3333	-66.4167	-65.0000	-54.4167	-42.5833
1979	-45.0000	-45.0000	-50.0000	-50.9167	-58.0000	-60.4167	-63.6667	-67.6667	-70.8167	-71.4167	-60.9667	-51.9167	-52.3333
1980	-53.6667	-53.6667	-55.9167	-53.9167	-55.6667	-58.5833	-63.9167	-69.4167	-70.0833	-67.5833	-60.0833	-55.6667	-54.5833
1981	-49.6667	-49.6667	-53.0000	-53.3333	-56.0000	-61.6667	-66.6667	-71.6667	-72.3333	-68.3333	-58.3333	-54.3333	-53.3333
1982	-48.6667	-49.3333	-54.3333	-53.6667	-53.0000	-60.3333	-62.0000	-67.0000	-71.0000	-64.0000	-61.3333	-55.3333	-48.6667
1983	-51.3333	-51.3333	-53.0000	-55.6667	-54.0000	-60.0000	-62.0000	-68.0000	-70.0000	-67.6667	-66.6667	-51.6667	-52.3333
1984	-48.3333	-51.3333	-51.6667	-58.6667	-57.5833	-59.3333	-65.3333	-72.6667	-73.6667	-72.0000	-61.0000	-53.0000	-48.3333
1985	-46.0000	-48.6667	-46.6667	-49.3333	-58.3333	-60.3333	-62.6667	-71.6667	-68.6667	-65.3333	-63.0000	-50.6667	-46.0000
1986	-50.0000	-56.3333	-50.0000	-53.3333	-57.3333	-58.6667	-66.0000	-67.6667	-70.3333	-60.0000	-60.6667	-58.0000	-53.0000
1987	-41.3333	-42.3333	-49.0000	-53.0000	-56.0000	-60.3333	-64.0000	-64.6667	-64.3333	-67.0000	-63.3333	-54.3333	-41.3333
1988	-45.3333	-49.0000	-52.3333	-55.0000	-55.6667	-57.0000	-59.6667	-68.6667	-68.6667	-63.3333	-62.3333	-53.3333	-45.3333
1989	-45.0000	-45.0000	-45.6667	-51.6667	-56.6667	-58.3333	-62.0000	-68.0000	-69.0000	-62.6667	-61.0000	-56.6667	-51.3333
1990	-43.6667	-48.0000	-43.6667	-50.0000	-58.6667	-58.0000	-63.0000	-69.0000	-69.0000	-68.0000	-65.0000	-55.0000	-43.6667
1991	-48.6667	-51.6667	-54.6667	-48.6667	-58.0000	-58.0000	-61.3333	-66.6667	-68.0000	-65.0000	-58.0000	-51.0000	-50.3333
1992	-47.0000	-52.0000	-56.3333	-56.0000	-63.0000	-64.3333	-65.3333	-68.3333	-68.3333	-70.0000	-64.3333	-55.0000	-47.0000
1993	-46.6667	-46.6667	-52.3333	-54.3333	-58.6667	-59.6667	-61.3333	-68.0000	-67.6667	-64.3333	-62.3333	-55.6667	-52.0000
1994	-48.0000	-51.6667	-52.0000	-53.6667	-55.3333	-59.3333	-64.6667	-68.0000	-70.3333	-66.6667	-61.3333	-48.0000	-50.3333
1995	-51.0000	-52.3333	-56.0000	-52.3333	-53.3333	-56.0000	-61.0000	-66.6667	-70.0000	-66.6667	-62.6667	-60.0000	-51.0000
1996	-48.6667	-50.3333	-48.6667	-55.0000	-58.3333	-61.6667	-64.6667	-68.3333	-69.3333	-67.0000	-55.0000	-53.3333	-52.0000
1997	-49.0000	-51.0000	-50.6667	-52.3333	-53.0000	-64.6667	-64.0000	-67.6667	-70.6667	-69.6667	-62.0000	-57.6667	-49.0000
1998	-46.6667	-51.3333	-52.6667	-50.0000	-51.0000	-57.3333	-62.0000	-66.6667	-71.3333	-64.0000	-61.3333	-56.3333	-46.6667
1999	-48.6667	-48.6667	-49.6667	-50.0000	-49.0000	-57.0000	-58.3333	-64.3333	-67.3333	-63.6667	-64.3333	-54.3333	-51.0000
2000	-50.3333	-50.3333	-52.6667	-50.3333	-57.6667	-62.3333	-64.3333	-67.0000	-67.6667	-67.3333	-59.0000	-50.6667	-52.3333
2001	-47.6667	-47.6667	-49.0000	-52.3333	-51.3333	-60.3333	-62.3333	-67.0000	-67.0000	-68.0000	-64.3333	-50.6667	-50.3333
2002	-45.6667	-45.6667	-47.6667	-52.6667	-57.3333	-57.6667	-61.6667	-66.6667	-67.3333	-64.3333	-59.6667	-57.3333	-50.0000
2003	-49.0000	-54.6667	-52.6667	-52.6667	-53.3333	-57.3333	-61.3333	-68.0000	-71.0000	-68.3333	-61.3333	-54.6667	-49.0000
2004	-47.6667	-51.0000	-53.0000	-54.6667	-58.3333	-63.3333	-65.0000	-67.3333	-69.6667	-66.0000	-57.3333	-47.6667	-49.3333
2005	-47.6667	-47.6667	-53.6667	-55.6667	-58.0000	-60.6667	-64.0000	-67.8000	-69.6667	-64.6667	-60.6667	-55.0000	-52.6667
2006	-48.3333	-51.0000	-49.0000	-48.6667	-55.6667	-61.0000	-66.3333	-73.6667	-70.3333	-67.0000	-59.6667	-52.0000	-48.3333

Variable	N	Mean	Std Dev	Minimum	Maximum
MXT_1	35	-49.3404762	3.1554478	-56.3333333	-42.3333333
MXT_2	35	-51.3976190	2.9257621	-56.3333333	-43.6666667
MXT_3	35	-52.6119048	2.4690852	-58.6666667	-48.0833333
MXT_4	35	-55.8047619	2.7934727	-63.0000000	-49.0000000
MXT_5	35	-59.6000000	2.0697400	-64.6666667	-56.0000000
MXT_6	35	-63.2976190	2.0007439	-66.6666667	-58.3333333
MXT_7	35	-68.1514286	1.9398739	-73.6666667	-64.3333333
MXT_8	35	-69.3209524	1.7600707	-73.6666667	-64.3333333
MXT_9	35	-66.4976190	2.4349784	-72.0000000	-60.0000000
MXT_10	35	-61.1752381	2.6433335	-66.6666667	-55.0000000
MXT_11	35	-53.7119048	2.8460889	-60.0000000	-47.6666667
MXT_12	35	-49.5738095	3.4359672	-56.0000000	-41.3333333
MXTYR	35	-47.3571429	2.6523491	-53.6666667	-41.3333333

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 4
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Calc. Means and Standard Deviantions to use as Starting Values in Non-Linear Estimations.

OBS	_TYPE_	_FREQ_	MEAN1	MEAN2	MEAN3	MEAN4	MEAN5	MEAN6	MEAN7	MEAN8	MEAN9	MEAN10	MEAN11	MEAN12
1	0	35	-49.3405	-51.3976	-52.6119	-55.8048	-59.6	-63.2976	-68.1514	-69.3210	-66.4976	-61.1752	-53.7119	-49.5738

OBS	MEANYR	STDEV1	STDEV2	STDEV3	STDEV4	STDEV5	STDEV6	STDEV7	STDEV8	STDEV9	STDEV10	STDEV11	STDEV12	STDEVYR
1	-47.3571	3.15545	2.92576	2.46909	2.79347	2.06974	2.00074	1.93987	1.76007	2.43498	2.64333	2.84609	3.43597	2.65235

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 5
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Calc. Means and Standard Deviantions to use as Starting Values in Non-Linear Estimations.

OBS	MXTYR	RANKYR	PRMXTYR	ALPHA	YEAR
1	-53.6667	1	0.01773	0.375	1980
2	-51.3333	2	0.04610	0.375	1983
3	-51.0000	3	0.07447	0.375	1995
4	-50.5833	4	0.10284	0.375	1977
5	-50.3333	5	0.13121	0.375	2000
6	-50.0000	6	0.15957	0.375	1986
7	-49.6667	7	0.18794	0.375	1981
8	-49.0000	8	0.21631	0.375	1997
9	-49.0000	9	0.24468	0.375	2003
10	-48.6667	10	0.27305	0.375	1982
11	-48.6667	11	0.30142	0.375	1991
12	-48.6667	12	0.32979	0.375	1996
13	-48.6667	13	0.35816	0.375	1999
14	-48.3333	14	0.38652	0.375	1984
15	-48.3333	15	0.41489	0.375	2006
16	-48.0000	16	0.44326	0.375	1994
17	-47.6667	17	0.47163	0.375	2001
18	-47.6667	18	0.50000	0.375	2004
19	-47.6667	19	0.52837	0.375	2005
20	-47.0000	20	0.55674	0.375	1992
21	-46.6667	21	0.58511	0.375	1993
22	-46.6667	22	0.61348	0.375	1998
23	-46.5833	23	0.64184	0.375	1972
24	-46.0833	24	0.67021	0.375	1973
25	-46.0000	25	0.69858	0.375	1985
26	-45.6667	26	0.72695	0.375	2002
27	-45.3333	27	0.75532	0.375	1988
28	-45.0000	28	0.78369	0.375	1979
29	-45.0000	29	0.81206	0.375	1989
30	-44.9167	30	0.84043	0.375	1976
31	-44.0833	31	0.86879	0.375	1975
32	-44.0000	32	0.89716	0.375	1974
33	-43.6667	33	0.92553	0.375	1990
34	-42.5833	34	0.95390	0.375	1978
35	-41.3333	35	0.98227	0.375	1987

MODEL Procedure

Model Summary

Model Variables	1
Parameters	4
RANGE Variable	YEAR
Equations	1
Number of Statements	3

Model Variables: PRMXTYR

Parameters: GAMMA: -47.36 THETA: 2.652 KAPPA: 0.25 MXTNL1

Equations: PRMXTYR

MODEL Procedure

The Equation to Estimate is:

PRMXTYR = F(GAMMA, THETA, KAPPA)

MODEL Procedure
OLS Estimation

OLS Estimation Summary

Dataset Option	Dataset
DATA=	MXTDATA
OUT=	FIT1
OUTEST=	EST1
Parameters Estimated	3
RANGE Processed	YEAR
First	1972
Last	2006

Minimization Summary

Method	GAUSS
Iterations	3

Final Convergence Criteria	
R	0.00070353
PPC(KAPPA)	0.00026
RPC(KAPPA)	0.033597
Object	0.00171551
Trace(S)	0.00063019
Objective Value	0.00057617

Observations Processed

Read	35
Solved	35

MODEL Procedure
OLS Estimation

Nonlinear OLS Summary of Residual Errors

Equation	DF Model	DF Error	SSE	MSE	Root MSE	R-Square	Adj R-Sq	Durbin Watson
PRMXTYR	3	32	0.02017	0.0006302	0.02510	0.9930	0.9925	1.694

Nonlinear OLS Parameter Estimates

Parameter	Estimate	Approx. Std Err	'T' Ratio	Approx. Prob>|T|
GAMMA	-48.360528	0.04287	-1127.99	0.0001
THETA	2.470319	0.08227	30.03	0.0001
KAPPA	0.166335	0.05089	3.27	0.0026

Number of Observations		Statistics for System	
Used	35	Objective	0.000576
Missing	0	Objective*N	0.0202

RANGE of Fit: YEAR = 1972 TO 2006

Correlations of Estimates

CorrB	GAMMA	THETA	KAPPA
GAMMA	1.0000	-0.0259	0.3522
THETA	-0.0259	1.0000	0.6938
KAPPA	0.3522	0.6938	1.0000

MODEL Procedure

Model Summary

Model Variables	1
Parameters	4
RANGE Variable	YEAR
Equations	1
Number of Statements	4

Model Variables: PRMXTYR

Parameters: MXTNL1 GAMMA: -48.36(-1128) THETA: 2.47(30) KAPPA: 0.1663(3.3)

Equations: PRMXTYR

OBS	YEAR	_ESTYPE_	_TYPE_	_WEIGHT_	PRMXTYR	MXTYR
1	1972	OLS	ACTUAL	1	0.64184	-46.5833
2	1972	OLS	PREDICT	1	0.62829	-46.5833
3	1972	OLS	RESIDUAL	1	0.01356	-46.5833
4	1973	OLS	ACTUAL	1	0.67021	-46.0833
5	1973	OLS	PREDICT	1	0.69237	-46.0833
6	1973	OLS	RESIDUAL	1	-0.02216	-46.0833
7	1974	OLS	ACTUAL	1	0.89716	-44.0000
8	1974	OLS	PREDICT	1	0.88362	-44.0000
9	1974	OLS	RESIDUAL	1	0.01354	-44.0000
10	1975	OLS	ACTUAL	1	0.86879	-44.0833
11	1975	OLS	PREDICT	1	0.87831	-44.0833
12	1975	OLS	RESIDUAL	1	-0.00952	-44.0833
13	1976	OLS	ACTUAL	1	0.84043	-44.9167
14	1976	OLS	PREDICT	1	0.81487	-44.9167
15	1976	OLS	RESIDUAL	1	0.02556	-44.9167
16	1977	OLS	ACTUAL	1	0.10284	-50.5833
17	1977	OLS	PREDICT	1	0.09897	-50.5833
18	1977	OLS	RESIDUAL	1	0.00387	-50.5833
19	1978	OLS	ACTUAL	1	0.95390	-42.5833
20	1978	OLS	PREDICT	1	0.94959	-42.5833
21	1978	OLS	RESIDUAL	1	0.00431	-42.5833
22	1979	OLS	ACTUAL	1	0.78369	-45.0000
23	1979	OLS	PREDICT	1	0.80744	-45.0000
24	1979	OLS	RESIDUAL	1	-0.02375	-45.0000
25	1980	OLS	ACTUAL	1	0.01773	-53.6667
26	1980	OLS	PREDICT	1	0.00188	-53.6667
27	1980	OLS	RESIDUAL	1	0.01585	-53.6667
28	1981	OLS	ACTUAL	1	0.18794	-49.6667
29	1981	OLS	PREDICT	1	0.19016	-49.6667
30	1981	OLS	RESIDUAL	1	-0.00221	-49.6667
31	1982	OLS	ACTUAL	1	0.27305	-48.6667
32	1982	OLS	PREDICT	1	0.32287	-48.6667
33	1982	OLS	RESIDUAL	1	-0.04982	-48.6667
34	1983	OLS	ACTUAL	1	0.04610	-51.3333
35	1983	OLS	PREDICT	1	0.05003	-51.3333
36	1983	OLS	RESIDUAL	1	-0.00394	-51.3333
37	1984	OLS	ACTUAL	1	0.38652	-48.3333
38	1984	OLS	PREDICT	1	0.37193	-48.3333
39	1984	OLS	RESIDUAL	1	0.01459	-48.3333
40	1985	OLS	ACTUAL	1	0.69858	-46.0000
41	1985	OLS	PREDICT	1	0.70242	-46.0000
42	1985	OLS	RESIDUAL	1	-0.00384	-46.0000
43	1986	OLS	ACTUAL	1	0.15957	-50.0000
44	1986	OLS	PREDICT	1	0.15309	-50.0000
45	1986	OLS	RESIDUAL	1	0.00648	-50.0000
46	1987	OLS	ACTUAL	1	0.98227	-41.3333
47	1987	OLS	PREDICT	1	0.97900	-41.3333
48	1987	OLS	RESIDUAL	1	0.00326	-41.3333
49	1988	OLS	ACTUAL	1	0.75532	-45.3333
50	1988	OLS	PREDICT	1	0.77569	-45.3333
51	1988	OLS	RESIDUAL	1	-0.02037	-45.3333
52	1989	OLS	ACTUAL	1	0.81206	-45.0000
53	1989	OLS	PREDICT	1	0.80744	-45.0000
54	1989	OLS	RESIDUAL	1	0.00462	-45.0000
55	1990	OLS	ACTUAL	1	0.92553	-43.6667
56	1990	OLS	PREDICT	1	0.90312	-43.6667
57	1990	OLS	RESIDUAL	1	0.02241	-43.6667
58	1991	OLS	ACTUAL	1	0.30142	-48.6667
59	1991	OLS	PREDICT	1	0.32287	-48.6667
60	1991	OLS	RESIDUAL	1	-0.02145	-48.6667
61	1992	OLS	ACTUAL	1	0.55674	-47.0000
62	1992	OLS	PREDICT	1	0.57051	-47.0000
63	1992	OLS	RESIDUAL	1	-0.01377	-47.0000

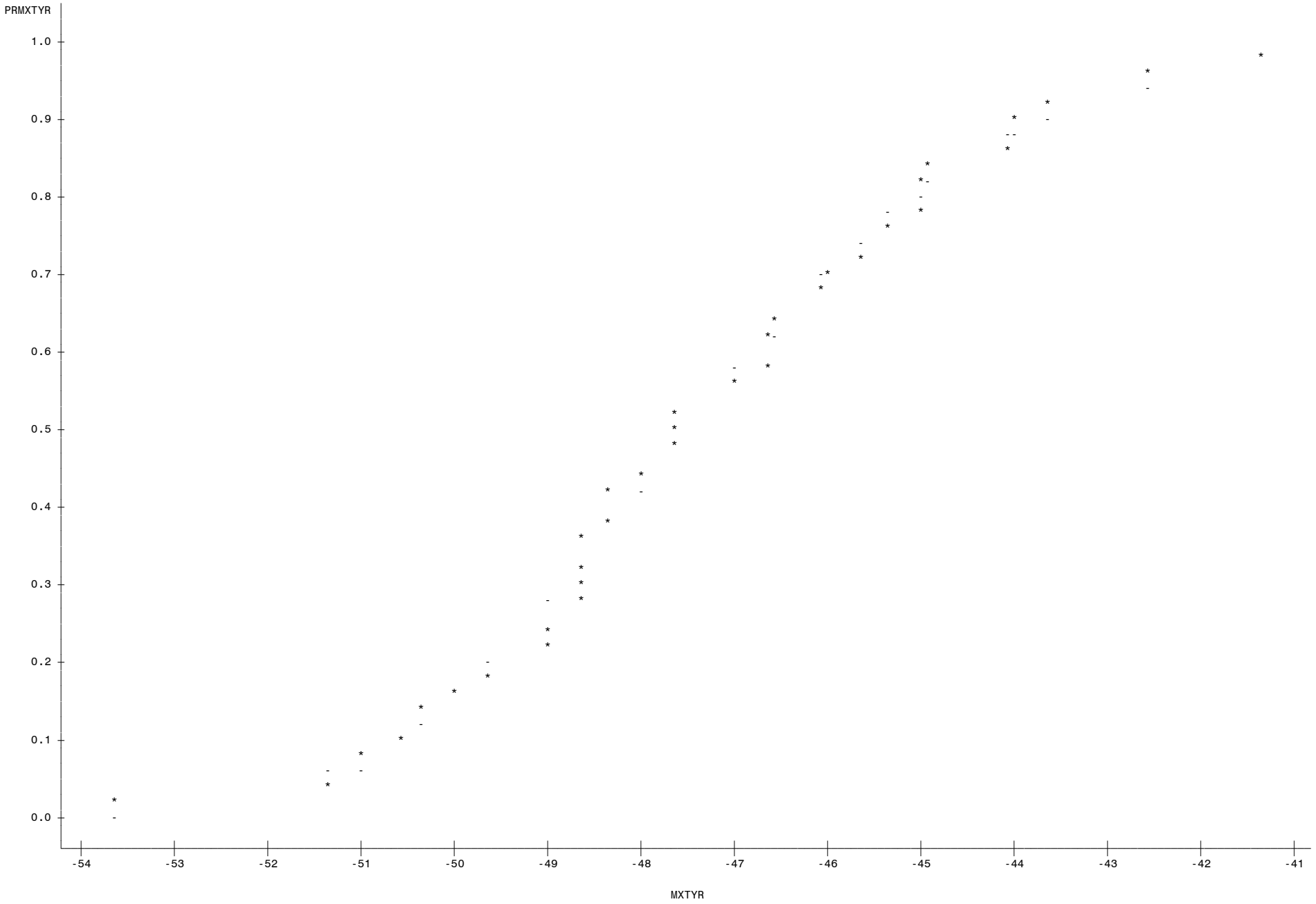
OBS	YEAR	_ESTYPE_	_TYPE_	_WEIGHT_	PRMXTYR	MXTYR
64	1993	OLS	ACTUAL	1	0.58511	-46.6667
65	1993	OLS	PREDICT	1	0.61702	-46.6667
66	1993	OLS	RESIDUAL	1	-0.03191	-46.6667
67	1994	OLS	ACTUAL	1	0.44326	-48.0000
68	1994	OLS	PREDICT	1	0.42204	-48.0000
69	1994	OLS	RESIDUAL	1	0.02122	-48.0000
70	1995	OLS	ACTUAL	1	0.07447	-51.0000
71	1995	OLS	PREDICT	1	0.06900	-51.0000
72	1995	OLS	RESIDUAL	1	0.00547	-51.0000
73	1996	OLS	ACTUAL	1	0.32979	-48.6667
74	1996	OLS	PREDICT	1	0.32287	-48.6667
75	1996	OLS	RESIDUAL	1	0.00692	-48.6667
76	1997	OLS	ACTUAL	1	0.21631	-49.0000
77	1997	OLS	PREDICT	1	0.27570	-49.0000
78	1997	OLS	RESIDUAL	1	-0.05938	-49.0000
79	1998	OLS	ACTUAL	1	0.61348	-46.6667
80	1998	OLS	PREDICT	1	0.61702	-46.6667
81	1998	OLS	RESIDUAL	1	-0.00354	-46.6667
82	1999	OLS	ACTUAL	1	0.35816	-48.6667
83	1999	OLS	PREDICT	1	0.32287	-48.6667
84	1999	OLS	RESIDUAL	1	0.03529	-48.6667
85	2000	OLS	ACTUAL	1	0.13121	-50.3333
86	2000	OLS	PREDICT	1	0.12043	-50.3333
87	2000	OLS	RESIDUAL	1	0.01077	-50.3333
88	2001	OLS	ACTUAL	1	0.47163	-47.6667
89	2001	OLS	PREDICT	1	0.47236	-47.6667
90	2001	OLS	RESIDUAL	1	-0.00072	-47.6667
91	2002	OLS	ACTUAL	1	0.72695	-45.6667
92	2002	OLS	PREDICT	1	0.74066	-45.6667
93	2002	OLS	RESIDUAL	1	-0.01371	-45.6667
94	2003	OLS	ACTUAL	1	0.24468	-49.0000
95	2003	OLS	PREDICT	1	0.27570	-49.0000
96	2003	OLS	RESIDUAL	1	-0.03102	-49.0000
97	2004	OLS	ACTUAL	1	0.50000	-47.6667
98	2004	OLS	PREDICT	1	0.47236	-47.6667
99	2004	OLS	RESIDUAL	1	0.02764	-47.6667
100	2005	OLS	ACTUAL	1	0.52837	-47.6667
101	2005	OLS	PREDICT	1	0.47236	-47.6667
102	2005	OLS	RESIDUAL	1	0.05601	-47.6667
103	2006	OLS	ACTUAL	1	0.41489	-48.3333
104	2006	OLS	PREDICT	1	0.37193	-48.3333
105	2006	OLS	RESIDUAL	1	0.04296	-48.3333

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 13
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Non-linear Estimation of 3-parameter GEV Model.: for Maximum NEGATIVE Temperature (Deg-F).

OBS	YEAR	MXTYR	PRMXTYR	PROBP
1	1972	-46.5833	0.64184	0.62829
2	1973	-46.0833	0.67021	0.69237
3	1974	-44.0000	0.89716	0.88362
4	1975	-44.0833	0.86879	0.87831
5	1976	-44.9167	0.84043	0.81487
6	1977	-50.5833	0.10284	0.09897
7	1978	-42.5833	0.95390	0.94959
8	1979	-45.0000	0.78369	0.80744
9	1980	-53.6667	0.01773	0.00188
10	1981	-49.6667	0.18794	0.19016
11	1982	-48.6667	0.27305	0.32287
12	1983	-51.3333	0.04610	0.05003
13	1984	-48.3333	0.38652	0.37193
14	1985	-46.0000	0.69858	0.70242
15	1986	-50.0000	0.15957	0.15309
16	1987	-41.3333	0.98227	0.97900
17	1988	-45.3333	0.75532	0.77569
18	1989	-45.0000	0.81206	0.80744
19	1990	-43.6667	0.92553	0.90312
20	1991	-48.6667	0.30142	0.32287
21	1992	-47.0000	0.55674	0.57051
22	1993	-46.6667	0.58511	0.61702
23	1994	-48.0000	0.44326	0.42204
24	1995	-51.0000	0.07447	0.06900
25	1996	-48.6667	0.32979	0.32287
26	1997	-49.0000	0.21631	0.27570
27	1998	-46.6667	0.61348	0.61702
28	1999	-48.6667	0.35816	0.32287
29	2000	-50.3333	0.13121	0.12043
30	2001	-47.6667	0.47163	0.47236
31	2002	-45.6667	0.72695	0.74066
32	2003	-49.0000	0.24468	0.27570
33	2004	-47.6667	0.50000	0.47236
34	2005	-47.6667	0.52837	0.47236
35	2006	-48.3333	0.41489	0.37193

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 14
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Non-linear Estimation of 3-parameter GEV Model.: for Maximum NEGATIVE Temperature (Deg-F).

Plot of PRMXTYR*MXTYR. Symbol used is '*'.
Plot of PROBP*MXTYR. Symbol used is '-'.



NOTE: 17 obs hidden.

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 15
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Non-linear Estimation of 3-parameter GEV Model.: for Maximum NEGATIVE Temperature (Deg-F).

OBS	_NAME_	_TYPE_	_NUSED_	GAMMA	THETA	KAPPA
1		OLS	35	-48.3605	2.47032	0.16633
2	GAMMA	OLS	35	0.0018	-0.00009	0.00077
3	THETA	OLS	35	-0.0001	0.00677	0.00290
4	KAPPA	OLS	35	0.0008	0.00290	0.00259

Data Analysis for Maximum/Minimum Daily SysAvg Temperatures (Un-Rounded). 07:18 Tuesday, February 5, 2008 16
Fit GEV Probability Model to Empirical CDF using NL-OLS Regression Methods.
Est'd CDFs and Logarithms of 'Empirical CDF rel. to Fitted CDF' values by Models.

OBS	YEAR	MXTYR	QUANTILE	PRMXTYR	PROBP1	LGPRRAT1
1	1972	-46.5833	2	0.64184	0.62829	0.02135
2	1973	-46.0833	3	0.67021	0.69237	-0.03253
3	1974	-44.0000	3	0.89716	0.88362	0.01521
4	1975	-44.0833	3	0.86879	0.87831	-0.01089
5	1976	-44.9167	3	0.84043	0.81487	0.03088
6	1977	-50.5833	1	0.10284	0.09897	0.03832
7	1978	-42.5833	3	0.95390	0.94959	0.00453
8	1979	-45.0000	3	0.78369	0.80744	-0.02986
9	1980	-53.6667	1	0.01773	0.00188	2.24241
10	1981	-49.6667	1	0.18794	0.19016	-0.01171
11	1982	-48.6667	1	0.27305	0.32287	-0.16759
12	1983	-51.3333	1	0.04610	0.05003	-0.08192
13	1984	-48.3333	2	0.38652	0.37193	0.03848
14	1985	-46.0000	3	0.69858	0.70242	-0.00548
15	1986	-50.0000	1	0.15957	0.15309	0.04148
16	1987	-41.3333	3	0.98227	0.97900	0.00333
17	1988	-45.3333	3	0.75532	0.77569	-0.02661
18	1989	-45.0000	3	0.81206	0.80744	0.00570
19	1990	-43.6667	3	0.92553	0.90312	0.02451
20	1991	-48.6667	1	0.30142	0.32287	-0.06875
21	1992	-47.0000	2	0.55674	0.57051	-0.02444
22	1993	-46.6667	2	0.58511	0.61702	-0.05311
23	1994	-48.0000	2	0.44326	0.42204	0.04906
24	1995	-51.0000	1	0.07447	0.06900	0.07632
25	1996	-48.6667	1	0.32979	0.32287	0.02120
26	1997	-49.0000	1	0.21631	0.27570	-0.24258
27	1998	-46.6667	2	0.61348	0.61702	-0.00576
28	1999	-48.6667	2	0.35816	0.32287	0.10372
29	2000	-50.3333	1	0.13121	0.12043	0.08566
30	2001	-47.6667	2	0.47163	0.47236	-0.00154
31	2002	-45.6667	3	0.72695	0.74066	-0.01868
32	2003	-49.0000	1	0.24468	0.27570	-0.11935
33	2004	-47.6667	2	0.50000	0.47236	0.05688
34	2005	-47.6667	2	0.52837	0.47236	0.11206
35	2006	-48.3333	2	0.41489	0.37193	0.10931

Analysis Variable : LGPRRAT1 Log(PrMxTYr/ProbP1)- GEV

N	Mean	Std Dev	Minimum	Maximum	Variance	USS
35	0.0622752	0.3862909	-0.2425777	2.2424075	0.1492207	5.2092406

Stats By Quantile for Logarithms of 'Empirical CDF rel. to Fitted CDF' values by Models to calc. RMSE of Prop. Model Spec

Analysis Variable : LGPRRAT1 Log(PrMxTYr/ProbP1)- GEV

QUANTILE=1

N	Mean	Std Dev	Minimum	Maximum	Variance	USS
12	0.1511246	0.6663248	-0.2425777	2.2424075	0.4439888	5.1579402

QUANTILE=2

N	Mean	Std Dev	Minimum	Maximum	Variance	USS
11	0.0369105	0.0559546	-0.0531075	0.1120616	0.0031309	0.0462955

QUANTILE=3

N	Mean	Std Dev	Minimum	Maximum	Variance	USS
12	-0.0033234	0.0210462	-0.0325255	0.0308826	0.000442943	0.0050049

2010 CALIFORNIA GAS REPORT

Service Area Economic Forecast
JULY 2010

SAN DIEGO GAS & ELECTRIC COMPANY SERVICE AREA ECONOMIC FORECAST

(based on Global Insight's February 2010 Regional Forecast)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
EMPLOYMENT (1000's)													
Total	1,292.8	1,312.5	1,319.0	1,331.3	1,341.0	1,341.1	1,371.4	1,409.2	1,444.5	1,469.6	1,489.5	1,509.0	1,529.4
I: Industrial (all manufacturing + mining)	104.9	104.4	102.5	103.1	101.8	99.9	102.1	105.2	108.0	109.0	109.2	109.5	109.6
C1: Office (Financial+Bus. & Professional Svcs)	293.6	297.3	296.9	300.0	306.0	311.9	327.3	340.4	351.5	359.3	365.6	373.5	381.5
C2: Restaurants	97.8	102.3	104.9	106.7	108.7	107.3	108.0	109.7	111.6	113.1	114.2	115.3	116.4
C3: Retail Trade	147.4	148.3	148.7	150.1	152.5	151.2	156.4	159.8	161.3	162.7	163.8	164.0	164.6
C4: Laundry & other Personal Services	15.0	15.2	15.4	15.8	15.9	16.2	16.1	16.1	16.2	16.4	16.6	16.7	16.8
C5: Wholesale Trade & Warehouses	46.6	48.1	48.7	49.6	49.8	49.6	49.4	50.0	50.4	50.8	50.9	51.2	51.5
C6: Primary & Secondary Schools	87.0	87.9	90.1	92.5	93.9	95.6	97.6	99.3	100.5	101.7	103.1	104.9	106.9
C7: Colleges (including other adult education)	32.0	32.6	33.3	34.2	34.7	35.3	36.0	36.7	37.1	37.6	38.1	38.7	39.5
C8: Health Services	101.4	103.8	107.1	109.9	111.6	113.6	116.0	118.0	119.5	120.9	122.5	124.6	127.1
C9: Accommodation	29.2	30.5	31.5	32.0	32.6	32.2	32.4	32.9	33.5	34.0	34.3	34.6	35.0
C10: Misc. (all other commercial employment)	56.4	56.8	57.9	59.6	59.8	61.0	60.8	60.8	61.2	61.9	62.5	62.9	63.3
C11: Government (non-education)	117.1	118.8	120.4	121.3	122.1	122.7	120.3	121.6	124.2	126.4	127.7	128.6	129.7
C12: Transportation, Information, and Utilities	62.7	62.9	63.6	64.0	64.5	62.2	64.3	66.3	67.7	69.0	70.2	71.4	72.5
C13: Construction	90.8	92.7	87.2	81.6	76.1	71.3	73.6	81.3	90.6	95.7	99.3	101.6	103.7
C14: Agriculture	10.7	10.9	10.8	10.9	10.9	11.0	11.0	11.1	11.2	11.2	11.3	11.3	11.4
OTHER INDICATORS													
Southern California Consumer Inflation*	4.5%	4.3%	3.3%	3.5%	-0.8%	0.6%	1.7%	2.1%	2.1%	1.9%	2.3%	2.2%	2.1%
Inflation--US Gross Domestic Product**	3.3%	3.3%	2.9%	2.1%	1.2%	1.1%	1.5%	1.5%	1.7%	1.8%	1.8%	1.7%	1.8%

* Consumer Price Index for Greater Los Angeles area (Los Angeles, Orange, and Riverside Counties)

** Chained Price Index--US GDP. Through 2020 from Global Insight Feb 2010 US forecast; after 2020 from Global Insight 3rd Quarter 2009 (12-4-09) US long-term forecast.

SAN DIEGO GAS & ELECTRIC COMPANY SERVICE AREA ECONOMIC FORECAST

(based on Global Insight's February 2010 Regional Forecast)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
EMPLOYMENT (1000's)													
Total	1,551.7	1,575.1	1,598.8	1,622.4	1,644.8	1,667.8	1,691.0	1,715.3	1,739.4	1,764.2	1,789.0	1,813.7	1,839.1
I: Industrial (all manufacturing + mining)	109.8	109.6	109.2	108.5	107.5	106.5	105.6	104.9	104.0	103.0	102.2	101.4	100.7
C1: Office (Financial+Bus. & Professional Svcs)	390.6	401.6	412.9	424.7	434.3	444.5	455.3	466.2	476.8	487.3	498.2	509.9	522.3
C2: Restaurants	117.4	118.6	119.9	121.1	122.5	123.9	125.3	126.7	128.1	129.7	131.2	132.9	134.6
C3: Retail Trade	165.2	165.4	165.8	166.7	167.6	168.6	169.4	170.4	171.6	173.1	174.7	176.3	177.8
C4: Laundry & other Personal Services	16.9	16.9	17.0	17.2	17.3	17.4	17.5	17.7	17.8	17.9	18.1	18.2	18.4
C5: Wholesale Trade & Warehouses	51.9	52.3	52.4	52.6	53.0	53.5	54.1	54.6	55.0	55.5	55.9	56.3	56.7
C6: Primary & Secondary Schools	109.1	111.4	113.4	115.4	117.2	119.1	120.9	123.0	125.2	127.5	129.6	131.7	133.8
C7: Colleges (including other adult education)	40.3	41.1	41.9	42.6	43.3	44.0	44.7	45.4	46.2	47.1	47.9	48.7	49.4
C8: Health Services	129.7	132.3	134.7	137.1	139.3	141.5	143.7	146.2	148.8	151.5	154.0	156.6	159.0
C9: Accommodation	35.3	35.6	36.0	36.4	36.8	37.2	37.6	38.0	38.5	38.9	39.4	39.9	40.4
C10: Misc. (all other commercial employment)	63.7	63.9	64.2	64.7	65.2	65.6	66.1	66.6	67.0	67.5	68.1	68.6	69.2
C11: Government (non-education)	131.0	132.4	134.3	134.5	135.9	137.2	138.4	139.6	140.9	142.2	143.3	144.5	146.5
C12: Transportation, Information, and Utilities	73.5	74.0	74.2	75.0	76.0	77.2	78.5	79.6	80.7	81.8	82.9	83.5	84.0
C13: Construction	105.9	108.4	111.4	114.5	117.2	119.7	122.1	124.4	126.7	129.3	131.4	133.0	134.3
C14: Agriculture	11.4	11.5	11.6	11.6	11.7	11.7	11.8	11.8	11.9	12.0	12.0	12.1	12.1
OTHER INDICATORS													
Southern California Consumer Inflation*	2.0%	1.9%	1.7%	1.7%	1.8%	1.8%	1.9%	1.9%	1.9%	2.0%	2.0%	2.0%	2.0%
Inflation--US Gross Domestic Product**	1.8%	1.8%	1.7%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%	1.7%	1.7%

* Consumer Price Index for Greater Los Angeles area (Los Angeles, Orange, and Riverside Counties)

** Chained Price Index--US GDP. Through 2020 from Global Insight Feb 2010 US forecast; after 2020 from Global Insight 3rd Quarter 2009 (12-4-09) US long-term forecast.