```
9016 14 NWS
9017 14 NWS
9018 14 NWS
9019 14 NWS
9030 14 NWS
9051 14 NWS
9052 14 NWS
9053 14 NWS
9101 14 NWS
9103 14 NWS
9104 14 NWS
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9108 14 NWS
9110 14 NWS
9111 14 NWS
9112 14 NWS
9113 14 NWS
9114 14 NWS
9115 14 NWS
9116 14 NWS
9118 14 NWS
9119 14 NWS
9131 14 NWS
9133 14 NWS
9204 14 NWS
9208 14 NWS
9212 14 NWS
9215 14 NWS
9232 14 NWS
```

SAS/PADS DATASETS (DEC90)

MONTHLY ENGINEERING DATA

DSN=RPEE.RLCAP.ELCAP.M.DEC90

name	obs	tracks	
M_RES	224568	433	Residential Base
M_RSDP	96659	187	Res Stds Demonstration Project
M_COM	92916	180	Commercial Base
M_CAP	30848	60	Commercial Audit Program
M_PES	6985	14	Purchase of Energy Savings
M_NWS	23021	45	National Weather Service
M_MET	14560	29	ELCAP Meteorological
M_MFM	28837	56	Multi-Family & Manufactured
M_TCL	3411	8	Tacoma Multi-Family

MONTHLY PROFILE ENGINEERING DATA

DSN=RPEE.RLCAP.ELCAP.MP.DEC90R

name	obs	tracks	
MP_RES	195658	748	Residential Base
MP_RSDP	85239	326	Res Stds Demonstration Project
MP_MFM	23190	90	Multi-Family & Manufactured
MP_TCL	2651	11	Tacoma Multi-Family
MP2_RES	388407	1483	Residential Base
MP2_RSDP	169411	648	Res Stds Demonstration Project
MP2_MFM	45911	176	Multi-Family & Manufactured
MP2_TCL	5133	21	Tacoma Multi-Family

DSN=RPEE.RLCAP.ELCAP.MP.DEC90C

name	obs	tracks	
MP_COM	71097	272	Commercial Base
MP_CAP	25867	100	Commercial Audit Program
MP_PES	4041	16	Purchase of Energy Savings
MP2_COM	141387	541	Commercial Base
MP2_CAP	51403	197	Commercial Audit Program
MP2_PES	8026	32	Purchase of Energy Savings

DSN=RPEE.RLCAP.ELCAP.MP.DEC90M

name	obs	tracks	
MP_MET	12361	48	ELCAP Meteorological
MP_NWS	20766	80	National Weather Service
MP2_MET	24546	95	ELCAP Meteorological
MP2_NWS	41318	159	National Weather Service

CHARACTERISTICS DATA

DSN=RPEE.RLCAP.ELCAP.CHAR.SASDB

name	obs	tracks	
RESCHAR	523	12	Res. Characteristics Summary
COMCHAR	158	5	Com. Characteristics Summary
SPEU_RES	94	1	Specialty End Uses - Residential
SPEU_COM	94	1	Specialty End Uses - Commercial
CHRONO	3072	13	Residential CHRONO File

FORMAT LIBRARIES

DSN=RPEE.RLCAP.ELCAP.CHAR.FORMATS

Formats relating to characteristics data (RESCHAR, COMCHAR)

DSN=RPEE.RLCAP.ELCAP.FORMATS

Formats relating to engineering data (M, MP)

HOURLY DATA SETS:

The hourly engineering data is organized by study group, and further subdivided by year and sub-groups. The general name for the datasets is:

RPEE.RLCAP.KGR.ELCAP.H.DEC90.#<xx>Y<yy>

where <xx> is the group number assigned to a site, and <yy> is the year. Each tape file has one SAS dataset, with the name 'HOURLY'.

The data is subdivided into group numbers as a means of controlling the size of individual SAS datasets, thus facilitating data management of these large datasets. Group numbers are arbitrarily assigned such that any individual SAS dataset will not exceed 1000 disk tracks (which is approximately 400,000 observations). The group number for a site does not change from year to year.

INDEX TO HOURLY DATA SETS:

There are presently 85 datasets, on 20 tapes. The site data is grouped as follows:

GROUP	STUDY	YR	-SITE RANGE- LOW	HIGH	#SITES	#OBS	DSN
01	RSDP	85	34	213	47	223307	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#01Y85
01	RSDP	86	34	228	49	366551	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#01Y86
01	RSDP	87	34	228	48	358058	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#01Y87
01	RSDP	88	34	228	45	312111	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#01Y88
01	RSDP	89	34	213	38	247517	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#01Y89
01	RSDP	90	34	213	27	150705	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#01Y90
02	RSDP	85	252	500	38	111053	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#02Y85
02	RSDP	86	252	522	54	383126	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#02Y86
02	RSDP	87	252	522	51	378534	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#02Y87
02	RSDP	88	252	522	49	359982	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#02Y88
02	RSDP	89	252	522	45	297960	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#02Y89
02	RSDP	90	252	522	37	223187	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#02Y90

03	RES	85	4	125	60	292457	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#03Y85
03	RES	86	3	125	69	405870	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#03Y86
03	RES	87	3	125	69	401354	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#03Y87
03	RES	88	3	125	64	359807	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#03Y88
03	RES	89	6	125	54	269813	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#03Y89
03	RES	90	6	125	39	176583	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#03Y90
04	RES	85	128	240	64	224354	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#04Y85
04	RES	86	127	240	74	401274	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#04Y86
04	RES	87	127	240	72	412249	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#04Y87
04	RES	88	126	240	70	398843	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#04Y88
04	RES	89	126	240	66	373998	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#04Y89
04	RES	90	127	240	60	263355	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#04Y90
05	RES	85	241	380	62	166444	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#05Y85
05	RES	86	241	380	70	392367	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#05Y86
05	RES	87	241	380	73	412382	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#05Y87
05	RES	88	242	380	68	370857	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#05Y88
05	RES	89	242	380	56	279855	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#05Y89
05	RES	90	242	380	40	186638	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#05Y90
06	RES	85	381	475	54	104073	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#06Y85
06	RES	86	381	475	67	372163	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#06Y86
06	RES	87	381	475	62	366918	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#06Y87
06	RES	88	381	475	61	357094	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#06Y88
06	RES	89	381	475	59	315873	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#06Y89
06	RES	90	381	475	48	240480	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#06Y90
07	RES	85	482	523	18	23165	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#07Y85
07	RES	86	481	526	31	155651	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#07Y86
07	RES	87	481	759	33	183829	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#07Y87
07	RES	88	481	759	30	175286	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#07Y88
07	RES	89	481	759	27	141367	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#07Y89
07	RES	90	483	759	19	83678	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#07Y90
08	COM	85	2	532	20	87680	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#08Y85
08	COM	86	2	588	50	330556	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#08Y86
08	COM	87	2	588	52	418604	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#08Y87
08	COM	88	2	588	50	386529	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#08Y88
08	COM	89	7	588	39	294891	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#08Y89
08	COM	90	7	588	32	214541	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#08Y90
09	COM	85	6045	6046	2	5772	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#09Y85
09	COM	86	591	6049	40	215727	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#09Y86
09	COM	87	591	6049	49	371398	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#09Y87
09	COM	88	591	6049	48	372098	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#09Y88
09	COM	89	591	6049	38	302965	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#09Y89
09	COM	90	591	6049	35	244096	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#09Y90
10	PES	85	274	274	1	4351	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#10Y85
10	PES	86	273	726	7	46566	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#10Y86
10	PES	87	273	726	7	60590	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#10Y87
10	PES	88	273	726	7	60756	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#10Y88
10	PES	89	273	713	5	38475	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#10Y89
10	PES	90	273	713	4	31716	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#10Y90
11	CAP	85	79	292	7	33887	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#11Y85
11	CAP	86	48	747	30	196400	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#11Y86
11	CAP	87	48	747	32	273157	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#11Y87
11	CAP	88	48	747	31	231046	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#11Y88
11	CAP	89	285	762	24	183881	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#11Y89
11	CAP	90	285	762	20	152713	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#11Y90
12	MET	85	5004	5759	110	110954	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#12Y85
12	MET	86	5003	5759	150	245408	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#12Y86
12	MET	87	5003	5759	148	254918	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#12Y87
12	MET	88	5003	5759	137	231339	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#12Y88
12	MET	89	5034	5759	119	182244	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#12Y89
12	MET	90	5034	5759	91	124772	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#12Y90
13	MAN/MFM	85	187	6193	9	25042	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#13Y85
13	MAN/MFM	86	187	6663	51	176034	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#13Y86
13	MAN/MFM	87	187	6663	58	343856	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#13Y87
13	MAN/MFM	88	187	6663	54	301108	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#13Y88
13	MAN/MFM	89	187	6663	40	144522	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#13Y89
13	MAN/MFM	90	187	6193	8	49707	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#13Y90
14	NWS	85	9001	9232	45	267987	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#14Y85
14	NWS	86	9001	9232	45	201833	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#14Y86
14	NWS	87	9001	9232	42	193450	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#14Y87
14	NWS	88	9001	9232	42	192028	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#14Y88
14	NWS	89	9001	9232	40	168538	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#14Y89
14	NWS	90	9030	9232	23	7314	RPEE.RLCAP.KGR.ELCAP.H.DEC90.#14Y90

SITE - GROUP#NBR - STUDY CROSS-REFERENCE

The following is a list of all site numbers appearing in the hourly data, with the sites' associated 'group number' (tape file group) and study group.

SITE	GRP#	STUDY
0002	08	COM
0003	03	RES
0004	03	RES
0005	08	COM
0006	03	RES
0007	08	COM
0008	08	COM
0009	08	COM
0011	08	COM
0012	08	COM
0013	08	COM
0016	03	RES
0017	03	RES
0018	08	COM
0019	03	RES
0020	03	RES
0021	03	RES
0022	03	RES
0023	03	RES
0024	03	RES
0025	03	RES
0026	03	RES
0027	03	RES
0028	03	RES
0029	03	RES
0030	03	RES
0031	03	RES
0032	03	RES
0033	03	RES
0034	01	RSDP
0035	01	RSDP
0036	08	COM
0037	08	COM
0039	03	RES
0040	08	COM
0041	08	COM
0042	03	RES
0043	03	RES
0044	03	RES
0045	03	RES
0046	03	RES
0047	03	RES
0048	11	CAP
0049	03	RES
0050	03	RES
0051	03	RES
0052	03	RES
0053	03	RES
0054	03	RES
0055	03	RES
0056	03	RES
0057	03	RES
0058	03	RES
0060	03	RES
0061	03	RES
0062	03	RES
0063	01	RSDP
0064	01	RSDP
0065	03	RES
0066	03	RES
0067	03	RES
0068	03	RES
0069	03	RES
0070	03	RES
0071	03	RES
0072	03	RES
0073	03	RES
0075	03	RES
0076	03	RES
0077	03	RES
0078	03	RES
0079	11	CAP
0081	11	CAP
0082	11	CAP
0083	03	RES
0084	03	RES
0085	03	RES
0086	03	RES
0087	03	RES
0088	03	RES
0089	01	RSDP
0090	01	RSDP
0091	03	RES
0092	03	RES
0093	03	RES
0094	01	RSDP
0095	01	RSDP
0096	01	RSDP
0097	01	RSDP
0098	01	RSDP
0099	01	RSDP
0100	01	RSDP
0101	01	RSDP
0102	01	RSDP
0103	01	RSDP
0104	01	RSDP
0105	01	RSDP
0106	01	RSDP
0107	01	RSDP
0108	01	RSDP
0109	01	RSDP
0110	01	RSDP
0111	01	RSDP
0112	01	RSDP
0113	01	RSDP
0114	01	RSDP
0115	01	RSDP
0116	01	RSDP
0117	01	RSDP
0118	03	RES
0119	03	RES
0121	03	RES
0122	03	RES
0123	03	RES
0124	03	RES
0125	03	RES
0126	04	RES
0127	04	RES
0128	04	RES
0129	04	RES
0130	04	RES
0131	04	RES
0132	04	RES
0133	04	RES
0134	04	RES
0135	04	RES
0136	04	RES
0137	04	RES
0138	04	RES
0139	04	RES
0141	01	RSDP
0142	01	RSDP
0143	04	RES
0144	04	RES
0145	04	RES
0146	04	RES
0147	04	RES
0148	08	COM
0149	04	RES
0150	04	RES
0151	04	RES
0152	04	RES
0154	04	RES
0155	04	RES
0156	04	RES
0157	01	RSDP
0158	01	RSDP
0159	01	RSDP
0160	01	RSDP
0161	01	RSDP
0163	04	RES
0165	04	RES
0166	01	RSDP
0168	04	RES
0169	04	RES
0170	04	RES
0171	04	RES
0172	04	RES
0173	04	RES
0174	04	RES
0175	01	RSDP
0176	04	RES
0177	04	RES
0178	01	RSDP
0179	04	RES
0180	04	RES
0181	01	RSDP
0183	04	RES
0184	04	RES
0185	04	RES
0186	04	RES
0187	13	MAN/MFM
0188	13	MAN/MFM
0189	13	MAN/MFM
0190	01	RSDP
0191	04	RES
0192	04	RES
0193	13	MAN/MFM
0194	13	MAN/MFM
0195	13	MAN/MFM
0196	13	MAN/MFM
0197	01	RSDP
0198	01	RSDP
0199	01	RSDP
0200	01	RSDP
0201	01	RSDP
0202	01	RSDP
0203	04	RES
0204	04	RES
0205	04	RES
0206	04	RES
0207	04	RES
0208	04	RES
0209	04	RES
0210	04	RES
0211	04	RES
0212	04	RES
0213	01	RSDP
0214	04	RES
0215	04	RES
0216	04	RES
0217	04	RES
0218	04	RES
0219	04	RES
0220	04	RES
0221	04	RES
0222	04	RES
0223	04	RES
0224	04	RES
0225	04	RES
0226	04	RES
0227	04	RES
0228	01	RSDP
0229	04	RES
0230	04	RES
0232	04	RES
0233	04	RES
0234	04	RES
0236	04	RES
0238	04	RES
0239	04	RES
0240	04	RES
0241	05	RES
0242	05	RES
0243	05	RES
0244	05	RES
0245	05	RES
0246	05	RES
0247	05	RES
0248	05	RES
0249	05	RES
0250	05	RES
0251	05	RES
0252	02	RSDP
0253	05	RES
0254	05	RES
0255	05	RES
0256	05	RES
0257	02	RSDP
0258	02	RSDP
0259	05	RES
0260	05	RES
0261	05	RES
0262	05	RES
0263	05	RES
0264	05	RES
0265	05	RES
0266	05	RES
0267	05	RES
0268	05	RES
0269	05	RES
0270	05	RES
0271	05	RES
0272	05	RES
0273	10	PES
0274	10	PES
0276	05	RES
0277	02	RSDP
0278	02	RSDP
0279	02	RSDP
0280	02	RSDP
0281	08	COM
0282	08	COM
0283	08	COM
0284	08	COM
0285	11	CAP
0286	11	CAP
0287	11	CAP
0289	08	COM
0290	11	CAP
0292	11	CAP
0293	08	COM
0294	08	COM
0295	11	CAP
0297	08	COM
0298	08	COM
0299	08	COM
0300	08	COM
0301	02	RSDP
0302	02	RSDP
0303	02	RSDP
0304	02	RSDP
0305	02	RSDP
0306	02	RSDP
0307	02	RSDP
0308	02	RSDP
0309	02	RSDP
0310	02	RSDP
0311	02	RSDP
0312	02	RSDP
0313	05	RES
0314	02	RSDP
0315	05	RES
0316	05	RES
0317	05	RES
0318	02	RSDP
0319	05	RES
0320	02	RSDP
0323	02	RSDP
0324	02	RSDP
0325	02	RSDP
0326	02	RSDP
0327	02	RSDP
0328	13	MAN/MFM
0329	02	RSDP
0330	05	RES
0331	05	RES
0332	05	RES
0333	05	RES
0334	05	RES
0335	05	RES
0336	05	RES
0337	02	RSDP
0338	02	RSDP
0339	02	RSDP
0340	02	RSDP
0341	02	RSDP
0342	02	RSDP
0343	05	RES
0344	05	RES
0345	05	RES
0346	05	RES
0347	05	RES
0348	05	RES
0349	05	RES
0350	05	RES
0351	05	RES
0352	05	RES
0353	05	RES
0354	05	RES
0356	02	RSDP
0357	05	RES
0358	05	RES
0359	05	RES
0360	02	RSDP
0361	02	RSDP
0362	02	RSDP
0363	05	RES
0364	05	RES
0365	05	RES
0366	05	RES
0367	05	RES
0368	05	RES
0369	05	RES
0370	05	RES
0371	05	RES
0372	05	RES
0373	05	RES
0374	05	RES
0375	05	RES
0376	05	RES
0377	05	RES
0378	05	RES
0379	05	RES
0380	05	RES
0381	06	RES
0382	06	RES
0383	06	RES
0384	06	RES
0385	06	RES
0386	06	RES
0387	06	RES
0388	06	RES
0389	06	RES
0390	06	RES
0391	06	RES
0392	06	RES
0393	06	RES
0394	06	RES
0395	06	RES
0396	06	RES
0397	06	RES
0398	06	RES
0399	06	RES
0400	06	RES
0401	06	RES
0402	06	RES
0403	06	RES
0404	06	RES
0405	06	RES
0406	06	RES
0407	06	RES
0408	02	RSDP

0409	02	RSDP
0410	02	RSDP
0411	06	RES
0412	06	RES
0413	06	RES
0414	06	RES
0415	06	RES
0417	06	RES
0418	06	RES
0419	06	RES
0420	06	RES
0421	06	RES
0422	06	RES
0423	06	RES
0424	06	RES
0425	06	RES
0426	06	RES
0427	06	RES
0428	06	RES
0429	06	RES
0430	06	RES
0431	06	RES
0432	06	RES
0433	06	RES
0434	06	RES
0435	06	RES
0436	06	RES
0437	06	RES
0438	06	RES
0439	06	RES
0441	08	COM
0442	08	COM
0443	08	COM
0444	08	COM
0445	11	CAP
0446	08	COM
0447	08	COM
0448	08	COM
0449	11	CAP
0450	11	CAP
0451	11	CAP
0452	06	RES
0453	11	CAP
0455	11	CAP
0456	08	COM
0457	08	COM
0458	08	COM
0460	08	COM
0461	06	RES
0462	06	RES
0463	06	RES
0464	06	RES
0465	06	RES
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0467	06	RES
0468	06	RES
0469	06	RES
0470	06	RES
0471	06	RES
0472	06	RES
0473	06	RES
0474	06	RES
0475	06	RES
0476	02	RSDP
0477	02	RSDP
0478	02	RSDP
0479	02	RSDP
0480	02	RSDP
0481	07	RES
0482	07	RES
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0487	07	RES
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0491	07	RES
0492	07	RES
0493	07	RES
0494	02	RSDP
0495	07	RES
0496	07	RES
0497	07	RES
0498	02	RSDP
0499	02	RSDP
0500	02	RSDP
0501	02	RSDP
0502	07	RES
0503	07	RES
0504	07	RES
0505	07	RES
0506	02	RSDP
0507	07	RES
0508	07	RES
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0513	07	RES
0514	07	RES
0515	07	RES
0516	07	RES
0517	07	RES
0518	02	RSDP
0519	07	RES
0520	02	RSDP
0522	02	RSDP
0523	07	RES
0524	07	RES
0525	13	MAN/MFM
0526	07	RES
0527	13	MAN/MFM
0528	13	MAN/MFM
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0533	11	CAP
0534	11	CAP
0535	11	CAP
0536	11	CAP
0538	08	COM
0540	10	PES
0541	11	CAP
0544	11	CAP
0546	08	COM
0547	08	COM
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0569	08	COM
0571	08	COM
0580	08	COM
0582	11	CAP
0583	10	PES
0586	08	COM
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0600	09	COM
0601	09	COM
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0660	13	MAN/MFM
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0663	13	MAN/MFM
0665	13	MAN/MFM
0666	13	MAN/MFM
0667	13	MAN/MFM
0668	13	MAN/MFM
0681	11	CAP
0690	09	COM
0691	09	COM
0697	09	COM
0705	11	CAP
0707	09	COM
0712	10	PES
0713	10	PES
0714	11	CAP
0716	09	COM
0717	09	COM
0722	09	COM
0723	09	COM
0724	09	COM
0726	10	PES
0731	09	COM
0735	09	COM
0736	09	COM
0738	09	COM
0744	09	COM
0747	11	CAP
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0753	09	COM
0756	09	COM
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0759	07	RES
0762	11	CAP
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6046	09	COM
6047	09	COM
6049	09	COM
6187	13	MAN/MFM
6193	13	MAN/MFM
6397	07	RES
6529	13	MAN/MFM
6615	13	MAN/MFM
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6663	13	MAN/MFM
9001	14	NWS
9002	14	NWS
9003	14	NWS
9004	14	NWS
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9010	14	NWS
9011	14	NWS
9012	14	NWS
9013	14	NWS
9014	14	NWS
9015	14	NWS
9016	14	NWS
9017	14	NWS

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9018 14 NWS
9019 14 NWS
9030 14 NWS
9051 14 NWS
9052 14 NWS
9053 14 NWS
9101 14 NWS
9103 14 NWS
9104 14 NWS
9105 14 NWS
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9116 14 NWS
9118 14 NWS
9119 14 NWS
9131 14 NWS
9133 14 NWS
9204 14 NWS
9208 14 NWS
9212 14 NWS
9215 14 NWS
9232 14 NWS
```

NOV88 UPDATE:
30 tape datasets, on 10 tapes

JUN89 UPDATE:
70 tape datasets, on 21 tapes
(14 groups, by 5 years)

AUG90 UPDATE:
84 tape datasets, on 20 tapes
(14 groups, by 6 years)

INCREMENTAL UPDATE:

AUG90 UPDATE:
84 tape datasets, on 10 tapes

RAW DATA FROM PNL (as stored on IBM):

NOV88 UPDATE:
11 tapes, one file per site

JUN89 UPDATE:
19 tapes, one file per site

AUG90 UPDATE:
13 tapes, one file per tape

DSN=RPEE.RLCAP.ELCAP.M.NOV88

name	obs	tracks	
M_RES	111602	208	Residential Base
M_RSDP	53865	92	Res Stds Demonstration Project
M_COM	75583	128	Commercial Base+CAP+PES
M_MFM	14622	26	Multi-Family
M_MET	19256	33	Meteorological / NOAA
		====	
total		488	

DSN=RPEE.RLCAP.ELCAP.M.JUN89

name	obs	tracks	
M_RES	168051	281	Residential Base
M_RSDP	78012	131	Res Stds Demonstration Project
M_COM	66312	112	Commercial Base
M_CAP	21553	37	Commercial Audit Program
M_PES	5017	9	Purchase of Energy Savings
M_MFM	26614	45	Multi-Family
M_NWS	14942	26	National Weather Service
		====	
total		642	

DSN=RPEE.RLCAP.ELCAP.M.AUG90

name	obs	tracks	
M_RES	201779	337	Residential Base
M_RSDP	93558	157	Res Stds Demonstration Project
M_COM	86508	145	Commercial Base
M_CAP	28033	48	Commercial Audit Program
M_PES	6653	12	Purchase of Energy Savings
M_NWS	23021	39	National Weather Service
M_MET	13601	24	ELCAP Meteorological
		====	
total		763	

DSN=RPEE.RLCAP.ELCAP.M.AUG90B (NEW FORMAT)

name	obs	tracks	
M_COM	86508	167	Commercial Base
M_CAP	28033	55	Commercial Audit Program
M_PES	6653	14	Purchase of Energy Savings
		====	
total		237	

DSN=RPEE.RLCAP.ELCAP.MP.NOV88

name	obs	tracks	
MP_RES	286360	1666	Residential Base
MP_RSDP	161394	939	Res Stds Demonstration Project
MP_COM	226417	1317	Commercial Base + CAP + PES

		====	
total		3923	

DSN=RPEE.RLCAP.ELCAP.MP.JUN89

name	obs	tracks	
MP_RES	503410	2894	Residential Base
MP_RSDP	233503	1343	Res Stds Demonstration Project
MP_COM	197979	1139	Commercial Base
MP_CAP	64219	370	Commercial Audit Program
MP_PES	14975	87	Purchase of Energy Savings
MP_MFM	79780	460	Multi-Family
MP_NWS	44598	257	National Weather Service
		====	
total		6551	

DSN=RPEE.RLCAP.ELCAP.MP1.AUG90

name	obs	tracks	
MP_RES	605020	3478	Residential Base
MP_RSDP	280550	1613	Res Stds Demonstration Project
		====	
total		5092	

DSN=RPEE.RLCAP.ELCAP.MP2.AUG90

MP_COM	259273	1491	Commercial Base
MP_CAP	84006	484	Commercial Audit Program
MP_PES	19947	116	Purchase of Energy Savings
MP_NWS	69063	398	National Weather Service
MP_NWS	40803	235	National Weather Service
		====	
total		2725	

DSN=RPEE.RLCAP.ELCAP.MP.AUG90B (NEW FORMAT)

MP_COM	259273	991	Commercial Base
MP_CAP	84006	322	Commercial Audit Program
MP_PES	19947	77	Purchase of Energy Savings
		====	
total		1391	

ELCAP STUDIES

UTILITY/METSITE CODES | HOLIDAYS | SYSTEM PEAK

UTILITY/METSITE CODES

ACCESS

SAS Format Library: **RPEE.RLCAP.ELCAP.CHAR.FORMATS**

NWS/TMY/WYEC MET SITE CODES

Format: METSITE.

9001	ASTORIA	(NWS)	350328
9002	EUGENE	(NWS)	352709
9003	LEWISTON	(NWS)	
9004	MEDFORD	(NWS)	355426
9005	NORTH BEND	(NWS)	
9006	OLYMPIA	(NWS)	
9007	PENDLETON	(NWS)	
9008	PORTLAND	(NWS)	
9009	QUILLAYUTE	(NWS)	
9010	REDMOND	(NWS)	
9011	SALEM	(NWS)	
9012	SEATTLE	(NWS)	
9013	SPOKANE	(NWS)	
9014	YAKIMA	(NWS)	
9015	BOISE	(NWS)	
9016	HELENA	(NWS)	
9017	KALISPELL	(NWS)	
9018	MISSOULA	(NWS)	
9019	POCATELLO	(NWS)	
9030	HANFORD	(NWS)	
9031	DILLON	(NWS)	
9032	GREAT FALLS	(NWS)	
9033	WHIDBEY IS.	(NWS)	

9101	ASTORIA	(TMY)
9103	LEWISTON	(TMY)
9104	MEDFORD	(TMY)
9105	NORTH BEND	(TMY)
9106	OLYMPIA	(TMY)
9108	PORTLAND	(TMY)
9110	REDMOND	(TMY)
9111	SALEM	(TMY)
9112	SEATTLE	(TMY)
9113	SPOKANE	(TMY)
9114	YAKIMA	(TMY)
9115	BOISE	(TMY)
9116	HELENA	(TMY)
9118	MISSOULA	(TMY)
9119	POCATELLO	(TMY)
9131	DILLON	(TMY)
9133	WHIDBEY IS.	(TMY)
9204	MEDFORD	(WYEC)
9208	PORTLAND	(WYEC)
9212	SEATTLE	(WYEC)
9215	BOISE	(WYEC)
9232	GR. FALLS	(WYEC)

BPA UTILITY CODES

Format: UTILITY.

101	ALBION
103	ASHLAND
104	BANDON
106	BLAINE
107	BONNER'S FERRY
109	BURLEY
111	CANBY
115	CASCADE LOCKS
119	CENTRALIA
123	CHENEY
125	COULEE DAM
127	DECLO
128	DRAIN
131	EATONVILLE
133	ELLENSBURG
137	EUGENE
140	FIRCREST
142	FOREST GROVE
150	HEYBURN
152	IDAHO FALLS
154	MCCLEARY
155	MCMINNVILLE
158	MILTON
159	MILTON-FREEWATER
161	MINIDOKA
163	MONMOUTH
170	PORT ANGELES
175	RICHLAND
177	RUPERT
180	SEATTLE
181	SODA SPRINGS
184	SPRINGFIELD
185	STEILACOOM

186	SUMAS
188	TACOMA
191	VERA IRRIG DIST
192	CONSOL ID #19
195	WPPSS
203	BENTON CO. PUD#1
207	CENT LINCOLN PUD
210	CHELAN CO. PUD#1
213	CLALLAM CO PUD#1
216	CLARK CO. PUD #1
219	CLATSKANIE PUD
221	COLUMBIA RIV PUD
222	COWLITZ CO. PUD
226	DOUGLAS CO. PUD
229	EMERALD PUD
230	FERRY CO. PUD #1
233	FRANKLIN CO PUD1
238	GRANT CO. PUD #2
241	GRAYS HARBOR PUD
246	KITTITAS CO PUD
250	KLICKITAT CO PUD
253	LEWIS CO. PUD #1
257	MASON CO. PUD #1
258	MASON CO. PUD #3
262	N. WASCO PUD
266	OKANOGAN PUD #1
270	PACIFIC PUD #2
273	PEND OREILLE PUD
279	SKAMANIA PUD #1
283	SNOHOMISH PUD #1
288	TILLAMOOK PUD
293	WAHIAKUM PUD #1
298	WHATCOM PUD #1

301	ALDER MUTUAL
303	BENTON REA
306	BIG BEND COOP
309	BLACHLY-LN. COOP
312	CENTRAL EL. COOP
315	CLEARWATER POWER
318	COLUMBIA BASIN C
321	COLUMBIA POWER C
324	COLUMBIA REA
327	CONSUMERS POWER
330	COOS-CURRY COOP
331	CRESCENT L&P
333	DOUGLAS COOP
334	ELMHURST MUTUAL
335	EAST END MUTUAL
336	EAST.OREGON COOP
337	FALL RIVER COOP
338	FARMERS ELEC CO
339	FLATHEAD COOP
340	GLACIER COOP
341	HARNEY COOP
342	HOOD RIVER COOP
345	IDAHO CO. L&P CO
348	INLAND P&L CO.
351	KOOTENAI COOP
353	LAKEVIEW L&P CO.
354	LANE CO. COOP
357	LINCOLN COOP-MT.
358	LINCOLN COOP-WA.
359	LOST RIVER COOP
360	LOWER VALLEY P&L
361	MIDSTATE COOP
364	MISSOULA COOP
367	NESPELEM VALLEY
370	NORTHERN LIGHTS
371	PORT OF SEATTLE
372	OHOP MUTUAL
373	OKANOGAN CO COOP
374	PENINSULA LIGHT
375	PARKAND P&L CO.
376	ORCAS P&L CO.
377	PRAIRIE COOP
378	P. OREILLE COOP
379	RAFT RIVER COOP
380	RAVALLI COOP
381	RIVERSIDE ELEC
382	RURAL ELECTRIC
383	SALEM ELECTRIC
384	SALMON RIVER
385	SOUTH SIDE ELEC
386	SURPRISE VALLEY
387	TANNER ELECTRIC
388	UMATILLA COOP
389	UNITY L&P CO.
390	VIGILANTE COOP
394	WASCO ELECTRIC
396	WELLS RURAL ELEC
397	WEST OREGON ELEC
399	PAC.NW GEN. CO.
410	BUREAU OF MINES
420	DOE RICHLAND
430	FAIRCHILD AIR
464	USBR-BURBANK
466	USBR-CH. JOSEPH
467	USBR-CROOKED R.
468	USBR-COLUMBIA BA
472	USBR-ROZA
473	USBR-RATHDRUM PR
474	USBR-SPOKANE VAL
475	USBR-SOUTHERN ID
476	USBR-THE DALLES
477	USBR-TUALATIN
478	USBR-SPOK INDIAN
480	USBIA-FLATHEAD
482	USBIA-WAPATO
488	U.S. NAVY
510	CP NAT-LA GRANDE
511	CP NAT-JOHN DAY
520	CITIZENS UTILITY
530	IDAHO POWER CO.
545	MONTANA L&P
551	MONTANA PWR (W)
552	MONTANA PWR (E)
556	NORTHWESTERN IMP
560	PACIFIC P&L
564	PAUL ELECTRIC
575	PORTLAND GENERAL
580	PUGET SOUND P&L
585	UTAH P&L
590	WASH WATER POWER
602	ALL DSI
605	ALCOA ALUMINUM
615	COLUMBIA FA ALUM
645	INTALCO ALUMINUM
651	KAISER ALUMINUM
660	MARTIN-MARIETTA
666	COMMONWEALTH AL.
675	REYNOLDS METALS
705	CARBORUNDUM CO.
716	PT TOWNSND PAPER
722	GEORGIA PACIFIC
725	HANNA NICKEL -OR
730	KAISER
743	OR.METALLURGICAL
745	PACIFIC CARBIDE
765	PENNWALT
770	ALCOA (SILICON)
785	GILMORE STEEL
801	FLATHEAD IRRIG
802	CITY OF WEISER
803	CASHMERE WS&L
804	CHEWELAH
805	PARKLAND LIGHT

END USE DEFINITIONS

END USE DEFINITIONS

RESIDENTIAL END USE DEFINITIONS

ENDUSE	DESCRIPTION	(EU CODE)
TOT	**BUILDING TOTAL** Building total, as metered at the service entrance.	(1)
HOT	**HOT WATER** Hot water tank circuits (heating coils, circulation pumps).	(2)
HVA	**HEATING, VENTILATION, AND AIR CONDITIONING** Space heating and air conditioning total. Sum of HTR, AIR, and MHT (combined heating/cooling) loads.	(3)
HTR	**SPACE HEATING** Space heating when it can be separately metered from cooling. Subset of HVA. HTR is not necessarily present when space heating equipment exists at the site (e.g., heat pumps are considered combined heating/cooling equipment).	(4)
AIR	**AIR CONDITIONING** Air conditioning when it can be separately metered from space heating. Subset of HVA. AIR is not necessarily present when air conditioning equipment exists at the site (e.g., heat pumps are considered combined heating/cooling equipment).	(5)
MHT	**MIXED HEAT** Space heating equipment when it is mixed with other (non-HVAC) end uses.	(6)
OTH	**OTHER** Total of all end uses other than heating/cooling (HVA, HTR, AIR, MHT) and hot water (HOT).	(7)
LIT	**LIGHTS & CONVENIENCES** Lighting and convenience circuits which do not include a major appliance. May include other ("mixed") end uses not metered separately.	(8)
KLC	**KITCHEN LIGHTS & CONVENIENCES** Subset of LIT, when this enduse is on a separate circuit.	(9)
OLC	**OUTDOOR LIGHTS & CONVENIENCES** Subset of LIT, when this enduse is on a separate circuit.	(10)
REF	**PURE REFRIGERATOR** Food refrigerators, when on a dedicated circuit.	(11)
MRF	**MIXED REFREIGERATOR** Food refrigerators, along with other loads on the same circuit.	(12)
FZR	**FREEZER** Food freezers, when on a dedicated circuit. Otherwise, freezers may be a component of OTH enduse.	(13)
FDP	**FOOD PREPARATION** Food preparation, including range and incidental other loads. Otherwise, food preparation may be a component of OTH enduse.	(14)

DWA **DISHWASHER** **(15)**
Dishwasher load, when on a dedicated circuit. Otherwise, dishwashers may be a component of OTH enduse.

CWA **CLOTHES WASHER** **(16)**
Clothes washer, when on a dedicated circuit. Otherwise, clothes washing may be a component of OTH enduse.

DRY **CLOTHES DRYER** **(17)**
Clothes dryer, when on a dedicated circuit. Otherwise, freezers may be a component of OTH enduse.

AHE **AIR TO AIR HEAT EXCHANGER** **(18)**
Air to air heat exchanger, if on a dedicated circuit.

SM1 **SPECIAL MAJOR APPLIANCE #1** **(19)**
SM2 **SPECIAL MAJOR APPLIANCE #2** **(20)**
Separately metered major appliance. The type of appliance will vary from site to site (e.g., kiln, jacuzzi, hot tub, expresso machine, garden pump, well pump, shop).

AH1 **AIR TO AIR HEAT EXCHANGER TEMPERATURE #1** **(21)**
AH2 **AIR TO AIR HEAT EXCHANGER TEMPERATURE #2** **(22)**
Average temperature of air to air heat exchanger exhaust vent.

ST1 **WOOD STOVE THERMAL SENSOR** **(23)**
This sensor produces a signal proportional to the temperature difference between the flue gas temperature and temperature outside the flue. Readings below 1000 typically indicates no stove use; reading between 1000 and 2000 are indeterminate; readings above 2000 indicate stove is in use.

ST2 **WOOD STOVE SWITCH OR THERMAL SENSOR** **(24)**
This sensor is an 'on/off' switch, with an 'on' value of 5, and an 'off' value of 0. The data value is between 0 and 5, which is proportionate to the percent of time the wood stove was on during the hour.

ST3 **WOOD STOVE TEMPERATURE SENSOR** **(25)**
This sensor measures the flue gas temperature.

ST4 **HOOD RIVER WOOD STOVE TEMPERATURE** **(26)**
This sensor is similar to ST3, and measures the flue gas temperature.

IT1 **INTERIOR TEMPERATURE #1** **(94)**
ITn **INTERIOR TEMPERATURE #n** **(95-113)**
The first inside air temperature sensor is generally in the central living area. Additional inside air temperature sensors are located at various places within the site.

WDU **WOOD USE** **(201)**
A calculated value, indicating whether one or more of the wood stove ens-uses (ST1-ST4) are above a pre-determined threshold value. The threshold value is unique for each site.

```
. = missing / no threshold defined
0 = no woodstove above the threshold value
1 = one or more woodstoves above the threshold value
```

SEE ALSO . . . METEOROLOGICAL and DATA QUALITY enduses

COMMERCIAL END USE DEFINITIONS

ENDUSE	DESCRIPTION	(EU CODE)
BLT	**BUILDING TOTAL** Building total, as metered at the service entrance.	(28)
HEA	**HEATING** Energy used solely for space heating, when it can be separately metered.	(31)
PHE	**ELECTRICAL PROXY FOR HEAT** Energy used by blowers, fans, controllers, pumps, etc., in a fossil fuel heated building.	(32)
COL	**COOLING** Energy used solely for cooling, when it can be separately metered.	(33)
VNT	**VENTILATION** Energy used for purpose of moving outide air into the building envelope, or exhausting air from within the building envelope (when it can be separately metered).	(34)
AUX	**AUXILIARIES** Energy used to support HVAC functions, such as crankcase heaters, damper motors, and fluid distribution pumps.	(35)
MIX	**MIXED HVAC** Energy used for a combination of space heating, space cooling, and/or ventilation, when they cannot be separately metered.	(36)
ILT	**INTERIOR LIGHTING** Energy used for illumination of space within the building envelope.	(37)
OLT	**EXTERIOR LIGHTING** Energy used for illumination of the building exterior, access routes, parking, or signs.	(38)
RFN	**REFRIGERATION** Energy used for freezers, refrigerators, water coolers, ice machines, and other cold storage spaces.	(39)
H20	**WATER HEATING** Energy used solely for heating water, for process (non space heating) or sanitation use.	(40)
GT1	**FLUE GAS TEMP FOR HOT WATER 1**	(43)
GT2	**FLUE GAS TEMP FOR HOT WATER 2**	(44)
GT3	**FLUE GAS TEMP FOR HOT WATER 3** Flue gas temperatures for fossil fuel water heaters.	(45)
PLG	**RECEPTACLES** Energy supplied to circuits supplying convenience outlets, for unspecified applications.	(46)
ELV	**VERTICAL TRANSPORT** Energy used solely for elevating or lowering people or materials, including elevators, escalators, and dumb waiters.	(47)

FOO **FOOD PREPARATION** **(48)**
Energy used solely for preparation, cooling, or presentation of food.

MTR **MATERIAL HANDLING** **(50)**
Energy used solely for movement or handling of materials, such as trash compactors, conveyors, and garbage disposals.

DAT **DATA PROCESSING** **(51)**
Energy used solely for processing of informations, such as computers, copiers, and miscellaneous office equipment.

REC **RECREATION** **(52)**
Energy used solely for recreational purposes, such as video games, swimming pools, and sound equipment.

SAN **SANITATION** **(53)**
Energy used solely for cleaning or disinfecting, such as dishwashers and laundry equipment.

LAB **LABORATORY** **(54)**
Energy used solely for scientific or medical applications, such as centrifuges and x-ray machines.

SHP **SHOP** **(55)**
Energy used solely for appliances associated with light menufacturing, such as sewing machines and table saws.

GEN **GENERAL-MIXED** **(56)**
Energy used for any mixture of the above end-uses, when it was not practicable to meter the end-uses separately.

UNK **UNKNOWN** **(57)**
Energy supplied to circuits for purposes which could not be determined.

SP1 **SPECIALTY 1** **(58)**
SP2 **SPECIALTY 2** **(59)**
SP3 **SPECIALTY 3** **(60)**
SP4 **SPECIALTY 4** **(61)**
Energy used for special applications, such as security systems, communications systems, and particular processes. The type of end-use will vary from site to site.

IT1 **INTERIOR TEMPERATURE #1** **(94)**
ITn **INTERIOR TEMPERATURE #n** **(95-113)**
Inside air temperature sensors are located at various places within the site.

TCH * **TOTAL COMMERCIAL HVAC** **(202)**
Energy used for all heating, ventilation, and air conditioning equipment at the site.

```
TCH = HEA + COL + AUX + VNT + MIX + PHE
```

TCL * **TOTAL COMMERCIAL LIGHTING** **(203)**
Energy used solely for interior and exterior illumination. Additional lighting energy could be included in TCO, especially when lighting appliances are combined with other plug loads.

```
TCL = ILT + OLT
```

* TCH; TCL; TCO: will have value when any of the end uses has a value (~~not~~ even if some EU's are missing due to logger failure)
→ not dependent on Equations.

TCO **TOTAL COMMERCIAL OTHER** **(204)**

Energy used for all purposes not included in TCH and TCL. This could include HVAC and lighting loads, when these end-uses share circuits with other loads.

```
TCO = RFN + H2O + PWE + PLG + ELV + FOO + MTR + DAT + REC + SAN +
      LAB + SHP + GEN + UNK + SP1 + SP2 + SP3 + SP4 + SP5
```

SEE ALSO . . . METEOROLOGICAL and DATA QUALITY enduses

METEOROLOGICAL END USE DEFINITIONS

ENDUSE	DESCRIPTION	(EU CODE)
OT1	**OUTDOOR TEMPERATURE 1**	(114)
OT2	**OUTDOOR TEMPERATURE 2**	(115)
OT3	**OUTDOOR TEMPERATURE 3**	(116)
OT4	**OUTDOOR TEMPERATURE 4**	(117)
	The outdoor temperature measured at the site. At meterological states, the sensor is located on a mast above the roofline of the building. At other buildings, the sensor is location on the north wall of the structure, under the eaves.	
RM1	**RELATIVE HUMIDITY 1**	(118)
RM2	**RELATIVE HUMIDITY 2**	(119)
	The relative humidity, which the ratio of the actual vapor pressure of the air, to the saturation vapor pressure.	
WSP	**WIND SPEED**	(120)
	The wind speed, as measured by an anemometer located on a mast above the roofline of the building. For NWS sites, the anemometer is on a mast 10m above the ground, and free from any obstruction to air movement.	
WDR	**WIND DIRECTION**	(121)
	The direction from which the wind is blowing, referenced to true north. Location is the sensor is similar to wind speed. North is 0 degrees, east is 90 degrees, etc.	
GHZ	**GLOBAL HORIZONTAL RADIATION**	(122)
	The total of direct solar radiation and diffuse sky radiation received on a unit horizontal surface. This is also known as total horizontal isolation. GHZ at ELCAP sites is measured by a pyranometer. For NWS sites, GHZ is estimated by a model. For TMY and WYEC met sites, GHZ is measured at Seattle and Medford, and estimated by a model for other sites.	
ETR	**EXTRA-TERRESTRIAL RADIATION**	(123)
	Solar radiation recieved 'on top of' the earths atmosphere.	
DNM	**DIRECT NORMAL RADIATION**	(124)
	The portion of the radiant energy received at the earth's surface direct from and on a surface normal to the sun, as measured by a pyrheliometers.	
DHZ	**DIRECT HORIZONTAL RADIATION**	(125)
	The portion of direct normal radiation recieved on a unit horizontal surface. DHZ is estimated from a model for NWS station data, or can be calculated from the direct normal radiation.	
DIF	**DIFFUSE HORIZONTAL RADIATION**	(126)
	Radiation reaching the earth's surface after having been scattered from the direct solar beam, by molecules or suspensoids in the atmosphere. DIF is estimated by a model for the NWS station data.	
PHO	**PHOTOMETER**	(127)
	A measure of the amount of daylight visible to the human eye.	
DEW	**DEW POINT TEMPERATURE**	(128)
	The dew point temperature at the site.	

WET	**WET BULB TEMPERATURE** The wet bulb temperature at the site.	**(129)**
OHM	**OUTDOOR RELATIVE HUMIDITY** The outdoor relative humidity, which the ratio of the actual vapor pressure of the air, to the saturation vapor pressure.	**(130)**
STP	**STATION PRESSURE** The atmospheric pressure, adjusted for the station elevation.	**(131)**
WSV **WDV**	**WIND SPEED VECTOR** **WIND DIRECTION VECTOR** A vector pair, which are the results of the vector additon of the hourly windspeed (WSP) and wind direction (WDR) end-uses.	**(198)** **(199)**

OPQ OPAQUE SKY COVER 137

SKY SKY COVER 136

DATA QUALTITY END USE DEFINITIONS

ENDUSE	DESCRIPTION	(EU CODE)

SUM — **ENERGY ENDUSE SUM-CHECK (RES)** **(217)**

The difference between the building total, and the sum of the individual energy end-uses for a residential site.

```
SUM = TOT - (HVA + HOT + OTH)
```

ABS — **ENERGY ENDUSE SUM-CHECK ABSOLUTE VALUE (RES)** **(218)**

The absolute value of SUM.

CHK — **ENERGY ENDUSE SUM-CHECK (COM)** **(219)**

The difference between the building total, and the sum of the individual energy end-uses for a commerical site.

```
CHK = BLT - (TCH + TCL + TCO)
```

ABC — **ENERGY ENDUSE SUM-CHECK ABSOLUTE VALUE (COM)** **(220)**

The absolute value of CHK.

DQL — **DQ LEVEL** **(321)**

DQL is the maximum logger status code, for any of the possibly several loggers at a site. The same value of DQL applies to all end-uses at the site. The PADS data set has been limited to data with DQL values between 1 and 5.

```
1 = Good.  Conforms to full ELCAP installation protocol.
2 = Good.  Conforms to full ELCAP installation protocol, but has been
    reprocessed on the VAX.
3 = Good, but does not conform to full ELCAP installation protocol.
    (reconstructed data?)
4 = Some data has been reconstructed with respect to time stamps.
5 = Some data has been reconstructed with respect to energy end-use equations.
6 = In verification.
7 = Failed verification.
8 = Met data only.
9 = No data for an extended period of time.
```

TSH — **TIMESHIFT** **(322)**

The maximum percent time shift (from actual clock time) for any data logger at the site. Timeshifts occur when a power outage at the site resets the logger clock to zero, and thus the data after the outage is off-time. The data has been stored with the nearest appropriate time period. Thus, for hourly data, timeshift can be no larger than 30 minutes (50%).

DQF **DQ FLAG** **(323)**

DQF is an assessment of data quality, based on a series of sum-check equations applied to the circuit level data. These equations test the sums of various circuits against the circuit busses which feed these circuits ('what goes in must go out'), at the greatest level of detail possible. The result of these equations is expressed as a percent difference (between the components and the check-total), divided by the largest pulse multiplier for any of the circuits. Large differences indicate possible missing circuits (end-uses), or equipment/measurement problems. Reversed current transformers (CT's) are detected by observing a large amount of negative channel data. The metering (A-D converter) does not correctly process negative inputs.

```
For Residential Sites:

0 = Missing data
1 = Sumcheck less than 1.6*TOL, with no reversed current transformers (CT's).
2 = Sumcheck between 1.6*TOL and 2.4*TOL, with no reversed CT's.
3 = Logger status 3 (reconstructed), with no reversed CT's
4 = Sumcheck greater than 2.4*TOL, with no reversed CT's.
5 = Reversed CT, or logger status 6,7, or 8.

For Commercial Sites:

0 = Missing data
1 = Sumcheck less than 1.6*TOL, with no reversed current transformers (CT's).
2 = Sumcheck between 1.6*TOL and 2.4*TOL, with no reversed CT's.
3 = Logger status 3 (reconstructed), with no reversed CT's
4 = Sumcheck between 2.4*TOL and 4.0*TOL, with no reversed CT's.
5 = Sumcheck between 4.0*TOL and 7.0*TOL, with no reversed CT's.
6 = Sumcheck between 7.0*TOL and 12.0*TOL, with no reversed CT's.
7 = Sumcheck greater than 12.0*TOL, with no reversed CT's.
8 = Reversed CT, or logger status 6,7, or 8.
```

RESIDENTIAL METERING

END USE METERING HIERARCHY
(Residential)

ELECTRICAL

Level: 0	1	2	3	Description
TOT				Building Total
	HOT			Hot Water
	HVA			Heating, Ventilation, and Air Conditioning
		HTR[1]		Space Heating
		AIR[1]		Air Conditioning
	OTH			Other / Mixed
		MHT[2]		Mixed Heat
		LIT		Lights / Conveniences
			KLC[1]	Kitchen Lights / Conveniences
			OLC[1]	Outside Lights / Conveniences
		REF		Pure Refrigerator
		MRF[2]		Mixed Refrigerator
		FZR[3]		Freezer
		FDP[3]		Food Preparation
		DWA[3]		Dishwasher
		CWA[3]		Clothes Washer
		DRY[3]		Clothes Dryer
		AHE[3]		Air to Air Heat Exchanger
		SM1[3]		Special Major Appliance 1
		SM2[3]		Special Major Appliance 2

OTHER

AH1-AH2	Air to Air Heat Exchanger Temperature
ST1-ST4	Wood Stove Sensor
IT1-IT20	Interior Temperature

[1] Available only if end-use is separable into components. Will not necessarily sum to parent end-use.

[2] May include lights, other appliances, or wall outlets.

[3] Available if end-use is on a dedicated circuit. Otherwise, included in LIT (Lights and Conveniences).

COMMERCIAL METERING

END USE METERING HIERARCHY
(Commercial)

Level: 0	1	2	Description
BLT			Building Total
	TCH		HVAC sub-total
		HEA	Heating
		PHE	Electrical Proxy for Heat
		COL	Cooling
		VNT	Ventilation
		AUX	Auxiliaries
		MIX[1]	Mixed HVAC
	TCL		Lighting sub-total
		ILT	Interior Lighting
		OLT	Exterior Lighting
	TCO		All other end-uses sub-total
		RFN	Refrigeration
		H2O	Water Heating
		PWE	Electrical Proxy for Hot Water
		PLG[2]	Recepticles
		ELV[3]	Vertical Transport
		FOO[3]	Food Preparation
		MTR[3]	Material Handling
		DAT[3]	Data Processing
		REC[3]	Recreation
		SAN[3]	Sanitation
		LAB[3]	Laboratory
		SHP[3]	Shop
		GEN[2]	General / Mixed
		UNK[2]	Unknown
		SP1	Specialty 1
		SP2	Specialty 2
		SP3	Specialty 3
		SP4	Specialty 4
		SP5	Specialty 5

[1] Includes some combination of space heating, cooling, and ventilation when they cannot be completely disaggregated.

[2] May include any mixture of end-uses when it is not practicable to disaggregate.

[3] Available if end-use is on a dedicated circuit. Otherwise, included in GEN (General/mixed) or PLG (Recepticles).

RESCHAR

METEOROLOGIAL MTRING

Residential Characteristics ("RESCHAR")

ACCESS

SAS Data Library: **RPEE.RLCAP.ELCAP.CHAR.SASDB**
SAS Format Library: **RPEE.RLCAP.ELCAP.CHAR.FORMATS**

SAS Data Set Name: **RESCHAR**

Number of Observations: **523**

CONTENTS

The RESCHAR dataset is a compendium of selected key variables from the characteristics database (CBD) and engineering data (PADS).

The data is organized as one SAS observation per site.

VARIABLES: SITE IDENTIFICATION

SITE — **SITE**
The unique key that is assigned to a site. By definition, site numbers do not change location.

VARIABLES: STUDY CODES

SC002 — **PARTICIPATION_BEGIN_DATE**
Date metering equipment was installed.

SAS Format: DATE7.

SC003 — **PARTICIPATION_END_DATE**
Date of last engineering data collected. Date missing implies site is still particating.

SAS Format: DATE7.

SC004 — **TIME_ZONE**
The time zone in which the site is located.

Format: SC004X.

```
2 = PACIFIC TIME
4 = MOUNTAIN TIME
```

SC005 — **GEOGRAPHIC_REGION**
Geographic region of the site.

Format: SC005X.

```
1 = W. WASHINGTON
2 = W. OREGON
3 = E. WASHINGTON
4 = E. OREGON
5 = IDAHO
6 = MONTANA
7 = NEVADA
8 = WYOMING
```

SC006 **ZIP_CODE**
Postal zip code. $ SC006X.

SC007 **UTILITY**
The BPA code number for the electric utility which serves this site.

Format: SC007X.

```
Coding: see UTILITY/METSITE CODES
```

SC008 **CLIMATE_ZONE**
The climate zone is based on annual heating degree-days using a 65 degree base temperature.

Format: SC008X.

```
1 = < 6000 HDD
2 = 6000-8000 HDD
3 = > 8000 HDD
```

SC009 **MET_SITE_FLAG**
Indicates the type of outdoor meteorological sensors located at the site.

Format: SC009X.

```
0 = NO SENSORS
1 = OUTDOOR TEMP
2 = FULL MET SITE
```

SC010 **PREFERRED_MET_SITE**
Contains the site number for the first choice of meteorological tower to be used for this site. Site numbers 5001 to 5999 are ELCAP MET sites; numbers 9001 to 9099 are NWS sites.

SC011 **SECONDARY_MET_SITE**
Contains the site number for the second choice of meteorological tower to be used for this site.

SC012 **OUTDOOR_TEMPERATURE**
Indicates the site number with better outdoor temperature data for the site than what is represented in the preferred or secondary met choices.

SC013 **TMY_MET_SITE**
Indicates the TMY (Typical Meteorogical Year) site number for this site. TMY sites are numbered 9101 to 9199.

Format: METSITE.

```
Coding: see UTILITY/METSITE CODES
```

SC014 **WYEC_MET_SITE**
Indicates the WYEC (Weather Year for Energy Calculations) site number for this site. WYEC sites are numbered from 9201 to 9299. Many sites do not have applicable WYEC sites.

Format: METSITE.

```
Coding: see UTILITY/METSITE CODES
```

SC015 **CLOSEST_NWS**
Indicates the closest NWS (National Weather Service) station for this site. NWS sites are numbered from 9001 to 9099.

Format: METSITE.

```
Coding: see UTILITY/METSITE CODES
```

SC017 **BUILDING_TYPE**
Building type for the site.

Format: SC017X.

```
1 = RESIDENTIAL
2 = COMMERICAL
3 = MULTI-FAMILY
9 = MET SITE
```

SC018 **ELCAP REGION** (recruiting)

SC019 **ELCAP_STUDY**
Indicates the directory where the load data is stored.

Format: $SC019X.

```
'CAP ' = COM. AUDIT PGM
'COM ' = COM. BASE SITE
'DOE ' = DOE CO-INSTRUM.
'HCOM' = HOOD RIVER COM.
'HRES' = HOOD RIVER RES.
'HSUB' = HOOD RIVER SUBST
'MAN ' = MANUF. HOUSING
'MET ' = METEOROLOGICAL
'MFM ' = MULTIFAMILY
'PES ' = PURCH ENERGY SAV
'RES ' = RES. BASE SITE
'RSDP' = RES. STANDARDS
```

VARIABLES:	STUDY FLAGS

SF002 **STUDY_1**
Primary study assignment for the site.

Format: SF002X.

```
 1 = RES. BASE
 2 = RES. RENTER
 3 = RES. ATTACHED
 4 = RES. MANUF.
 5 = RES. GAS/OIL
11 = RES. SPECIAL
21 = RSDP PAIRED
22 = RSDP GROUP — (all are MCS)
25 = TACOMA MCS
28 = RSDP MULTIFAMILY
31 = EEMHDP UNOCCUP.
32 = EEMHDP OCCUPIED
```

SF003 **STUDY_2**
Secondary study assignment for the site (for sites assigned to more than one study).

Format: SF003X.

```
 0 = NONE
22 = RSDP GROUP
```

(~~Base~~ base only, implies POST-78 group

SF004 **MCS**
Indicates whether the dwelling was built to the Model Conservation Standard (MCS).

Format: SF004X.

coded for: 21, 22, 25, 28
all (0,1) (1) (0,1)

```
0 = DOESN'T MEET MCS
1 = MEETS MCS
```

SF005 **MATCH**
Indicates the site number of the other half of the matched pair for dwellings in the following studies: RSDP Pair, RSDP Multi-Family, and EEMHDP study.

SF006 **RSDP_CODE**
"Keegan number" for sites in the RSDP study.

```
coding: ABCDE-xxx
 A = state (1=ID, 2=MT, 3=OR, 4=WA)
 B = climate zone (1=zone1, 2=zone2, 3=zone3)
 C = matched? (1=matched, 2=unmatched, 3=unmatched ELCAP-monitored)
 D = building code (1=MCS, 2=current code)
 E = type of home (1=single-family, 2=multi-family)
 xxx = Paired house number.
```

SF007 **PNWRES_CODE**
Original PNWRES-83 site identification code.

SF008 **RSDP_MF_UNITS**
Actual number of units in a multi-family building.

VARIABLES: FUNDAMENTAL RESIDENTIAL CHARACTERISTICS

FRC002 **UTILITY_TYPE**
Type of utility serving the residence.

Format: FRC002X.

```
1 = PRIVATE
2 = PUBLIC GEN.
3 = PUBLIC NONGEN.
```

FRC003 **RESIDENCE_VINTAGE**
The time during which the residence was constructed.

Format: FRC003X.

```
10 = PRE 1960
11 = PRE 1940
12 = 1940-49
13 = 1950-59
20 = 1960-78
21 = 1960-69
22 = 1970-74
23 = 1975-78
30 = POST 1978
31 = 1979-81
32 = POST 1981
```

FRC003A **RESIDENCE_VINTAGE_A**
The decade during which the residence was constructed (derived form FRC003).

Format: FRC003AX.

```
1 = PRE 1960
2 = 1960-78
3 = POST 1978
```

FRC004 **RESIDENCE_SIZE**
The area of the residence in square feet. Includes both conditioned and unconditioned zones, if known.

FRC005 **RESIDENCE_SIZE_COND**
The conditioned area of the residence in square feet.

FRC006 **HEATING_SYS_USED_MOST**

The heating system used most by occupants of the residence.

Format: FRC006X.

```
 1 = ELEC FORCED AIR
 2 = ELEC BASEBOARD
 3 = ELEC RADIANT
 4 = ELEC HEAT PUMP
 5 = GAS FORCED AIR
 6 = GAS STEAM/WATER
 7 = OIL FORCED AIR
 8 = OIL STEAM/WATER
 9 = KEROSENE
10 = WOODSTOVE
11 = FIREPLACE INSERT
12 = ELEC PORTABLE
13 = ELEC ROOM F.A.
14 = WOOD FURNACE
```

FRC007 **HEATING_SYS_ELEC_AVLBL**

The electric heating systems available in the residence.

Format: FRC007X.

```
 0 = NONE
 1 = ELEC FORCED AIR
 2 = ELEC BASEBOARD
 3 = ELEC RADIANT
 4 = ELEC HEAT PUMP
 5 = ELEC ROOM F.A.
10 = EFA + EBB
11 = EFA + RAD
12 = EFA + HP
13 = EBB + RAD
14 = EBB + HP
15 = RAD + HP
16 = RAD + ROOM FA
17 = EBB + RAD + HP
```

FRC007A **HEATING_SYS_ELEC_AVAIL_CFA**

Indicates if electric central forced air heating is available in the residence. (Derived from FRC007).

FRC007B **HEATING_SYS_ELEC_AVAIL_EBB**

Indicates if electric baseboard heating is available in the residence? (Derived from FRC007).

FRC007C **HEATING_SYS_ELEC_AVAIL_RAD**

Indicates if electric radiant heating is available in the residence? (Derived from FRC007).

FRC007D **HEATING_SYS_ELEC_AVAIL_HP**

Indicates if an electric heat pump is available in the residence? (Derived from FRC007).

FRC007E **HEATING_SYS_ELEC_AVAIL_ROOM_FA**

Indicates if electric individual room forced air heating is available in the residence? (Derived from FRC007).

FRC008 **HEATING_WOOD_USE**

Indicates whether the occupants use wood to heat their residences.

Format: FRC008X.

```
1 = YES
2 = NO
```

FRC009 **HEATING_SYS_WOOD_AVLBL**
The types of wood heating equipment available in the residence.

Format: FRC009X.

```
0 = NONE
1 = MINOR EQUIPMENT
2 = MAJOR EQUIPMENT
```

FRC010 **OCCUPANTS_NUMBER**
The number of occupants in the residence.

FRC011 **OCCUPANTS_INCOME**
The income of the occupants in the residence (for calendar year 1984).

Format: FRC011X.

```
1 = UNDER $8,000
2 = $8,000-$15,999
3 = $16,000-$24,999
4 = $25,000-$34,999
5 = $35,000-$59,999
6 = $60,000 & OVER
```

FRC012 **OCCUPANTS_EDUCATION**
The educational level of occupants in the residence (for the most formally educated occupant).

Format: FRC012X.

```
 1 = NEVER ATTENDED
 2 = SOME ELEMENTARY
 3 = COMP ELEMENTARY
 4 = SOME HIGH SCHOOL
 5 = COMP HIGH SCHOOL
 6 = COMP TRADE/VOC
 7 = SOME COLLEGE
 8 = COMP COLLEGE
 9 = SOME POST-GRAD
10 = COMP POST-GRAD
```

FRC013 **APPLNCE_BASIC_ELEC_INDX**
Total number of basic electric appliances in the residence. Basic appliances include: refrigerator, freezer, range, oven, clothes washer, clothes dryer, and dishwasher.

FRC014 **EQUIP_SPCL_ELEC_INDX**
The total number of various types of special elecric equipment in the residence.

FRC015 **HOUSEHOLD_STRUCTURE**
The age categories of occupants of the residence.

Format: FRC015X.

```
 0 = VACANT
 1 = <6, 18-65
 2 = <6, 6-17, 18-65
 3 = 6-17, 18-65
 4 = <6, 18-65, >65
 5 = ALL 4 AGE GROUPS
 6 = 6-17, 18-65, >65
 7 = <6, >65
 8 = <6, 6-17, >65
 9 = 6-17, >65
10 = 18-65
11 = 18-65, >65
12 = >65
```

FRC015A **HOUSEHOLD_STRUCTURE_UNDER6**
Indicates if household includes occupants under age 6.

FRC015B **HOUSEHOLD_STRUCTURE_6-17**
Indicates if household includes occupants ages 6 through 17.

FRC015C **HOUSEHOLD_STRUCTURE_18-65**
Indicates if household includes occupants ages 18 through 65.

FRC015D **HOUSEHOLD_STRUCTURE_OVER65**
Indicates if household includes occupants over age 65.

FRC016 **HEATING_SYS_FOSSFUEL_AVLBL**
The fossil fuel and associated heating systems available in the residence.

Format: FRC016X.

```
0 = NONE
1 = GAS FORCED AIR
2 = GAS STEAM/WATER
3 = GAS WALL UNIT
4 = OIL FORCED AIR
5 = OIL STEAM/WATER
6 = OIL WALL UNIT
7 = OIL STOVE
8 = COAL STOVE
9 = PROPANE STM/WTR
```

FRC017 **WATER_HEATER_VOLUME**
The volume of electric water heaters in the residence, in gallons.

FRC018 **WATER_HEATER_TAPTEMP**
The average tap temperature of water from the electric water heaters in the residence, in degrees Fahrenheit.

FRC019 **PERCEIVED_ENERGY_EFF_RES**
The level of energy efficiency of the residence, as indicated by the responding occupant.

Format: FRC019X.

```
1 = AS EFFICIENT
2 = LITTLE IMPROVE
3 = MODERATE IMPROVE
4 = LOT OF IMPROVE
5 = DO NOT KNOW
```

FRC020 **AIR_COND_AREA**
The air conditioned area of the residence, in square feet.

FRC021 **AIR_COND_SYS_AVLBL**
The types of electric air conditioning systems available in the residence.

Format: FRC021X.

```
0 = NONE
1 = CENTRAL ELEC
2 = EVAP COOLER
3 = HEAT PUMP (AIR)
4 = WALL/WINDOW
5 = HEAT PUMP+WINDOW
6 = TWO CENTRAL ELEC
7 = TWO WALL/WINDOW
```

FRC022 **REFRIGERATION_VOLUME**
The volume of refrigerators and freezers located in any zone of the residence, in cubic feet.

FRC023 **REFRIGERATION_VOLUME_COND**
The volume of refrigerators and freezers located in conditioned zone of the residence, in cubic feet.

FRC024 **WATER_HEATER_AUX_FEATURES**

The location and auxiliary features of electric water heaters in the residence. Features include: tank insulation, pipe insulation, and solar assistance equipment. Locations are: conditioned zone, and unconditioned zone.

Format: FRC024X.

```
 10 = COND, NONE
 11 = COND, INSUL TANK
 12 = COND, INSUL PIPE
 13 = COND, SOLAR
 14 = COND, TANK+PIPE
 15 = COND, TANK+SOLAR
 16 = COND, PIPE+SOLAR
 17 = COND, T+P+S
 20 = UNCOND, NONE
 21 = UNCOND, INS TANK
 22 = UNCOND, INS PIPE
 23 = UNCOND, SOLAR
 24 = UNCOND, T+P
 25 = UNCOND, T+S
 26 = UNCOND, P+S
 27 = UNCOND, T+P+S
100 = 2 COND, NONE
110 = 2 COND, T+NONE
111 = 2 COND, TANKS
202 = 2 UNCOND, NONE+P
211 = 2 UNCOND, TANKS
311 = COND+UNCOND TANK
```

FRC024A **WATER_HEATER_AUX_FEATURES_NUMBER**

Indicates number of water heaters in residence. (Derived from FRC024).

FRC024B **WATER_HEATER_AUX_FEATURES_LOCATION**

Indicates location of water heaters in residence. (Derived from FRC024).

Format: FRC024BX.

```
1 = COND SPACE
2 = UNCOND SPACE
3 = COND+UNCOND SP
```

FRC024C **WATER_HEATER_AUX_FEATURES_TANKWRAP**

Indicates if water heater has a tank wrap. (Derived from FRC024).

FRC024D **WATER_HEATER_AUX_FEATURES_PIPEWRAP**

Indicates if water heater has pipe wrap. (Derived from FRC024).

FRC024E **WATER_HEATER_AUX_FEATURES_SOLAR**

Indicates if water heater has solar assistance equipment. (Derived from FRC024).

FRC025 **WATER_HEATER_SPCL_INDX**

Total number of various types of special electric water heaters in the residence. Special electric water heaters include: water bed heaters, hot tup and jacuzzi heaters, and electric pool heaters.

FRC026 **SOUTH_EXP_WALLS**

Area of wall space facing south, in square feet. Includes window and door area.

FRC027 **SOUTH_EXP_WINDOWS**

Area of windows facing south, in square feet. Does not include sash.

FRC028 **SOUTHWEST_EXP_WALLS**

Area of wall space facing west and southwest, in square feet. Includes window and door area.

FRC029 **SOUTHWEST_EXP_WINDOWS**

Area of windows facing west and southwest, in square feet. Does not include sash.

FRC030 **SOUTHEAST_EXP_WALLS**
Area of wall space facing east and southeast, in square feet. Includes window and door area.

FRC031 **SOUTHEAST_EXP_WINDOWS**
Area of windows facing east and southeast, in square feet. Does not include sash.

VARIABLES:	AMOUNT OF ENGINEERING DATA

The following variables relate to the amount of engineering data present in the most recent version PADS (at BPA).

P_BEGIN **DATE PADS DATA BEGINS**
First month for which non-missing engineering data exists for the building total enduse (TOT). Coded as a SAS date value, as the first day of the month.

SAS Format: MONYY5.;

P_ENDS **DATE PADS DATA ENDS**
Last month for which non-missing engineering data exists for the building total enduse (TOT). Coded as a SAS date value, as the first day of the month.

SAS Format: MONYY5.;

P_MONTHS **MONTHS OF PADS DATA (POSSIBLE)**
Count of the number of months between P_BEGIN and P_ENDS.

P_PERCNT **PERCENTAGE OF PADS DATA NON-MISSING**
The fraction of hours for which engineering data is present (non-missing). This is calculated as the total number of non-missing hours for building total (TOT), divided by the number of hours in the time span between P_BEGIN and P_ENDS. There is no allowance for periods of missing data due to the data logger being out of service, or any other adjustment.

P_VALID **MONTHS OF PADS DATA (PASSING 'MISSING' CRITERIA)**
The number of months for which the building total enduse (TOT) passes the PNL "with NA's" criteria. This count is derived from the PADS "Monthly" dataset.

P_COUNT **MONTHS OF PADS DATA (WITH DATA)**
Count of the number of months with at least one hour of data (building total enduse, TOT) during the month.

P_PCT50 **PERCENTAGE OF MONTHS WHERE P_PERCENT EXCEEDS 50%**
The number of months where the fraction of hours with non-missing hourly data exceeds 50%, divided by the count of months with at least one hour of data present (P_COUNT). Based on building total enduse (TOT).

P_PCT80 **PERCENTAGE OF MONTHS WHERE P_PERCENT EXCEEDS 80%**
The number of months where the fraction of hours with non-missing hourly data exceeds 80%, divided by the count of months with at least one hour of data present (P_COUNT). Based on building total enduse (TOT).

P_PCT90 **PERCENTAGE OF MONTHS WHERE P_PERCENT EXCEEDS 90%**
The number of months where the fraction of hours with non-missing hourly data exceeds 90%, divided by the count of months with at least one hour of data present (P_COUNT). Based on building total enduse (TOT).

P_PCT95 **PERCENTAGE OF MONTHS WHERE P_PERCENT EXCEEDS 95%**
The number of months where the fraction of hours with non-missing hourly data exceeds 95%, divided by the count of months with at least one hour of data present (P_COUNT). Based on building total enduse (TOT).

P_PCT98 **PERCENTAGE OF MONTHS WHERE P_PERCENT EXCEEDS 98%**
The number of months where the fraction of hours with non-missing hourly data exceeds 98%, divided by the count of months with at least one hour of data present (P_COUNT). Based on building total enduse (TOT).

P_PCT100 **PERCENTAGE OF MONTHS WHERE P_PERCENT EXCEEDS 100%**
The number of months where all hourly data values are present (no missing hours), divided by the count of months with at least one hour of data present (P_COUNT). Based on building total enduse (TOT).

The following variables indicate whether a particular enduse exists at a site (non-missing value), and if so, how many months have at least one hour of data. The variable names are constructed by concatenating 'N_' with the enduse abbreviation.

N_AHE	**AIR TO AIR HEAT EXCHANGER (MONTHS OF DATA)**
N_AH1	**AHE AIR TEMPERATURE #1 (MONTHS OF DATA)**
N_AH2	**AHE AIR TEMPERATURE #2 (MONTHS OF DATA)**
N_AIR	**AIR CONDITIONING (MONTHS OF DATA)**
N_CWA	**CLOTHES WASHER (MONTHS OF DATA)**
N_DRY	**CLOTHES DRYER (MONTHS OF DATA)**
N_DWA	**DISHWASHER (MONTHS OF DATA)**
N_FDP	**FOOD PREPARATION (MONTHS OF DATA)**
N_FZR	**FREEZER (MONTHS OF DATA)**
N_HM1	**RELATIVE HUMIDITY #1 (MONTHS OF DATA)**
N_HM2	**RELATIVE HUMIDITY #2 (MONTHS OF DATA)**
N_HOT	**HOT WATER (MONTHS OF DATA)**
N_HTR	**SPACE HEATING (MONTHS OF DATA)**
N_HVA	**HEATING, VENTILATION, A/C (MONTHS OF DATA)**
N_IT1	**INTERIOR TEMPERATURE #1 (MONTHS OF DATA)**
N_IT2	**INTERIOR TEMPERATURE #2 (MONTHS OF DATA)**
N_IT3	**INTERIOR TEMPERATURE #3 (MONTHS OF DATA)**
N_IT4	**INTERIOR TEMPERATURE #4 (MONTHS OF DATA)**
N_KLC	**KITCHEN LIGHTS & CONVENIENCES (MONTHS OF DATA)**
N_LIT	**LIGHTS & CONVENIENCES (MONTHS OF DATA)**
N_MRF	**MIXED REFRIGERATOR (MONTHS OF DATA)**
N_OLC	**OUTDOOR LIGHTS & CONVENIENCES (MONTHS OF DATA)**
N_OTH	**OTHER / MIXED (MONTHS OF DATA)**
N_OT1	**OUTDOOR TEMPERATURE #1 (MONTHS OF DATA)**
N_OT2	**OUTDOOR TEMPERATURE #2 (MONTHS OF DATA)**

N_REF	PURE REFRIGERATOR (MONTHS OF DATA)
N_SM1	SPECIAL APPLIANCE #1 (MONTHS OF DATA)
N_SM2	SPECIAL APPLIANCE #2 (MONTHS OF DATA)
N_ST1	WOOD STOVE THERMAL SENSOR (MONTHS OF DATA)
N_ST2	WOOD STOVE SWITCH OR THERMAL SENSOR (MONTHS OF ATA)
N_ST3	WOOD STOVE TEMPERATURE SENSOR (MONTHS OF DATA)
N_SUM	ENERGY END USE SUM CHECK (MONTHS OF DATA)
N_TOT	BUILDING TOTAL (MONTHS OF DATA)
N_WDU	WOOD USE (MONTHS OF DATA)
N_WSP	WIND SPEED (MONTHS OF DATA)

VARIABLES: ENGINEERING DATA ANNUAL "AVG" DATA VALUES

The following variables contain an average value for the enduse engineering data, based on the monthly variable AVG (average of all values without criteria applied). KWH enduses are expressed as an annual total, all other enduse measures are an annual mean. The variable names are constructed by concatenating 'A_' with the enduse abbreviation.

A_AHE	AIR TO AIR HEAT EXCHANGER (ANNUAL AVERAGE)
A_AH1	AHE AIR TEMPERATURE #1 (ANNUAL AVERAGE)
A_AH2	AHE AIR TEMPERATURE #2 (ANNUAL AVERAGE)
A_AIR	AIR CONDITIONING (ANNUAL KWH)
A_CWA	CLOTHES WASHER (ANNUAL KWH)
A_DRY	CLOTHES DRYER (ANNUAL KWH)
A_DWA	DISHWASHER (ANNUAL KWH)
A_FDP	FOOD PREPARATION (ANNUAL KWH)
A_FZR	FREEZER (ANNUAL KWH)
A_HM1	RELATIVE HUMIDITY #1 (ANNUAL AVERAGE)
A_HM2	RELATIVE HUMIDITY #2 (ANNUAL AVERAGE)
A_HOT	HOT WATER (ANNUAL KWH)
A_HTR	SPACE HEATING (ANNUAL KWH)
A_HVA	HEATING, VENTILATION, A/C (ANNUAL KWH)

A_IT1	INTERIOR TEMPERATURE #1 (ANNUAL AVERAGE)
A_IT2	INTERIOR TEMPERATURE #2 (ANNUAL AVERAGE)
A_IT3	INTERIOR TEMPERATURE #3 (ANNUAL AVERAGE)
A_IT4	INTERIOR TEMPERATURE #4 (ANNUAL AVERAGE)
A_KLC	KITCHEN LIGHTS & CONVENIENCES (ANNUAL KWH)
A_LIT	LIGHTS & CONVENIENCES (ANNUAL KWH)
A_MRF	MIXED REFRIGERATOR (ANNUAL KWH)
A_OLC	OUTDOOR LIGHTS & CONVENIENCES (ANNUAL KWH)
A_OTH	OTHER / MIXED (ANNUAL KWH)
A_OT1	OUTDOOR TEMPERATURE #1 (ANNUAL AVERAGE)
A_OT2	OUTDOOR TEMPERATURE #2 (ANNUAL AVERAGE)
A_REF	PURE REFRIGERATOR (ANNUAL KWH)
A_SM1	SPECIAL APPLIANCE #1 (ANNUAL KWH)
A_SM2	SPECIAL APPLIANCE #2 (ANNUAL KWH)
A_ST1	WOOD STOVE THERMAL SENSOR (ANNUAL AVERAGE)
A_ST2	WOOD STOVE SWITCH OR THERMAL SENSOR (ANNUAL AVERAGE)
A_ST3	WOOD STOVE TEMPERATURE SENSOR (ANNUAL AVERAGE)
A_SUM	ENERGY END USE SUM CHECK (ANNUAL KWH)
A_TOT	BUILDING TOTAL (ANNUAL KWH)
A_WDU	WOOD USE (ANNUAL AVERAGE)
A_WSP	WIND SPEED (ANNUAL AVERAGE)

VARIABLES: ENGINEERING DATA ANNUAL "MEAN" DATA VALUES

The following variables contain an average value for the enduse engineering data, based on the monthly variable MEAN (average of all values with criteria applied). KWH enduses are expressed as an annual total, all other enduse measures are an annual mean. The variable names are constructed by concatenating 'M_' with the enduse abbreviation.

M_AHE	AIR TO AIR HEAT EXCHANGER (ANNUAL MEAN)
M_AH1	AHE AIR TEMPERATURE #1 (ANNUAL MEAN)
M_AH2	AHE AIR TEMPERATURE #2 (ANNUAL MEAN)

M_AIR	AIR CONDITIONING (ANNUAL MEAN KWH)
M_CWA	CLOTHES WASHER (ANNUAL MEAN KWH)
M_DRY	CLOTHES DRYER (ANNUAL MEAN KWH)
M_DWA	DISHWASHER (ANNUAL MEAN KWH)
M_FDP	FOOD PREPARATION (ANNUAL MEAN KWH)
M_FZR	FREEZER (ANNUAL MEAN KWH)
M_HM1	RELATIVE HUMIDITY #1 (ANNUAL MEAN)
M_HM2	RELATIVE HUMIDITY #2 (ANNUAL MEAN)
M_HOT	HOT WATER (ANNUAL MEAN KWH)
M_HTR	SPACE HEATING (ANNUAL MEAN KWH)
M_HVA	HEATING, VENTILATION, A/C (ANNUAL MEAN KWH)
M_IT1	INTERIOR TEMPERATURE #1 (ANNUAL MEAN)
M_IT2	INTERIOR TEMPERATURE #2 (ANNUAL MEAN)
M_IT3	INTERIOR TEMPERATURE #3 (ANNUAL MEAN)
M_IT4	INTERIOR TEMPERATURE #4 (ANNUAL MEAN)
M_KLC	KITCHEN LIGHTS & CONVENIENCES (ANNUAL MEAN KWH)
M_LIT	LIGHTS & CONVENIENCES (ANNUAL MEAN KWH)
M_MRF	MIXED REFRIGERATOR (ANNUAL MEAN KWH)
M_OLC	OUTDOOR LIGHTS & CONVENIENCES (ANNUAL MEAN KWH)
M_OTH	OTHER / MIXED (ANNUAL MEAN KWH)
M_OT1	OUTDOOR TEMPERATURE #1 (ANNUAL MEAN)
M_OT2	OUTDOOR TEMPERATURE #2 (ANNUAL MEAN)
M_REF	PURE REFRIGERATOR (ANNUAL MEAN KWH)
M_SM1	SPECIAL APPLIANCE #1 (ANNUAL MEAN KWH)
M_SM2	SPECIAL APPLIANCE #2 (ANNUAL MEAN KWH)
M_ST1	WOOD STOVE THERMAL SENSOR (ANNUAL MEAN)
M_ST2	WOOD STOVE SWITCH OR THERMAL SENSOR (ANNUAL MEAN)
M_ST3	WOOD STOVE TEMPERATURE SENSOR (ANNUAL MEAN)
M_SUM	ENERGY END USE SUM CHECK (ANNUAL MEAN)

M_TOT	**BUILDING TOTAL (ANNUAL MEAN KWH)**
M_WDU	**WOOD USE (ANNUAL MEAN)**
M_WSP	**WIND SPEED (ANNUAL MEAN)**

CONTENTS OF SAS MEMBER CHAR.RESCHAR

DSNAME=RPEE.RLCAP.ELCAP.CHAR.SASDB NUMBER OF OBSERVATIONS: 523 NUMBER OF VARIABLES: 240
CREATED 12:20 SUNDAY, JANUARY 13, 1991

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
68	A_AHE	NUM	3	269		AIR TO AIR HEAT EXCHANGER (ANNUAL AVG)
69	A_AH1	NUM	3	272		AIR TO AIR HEAT EXCHANGER TEMPERATURE 1
70	A_AH2	NUM	3	275		AIR TO AIR HEAT EXCHANGER TEMPERATURE 2
71	A_AIR	NUM	3	278		AIR CONDITIONING (ANNUAL AVG)
72	A_CWA	NUM	3	281		CLOTHES WASHER (ANNUAL AVG)
73	A_DRY	NUM	3	284		CLOTHES DRYER (ANNUAL AVG)
74	A_DWA	NUM	3	287		DISH WASHER (ANNUAL AVG)
75	A_FDP	NUM	3	290		FOOD PREPARATION (ANNUAL AVG)
76	A_FZR	NUM	3	293		FREEZER (ANNUAL AVG)
77	A_GFL	NUM	3	296		GAS FLOW METER (ANNUAL AVG)
78	A_GHZ	NUM	3	299		GLOBAL HORIZONTAL RADIATION (ANNUAL AVG)
79	A_GT1	NUM	3	302		FLUE GAS TEMP FOR HOT WATER #1 (ANNUAL A
80	A_GT2	NUM	3	305		FLUE GAS TEMP FOR HOT WATER #2 (ANNUAL A
81	A_GT3	NUM	3	308		FLUE GAS TEMP FOR HOT WATER #3 (ANNUAL A
82	A_HM1	NUM	3	311		RELATIVE HUMIDITY 1 (ANNUAL AVG)
83	A_HM2	NUM	3	314		RELATIVE HUMIDITY 2 (ANNUAL AVG)
84	A_HOT	NUM	3	317		HOT WATER (ANNUAL AVG)
85	A_HTR	NUM	3	320		SPACE HEATING (ANNUAL AVG)
86	A_HVA	NUM	3	323		HVAC (ANNUAL AVG)
87	A_IT1	NUM	3	326		INTERIOR TEMP #1 (ANNUAL AVG)
88	A_IT2	NUM	3	329		INTERIOR TEMP #2 (ANNUAL AVG)
89	A_IT3	NUM	3	332		INTERIOR TEMP #3 (ANNUAL AVG)
90	A_IT4	NUM	3	335		INTERIOR TEMP #4 (ANNUAL AVG)
91	A_IT5	NUM	3	338		INTERIOR TEMP #5 (ANNUAL AVG)
92	A_KLC	NUM	3	341		KITCHEN LIGHTS / CONVENIENCES (ANNUAL AV
93	A_LGT	NUM	3	344		LOGGER TOTAL (ANNUAL AVG)
94	A_LIT	NUM	3	347		LIGHTS / CONVENIENCES (ANNUAL AVG)
95	A_MHT	NUM	3	350		MIXED HEAT (ANNUAL AVG)
96	A_MRF	NUM	3	353		MIXED REFRIGERATOR (ANNUAL AVG)
97	A_OLC	NUM	3	356		OUTSIDE LIGHTS / CONVENIENCES (ANNUAL AV
98	A_OTH	NUM	3	359		OTHER / MIXED (ANNUAL AVG)
99	A_OT1	NUM	3	362		OUTDOOR TEMP #1 (ANNUAL AVG)
100	A_OT2	NUM	3	365		OUTDOOR TEMP #2 (ANNUAL AVG)
101	A_REF	NUM	3	368		PURE REFRIGERATOR (ANNUAL AVG)
102	A_SM1	NUM	3	371		SPECIAL MAJOR APPLIANCE 1 (ANNUAL AVG)
103	A_SM2	NUM	3	374		SPECIAL MAJOR APPLIANCE 2 (ANNUAL AVG)
104	A_SP1	NUM	3	377		SPECIALTY 1 (ANNUAL AVG)
105	A_SP2	NUM	3	380		SPECIALTY 2 (ANNUAL AVG)
106	A_SP3	NUM	3	383		SPECIALTY 3 (ANNUAL AVG)
107	A_SP4	NUM	3	386		SPECIALTY 4 (ANNUAL AVG)
108	A_SP5	NUM	3	389		SPECIALTY 5 (ANNUAL AVG)
109	A_SP6	NUM	3	392		SPECIALTY 6 (ANNUAL AVG)
110	A_SP7	NUM	3	395		SPECIALTY 7 (ANNUAL AVG)
111	A_SP8	NUM	3	398		SPECIALTY 8 (ANNUAL AVG)
112	A_ST1	NUM	3	401		WOOD STOVE THERMAL SENSOR (ANNUAL AVG)
113	A_ST2	NUM	3	404		WOOD STOVE SWITCH OR THERMAL SENSOR (ANN
114	A_ST3	NUM	3	407		WOOD STOVE TEMPERATURE SENSOR (ANNUAL AV
115	A_SUM	NUM	3	410		ENERGY END USE SUM CHECK (RES) (ANNUAL A
116	A_TOT	NUM	3	413		BUILDING TOTAL (ANNUAL AVG)
117	A_WDU	NUM	3	416		WOODUSE (ANNUAL AVG)
118	A_WSP	NUM	3	419		WIND SPEED (ANNUAL AVG)
26	FRC002	NUM	4	113		UTILITY_TYPE
27	FRC003	NUM	4	117		RESIDENCE_VINTAGE
226	FRC003A	NUM	3	743		RESIDENCE_VINTAGE_A
28	FRC004	NUM	4	121		RESIDENCE_SIZE
38	FRC005	NUM	4	161		RESIDENCE_SIZE_COND
29	FRC006	NUM	4	125		HEATING_SYS_USED_MOST
30	FRC007	NUM	4	129		HEATING_SYS_ELEC_AVLBL
227	FRC007A	NUM	3	746		HEATING_SYS_ELEC_AVAIL_CFA
228	FRC007B	NUM	3	749		HEATING_SYS_ELEC_AVAIL_EBB
229	FRC007C	NUM	3	752		HEATING_SYS_ELEC_AVAIL_RAD
230	FRC007D	NUM	3	755		HEATING_SYS_ELEC_AVAIL_HP
231	FRC007E	NUM	3	758		HEATING_SYS_ELEC_AVAIL_ROOM_FA
31	FRC008	NUM	4	133		HEATING_WOOD_USE
32	FRC009	NUM	4	137		HEATING_SYS_WOOD_AVLBL
33	FRC010	NUM	4	141		OCCUPANTS_NUMBER
34	FRC011	NUM	4	145		OCCUPANTS_INCOME
35	FRC012	NUM	4	149		OCCUPANTS_EDUCATION
36	FRC013	NUM	4	153		APPLNCE_BASIC_ELEC_INDX
37	FRC014	NUM	4	157		EQUIP_SPCL_ELEC_INDX

39	FRC015	NUM	4	165	HOUSEHOLD_STRUCTURE
232	FRC015A	NUM	3	761	HOUSEHOLD_STRUCTURE_UNDER6
233	FRC015B	NUM	3	764	HOUSEHOLD_STRUCTURE_6-17
234	FRC015C	NUM	3	767	HOUSEHOLD_STRUCTURE_18-65
235	FRC015D	NUM	3	770	HOUSEHOLD_STRUCTURE_OVER65
40	FRC016	NUM	4	169	HEATING_SYS_FOSSFUEL_AVLBL
45	FRC017	NUM	4	189	WATER_HEATER_VOLUME
46	FRC018	NUM	4	193	WATER_HEATER_TAPTEMP
41	FRC019	NUM	4	173	PERCEIVED_ENERGY_EFF_RES
42	FRC020	NUM	4	177	AIR_COND_AREA
43	FRC021	NUM	4	181	AIR_COND_SYS_AVLBL
54	FRC022	NUM	4	225	REFRIGERATION_VOLUME
47	FRC023	NUM	4	197	REFRIGERATION_VOLUME_COND
55	FRC024	NUM	4	229	WATER_HEATER_AUX_FEATURES
236	FRC024A	NUM	3	773	WATER_HEATER_AUX_FEATURES_NUMBER
237	FRC024B	NUM	3	776	WATER_HEATER_AUX_FEATURES_LOCATION
238	FRC024C	NUM	3	779	WATER_HEATER_AUX_FEATURES_TANKWRAP
239	FRC024D	NUM	3	782	WATER_HEATER_AUX_FEATURES_PIPEWRAP
240	FRC024E	NUM	3	785	WATER_HEATER_AUX_FEATURES_SOLAR
44	FRC025	NUM	4	185	WATER_HEATER_SPCL_INDX
52	FRC026	NUM	4	217	SOUTH_EXP_WALLS
53	FRC027	NUM	4	221	SOUTH_EXP_WINDOWS
48	FRC028	NUM	4	201	SOUTHWEST_EXP_WALLS
49	FRC029	NUM	4	205	SOUTHWEST_EXP_WINDOWS
50	FRC030	NUM	4	209	SOUTHEAST_EXP_WALLS
51	FRC031	NUM	4	213	SOUTHEAST_EXP_WINDOWS
224	IN_FRC	NUM	3	737	
222	IN_MET	NUM	3	731	
225	IN_PADS	NUM	3	740	
221	IN_SC	NUM	3	728	
223	IN_SF	NUM	3	734	
119	M_AHE	NUM	3	422	AIR TO AIR HEAT EXCHANGER (ANNUAL MEAN)
120	M_AH1	NUM	3	425	AIR TO AIR HEAT EXCHANGER TEMPERATURE 1
121	M_AH2	NUM	3	428	AIR TO AIR HEAT EXCHANGER TEMPERATURE 2
122	M_AIR	NUM	3	431	AIR CONDITIONING (ANNUAL MEAN)
123	M_CWA	NUM	3	434	CLOTHES WASHER (ANNUAL MEAN)
124	M_DRY	NUM	3	437	CLOTHES DRYER (ANNUAL MEAN)
125	M_DWA	NUM	3	440	DISH WASHER (ANNUAL MEAN)
126	M_FDP	NUM	3	443	FOOD PREPARATION (ANNUAL MEAN)
127	M_FZR	NUM	3	446	FREEZER (ANNUAL MEAN)
128	M_GFL	NUM	3	449	GAS FLOW METER (ANNUAL MEAN)
129	M_GHZ	NUM	3	452	GLOBAL HORIZONTAL RADIATION (ANNUAL MEAN
130	M_GT1	NUM	3	455	FLUE GAS TEMP FOR HOT WATER #1 (ANNUAL M
131	M_GT2	NUM	3	458	FLUE GAS TEMP FOR HOT WATER #2 (ANNUAL M
132	M_GT3	NUM	3	461	FLUE GAS TEMP FOR HOT WATER #3 (ANNUAL M
133	M_HM1	NUM	3	464	RELATIVE HUMIDITY 1 (ANNUAL MEAN)
134	M_HM2	NUM	3	467	RELATIVE HUMIDITY 2 (ANNUAL MEAN)
135	M_HOT	NUM	3	470	HOT WATER (ANNUAL MEAN)
136	M_HTR	NUM	3	473	SPACE HEATING (ANNUAL MEAN)
137	M_HVA	NUM	3	476	HVAC (ANNUAL MEAN)
138	M_IT1	NUM	3	479	INTERIOR TEMP #1 (ANNUAL MEAN)
139	M_IT2	NUM	3	482	INTERIOR TEMP #2 (ANNUAL MEAN)
140	M_IT3	NUM	3	485	INTERIOR TEMP #3 (ANNUAL MEAN)
141	M_IT4	NUM	3	488	INTERIOR TEMP #4 (ANNUAL MEAN)
142	M_IT5	NUM	3	491	INTERIOR TEMP #5 (ANNUAL MEAN)
143	M_KLC	NUM	3	494	KITCHEN LIGHTS / CONVENIENCES (ANNUAL ME
144	M_LGT	NUM	3	497	LOGGER TOTAL (ANNUAL MEAN)
145	M_LIT	NUM	3	500	LIGHTS / CONVENIENCES (ANNUAL MEAN)
146	M_MHT	NUM	3	503	MIXED HEAT (ANNUAL MEAN)
147	M_MRF	NUM	3	506	MIXED REFRIGERATOR (ANNUAL MEAN)
148	M_OLC	NUM	3	509	OUTSIDE LIGHTS / CONVENIENCES (ANNUAL ME
149	M_OTH	NUM	3	512	OTHER / MIXED (ANNUAL MEAN)
150	M_OT1	NUM	3	515	OUTDOOR TEMP #1 (ANNUAL MEAN)
151	M_OT2	NUM	3	518	OUTDOOR TEMP #2 (ANNUAL MEAN)
152	M_REF	NUM	3	521	PURE REFRIGERATOR (ANNUAL MEAN)
153	M_SM1	NUM	3	524	SPECIAL MAJOR APPLIANCE 1 (ANNUAL MEAN)
154	M_SM2	NUM	3	527	SPECIAL MAJOR APPLIANCE 2 (ANNUAL MEAN)
155	M_SP1	NUM	3	530	SPECIALTY 1 (ANNUAL MEAN)
156	M_SP2	NUM	3	533	SPECIALTY 2 (ANNUAL MEAN)
157	M_SP3	NUM	3	536	SPECIALTY 3 (ANNUAL MEAN)
158	M_SP4	NUM	3	539	SPECIALTY 4 (ANNUAL MEAN)
159	M_SP5	NUM	3	542	SPECIALTY 5 (ANNUAL MEAN)
160	M_SP6	NUM	3	545	SPECIALTY 6 (ANNUAL MEAN)
161	M_SP7	NUM	3	548	SPECIALTY 7 (ANNUAL MEAN)
162	M_SP8	NUM	3	551	SPECIALTY 8 (ANNUAL MEAN)
163	M_ST1	NUM	3	554	WOOD STOVE THERMAL SENSOR (ANNUAL MEAN)
164	M_ST2	NUM	3	557	WOOD STOVE SWITCH OR THERMAL SENSOR (ANN
165	M_ST3	NUM	3	560	WOOD STOVE TEMPERATURE SENSOR (ANNUAL ME
166	M_SUM	NUM	3	563	ENERGY END USE SUM CHECK (RES) (ANNUAL M
167	M_TOT	NUM	3	566	BUILDING TOTAL (ANNUAL MEAN)
168	M_WDU	NUM	3	569	WOODUSE (ANNUAL MEAN)
169	M_WSP	NUM	3	572	WIND SPEED (ANNUAL MEAN)
170	N_AHE	NUM	3	575	AIR TO AIR HEAT EXCHANGER (MONTHS OF DAT
171	N_AH1	NUM	3	578	AIR TO AIR HEAT EXCHANGER TEMPERATURE 1
172	N_AH2	NUM	3	581	AIR TO AIR HEAT EXCHANGER TEMPERATURE 2
173	N_AIR	NUM	3	584	AIR CONDITIONING (MONTHS OF DATA)

174	N_CWA	NUM	3	587		CLOTHES WASHER (MONTHS OF DATA)
175	N_DRY	NUM	3	590		CLOTHES DRYER (MONTHS OF DATA)
176	N_DWA	NUM	3	593		DISH WASHER (MONTHS OF DATA)
177	N_FDP	NUM	3	596		FOOD PREPARATION (MONTHS OF DATA)
178	N_FZR	NUM	3	599		FREEZER (MONTHS OF DATA)
179	N_GFL	NUM	3	602		GAS FLOW METER (MONTHS OF DATA)
180	N_GHZ	NUM	3	605		GLOBAL HORIZONTAL RADIATION (MONTHS OF D
181	N_GT1	NUM	3	608		FLUE GAS TEMP FOR HOT WATER #1 (MONTHS O
182	N_GT2	NUM	3	611		FLUE GAS TEMP FOR HOT WATER #2 (MONTHS O
183	N_GT3	NUM	3	614		FLUE GAS TEMP FOR HOT WATER #3 (MONTHS O
184	N_HM1	NUM	3	617		RELATIVE HUMIDITY 1 (MONTHS OF DATA)
185	N_HM2	NUM	3	620		RELATIVE HUMIDITY 2 (MONTHS OF DATA)
186	N_HOT	NUM	3	623		HOT WATER (MONTHS OF DATA)
187	N_HTR	NUM	3	626		SPACE HEATING (MONTHS OF DATA)
188	N_HVA	NUM	3	629		HVAC (MONTHS OF DATA)
189	N_IT1	NUM	3	632		INTERIOR TEMP #1 (MONTHS OF DATA)
190	N_IT2	NUM	3	635		INTERIOR TEMP #2 (MONTHS OF DATA)
191	N_IT3	NUM	3	638		INTERIOR TEMP #3 (MONTHS OF DATA)
192	N_IT4	NUM	3	641		INTERIOR TEMP #4 (MONTHS OF DATA)
193	N_IT5	NUM	3	644		INTERIOR TEMP #5 (MONTHS OF DATA)
194	N_KLC	NUM	3	647		KITCHEN LIGHTS / CONVENIENCES (MONTHS OF
195	N_LGT	NUM	3	650		LOGGER TOTAL (MONTHS OF DATA)
196	N_LIT	NUM	3	653		LIGHTS / CONVENIENCES (MONTHS OF DATA)
197	N_MHT	NUM	3	656		MIXED HEAT (MONTHS OF DATA)
198	N_MRF	NUM	3	659		MIXED REFRIGERATOR (MONTHS OF DATA)
199	N_OLC	NUM	3	662		OUTSIDE LIGHTS / CONVENIENCES (MONTHS OF
200	N_OTH	NUM	3	665		OTHER / MIXED (MONTHS OF DATA)
201	N_OT1	NUM	3	668		OUTDOOR TEMP #1 (MONTHS OF DATA)
202	N_OT2	NUM	3	671		OUTDOOR TEMP #2 (MONTHS OF DATA)
203	N_REF	NUM	3	674		PURE REFRIGERATOR (MONTHS OF DATA)
204	N_SM1	NUM	3	677		SPECIAL MAJOR APPLIANCE 1 (MONTHS OF DAT
205	N_SM2	NUM	3	680		SPECIAL MAJOR APPLIANCE 2 (MONTHS OF DAT
206	N_SP1	NUM	3	683		SPECIALTY 1 (MONTHS OF DATA)
207	N_SP2	NUM	3	686		SPECIALTY 2 (MONTHS OF DATA)
208	N_SP3	NUM	3	689		SPECIALTY 3 (MONTHS OF DATA)
209	N_SP4	NUM	3	692		SPECIALTY 4 (MONTHS OF DATA)
210	N_SP5	NUM	3	695		SPECIALTY 5 (MONTHS OF DATA)
211	N_SP6	NUM	3	698		SPECIALTY 6 (MONTHS OF DATA)
212	N_SP7	NUM	3	701		SPECIALTY 7 (MONTHS OF DATA)
213	N_SP8	NUM	3	704		SPECIALTY 8 (MONTHS OF DATA)
214	N_ST1	NUM	3	707		WOOD STOVE THERMAL SENSOR (MONTHS OF DAT
215	N_ST2	NUM	3	710		WOOD STOVE SWITCH OR THERMAL SENSOR (MON
216	N_ST3	NUM	3	713		WOOD STOVE TEMPERATURE SENSOR (MONTHS OF
217	N_SUM	NUM	3	716		ENERGY END USE SUM CHECK (RES) (MONTHS O
218	N_TOT	NUM	3	719		BUILDING TOTAL (MONTHS OF DATA)
219	N_WDU	NUM	3	722		WOODUSE (MONTHS OF DATA)
220	N_WSP	NUM	3	725		WIND SPEED (MONTHS OF DATA)
56	P_BEGIN	NUM	3	233	DATE7.	DATE PADS DATA BEGINS
61	P_COUNT	NUM	3	248		MONTHS WITH DATA
57	P_ENDS	NUM	3	236	DATE7.	DATE PADS DATA ENDS
58	P_MONTHS	NUM	3	239		MONTHS OF PADS DATA (POSSIBLE)
62	P_PCT50	NUM	3	251		MONTHS WITH GE 50% DATA
63	P_PCT80	NUM	3	254		MONTHS WITH GE 80% DATA
64	P_PCT90	NUM	3	257		MONTHS WITH GE 90% DATA
65	P_PCT95	NUM	3	260		MONTHS WITH GE 95% DATA
66	P_PCT99	NUM	3	263		MONTHS WITH GE 99% DATA
67	P_PCT100	NUM	3	266		MONTHS WITH 100% DATA
59	P_PERCNT	NUM	3	242		PERCENTAGE PADS NON-MISSING
60	P_VALID	NUM	3	245		MONTHS OF PADS DATA W/MISSING CRITERIA
2	SC002	NUM	4	8	DATE7.	PARTICIPATION_BEGIN_DATE
3	SC003	NUM	4	12	DATE7.	PARTICIPATION_END_DATE
4	SC004	NUM	4	16		TIME_ZONE
5	SC005	NUM	4	20		GEOGRAPHIC_REGION
6	SC006	CHAR	9	24		ZIP_CODE
7	SC007	NUM	4	33		UTILITY
8	SC008	NUM	4	37		CLIMATE_ZONE
9	SC009	NUM	4	41		MET_SITE_FLAG
10	SC010	NUM	4	45		PREFERRED_MET_SITE
11	SC011	NUM	4	49		SECONDARY_MET_SITE
12	SC012	NUM	4	53		OUTDOOR_TEMPERATURE
13	SC013	NUM	4	57		TMY_MET_SITE
14	SC014	NUM	4	61		WYEC_MET_SITE
18	SC015	NUM	3	77		CLOSEST_NWS
15	SC017	NUM	4	65		BUILDING_TYPE
16	SC018	NUM	4	69		ELCAP_REGION
17	SC019	CHAR	4	73		ELCAP_STUDY
19	SF002	NUM	4	80		STUDY_1
20	SF003	NUM	4	84		STUDY_2
21	SF004	NUM	4	88		MCS
22	SF005	NUM	4	92		MATCH
23	SF006	CHAR	9	96		RSDP_CODE
24	SF007	CHAR	4	105		PNWRES_CODE
25	SF008	NUM	4	109		RSDP_MF_UNITS
1	SITE	NUM	4	4		SITE

CONTENTS OF SAS MEMBER CHAR.RESCHAR

OBS	SITE	SCO02	SCO03	SCO04	SCO05	SCO06	SCO07	SCO08	SCO09	SCO10	SCO11	SCO12	SCO13	SCO14	SCO17	SCO18	SCO19	SCO15	SCO20	SF0002	SF0003	SF0004	SF0005	SF0006	SF0007
1	3	09MAY86	07NOV88	2	2	97219	560	1	2	5003	5034	C	C	C	1	15	RES	9008	11	0	0	C	-97		-97
2	4	29OCT85	18SEP87	2	4	97709	560	2	2	5004	5324	C	C	C	1	10	RES	9010	11	0	0	C	-97		-97
3	6	05JUL84	.	2	3	99352	175	1	0	5304	9030	C	C	C	1	22	RES	9030	1	0	0	C	-97		4353
4	16	12JUN84	.	2	3	99301	233	1	0	5304	9030	C	C	C	1	22	RES	9030	1	22	0	C	-97		4243
5	17	10JUL84	.	2	2	97116	142	1	0	5003	5034	C	C	C	1	15	RES	9008	1	0	0	C	-97		7020
6	19	29JUN84	.	4	6	59701	551	3	0	C	C	C	9116	C	1	1	RES	9016	11	0	0	C	-97		-97
7	20	28JUN84	27OCT89	4	6	59701	551	3	0	C	C	C	C	C	1	1	RES	9016	11	0	0	C	-97		-97
8	21	23MAY84	.	2	3	99352	175	1	0	5304	9030	C	C	C	1	22	RES	9030	1	0	0	C	-97		4345
9	22	13JUN84	.	2	1	98115	180	1	0	5424	5098	C	9112	C	1	13	RES	9012	1	0	0	C	-97		4958
10	23	14JUN84	28FEB90	2	1	98115	180	1	0	5424	5098	C	C	C	1	13	RES	9012	1	0	0	C	-97		4945

OBS	SFC002	SFC003	SFC004	SFC006	SFC007	SFC008	SFC009	SFC010	SFC012	SFC013	SFC014	SFC015	SFC017	SFC018	SFC019	SFC020	SFC021	SFC023	SFC024	SFC025	SFC026	SFC027	SFC028	SFC029	SFC030	SFC031	SFC032	SFC033	SFC034
1	C	.	21	1440	.	2	.	2	.	.	.	5	0	960	.	0	.	0	0	1	52	132	13	.	.	192	0	320	69	22	21
2	C	.	32	2196	.	1	.	0	.	.	.	6	3	1408	.	0	.	0	0	2	82	128	21	320	82	53	6	240	182	21	14
3	C	3	23	2493	1	1	2	1	4	5	10	7	2	2082	2	0	3	2082	1	0	52	140	21	572	159	432	84	362	38	41	10
4	C	3	31	1656	4	1	1	1	3	5	7	7	0	1134	1	0	3	1134	1	0	52	120	20	312	56	312	75	64	0	36	21
5	C	3	21	1580	1	10	2	0	2	3	5	8	1	1580	11	0	2	1580	1	0	.	140	48	344	79	400	60	.	.	48	14
6	C	0	32	3410	.	2	.	0	.	.	.	8	1	2666	.	0	.	0	0	1	52	140	51	248	25	279	53	516	86	51	11
7	C	.	32	2262	.	2	.	0	.	.	.	6	2	2262	.	0	.	0	0	0	52	140	22	261	17	261	34	468	81	22	14
8	C	3	23	1780	1	1	1	2	4	5	10	6	0	1504	2	0	1	1504	1	0	52	140	18	360	84	544	101	152	17	32	13
9	C	2	13	1653	1	1	2	1	1	3	8	6	0	1317	10	0	.	0	0	0	52	140	21	376	98	376	105	120	17	21	21
10	C	2	13	1394	4	4	2	0	2	5	9	5	0	1394	10	0	2	1394	3	0	52	135	17	284	40	284	34	343	26	17	11

OBS	PBEGIN	PEND	PMONTHS	PPERCENT	PVALID	PCOUNT	PPCT50	PPCT80	PPCT90	PPCT95	PPCT99	PPCT100	AAHE	AAH1	AAH2	AAIR	ACWA	ADRY
1	01MAY86	31OCT88	30	0.934875	23	30	29	27	25	24	21	6	.	.	.	.	.	920.00
2	01DEC85	31MAY87	18	0.860062	13	18	16	15	13	12	10	1	12.073	53.5703	.	.	32.098	542.81
3	01AUG84	31OCT90	75	0.918320	59	75	71	64	63	55	48	22	.	.	.	909.19	51.047	842.63
4	01OCT84	31DEC87	39	0.847580	28	36	34	32	30	28	27	12	.	.	.	2990.81	85.254	1009.13
5	01JAN85	30NOV90	71	0.893890	56	68	65	62	57	54	54	11	.	.	.	.	58.730	307.69
6	01SEP84	31AUG90	72	0.784927	50	62	58	53	52	49	46	12	383.813	.	.	.	181.746	916.94
7	01APR86	30APR89	37	0.860825	28	35	33	30	28	26	25	9	423.000	.	.	.	.	950.00
8	01AUG84	30NOV90	76	0.860718	42	73	67	58	57	54	49	2	.	.	.	.	252.203	1729.13
9	01AUG84	30NOV90	76	0.676926	43	53	48	45	43	40	40	20	.	.	.	.	74.313	803.13
10	01SEP84	30JUN89	58	0.621384	33	42	35	33	33	33	33	8	.	.	.	.	.	741.94

OBS	ADWA	AFDP	AFZR	AGFL	AGHZ	AGTI	AGTI2	AGTI3	AHM1	AHM2	AHOT	AHTR	AHVA	ATT1	ATT2	ATT3	ATT4
1	61.492	515.375	.	.	160.480	.	.	.	48.5391	.	5223.00	2872.9	2872.9	73.3047	59.3047	.	.
2	61.355	238.859	.	.	163.039	.	.	.	34.1055	.	3257.75	3276.9	3276.9	68.2422	.	.	.
3	212.820	287.563	.	.	.	.	.	.	.	.	3700.44	8209.0	9118.0	.	.	.	.
4	85.723	243.754	.	.	.	.	.	.	.	.	2761.31	13032.0	18265.0	70.6836	.	.	.
5	2.206	201.379	.	.	.	.	.	.	.	.	2622.56	.	10767.0	71.6797	.	.	.
6	114.086	292.500	3283.06	.	.	.	.	.	.	.	5048.00	4299.0	4299.0	.	.	.	.
7	178.027	329.938	.	.	.	.	.	.	.	.	4874.00	7640.0	7640.0	.	.	.	.
8	107.926	683.250	425.94	.	.	.	.	.	.	.	7025.00	.	12369.0	76.3203	.	.	.
9	42.898	350.375	.	.	.	.	.	.	.	.	2190.38	15839.0	15839.0	71.6797	.	.	.
10	.	253.859	.	.	.	.	.	.	.	.	3464.94	.	6614.0	69.3203	.	.	.

OBS	ATT5	AKLC	ALGT	ALIT	AMHT	AMRF	AOLC	AOTH	AOT1	AOT2	AREF	ASM1	ASM2	ASP1	ASP2	ASP3	ASP4	ASP5	ASP6	ASP7	ASP8	AST1	AST2	AST3
1	.	.	.	2533.56	.	.	.	4650.0	53.750	.	620.13	.	.	.	.	.	.	.	.	.	.	196.60	.	.
2	.	.	.	1816.88	.	1216.94	.	4341.0	44.043	.	.	420.438	.	.	.	.	.	.	.	.	.	.	.	.
3	.	.	.	5642.00	.	1934.44	.	8970.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
4	.	.	.	2867.13	.	1261.94	.	5553.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	.	.	8974.00	.	1491.25	.	11035.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	4643.00	.	1260.56	.	11069.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
7	.	.	.	5043.00	.	950.13	.	7875.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
8	.	.	.	3075.56	.	1598.44	.	7872.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
9	.	.	.	2093.94	.	2344.25	.	5709.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	2183.94	.	2369.19	.	5548.0	.	.	.	0.000	.	.	.	.	.	.	.	.	.	.	.	.

OBS	ASUM	ATOT	AWDU	AWSP	AAHE	AAH1	AAH2	AAIR	ACWA	ADRY	ADWA	AFDP
1	329.75	13076	.	34.965	.	.	.	.	.	1076.38	76.875	513.938
2	0.00	10876	.	163.516	9.320	54.4023	.	.	34.203	571.63	64.918	263.438
3	-367.75	21422	.	.	.	.	.	988.06	52.395	879.94	222.617	293.938
4	-140.66	26439	.	.	.	.	.	2723.00	78.961	1009.31	74.406	211.754
5	-177.16	24248	.	.	.	.	.	.	59.383	325.00	2.367	208.094
6	352.75	20769	.	.	389.188	.	.	.	184.379	917.88	110.023	296.500
7	-520.75	19868	.	.	388.313	.	.	.	.	936.25	177.543	326.438
8	-131.80	27136	.	.	.	.	.	.	237.605	1586.00	106.781	662.375
9	506.19	24244	.	.	.	.	.	.	73.930	747.44	42.031	332.750
10	576.50	16205	.	.	.	.	.	.	.	763.38	.	240.434

OBS	MFZR	MGFL	MGHZ	MGT1	MGT2	MGT3	MHM1	MHM2	MHOT	MHTR	MHVA	MTT1	MTT2	MTT3	MTT4	MTT5	MKLC	MLGT	MLIT	MMH
1	.	.	155.707	.	.	.	48.2773	.	5532.00	2961.2	2961.2	73.1953	54.8945	.	.	.	.	.	2848.38	.
2	.	.	166.660	.	.	.	33.6289	.	3112.56	2923.4	2923.4	68.7344	.	.	.	.	.	.	1817.88	.
3	.	.	.	.	.	.	.	.	3652.88	7920.0	8908.0	.	.	.	.	.	.	.	5928.00	.
4	.	.	.	.	.	.	.	.	2755.44	13672.0	17564.0	70.6211	.	.	.	.	.	.	2744.31	.
5	.	.	.	.	.	.	.	.	2663.44	.	10591.0	72.4219	.	.	.	.	.	.	9096.00	.
6	3288.56	.	.	.	.	.	.	.	5077.00	4760.0	4760.0	.	.	.	.	.	.	.	4767.00	.
7	.	.	.	.	.	.	.	.	4814.00	6859.0	6859.0	.	.	.	.	.	.	.	5018.00	.
8	477.25	.	.	.	.	.	.	.	6936.00	.	13088.0	76.2695	.	.	.	.	.	.	2912.31	.
9	.	.	.	.	.	.	.	.	2113.56	14557.0	14557.0	71.8789	.	.	.	.	.	.	2034.25	.
10	.	.	.	.	.	.	.	.	3527.69	.	6321.0	69.2578	.	.	.	.	.	.	2178.13	.

OBS	MMRF	MOLC	MOTH	MOT1	MOT2	MREF	MSM1	MSMP2	MSPP1	MSPP2	MSPP3	MSPP4	MSPP5	MSPP6	MSPP7	MSPP8	MST1	MST2	MST3	MSUM	MTOT
1	.	.	5170.0	52.6328	.	654.63	.	.	.	.	.	.	.	.	.	.	165.43	.	.	328.25	13992
2	1219.31	.	4293.0	45.9492	.	.	312.438	.	.	.	.	.	.	.	.	.	.	.	.	0.00	10329
3	1936.94	.	9313.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-463.06	21411
4	1273.38	.	5392.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-216.40	25495
5	1500.56	.	11192.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-158.46	24288
6	1260.81	.	11211.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	385.44	21435
7	946.81	.	7794.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-564.25	18904
8	1581.50	.	7564.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	-136.31	27452
9	2319.50	.	5550.0	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	541.75	22762
10	2344.31	.	5526.0	.	.	.	0.000	.	.	.	.	.	.	.	.	.	.	.	.	592.75	15968

OBS	MWDU	MWSP	NAHE	NAH1	NAH2	NAIR	NCWA	NDRY	NDWA	NFDP	NFZR	NGFL	NGHZ	NGT1	NGT2	NGT3	NHM1	NHM2	NHOT	NHTR	NHVA	NIT1	NIT2	NITT3	NITT4	NITT5	NKLC	NLGT	NLIT	NMHT	NMRF	NOLC
1	.	48.609	.	.	.	.	.	30	30	30	.	.	30	.	.	.	30	.	30	30	30	30	30	.	.	.	.	.	30	.	.	.
2	.	160.816	18	18	.	.	18	18	18	18	.	.	18	.	.	.	18	.	18	18	18	18	.	.	.	.	.	.	18	.	18	.
3	.	.	.	.	.	75	75	75	75	75	.	.	.	.	.	.	.	.	75	75	75	.	.	.	.	.	.	.	75	.	75	.
4	.	.	.	.	.	30	36	36	36	36	.	.	.	.	.	.	.	.	36	30	36	29	.	.	.	.	.	.	36	.	36	.
5	.	.	.	.	.	.	68	68	68	68	.	.	.	.	.	.	.	.	68	.	68	51	.	.	.	.	.	.	68	.	68	.
6	.	.	62	.	.	.	62	62	62	62	62	.	.	.	.	.	.	.	62	62	62	.	.	.	.	.	.	.	62	.	62	.
7	.	.	35	.	.	.	.	35	35	35	.	.	.	.	.	.	.	.	35	35	35	.	.	.	.	.	.	.	35	.	35	.
8	.	.	.	.	.	.	73	73	73	73	73	.	.	.	.	.	.	.	73	.	73	64	.	.	.	.	.	.	73	.	73	.
9	.	.	.	.	.	.	53	53	53	53	.	.	.	.	.	.	.	.	53	53	53	53	.	.	.	.	.	.	53	.	53	.
10	.	.	.	.	.	.	.	42	.	42	.	.	.	.	.	.	.	.	42	.	42	40	.	.	.	.	.	.	42	.	42	.

OBS	NOTH	NOT1	NOT2	NREF	NSM1	NSM2	NSP1	NSP2	NSP3	NSP4	NSP5	NSP6	NSP7	NSP8	NST1	NST2	NST3	NSUM	NTOT	NWDU	NWSP	INNSC	INMET	INNSF	INPDRC	INFRCDAS	FRCOOOA	FRCOOOA	FRCOOOB	FRCOOOC	FRCOOOD	FRCOOOE	FRCOO1A	FRCO15B	FRCO15C	FRCO15D	FRCO14A	FRCO24B	FRCO24C	FRCO24D	FRCO24E
1	30	30	.	30	.	.	.	.	.	.	.	.	.	.	30	.	.	30	30	0	29	1	1	1	1	1	2	0	1	0	0	0	.	.	.	.	1	2	1	0	0
2	18	18	.	.	18	.	.	.	.	.	.	.	.	.	.	.	.	18	18	.	16	1	1	1	1	1	3	1	0	0	0	0	.	.	.	.	1	1	1	1	0
3	75	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	75	75	.	.	1	1	1	1	1	2	1	0	0	0	0	1	1	1	0	1	1	0	0	0
4	36	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	36	36	.	.	1	1	1	1	1	3	1	0	0	0	0	1	0	1	0	1	2	1	0	0
5	68	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	68	68	.	.	1	1	1	1	1	2	1	1	0	0	0	0	0	1	1	1	1	1	1	0
6	62	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	62	62	.	.	1	1	1	1	1	3	0	1	0	0	0	.	.	.	.	1	1	1	0	0
7	35	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	35	35	.	.	1	1	1	1	1	3	0	1	0	0	0	.	.	.	.	1	1	1	1	0
8	73	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	73	73	.	.	1	1	1	1	1	2	1	0	0	0	0	1	1	1	0	1	1	0	0	1
9	53	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	53	53	.	.	1	1	1	1	1	1	1	0	0	0	0	0	0	0	1	1	2	1	0	0
10	42	.	.	.	4	.	.	.	.	.	.	.	.	.	.	.	.	42	42	.	.	1	1	1	1	1	1	0	0	0	1	0	0	0	0	1	1	1	1	0	0

COMCHAR

Commercial Characteristics ("COMCHAR")

ACCESS

SAS Data Library:	**RPEE.RLCAP.ELCAP.CHAR.SASDB**
SAS Format Library:	**RPEE.RLCAP.ELCAP.CHAR.FORMATS**
SAS Data Set Name:	**COMCHAR**
Number of Observations:	**158**

CONTENTS

The COMCHAR dataset is a compendium of selected key variables from the characteristics database (CBD) and engineering data (PADS).

The data is organized as one SAS observation per site.

VARIABLES: SITE IDENTIFICATION

SITE — **SITE**
The unique key that is assigned to a site. By definition, site numbers do not change location.

VARIABLES: STUDY CODES

SC002 — **PARTICIPATION_BEGIN_DATE**
Date metering equipment was installed.

SAS Format: DATE7.

SC003 — **PARTICIPATION_END_DATE**
Date of last engineering data collected. Date missing implies site is still particating.

SAS Format: DATE7.

SC004 — **TIME_ZONE**
The time zone in which the site is located.

Format: SC004X.

```
2 = PACIFIC TIME
4 = MOUNTAIN TIME
```

SC005 — **GEOGRAPHIC_REGION**
Geographic region of the site.

Format: SC005X.

```
1 = W. WASHINGTON
2 = W. OREGON
3 = E. WASHINGTON
4 = E. OREGON
5 = IDAHO
6 = MONTANA
7 = NEVADA
8 = WYOMING
```

SC006 **ZIP_CODE**
Postal zip code.

SC007 **UTILITY**
The BPA code number for the electric utility which serves this site.

Format: SC007X.

```
Coding: see UTILITY/METSITE CODES
```

SC008 **CLIMATE_ZONE**
The climate zone is based on annual heating degree-days using a 65 degree base temperature.

Format: SC008X.

```
1 = < 6000 HDD
2 = 6000-8000 HDD
3 = > 8000 HDD
```

SC009 **MET_SITE_FLAG**
Indicates the type of outdoor meteorological sensors located at the site.

Format: SC009X.

```
0 = NO SENSORS
1 = OUTDOOR TEMP
2 = FULL MET SITE
```

SC010 **PREFERRED_MET_SITE**
Contains the site number for the first choice of meteorological tower to be used for this site. Site numbers 5001 to 5999 are ELCAP MET sites; numbers 9001 to 9099 are NWS sites.

SC011 **SECONDARY_MET_SITE**
Contains the site number for the second choice of meteorological tower to be used for this site.

SC012 **OUTDOOR_TEMPERATURE**
Indicates the site number with better outdoor temperature data for the site than what is represented in the preferred or secondary met choices.

SC013 **TMY_MET_SITE**
Indicates the TMY (Typical Meteorogical Year) site number for this site. TMY sites are numbered 9101 to 9199.

Format: METSITE.

```
Coding: see UTILITY/METSITE CODES
```

SC014 **WYEC_MET_SITE**
Indicates the WYEC (Weather Year for Energy Calculations) site number for this site. WYEC sites are numbered from 9201 to 9299. Many sites do not have applicable WYEC sites.

Format: METSITE.

```
Coding: see UTILITY/METSITE CODES
```

SC015 **CLOSEST_NWS**
Indicates the closest NWS (National Weather Service) station for this site. NWS sites are numbered from 9001 to 9099.

Format: METSITE.

```
Coding: see UTILITY/METSITE CODES
```

SC016 17

BUILDING_TYPE
Building type for the site.

Format: SC016X.

```
1 = RESIDENTIAL
2 = COMMERICAL
3 = MULTI-FAMILY
9 = MET SITE
```

SC018 19

ELCAP_STUDY
Indicates the directory where the load data is stored.

Format: $SC018X.

```
'CAP'  = COM. AUDIT PGM
'COM'  = COM. BASE SITE
'PES'  = PURCH ENERGY SAV
```

VARIABLES:	STUDY FLAGS

SF002

STUDY_1
Primary study assignment for the site.

Format: SF002X.

```
61 = COM. AUDIT PGM
62 = COM. BASE
63 = PES
64 = DOE CO-INSTRUM.
71 = HOOD RIVER COM.
81 = HODD RIVER SUBST
```

SF003 :

65 = CREUS

SF012

COMM_BLDG_TYPE
Commerical building type, based on predominant floor space.

Format: SF012X.

```
 1 = WAREHOUSE
 2 = RETAIL
 3 = GROCERY
 4 = HOTEL/MOTEL
 5 = RESTAURANT
 6 = SCHOOL
 7 = HEALTH
 8 = UNIVERSITY
 9 = OFFICE
10 = OTHER
```

SF013

COMM_BLDG_VINTAGE
Construction vintage of the commercial building.

Format: SF013X.

```
1 = BUILT -1980
2 = BUILT 1981+
```

VARIABLES:	BUILDING INFO

BI002

NUMBER_STRUCTURES
The number (count) of buildings contained on a parcel.

BI003

GROSS_FLOOR
Building total gross floor area.

BI004

PLANS_AVAIL
An "X" in this field indicates the availability of building plans.

BI005 **NUMBER_TENANTS**
The count of actual tenant spaces in the building.

BI006 **YEAR_BUILT**
The year the building was constructed.

BI007 **NUMBER_STORIES**
The count of stories above minimum grade.

BI008 **MOD_ADD_FLAG**
An "X" in this field flags the presence of building modifications.

BI009 **SITE_ID1**
Code for the type of building.

Format: $BI009X.

```
'DGR' = 'DRY GOOD RETAIL'
'GRO' = 'GROCERIES
'HTM' = 'HOTEL/MOTEL'
'OFF' = 'OFFICE'
'OFM' = 'MEDICAL OFFICE'
'OFB' = 'BANK OFFICE'
'OFG' = 'GENERAL OFFICE'
'OFP' = 'PUBLIC ADMINISTRATION OFFICE'
'OTH' = 'OTHER'
'RES' = 'RESTAURANT'
'SCH' = 'SCHOOL'
'UNI' = 'UNIVERSITY'
'WAR' = 'WAREHOUSE'
```

BI010 **SITE_ID2**
Code for the size of the building and indication of whther it was built before 1981 or after. Combined with SITE_ID1, this provides a unique site identification key.

Format: $BI009X.

```
'000'-'099' = 'SMALL, PRE-1981'
'100'-'199' = 'LARGE, PRE-1981'
'200'-'299' = 'VERY LARGE, PRE-1981'
'300'-'399' = 'SMALL, POST-1980'
'400'-'499' = 'LARGE, POST-1980'
'500'-'599' = 'VERY LARGE, POST-1980'
```

6xx = Small, CAP
7xx = Large, CAP
8xx = V. Large, CAP

BI011 **SECONDARY_SITE_FLAG**
An "X" in this field indicates the presence of sub-sites ("Pseudo-Sites").

VARIABLES:	AMOUNT OF ENGINEERING DATA

The following variables relate to the amount of engineering data present in the most recent version PADS (at BPA).

P_BEGIN **DATE PADS DATA BEGINS**
First month for which non-missing engineering data exists for the building total enduse (BLT). Coded as a SAS date value, as the first day of the month.

SAS Format: MONYY5.;

P_ENDS **DATE PADS DATA ENDS**
Last month for which non-missing engineering data exists for the building total enduse (BLT). Coded as a SAS date value, as the first day of the month.

SAS Format: MONYY5.;

P_MONTHS **MONTHS OF PADS DATA (POSSIBLE)**
Count of the number of months between P_BEGIN and P_ENDS.

P_PERCNT **PERCENTAGE OF PADS DATA NON-MISSING**
The fraction of hours for which engineering data is present (non-missing). This is calculated as the total number of non-missing hours for building total (TOT), divided by the number of hours in the time span between P_BEGIN and P_ENDS. There is no allowance for periods of missing data due to the data logger being out of service, or any other adjustment.

P_VALID **MONTHS OF PADS DATA (PASSING 'MISSING' CRITERIA)**
The number of months for which the building total enduse (TOT) passes the PNL "with NA's" criteria. This count is derived from the PADS "Monthly" dataset.

The following variables indicate whether a particular enduse exists at a site (non-missing value), and if so, how many months have at least one hour of data. The variable names are constructed by concatenating 'N_' with the enduse abbreviation.

N_AUX **AUXILIARIES (MONTHS OF DATA)**

N_BLT **BUILDING TOTAL (MONTHS OF DATA)**

N_CHK **ENERGY END USE SUM CHECK (MONTHS OF DATA)**

N_COL **COOLING (MONTHS OF DATA)**

N_DAT **DATA PROCESSING (MONTHS OF DATA)**

N_ELV **VERTICAL TRANSPORT (MONTHS OF DATA)**

N_FOO **FOOD PREPARATION (MONTHS OF DATA)**

N_GEN **GENERAL-MIXED (MONTHS OF DATA)**

N_GT1 **FLUE GAS TEMP FOR HOT WATER 1 (MONTHS OF DATA)**

N_GT2 **FLUE GAS TEMP FOR HOT WATER 2 (MONTHS OF DATA)**

N_GT3 **FLUE GAS TEMP FOR HOT WATER 3 (MONTHS OF DATA)**

N_HEA **HEATING (MONTHS OF DATA)**

N_H2O	WATER HEATING (MONTHS OF DATA)
N_ILT	INTERIOR LIGHTING (MONTHS OF DATA)
N_IT1	INTERIOR TEMPERATURE #1 (MONTHS OF DATA)
N_ITn	INTERIOR TEMPERATURE #n (MONTHS OF DATA)
N_LAB	LABORATORY (MONTHS OF DATA)
N_MIX	MIXED HVAC (MONTHS OF DATA)
N_MTR	MATERIAL HANDLING (MONTHS OF DATA)
N_OLT	EXTERIOR LIGHTING (MONTHS OF DATA)
N_OT1	OUTDOOR TEMPERATURE 1 (MONTHS OF DATA)
N_PHE	ELECTRICAL PROXY FOR HEAT (MONTHS OF DATA)
N_PLG	RECEPTACLES (MONTHS OF DATA)
N_REC	RECREATION (MONTHS OF DATA)
N_RFN	REFRIGERATION (MONTHS OF DATA)
N_SAN	SANITATION (MONTHS OF DATA)
N_SHP	SHOP (MONTHS OF DATA)
N_SP1	SPECIALTY 1 (MONTHS OF DATA)
N_SP2	SPECIALTY 2 (MONTHS OF DATA)
N_SP3	SPECIALTY 3 (MONTHS OF DATA)
N_SP4	SPECIALTY 4 (MONTHS OF DATA)
N_TCH	TOTAL COMMERCIAL HVAC (MONTHS OF DATA)
N_TCL	TOTAL COMMERCIAL LIGHTING (MONTHS OF DATA)
N_TCO	TOTAL COMMERCIAL OTHER (MONTHS OF DATA)
N_UNK	UNKNOWN (MONTHS OF DATA)
N_VNT	VENTILATION (MONTHS OF DATA)
N_WSP	WIND SPEED (MONTHS OF DATA)

VARIABLES:	ENGINEERING DATA ANNUAL "AVG" DATA VALUES

The following variables contain an average value for the enduse engineering data, based on the monthly variable AVG (average of all values without criteria applied). KWH enduses are expressed as an annual total, all other enduse measures are an annual mean. The variable names are constructed by concatenating 'A_' with the enduse abbreviation.

A_AUX	AUXILIARIES (ANNUAL KWH)
A_BLT	BUILDING TOTAL (ANNUAL KWH)
A_CHK	ENERGY END USE SUM CHECK (ANNUAL KWH)
A_COL	COOLING (ANNUAL KWH)
A_DAT	DATA PROCESSING (ANNUAL KWH)
A_ELV	VERTICAL TRANSPORT (ANNUAL KWH)
A_FOO	FOOD PREPARATION (ANNUAL KWH)
A_GEN	GENERAL-MIXED (ANNUAL KWH)
A_GT1	FLUE GAS TEMP FOR HOT WATER 1 (ANNUAL AVERAGE)
A_GT2	FLUE GAS TEMP FOR HOT WATER 2 (ANNUAL AVERAGE)
A_GT3	FLUE GAS TEMP FOR HOT WATER 3 (ANNUAL AVERAGE)
A_HEA	HEATING (ANNUAL KWH)
A_H2O	WATER HEATING (ANNUAL KWH)
A_ILT	INTERIOR LIGHTING (ANNUAL KWH)
A_IT1	INTERIOR TEMPERATURE #1 (ANNUAL AVERAGE)
A_ITn	INTERIOR TEMPERATURE #n (ANNUAL AVERAGE)
A_LAB	LABORATORY (ANNUAL KWH)
A_MIX	MIXED HVAC (ANNUAL KWH)
A_MTR	MATERIAL HANDLING (ANNUAL KWH)
A_OLT	EXTERIOR LIGHTING (ANNUAL KWH)
A_OT1	OUTDOOR TEMPERATURE 1 (ANNUAL AVERAGE)
A_PHE	ELECTRICAL PROXY FOR HEAT (ANNUAL KWH)
A_PLG	RECEPTACLES (ANNUAL KWH)
A_REC	RECREATION (ANNUAL KWH)
A_RFN	REFRIGERATION (ANNUAL KWH)

A_SAN	SANITATION (ANNUAL KWH)
A_SHP	SHOP (ANNUAL KWH)
A_SP1	SPECIALTY 1 (ANNUAL KWH)
A_SP2	SPECIALTY 2 (ANNUAL KWH)
A_SP3	SPECIALTY 3 (ANNUAL KWH)
A_SP4	SPECIALTY 4 (ANNUAL KWH)
A_TCH	TOTAL COMMERCIAL HVAC (ANNUAL KWH)
A_TCL	TOTAL COMMERCIAL LIGHTING (ANNUAL KWH)
A_TCO	TOTAL COMMERCIAL OTHER (ANNUAL KWH)
A_UNK	UNKNOWN (ANNUAL KWH)
A_VNT	VENTILATION (ANNUAL KWH)
A_WSP	WIND SPEED (ANNUAL AVERAGE)

VARIABLES: ENGINEERING DATA ANNUAL "MEAN" DATA VALUES

The following variables contain an average value for the enduse engineering data, based on the monthly variable MEAN (average of all values with criteria applied). KWH enduses are expressed as an annual total, all other enduse measures are an annual mean. The variable names are constructed by concatenating 'M_' with the enduse abbreviation.

A_AUX	AUXILIARIES (ANNUAL MEAN KWH)
A_BLT	BUILDING TOTAL (ANNUAL MEAN KWH)
A_CHK	ENERGY END USE SUM CHECK (ANNUAL MEAN KWH)
A_COL	COOLING (ANNUAL MEAN KWH)
A_DAT	DATA PROCESSING (ANNUAL MEAN KWH)
A_ELV	VERTICAL TRANSPORT (ANNUAL MEAN KWH)
A_FOO	FOOD PREPARATION (ANNUAL MEAN KWH)
A_GEN	GENERAL-MIXED (ANNUAL MEAN KWH)
A_GT1	FLUE GAS TEMP FOR HOT WATER 1 (ANNUAL MEAN)
A_GT2	FLUE GAS TEMP FOR HOT WATER 2 (ANNUAL MEAN)
A_GT3	FLUE GAS TEMP FOR HOT WATER 3 (ANNUAL MEAN)
A_HEA	HEATING (ANNUAL MEAN KWH)

A_H2O	WATER HEATING (ANNUAL MEAN KWH)
A_ILT	INTERIOR LIGHTING (ANNUAL MEAN KWH)
A_IT1	INTERIOR TEMPERATURE #1 (ANNUAL MEAN)
A_ITn	INTERIOR TEMPERATURE #n (ANNUAL MEAN)
A_LAB	LABORATORY (ANNUAL MEAN KWH)
A_MIX	MIXED HVAC (ANNUAL MEAN KWH)
A_MTR	MATERIAL HANDLING (ANNUAL MEAN KWH)
A_OLT	EXTERIOR LIGHTING (ANNUAL MEAN KWH)
A_OT1	OUTDOOR TEMPERATURE 1 (ANNUAL MEAN)
A_PHE	ELECTRICAL PROXY FOR HEAT (ANNUAL MEAN KWH)
A_PLG	RECEPTACLES (ANNUAL MEAN KWH)
A_REC	RECREATION (ANNUAL MEAN KWH)
A_RFN	REFRIGERATION (ANNUAL MEAN KWH)
A_SAN	SANITATION (ANNUAL MEAN KWH)
A_SHP	SHOP (ANNUAL MEAN KWH)
A_SP1	SPECIALTY 1 (ANNUAL MEAN KWH)
A_SP2	SPECIALTY 2 (ANNUAL MEAN KWH)
A_SP3	SPECIALTY 3 (ANNUAL MEAN KWH)
A_SP4	SPECIALTY 4 (ANNUAL MEAN KWH)
A_TCH	TOTAL COMMERCIAL HVAC (ANNUAL MEAN KWH)
A_TCL	TOTAL COMMERCIAL LIGHTING (ANNUAL MEAN KWH)
A_TCO	TOTAL COMMERCIAL OTHER (ANNUAL MEAN KWH)
A_UNK	UNKNOWN (ANNUAL MEAN KWH)
A_VNT	VENTILATION (ANNUAL MEAN KWH)
A_WSP	WIND SPEED (ANNUAL MEAN)

CONTENTS OF SAS MEMBER CHAR.COMCHAR

DSNAME=RPEE.RLCAP.ELCAP.CHAR.SASDB NUMBER OF OBSERVATIONS: 158 NUMBER OF VARIABLES: 238
CREATED AT 12:31 SUNDAY, JANUARY 13, 1991

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
45	A_AH1	NUM	3	161		AIR TO AIR HEAT EXCHANGER TEMPERATURE 1
46	A_AUX	NUM	3	164		AUXILIARIES (ANNUAL AVG)
47	A_A2D	NUM	3	167		A-TO-D CONVERTER RECONSTRUCTION (ANNUAL
48	A_BLT	NUM	3	170		BUILDING TOTAL (ANNUAL AVG)
49	A_BTU	NUM	3	173		HEAT FLUX READING (ANNUAL AVG)
50	A_CHK	NUM	3	176		ENERGY END USE SUM CHECK (COM) (ANNUAL A
51	A_COL	NUM	3	179		COOLING (ANNUAL AVG)
52	A_DAT	NUM	3	182		DATA PROCESSING (ANNUAL AVG)
53	A_DHZ	NUM	3	185		DIRECT HORIZONTAL INSOLATION (ANNUAL AVG
54	A_DNM	NUM	3	188		DIRECT NORMAL RADIATION (ANNUAL AVG)
55	A_ELV	NUM	3	191		VERTICAL TRANSPORT (ANNUAL AVG)
56	A_FOO	NUM	3	194		FOOD PREPARATION (ANNUAL AVG)
57	A_GEN	NUM	3	197		GENERAL / MIXED (ANNUAL AVG)
58	A_GFL	NUM	3	200		GAS FLOW METER (ANNUAL AVG)
59	A_GHZ	NUM	3	203		GLOBAL HORIZONTAL RADIATION (ANNUAL AVG)
60	A_GT1	NUM	3	206		FLUE GAS TEMP FOR HOT WATER #1 (ANNUAL A
61	A_GT2	NUM	3	209		FLUE GAS TEMP FOR HOT WATER #2 (ANNUAL A
62	A_GT3	NUM	3	212		FLUE GAS TEMP FOR HOT WATER #3 (ANNUAL A
63	A_HEA	NUM	3	215		HEATING (ANNUAL AVG)
64	A_HVA	NUM	3	218		HVAC (ANNUAL AVG)
65	A_H2O	NUM	3	221		WATER HEATING (ANNUAL AVG)
66	A_ILT	NUM	3	224		INTERIOR LIGHTING (ANNUAL AVG)
67	A_IT1	NUM	3	227		INTERIOR TEMP #1 (ANNUAL AVG)
68	A_IT2	NUM	3	230		INTERIOR TEMP #2 (ANNUAL AVG)
69	A_IT3	NUM	3	233		INTERIOR TEMP #3 (ANNUAL AVG)
70	A_IT4	NUM	3	236		INTERIOR TEMP #4 (ANNUAL AVG)
71	A_IT5	NUM	3	239		INTERIOR TEMP #5 (ANNUAL AVG)
72	A_IT6	NUM	3	242		INTERIOR TEMP #6 (ANNUAL AVG)
73	A_IT7	NUM	3	245		INTERIOR TEMP #7 (ANNUAL AVG)
74	A_IT8	NUM	3	248		INTERIOR TEMP #8 (ANNUAL AVG)
75	A_IT9	NUM	3	251		INTERIOR TEMP #9 (ANNUAL AVG)
76	A_I10	NUM	3	254		INTERIOR TEMP#10 (ANNUAL AVG)
77	A_I11	NUM	3	257		INTERIOR TEMP#11 (ANNUAL AVG)
78	A_I12	NUM	3	260		INTERIOR TEMP#12 (ANNUAL AVG)
79	A_I13	NUM	3	263		INTERIOR TEMP#13 (ANNUAL AVG)
80	A_I14	NUM	3	266		INTERIOR TEMP#14 (ANNUAL AVG)
81	A_I15	NUM	3	269		INTERIOR TEMP#15 (ANNUAL AVG)
82	A_I16	NUM	3	272		INTERIOR TEMP#16 (ANNUAL AVG)
83	A_I17	NUM	3	275		INTERIOR TEMP#17 (ANNUAL AVG)
84	A_I18	NUM	3	278		INTERIOR TEMP#18 (ANNUAL AVG)
85	A_I19	NUM	3	281		INTERIOR TEMP#19 (ANNUAL AVG)
86	A_LAB	NUM	3	284		LABORATORY (ANNUAL AVG)
87	A_LGT	NUM	3	287		LOGGER TOTAL (ANNUAL AVG)
88	A_MIX	NUM	3	290		MIXED HVAC (ANNUAL AVG)
89	A_MTR	NUM	3	293		MATERIAL HANDLING (ANNUAL AVG)
90	A_OLT	NUM	3	296		EXTERIOR LIGHTING (ANNUAL AVG)
91	A_OT1	NUM	3	299		OUTDOOR TEMP #1 (ANNUAL AVG)
92	A_PHE	NUM	3	302		ELECTRICAL PROXY FOR HEAT (ANNUAL AVG)
93	A_PLG	NUM	3	305		RECEPTICLES (ANNUAL AVG)
94	A_RFN	NUM	3	308		REFRIGERATION (ANNUAL AVG)
95	A_SAN	NUM	3	311		SANITATION (ANNUAL AVG)
96	A_SHP	NUM	3	314		SHOP (ANNUAL AVG)
97	A_SP1	NUM	3	317		SPECIALTY 1 (ANNUAL AVG)
98	A_SP2	NUM	3	320		SPECIALTY 2 (ANNUAL AVG)
99	A_SP3	NUM	3	323		SPECIALTY 3 (ANNUAL AVG)
100	A_SP4	NUM	3	326		SPECIALTY 4 (ANNUAL AVG)
101	A_ST1	NUM	3	329		WOOD STOVE THERMAL SENSOR (ANNUAL AVG)
102	A_TCH	NUM	3	332		TOTAL COMMERCIAL HVAC (ANNUAL AVG)
103	A_TCL	NUM	3	335		TOTAL COMMERCIAL LIGHTING (ANNUAL AVG)
104	A_TCO	NUM	3	338		TOTAL COMMERCIAL OTHER (ANNUAL AVG)
105	A_UNK	NUM	3	341		UNKNOWN (ANNUAL AVG)
106	A_VNT	NUM	3	344		VENTILATION (ANNUAL AVG)
107	A_WSP	NUM	3	347		WIND SPEED (ANNUAL AVG)
22	BI002	NUM	4	92		NUMBER_STRUCTURES
23	BI003	NUM	4	96		GROSS_FLOOR
24	BI004	CHAR	1	100		PLANS_AVAIL
25	BI005	NUM	4	101		NUMBER_TENANTS
26	BI006	NUM	4	105		YEAR_BUILT
27	BI007	NUM	4	109		NUMBER_STORIES
28	BI008	CHAR	1	113		MOD_ADD_FLAG
29	BI009	CHAR	3	114		SITE_ID1
30	BI010	CHAR	3	117		SITE_ID2
31	BI011	CHAR	1	120		SECONDARY_SITE_FLAG
237	IN_BI	NUM	3	737		
235	IN_MET	NUM	3	731		

238	IN_PADS	NUM	3	740	
234	IN_SC	NUM	3	728	
236	IN_SF	NUM	3	734	
108	M_AH1	NUM	3	350	AIR TO AIR HEAT EXCHANGER TEMPERATURE 1
109	M_AUX	NUM	3	353	AUXILIARIES (ANNUAL MEAN)
110	M_A2D	NUM	3	356	A-TO-D CONVERTER RECONSTRUCTION (ANNUAL
111	M_BLT	NUM	3	359	BUILDING TOTAL (ANNUAL MEAN)
112	M_BTU	NUM	3	362	HEAT FLUX READING (ANNUAL MEAN)
113	M_CHK	NUM	3	365	ENERGY END USE SUM CHECK (COM) (ANNUAL M
114	M_COL	NUM	3	368	COOLING (ANNUAL MEAN)
115	M_DAT	NUM	3	371	DATA PROCESSING (ANNUAL MEAN)
116	M_DHZ	NUM	3	374	DIRECT HORIZONTAL INSOLATION (ANNUAL MEA
117	M_DNM	NUM	3	377	DIRECT NORMAL RADIATION (ANNUAL MEAN)
118	M_ELV	NUM	3	380	VERTICAL TRANSPORT (ANNUAL MEAN)
119	M_FOO	NUM	3	383	FOOD PREPARATION (ANNUAL MEAN)
120	M_GEN	NUM	3	386	GENERAL / MIXED (ANNUAL MEAN)
121	M_GFL	NUM	3	389	GAS FLOW METER (ANNUAL MEAN)
122	M_GHZ	NUM	3	392	GLOBAL HORIZONTAL RADIATION (ANNUAL MEAN
123	M_GT1	NUM	3	395	FLUE GAS TEMP FOR HOT WATER #1 (ANNUAL M
124	M_GT2	NUM	3	398	FLUE GAS TEMP FOR HOT WATER #2 (ANNUAL M
125	M_GT3	NUM	3	401	FLUE GAS TEMP FOR HOT WATER #3 (ANNUAL M
126	M_HEA	NUM	3	404	HEATING (ANNUAL MEAN)
127	M_HVA	NUM	3	407	HVAC (ANNUAL MEAN)
128	M_H2O	NUM	3	410	WATER HEATING (ANNUAL MEAN)
129	M_ILT	NUM	3	413	INTERIOR LIGHTING (ANNUAL MEAN)
130	M_IT1	NUM	3	416	INTERIOR TEMP #1 (ANNUAL MEAN)
131	M_IT2	NUM	3	419	INTERIOR TEMP #2 (ANNUAL MEAN)
132	M_IT3	NUM	3	422	INTERIOR TEMP #3 (ANNUAL MEAN)
133	M_IT4	NUM	3	425	INTERIOR TEMP #4 (ANNUAL MEAN)
134	M_IT5	NUM	3	428	INTERIOR TEMP #5 (ANNUAL MEAN)
135	M_IT6	NUM	3	431	INTERIOR TEMP #6 (ANNUAL MEAN)
136	M_IT7	NUM	3	434	INTERIOR TEMP #7 (ANNUAL MEAN)
137	M_IT8	NUM	3	437	INTERIOR TEMP #8 (ANNUAL MEAN)
138	M_IT9	NUM	3	440	INTERIOR TEMP #9 (ANNUAL MEAN)
139	M_I10	NUM	3	443	INTERIOR TEMP#10 (ANNUAL MEAN)
140	M_I11	NUM	3	446	INTERIOR TEMP#11 (ANNUAL MEAN)
141	M_I12	NUM	3	449	INTERIOR TEMP#12 (ANNUAL MEAN)
142	M_I13	NUM	3	452	INTERIOR TEMP#13 (ANNUAL MEAN)
143	M_I14	NUM	3	455	INTERIOR TEMP#14 (ANNUAL MEAN)
144	M_I15	NUM	3	458	INTERIOR TEMP#15 (ANNUAL MEAN)
145	M_I16	NUM	3	461	INTERIOR TEMP#16 (ANNUAL MEAN)
146	M_I17	NUM	3	464	INTERIOR TEMP#17 (ANNUAL MEAN)
147	M_I18	NUM	3	467	INTERIOR TEMP#18 (ANNUAL MEAN)
148	M_I19	NUM	3	470	INTERIOR TEMP#19 (ANNUAL MEAN)
149	M_LAB	NUM	3	473	LABORATORY (ANNUAL MEAN)
150	M_LGT	NUM	3	476	LOGGER TOTAL (ANNUAL MEAN)
151	M_MIX	NUM	3	479	MIXED HVAC (ANNUAL MEAN)
152	M_MTR	NUM	3	482	MATERIAL HANDLING (ANNUAL MEAN)
153	M_OLT	NUM	3	485	EXTERIOR LIGHTING (ANNUAL MEAN)
154	M_OT1	NUM	3	488	OUTDOOR TEMP #1 (ANNUAL MEAN)
155	M_PHE	NUM	3	491	ELECTRICAL PROXY FOR HEAT (ANNUAL MEAN)
156	M_PLG	NUM	3	494	RECEPTICLES (ANNUAL MEAN)
157	M_RFN	NUM	3	497	REFRIGERATION (ANNUAL MEAN)
158	M_SAN	NUM	3	500	SANITATION (ANNUAL MEAN)
159	M_SHP	NUM	3	503	SHOP (ANNUAL MEAN)
32	M_SITE	NUM	4	121	SITE
160	M_SP1	NUM	3	506	SPECIALTY 1 (ANNUAL MEAN)
161	M_SP2	NUM	3	509	SPECIALTY 2 (ANNUAL MEAN)
162	M_SP3	NUM	3	512	SPECIALTY 3 (ANNUAL MEAN)
163	M_SP4	NUM	3	515	SPECIALTY 4 (ANNUAL MEAN)
164	M_ST1	NUM	3	518	WOOD STOVE THERMAL SENSOR (ANNUAL MEAN)
165	M_TCH	NUM	3	521	TOTAL COMMERCIAL HVAC (ANNUAL MEAN)
166	M_TCL	NUM	3	524	TOTAL COMMERCIAL LIGHTING (ANNUAL MEAN)
167	M_TCO	NUM	3	527	TOTAL COMMERCIAL OTHER (ANNUAL MEAN)
168	M_UNK	NUM	3	530	UNKNOWN (ANNUAL MEAN)
169	M_VNT	NUM	3	533	VENTILATION (ANNUAL MEAN)
170	M_WSP	NUM	3	536	WIND SPEED (ANNUAL MEAN)
171	N_AH1	NUM	3	539	AIR TO AIR HEAT EXCHANGER TEMPERATURE 1
172	N_AUX	NUM	3	542	AUXILIARIES (MONTHS OF DATA)
173	N_A2D	NUM	3	545	A-TO-D CONVERTER RECONSTRUCTION (MONTHS
174	N_BLT	NUM	3	548	BUILDING TOTAL (MONTHS OF DATA)
175	N_BTU	NUM	3	551	HEAT FLUX READING (MONTHS OF DATA)
176	N_CHK	NUM	3	554	ENERGY END USE SUM CHECK (COM) (MONTHS O
177	N_COL	NUM	3	557	COOLING (MONTHS OF DATA)
178	N_DAT	NUM	3	560	DATA PROCESSING (MONTHS OF DATA)
179	N_DHZ	NUM	3	563	DIRECT HORIZONTAL INSOLATION (MONTHS OF
180	N_DNM	NUM	3	566	DIRECT NORMAL RADIATION (MONTHS OF DATA)
181	N_ELV	NUM	3	569	VERTICAL TRANSPORT (MONTHS OF DATA)
182	N_FOO	NUM	3	572	FOOD PREPARATION (MONTHS OF DATA)
183	N_GEN	NUM	3	575	GENERAL / MIXED (MONTHS OF DATA)
184	N_GFL	NUM	3	578	GAS FLOW METER (MONTHS OF DATA)
185	N_GHZ	NUM	3	581	GLOBAL HORIZONTAL RADIATION (MONTHS OF D
186	N_GT1	NUM	3	584	FLUE GAS TEMP FOR HOT WATER #1 (MONTHS O
187	N_GT2	NUM	3	587	FLUE GAS TEMP FOR HOT WATER #2 (MONTHS O
188	N_GT3	NUM	3	590	FLUE GAS TEMP FOR HOT WATER #3 (MONTHS O
189	N_HEA	NUM	3	593	HEATING (MONTHS OF DATA)

190	N_HVA	NUM	3	596		HVAC (MONTHS OF DATA)
191	N_H2O	NUM	3	599		WATER HEATING (MONTHS OF DATA)
192	N_ILT	NUM	3	602		INTERIOR LIGHTING (MONTHS OF DATA)
193	N_IT1	NUM	3	605		INTERIOR TEMP #1 (MONTHS OF DATA)
194	N_IT2	NUM	3	608		INTERIOR TEMP #2 (MONTHS OF DATA)
195	N_IT3	NUM	3	611		INTERIOR TEMP #3 (MONTHS OF DATA)
196	N_IT4	NUM	3	614		INTERIOR TEMP #4 (MONTHS OF DATA)
197	N_IT5	NUM	3	617		INTERIOR TEMP #5 (MONTHS OF DATA)
198	N_IT6	NUM	3	620		INTERIOR TEMP #6 (MONTHS OF DATA)
199	N_IT7	NUM	3	623		INTERIOR TEMP #7 (MONTHS OF DATA)
200	N_IT8	NUM	3	626		INTERIOR TEMP #8 (MONTHS OF DATA)
201	N_IT9	NUM	3	629		INTERIOR TEMP #9 (MONTHS OF DATA)
202	N_I10	NUM	3	632		INTERIOR TEMP#10 (MONTHS OF DATA)
203	N_I11	NUM	3	635		INTERIOR TEMP#11 (MONTHS OF DATA)
204	N_I12	NUM	3	638		INTERIOR TEMP#12 (MONTHS OF DATA)
205	N_I13	NUM	3	641		INTERIOR TEMP#13 (MONTHS OF DATA)
206	N_I14	NUM	3	644		INTERIOR TEMP#14 (MONTHS OF DATA)
207	N_I15	NUM	3	647		INTERIOR TEMP#15 (MONTHS OF DATA)
208	N_I16	NUM	3	650		INTERIOR TEMP#16 (MONTHS OF DATA)
209	N_I17	NUM	3	653		INTERIOR TEMP#17 (MONTHS OF DATA)
210	N_I18	NUM	3	656		INTERIOR TEMP#18 (MONTHS OF DATA)
211	N_I19	NUM	3	659		INTERIOR TEMP#19 (MONTHS OF DATA)
212	N_LAB	NUM	3	662		LABORATORY (MONTHS OF DATA)
213	N_LGT	NUM	3	665		LOGGER TOTAL (MONTHS OF DATA)
214	N_MIX	NUM	3	668		MIXED HVAC (MONTHS OF DATA)
215	N_MTR	NUM	3	671		MATERIAL HANDLING (MONTHS OF DATA)
216	N_OLT	NUM	3	674		EXTERIOR LIGHTING (MONTHS OF DATA)
217	N_OT1	NUM	3	677		OUTDOOR TEMP #1 (MONTHS OF DATA)
218	N_PHE	NUM	3	680		ELECTRICAL PROXY FOR HEAT (MONTHS OF DAT
219	N_PLG	NUM	3	683		RECEPTICLES (MONTHS OF DATA)
220	N_RFN	NUM	3	686		REFRIGERATION (MONTHS OF DATA)
221	N_SAN	NUM	3	689		SANITATION (MONTHS OF DATA)
222	N_SHP	NUM	3	692		SHOP (MONTHS OF DATA)
223	N_SP1	NUM	3	695		SPECIALTY 1 (MONTHS OF DATA)
224	N_SP2	NUM	3	698		SPECIALTY 2 (MONTHS OF DATA)
225	N_SP3	NUM	3	701		SPECIALTY 3 (MONTHS OF DATA)
226	N_SP4	NUM	3	704		SPECIALTY 4 (MONTHS OF DATA)
227	N_ST1	NUM	3	707		WOOD STOVE THERMAL SENSOR (MONTHS OF DAT
228	N_TCH	NUM	3	710		TOTAL COMMERCIAL HVAC (MONTHS OF DATA)
229	N_TCL	NUM	3	713		TOTAL COMMERCIAL LIGHTING (MONTHS OF DAT
230	N_TCO	NUM	3	716		TOTAL COMMERCIAL OTHER (MONTHS OF DATA)
231	N_UNK	NUM	3	719		UNKNOWN (MONTHS OF DATA)
232	N_VNT	NUM	3	722		VENTILATION (MONTHS OF DATA)
233	N_WSP	NUM	3	725		WIND SPEED (MONTHS OF DATA)
33	P_BEGIN	NUM	3	125	DATE7.	DATE PADS DATA BEGINS
38	P_COUNT	NUM	3	140		MONTHS WITH DATA
34	P_ENDS	NUM	3	128	DATE7.	DATE PADS DATA ENDS
35	P_MONTHS	NUM	3	131		MONTHS OF PADS DATA (POSSIBLE)
39	P_PCT50	NUM	3	143		MONTHS WITH GE 50% DATA
40	P_PCT80	NUM	3	146		MONTHS WITH GE 80% DATA
41	P_PCT90	NUM	3	149		MONTHS WITH GE 90% DATA
42	P_PCT95	NUM	3	152		MONTHS WITH GE 95% DATA
43	P_PCT99	NUM	3	155		MONTHS WITH GE 99% DATA
44	P_PCT100	NUM	3	158		MONTHS WITH 100% DATA
36	P_PERCNT	NUM	3	134		PERCENTAGE PADS NON-MISSING
37	P_VALID	NUM	3	137		MONTHS OF PADS DATA W/MISSING CRITERIA
2	SC002	NUM	4	8	DATE7.	PARTICIPATION_BEGIN_DATE
3	SC003	NUM	4	12	DATE7.	PARTICIPATION_END_DATE
4	SC004	NUM	4	16		TIME_ZONE
5	SC005	NUM	4	20		GEOGRAPHIC_REGION
6	SC006	CHAR	9	24		ZIP_CODE
7	SC007	NUM	4	33		UTILITY
8	SC008	NUM	4	37		CLIMATE_ZONE
9	SC009	NUM	4	41		MET_SITE_FLAG
10	SC010	NUM	4	45		PREFERRED_MET_SITE
11	SC011	NUM	4	49		SECONDARY_MET_SITE
12	SC012	NUM	4	53		OUTDOOR_TEMPERATURE
13	SC013	NUM	4	57		TMY_MET_SITE
14	SC014	NUM	4	61		WYEC_MET_SITE
18	SC015	NUM	3	77		CLOSEST_NWS
15	SC017	NUM	4	65		BUILDING_TYPE
16	SC018	NUM	4	69		ELCAP_REGION
17	SC019	CHAR	4	73		ELCAP_STUDY
19	SF002	NUM	4	80		STUDY_1
20	SF012	NUM	4	84		COMM_BLDG_TYPE
21	SF013	NUM	4	88		COMM_BLDG_VINTAGE
1	SITE	NUM	4	4		SITE

CONTENTS OF SAS MEMBER CHAR.COMCHAR

OBS	SITE	SCO2	SCO3	SCO4	SCO5	SCO6	SCO7	SCO8	SCO9	SCO10	SCO11	SCO12	SCO13	SCO14	SCO17	SCO18	SCO19	SCO15	SCO22	SFF23	SFF32	BIO03	BIO04	BIO05
1	2	13DEC84	08OCT88	2	1	98102	180	1	0	5569	5007	C	C	C	2	13	COM	9012	62	9	1	1	15732	Y 5
2	5	01OCT84	17JAN87	2	1	98104	180	1	1	C	C	5005	C	C	2	13	COM	9012	62	3	1	1	24709	Y 1
3	7	08NOV84	.	2	1	98009	180	1	2	5007	5569	C	C	C	2	13	COM	9012	62	3	2	1	22232	N 1
4	8	11SEP84	08OCT88	2	1	98105	180	1	0	5569	5458	C	C	C	2	13	COM	9012	62	10	1	1	1434	N 1
5	9	15JAN85	.	2	1	98133	180	1	0	5458	5569	C	C	C	2	13	COM	9012	62	5	2	1	2777	N 1
6	11	25FEB86	09APR90	2	1	98106	180	1	0	5040	5532	C	C	C	2	13	COM	9012	62	5	1	1	8554	N 1
7	12	14SEP84	.	2	1	98108	180	1	0	5040	5547	C	C	C	2	13	COM	9012	62	2	2	1	4479	N 2
8	13	14JAN85	.	2	1	98155	180	1	0	5458	5569	C	C	C	2	13	COM	9012	62	10	1	1	7992	N 2
9	14	07SEP84	05AUG87	2	1	98112	180	1	0	5569	5458	C	C	C	2	13	COM	9012	62	10	1	1	2468	N 1
10	15	18OCT84	28APR87	2	1	98105	180	1	0	5569	5458	C	C	C	2	13	COM	9012	62	4	1	1	18200	N 1

OBS	BIO06	BIO07	BIO08	BIO09	BIO10	BIO11	PBEGIN	PENDS	PMONTHS	PPERCENT	PVALID	PCOUNT	PCT50	PCT80	PCT90	PCT95	PCT99	PCT10	AAH1	AAUX	AAD2	AALT
1	1976	3		OFG	102	.	01AUG84	30JUN88	47	0.812500	31	43	39	35	32	28	28	10	.	.	.	262736
2	1969	1		GRO	106	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
3	1981	1		GRO	401	.	01MAR85	30APR90	62	0.311157	15	26	20	18	15	15	13	1	.	765.88	.	1390080
4	1962	1		OTH	002	.	01FEB85	31JUL88	42	0.950455	39	42	40	39	39	38	38	4	.	.	.	16589
5	1981	1		RES	303	.	01NOV84	30NOV90	73	0.672256	40	58	51	45	40	34	34	10	.	387.75	.	273184
6	1978	1		RES	402	.	01APR86	31MAR90	48	0.880463	36	47	42	41	37	32	31	0	.	.	.	410144
7	1983	2		DGR	305	X .	01MAR85	30NOV90	69	0.838303	14	61	59	56	55	53	46	1	.	.	.	45153
8	1948	2		OTH	103	.	01MAR85	30NOV90	69	0.857666	47	65	61	57	50	43	42	18	.	.	.	54645
9	1940	1	X	OTH	003	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	4		HTM	101	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	ABTU	ACHK	ACOL	ADAT	ADHZ	ADNM	AELV	AFO	AGEN	AGFL	AGHZ	AGT1	AGT2	AGT3	AHEA	AHVA
1	.	2462.50	.	.	.	.	3896.25	.	50069	.	.	.	.	.	.	.
2	.	-867.19	.	.	.	.	.	.	.	.	127.254	.	.	.	190448	.
3	.	1180.38	7652	95536.0	.	.	.	20207.0	1818	.	126.309	.	.	.	71808	.
4	.	-36.14	.	.	.	.	.	.	268	.	.	.	.	.	.	.
5	.	-384.25	74752	2993.3	.	.	.	67904.0	.	.	.	.	.	.	.	.
6	.	1459.31	42077	5470.0	.	.	.	78960.0	.	.	.	.	.	.	1331	.
7	.	586.75	.	.	.	.	.	.	89	.	.	.	.	.	2867	.
8	.	907.31	.	.	.	.	.	1465.8	787	.	.	.	.	.	12849	.
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	AHO2	ATLT1	ATT2	ATT3	ATT4	ATT5	ATT6	ATT7	ATT8	ATT9	ATT10	ATT11	ATT12	ATT13	ATT14	ATT15	ATT16	ATT17	ATT18	ATT19	ATLAB	ATLG	AMIX
1	.	68704	63.3086	77.2930	77.5156	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	137600
2	.	461936	63.0859	64.3555	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	178208
3	4893	265920	65.6250	65.8359	70.8633	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3867
4	1412	5143	58.7148	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
5	.	54369	74.3867	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
6	10997	88560	74.3906	74.4961	78.6563	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
7	1637	13045	63.9102	67.3789	69.0039	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	15881
8	8623	14921	68.3945	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	AMTR	AOLT	AOT1	APHE	APLG	ARFN	ASAN	ASHP	ASP1	ASP2	ASP3	AAPT4	AAST1	ATCH
1	.	.	.	.	.	.	.	.	.	.	.	.	.	137600
2	64305.0	4908.0	50.6992	.	.	552944	.	.	.	.	.	.	.	539760
3	5894.0	38029.0	73.8594	.	6802.0	782560	7.4	.	478.3	.	.	.	.	154768
4	276.1	5418.0	.	448.625	2628.1	.	.	923.38	99.7	.	.	.	.	456
5	4401.0	24525.0	.	.	3589.1	24918	531.9	.	371.1	.	.	.	.	90016
6	.	30672.0	.	.	32469.0	39129	40280.0	.	12692.0	575.3	.	.	.	69920
7	0.2	6996.0	.	.	3858.4	.	.	.	0.1	.	.	.	.	18748
8	.	6122.0	.	.	4761.0	.	.	.	4093.5	.	.	.	.	12963
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	ATCL	ATCO	AUNK	AVNT	AWSP	MAH1	MAUX	MA2D	MBLT	MBTU	MCHK	MCOL	MDAT	MDHZ	MDNM	MELV
1	68704	53966	.	.	.	.	.	.	257920	.	1752.56	.	.	.	.	3773.75
2	466832	617248	.	171088	1.9126	.	.	.	.	.	-867.19	.	.	.	.	.
3	303952	930384	14428.0	70672	30.7813	.	801.250	.	1480192	.	955.38	6846	95552.0	.	.	.
4	10562	5607	.	8	.	.	.	.	16388	.	-67.99	.	.	.	.	.
5	78880	104640	.	14873	.	.	396.875	.	269216	.	-333.69	71536	2962.7	.	.	.
6	118160	220592	490.3	26554	.	.	.	.	415040	.	1301.75	38212	5684.0	.	.	.
7	20042	5776	227.8	.	.	.	.	.	38286	.	506.81	.	.	.	.	.
8	21044	19730	.	114	.	.	.	.	52977	.	874.56	.	.	.	.	.
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	MFO	MGEN	MGFL	MGHZ	MGT1	MGT2	MGT3	MHEA	MHVA	MH20	MITL	MIT1	MIT2	MIT3
1	.	48472	.	.	.	.	.	.	.	.	64497	63.0742	76.9492	77.5352
2	.	.	.	148.199	.	.	.	123664	.	.	458080	63.8789	65.8594	.
3	21553.0	2216	.	139.684	.	.	.	78320	.	5161	306736	65.8750	65.6953	71.0508
4	.	268	.	.	.	.	.	.	.	1367	5076	58.9063	.	.
5	67856.0	.	.	.	.	.	.	.	.	.	54175	74.4023	.	.
6	79808.0	.	.	.	.	.	.	1699	.	11144	90400	74.3906	74.2539	78.2383
7	.	80	.	.	.	.	.	4009	.	1327	12956	67.3477	69.8672	68.5234
8	1457.2	837	.	.	.	.	.	11549	.	8518	14822	68.4805	.	.
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	MIT4	MIT5	MITT6	MITT7	MITT8	MITT9	MIT10	MIT11	MIT12	MIT13	MIT14	MIT15	MIT16	MIT17	MIT18	MIT19	MLAB	MLAGT	MMIX	MMTR	MOLT	MOT1	MPHE
1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	139424	.	.	.	.
2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	122720	64123.0	4888.0	55.1953	.
3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	4243	6251.0	38666.0	65.7031	.
4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	272.3	5434.0	.	427.250
5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	3697.9	25176.0	.	.
6	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	32204.0	.	.
7	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	10016	0.3	4612.0	.	.
8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	5931.0	.	.
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	MPLG	MRFN	MSAN	MSHP	MSP1	MSP2	MSP3	MSP4	MST1	MTCH	MTCL	MTCO	MUNK	MVNT
1	.	.	.	.	.	.	.	.	.	139424	64497	52246	.	.
2	.	560640	.	.	.	.	.	.	.	418480	462976	624768	.	172064
3	6940.0	818336	6.2	.	492.1	.	.	.	.	162544	345408	971488	14970.0	72320
4	2595.4	.	.	908.94	103.7	.	.	.	.	430	10511	5515	.	3
5	3363.9	24955	530.3	.	369.1	.	.	.	.	86496	79344	103680	.	14559
6	34005.0	38309	40860.0	.	13475.0	585.6	.	.	.	66688	122608	224416	541.3	26786
7	4660.0	.	.	.	0.0	.	.	.	.	14024	17569	6185	227.8	.
8	4833.0	.	.	.	4025.9	.	.	.	.	11675	20754	19672	.	126
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	MWSP	NAH1	NAUX	NA2D	NBLT	NBTU	NCHK	NCOL	NDAT	NDHZ	NDNM	NELV	NFON	NGEN	NGFL	NGHZ	NGT1	NGT2	NGT3	NHEA	NHVA	NH2O	NITL	NIT1	NIT2	NIT3	NIT4	NIT5	NIT6	NIT7	NIT8	NIT9	NIT10	NIT11
1	.	.	.	.	43	.	43	.	.	.	.	43	.	43	.	.	.	.	.	.	.	.	43	43	43	43	.	.	.	.	.	.	.	.	.
2	1.8413	.	.	.	.	.	12	0	.	.	.	.	.	.	.	11	.	.	.	11	.	.	11	11	11	.	.	.	.	.	.	.	.	.	.
3	22.2070	.	26	.	26	.	26	26	26	.	.	.	26	26	.	39	.	.	.	26	.	26	26	35	37	30	0	0	.	.	.	.	.	.	.
4	.	.	.	.	42	.	42	.	.	.	.	.	.	42	.	.	.	.	.	.	.	42	42	42	.	.	.	.	.	.	.	.	.	.	.
5	.	.	58	.	58	.	58	58	58	.	.	.	58	.	.	.	.	.	.	.	.	.	58	35	.	.	.	.	.	.	.	.	.	.	.
6	.	.	.	.	47	.	47	47	47	.	.	.	47	.	.	.	.	.	.	46	.	46	47	47	47	47	.	.	.	.	.	.	.	.	.
7	.	.	.	.	61	.	61	.	.	.	.	.	.	54	.	.	.	.	.	61	.	61	61	54	54	54	.	.	.	.	.	.	.	.	.
8	.	.	.	.	65	.	65	.	.	.	.	.	65	65	.	.	.	.	.	65	.	65	65	65	.	.	.	.	.	.	.	.	.	.	.
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

OBS	NIT12	NIT13	NIT14	NIT15	NIT16	NIT17	NIT18	NIT19	NLAB	NLGT	NMIX	NMTR	NOLT	NOT1	NPHE	NPLG	NRFN	NSAN	NSHP	NSP1	NSP2	NSP3	NSP4	NST1	NTCH	NTCL	NTCO	NUNK	NVNT	NWSP	INNSC	INMET	INNSF	INNBI	INPADS
1	.	.	.	.	.	.	.	.	.	.	43	.	.	.	.	.	.	.	.	.	.	.	.	.	43	43	43	.	.	.	1	1	1	1	1
2	.	.	.	.	.	.	.	.	.	.	11	11	11	9	.	.	11	.	.	.	.	.	.	.	11	11	11	.	11	11	1	1	1	1	1
3	.	.	.	.	.	.	.	.	.	.	26	26	26	39	.	26	26	22	.	26	.	.	.	.	26	26	26	22	26	39	1	1	1	1	1
4	.	.	.	.	.	.	.	.	.	.	.	42	42	.	42	42	.	.	42	42	.	.	.	.	42	42	42	.	42	.	1	1	1	1	1
5	.	.	.	.	.	.	.	.	.	.	.	58	58	.	.	58	58	51	.	58	.	.	.	.	58	58	58	.	58	.	1	1	1	1	1
6	.	.	.	.	.	.	.	.	.	.	.	.	46	.	.	47	47	47	.	47	47	.	.	.	47	47	47	46	47	.	1	1	1	1	1
7	.	.	.	.	.	.	.	.	.	.	61	7	61	.	.	61	.	.	.	54	.	.	.	.	61	61	61	54	.	.	1	1	1	1	1
8	.	.	.	.	.	.	.	.	.	.	.	.	65	.	.	65	.	.	.	65	.	.	.	.	65	65	65	.	65	.	1	1	1	1	1
9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	1	1	0
10	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	1	1	1	0

CHAR. DATABASE (CDB)

Characteristics Data Base (CDB)

ACCESS

SAS Data Library: **RPEE.RLCAP.ELCAP.CDB.SASDB**
SAS Format Library: **none**

SAS Data Set Names: **see below**

CONTENTS

The Characteristics Data Base is a copy of the data relations stored on the PNL AVAX. The data is documented in the ELCAP USERS GUIDE.

The data was transferred in December, 1990.

MISSING VALUE CODES

Missing values for Character Variables are coded as follows:

'-99' = Missing
'-88' = Can't Tell
'-77' = Not Applicable

Missing values for Numeric Variables are coded as follows:

.A = Missing
.B = Can't Tell
.C = Not Applicable
.F = Other

DATASETS

The datasets in the CDB are named after the respective 'chapter number' in the ELCAP USERS GUIDE. For example, CI11 refers to Commercial Inspection, section 1.1.

The variables names within each dataset are constructed by appending the USER GUIDE variable number to the data set name. For example, CI11002 is variable number 2, for the CI11 dataset.

NAME	OBS	TRACKS
CHANNEL	85305	245
CI11	119	1
CI12	1532	2
CI13	168	1
CI21	306	1
CI22	1635	3
CI31	1124	2
CI32	13642	24
CI33	222	1

Add —
1) Contents page
2) Which one was updated.

CI34	390	1
CI41	260	1
CI51	6	1
CI52	53	1
CI53	47	1
CI54	217	1
CI55	9	1
CI56	8	1
CI57	25	1
CI58	5	1
CI61	133	1
ELCAP87	406	6
ELCAP88	374	5
ENDUSES	17022	251
FRC	459	4
HR10	314	15
HR11	320	2
HR21	321	1
HR22	488	1
HR23	562	1
HR24	147	1
HR25	445	1
HR26	710	1
HR27	774	2
HR31	320	1
HR32	535	1
HR33	565	1
HR34	165	1
HR35	507	1
HR36	778	1
HR37	825	2
HR41	2937	3
HR51	358	2
HR52	953	1
HR61	3123	3
HR71	2233	2
HR72	1634	2
HR81	1232	3
LOGHIST	13046	79
NEGCHAN	115	1
PARTICIP	510	1
PNWRES83	331	19
PSEUDO	186	1
PXTOLOG	1588	2
RI10	416	1
RI21	396	2
RI22	393	1
RI23	242	1
RI24	2325	6
RI31	416	3
RI32	342	1
RI33	823	2
RI34	438	2
RI41	712	2
RI42	1090	2
RI43	795	2
RI44	567	2
RI45	416	2
RI46	3873	6
RI47	4026	6
RI51	260	1

RI52	120	1
RI53	1454	3
RI54	754	2
RI55	252	1
RI61	416	7
RI71	4055	5
RI72	56	1
RI81	454	1
ROSM85	1290	14
ROST85	742	10
ROS86	361	2
SAME	510	1
SCODES	1349	3
SFLAGS	1321	3
UTILBILL	35593	53
UTILRATE	1702	4
VERIFY	5141	23

CHRONO

Residential CHRONO File

ACCESS

SAS Data Library: **RPEE.RLCAP.ELCAP.CHAR.SASDB**
SAS Format Library: **(none)**

SAS Data Set Name: **CHRONO**

CONTENTS

The CHRONO dataset is a compendium of selected key variables from the characteristics database (CBD) and other PNL sources which track changes in site characteristics.

The data is organized as one SAS observation per site per time period.

VARIABLES: SITE IDENTIFICATION

SITE — **Site number**

SEQNO — **Record sequence number.**
SEQNO increments for each record for a site (shows chronological sort order).

HIGHSEQ — **Highest record sequence number.**
HIGHSEQ is the number of records for this site.

HHSEQ — **Household Sequence Number**
HHSEQ increments each time there is a household turnover (complete change in occupancy). A household change will stop forward/backward filling of demographic values (occupant age counts, appliances, income, education, energy efficiency opinion).

STUDY — **ELCAP Study Group**

```
'BASE'  = Base Study
'RSDP'  = RSDP Study
'OTHER' = All others (MFM, special...)
```

GROUP — **ELCAP Study Sub-Group**

```
'PRE78'     (subset of BASE)
'POST78'    (subset of BASE)
'MCS'       (subset of RSDP)
'CNTL'      (subset of RSDP)
'OTHER'
```

LOCATION — **Location**

```
'W.WA' = Western Washington
'E.WA' = Eastern Washington
'W.OR' = Western Oregon
'E.OR' = Eastern Oregon
'ID  ' = Idaho
'MO  ' = Montana
'NV  ' = Nevada
'WY  ' = Wyoming
```

CLIMATE — **Climate Zone**

```
'1' = < 6000 HDD
'2' = 6000-8000 HDD
'3' = > 8000 HDD
```

UTILITY **Utility**
BPA Utility code

VARIABLES:	TIME PERIOD

SDATE **Begin date for data record (Source Date)**
This is the date of the source record, coded as a SAS date value.

EDATE **End date for data record**
The day prior to next record's source date, or missing value if this is the last record for this site (e.g., current record for this site). Coded as a SAS date value.

SOURCE **Source of new information**

```
'METER'  = Meter installation date
'PNWRES' = PNWRES83 Survey
'ROSM'   = Res. Occup. Survey (1986)
'ROST'   = Res. Telephone Surey (1986)
'RI'     = Residential Inspection
'E86'    = Elcap86 Mail Survey
'E87'    = Elcap87 Mail Survey
'E88'    = Elcap88 Mail Survey
'HH.CHG' = Household change
'BILL'   = Billing records
'SITE'   = Site visit
etc...
```

CHANGED **What is new in this record.**
Code all which apply (up to four).

```
'N' = New occupant
'O' = Occupancy related change
'S' = Heat system/structure change
'A' = Appliance stock change
```

VARIABLES:	STRUCTURAL

SQFT **Floor space - total area**
Best estimate of square feet of structure.

SQFTC **Floor space - conditioned area**
Best estimate of conditioned (heated) square feet of structure.

YRBUILT **Year built**
Best estimate of year of construction, with 'E' suffix if estimated or approximate.

YRREMOD **Year remodeled**
Year of last substantial remodeled.

VARIABLES:	Space heating/cooling systems (#1-#3):

Heat Pump (combination heating & cooling) systems are coded as heating. Cooling only is for separate air conditioning.

H1FUEL **Fuel type, system #1**
H2FUEL **Fuel type, system #2**
H3FUEL **Fuel type, system #3**
C1FUEL **Fuel type, system #4 (Cooling Only)**

```
'ELEC ' = Electric
'GAS  ' = Natural Gas
'WOOD ' = Wood
'OIL  ' = Oil
'KERO ' = Kerosene
'COAL ' = Coal
'SOLAR' = Solar
```

H1TYPE **System Type, system #1**
H2TYPE **System Type, system #2**
H3TYPE **System Type, system #3**
C1TYPE **System Type, system #4 (Cooling Only)**

```
'FA  ' = Forced Air
'BB  ' = Baseboard
'RAD ' = Radiant
'HP  ' = Heat Pump
'WALL' = Wall unit
'WIND' = Window unit
```

H1USE **System Usage, system #1**
H2USE **System Usage, system #2**
H3USE **System Usage, system #3**
C1USE **System Usage, system #4 (Cooling Only)**

```
'MOST' = Most used
'SEC ' = Secondary
'NONE' = None
'UNK ' = Unknown
```

VARIABLES:	Water heating systems (#1-#3):

W1FUEL **Fuel type, system #1**
W2FUEL **Fuel type, system #2**

```
'ELEC ' = Electric
'GAS  ' = Natural Gas
'WOOD ' = Wood
'OIL  ' = Oil
'SOLAR' = Solar
```

W1SIZE **Tank size, system #1**
W2SIZE **Tank size, system #2**
Size in gallons.

W1LOC **Tank location, system #1**
W2LOC **Tank location, system #2**

```
'COND' = Conditioned space
'UC  ' = Unconditioned space
```

VARIABLES:	OCCUPANTS

OCCTOT — **Occupant count, total**

OCC0_5 — **Occupant count, 0-5 yrs**

OCC6_17 — **Occupant count, 6-17 yrs**

OCC18_64 — **Occupant count, 18-64 yrs**

OCC65_ — **Occupant count, 65+ yrs**

INCOME — **Household Income**

```
'1' = under $8,000
'2' = $8,000-$15,999
'3' = $16,000-$24,999
'4' = $25,000-$34,999
'5' = $35,000-$59,999
'6' = over $60,000
```

EDUC — **Education**
Highest educated person in household.

```
'1' = Never attended school
'2' = Some elementary
'3' = Completed elementary
'4' = Some high school
'5' = Completed high school
'6' = Completed trade school
'7' = Some college
'8' = College graduate
'9' = Some post-grad
'10' = Completed post-grad
```

ENEFF — **Perceived energy efficiency**

```
'1' = As energy efficient as can be
'2' = Little improvement can be made
'3' = Moderate improvement can be made
'4' = A lot of improvement can be made
```

VARIABLES:	APPLIANCES

C_REF — **Refrigerator (count)**
Includes combination refrigerator/freezers.

C_FZR — **Freezer (count)**
Separate freezer units.

C_STOVE — **Electric stove/oven (count)**
Separate stove & oven count as one unit.

C_MWAVE — **Microwave (count)**

C_CWASH — **Clothes washer (count)**

C_CDRY — **Clothes dryer (count)**

C_TV — **Televisions (count)**

CONTENTS OF SAS MEMBER CHAR.CHRONO

DSNAME=RPEE.RLCAP.ELCAP.CHAR.SASDB NUMBER OF OBSERVATIONS: 3072 NUMBER OF VARIABLES: 50

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
49	C_CDRY	NUM	3	177		
48	C_CWASH	NUM	3	174		
45	C_FZR	NUM	3	165		
47	C_MWAVE	NUM	3	171		
44	C_REF	NUM	3	162		
46	C_STOVE	NUM	3	168		
50	C_TV	NUM	3	180		
5	CHANGED	CHAR	4	19		
12	CLIMATE	CHAR	1	45		
21	C1FUEL	CHAR	5	80		
25	C1TYPE	CHAR	4	97		
29	C1USE	CHAR	4	113		
3	EDATE	NUM	3	10	DATE7.	
42	EDUC	CHAR	2	159		
43	ENEFF	CHAR	1	161		
10	GROUP	CHAR	6	35		
8	HHSEQ	NUM	2	27		
7	HIGHSEQ	NUM	2	25		
18	H1FUEL	CHAR	5	65		
22	H1TYPE	CHAR	4	85		
26	H1USE	CHAR	4	101		
19	H2FUEL	CHAR	5	70		
23	H2TYPE	CHAR	4	89		
27	H2USE	CHAR	4	105		
20	H3FUEL	CHAR	5	75		
24	H3TYPE	CHAR	4	93		
28	H3USE	CHAR	4	109		
41	INCOME	CHAR	1	158		
11	LOCATION	CHAR	4	41		
36	OCCTOT	NUM	3	143		
37	OCC0_5	NUM	3	146		
39	OCC18_64	NUM	3	152		
38	OCC6_17	NUM	3	149		
40	OCC65	NUM	3	155		
2	SDATE	NUM	3	7	DATE7.	
6	SEQNO	NUM	2	23		
1	SITE	NUM	3	4		SITE
4	SOURCE	CHAR	6	13		SOURCE
14	SQFT	NUM	3	49		
15	SQFTC	NUM	3	52		
9	STUDY	CHAR	6	29		
13	UTILITY	CHAR	3	46		
30	W1FUEL	CHAR	5	117		
34	W1LOC	CHAR	4	135		
32	W1SIZE	CHAR	4	127		
31	W2FUEL	CHAR	5	122		
35	W2LOC	CHAR	4	139		
33	W2SIZE	CHAR	4	131		
16	YRBUILT	CHAR	5	55		
17	YRREMOD	CHAR	5	60		

CONTENTS OF SAS MEMBER CHAR.CHRONO

OBS	SITE	SDATE	EDATE	SOURCE	CHANGED	SEQNO	HIGHSEQ	HHSEQ	STUDY	GROUP	LOCATION	CLIMATE	UTILITY	SQFT	SQFT	YRBUILT	YREMOD	H1FUEL	H2FUEL
1	3	15APR86	29JUN86	E86		1	4	1	OTHER	OTHER	W.OR	1	560	1440	960	1965E		WOOD	ELEC
2	3	30JUN86	31AUG87	RI		2	4	1	OTHER	OTHER	W.OR	1	560	1440	960	1965E		WOOD	ELEC
3	3	01SEP87	10JUL88	HH.CHG		3	4	2	OTHER	OTHER	W.OR	1	560	1440	960	1965E		WOOD	ELEC
4	3	11JUL88	.	E88		4	4	2	OTHER	OTHER	W.OR	1	560	1440	960	1965E		WOOD	ELEC
5	4	29OCT85	09DEC85	METER		1	4	1	OTHER	OTHER	E.OR	2	560	2196	1408	1983E		ELEC	
6	4	10DEC85	14APR86	RI		2	4	1	OTHER	OTHER	E.OR	2	560	2196	1408	1983E		ELEC	
7	4	15APR86	14JUN87	E86		3	4	1	OTHER	OTHER	E.OR	2	560	2196	1408	1983E		ELEC	
8	4	15JUN87	.	E87		4	4	1	OTHER	OTHER	E.OR	2	560	2196	1408	1983E		ELEC	
9	6	30JUN83	16MAR85	PNWRES		1	7	1	BASE	PRE78	E.WA	1	175	2493	2190	1976		ELEC	ELEC
10	6	17MAR85	13JUN85	ROSM		2	7	1	BASE	PRE78	E.WA	1	175	2493	2190	1976		ELEC	ELEC
11	6	14JUN85	10JAN86	ROST		3	7	1	BASE	PRE78	E.WA	1	175	2493	2190	1976		ELEC	ELEC
12	6	11JAN86	14APR86	RI		4	7	1	BASE	PRE78	E.WA	1	175	2493	2082	1976		WOOD	ELEC
13	6	15APR86	16JUN87	E86		5	7	1	BASE	PRE78	E.WA	1	175	2493	2082	1976		WOOD	ELEC
14	6	17JUN87	04JUL88	E87		6	7	1	BASE	PRE78	E.WA	1	175	2493	2082	1976		WOOD	ELEC
15	6	05JUL88	.	E88		7	7	1	BASE	PRE78	E.WA	1	175	2493	2082	1976		WOOD	ELEC
16	16	15JUN83	14MAR85	PNWRES		1	7	1	BASE	POST78	E.WA	1	233	1656	1616	1980		ELEC	WOOD
17	16	15MAR85	13JUN85	ROSM		2	7	1	BASE	POST78	E.WA	1	233	1656	1616	1980		ELEC	WOOD
18	16	14JUN85	14APR86	ROST		3	7	1	BASE	POST78	E.WA	1	233	1656	1616	1980		ELEC	WOOD
19	16	15APR86	11JUL86	E86		4	7	1	BASE	POST78	E.WA	1	233	1656	1616	1980		ELEC	WOOD
20	16	12JUL86	31MAY87	RI		5	7	1	BASE	POST78	E.WA	1	233	1656	1134	1980		WOOD	ELEC

OBS	H3FUEL	C1FUEL	H1TYP	H2TYP	H3TYP	C1TYP	H1US	H2US	H3US	C1US	W1FUEL	W2FUEL	W1SIZE	W2SIZE	WLOC	WCOST	OCC0	OCC1	OCC6	OCC8	OCC65	INCOMEC	EDUC	ENERF	CRFRR	CFZR	CSTOVE	CMWAVE	CCWASH	CDRY	CTV
1			INSR	BB							ELEC		52	.	UC	4	2	0	2	0		10	2	2	.	1	0	0	0	2
2			INSR	BB							ELEC		52	.	UC	4	2	0	2	0		10	2	2	.	1	0	0	0	2
3			INSR	BB							ELEC		52	.	UC	3	1	0	2	0	5	10		1	.	1	.	1	1	.
4			INSR	BB							ELEC		52	.	UC	3	1	0	2	0	5	10		1	.	1	.	1	1	.
5			FA								ELEC		82	.	COND	2	0	0	2	0	5	8	2	1	.	1	1	1	1	2
6			FA								ELEC		82	.	COND	2	0	0	2	0	5	8	2	1	.	1	1	1	1	2
7			FA								ELEC		82	.	COND	2	0	0	2	0	5	8	2	1	.	1	1	1	1	2
8			FA								ELEC		82	.	COND	2	0	0	2	0	5	8	2	1	.	1	1	1	1	2
9		ELEC	FA	FA	FA	MOST				COOL	ELEC		52	.	COND	4	1	1	2	0	5	10	2	1	1	1	1	1	1	1
10		ELEC	FA	FA	FA	MOST				COOL	ELEC		52	.	COND	4	1	1	2	0	5	10	3	1	1	1	1	1	1	2
11		ELEC	FA	FA	FA	MOST				COOL	ELEC		52	.	COND	4	1	1	2	0	5	10	3	1	1	1	1	1	1	2
12		ELEC	HTLT	FA	FA	MOST				COOL	ELEC		52	.	COND	4	1	1	2	0	5	10	3	1	1	1	1	1	1	1
13		ELEC	HTLT	FA	FA	MOST				COOL	ELEC		52	.	COND	4	0	2	2	0	6	10	2	1	1	1	1	1	1	1
14		ELEC	HTLT	FA	FA	MOST				COOL	ELEC		52	.	COND	4	0	2	2	0	6	10	1	1	1	1	1	1	1	1
15		ELEC	HTLT	FA	FA	MOST				COOL	ELEC		52	.	COND	4	0	2	2	0	6	10	1	1	1	1	1	1	1	1
16		ELEC	FA	FA	FA	MOST		SEC		COOL	ELEC		52	.	UC	3	1	0	2	0	3	8	2	1	1	1	1	1	1	3
17		ELEC	HP	FA	HP	MOST		SEC		COOL	ELEC		52	.	UC	3	1	0	2	0	5	8	3	1	1	1	1	1	1	3
18		ELEC	HP	FA	FA	MOST		SEC		COOL	ELEC		52	.	UC	3	1	0	2	0	5	7	3	1	1	1	1	1	1	3
19		ELEC	HP	FA	FA	MOST		SEC		COOL	ELEC		52	.	UC	3	1	0	2	0	3	7	4	1	1	1	1	1	1	3
20		ELEC	FPLC	FA	FA	MOST		SEC		COOL	ELEC		52	.	UC	3	1	0	2	0	3	7	4	1	1	1	1	1	1	3

SPECIALTY END USES

Specialty End Uses

ACCESS

SAS Data Library:	**RPEE.RLCAP.ELCAP.CHAR.SASDB**	
SAS Format Library:	**RPEE.RLCAP.ELCAP.CHAR.FORMATS**	
SAS Data Set Names:	**SPEU_RES**	**(Residential Sites, 94 obs.)**
	SPEU_COM	**(Commerical Sites, 195 obs.)**

CONTENTS

The specialty end use data sets provide the text description for the specialty end uses (e.g., 'SP1', 'SM1') found in the ELCAP engineering data sets. Specialty end use definitions vary from site to site.

The data is organized as one SAS observation per site--end-use--time period.

The data was provided by Bill Sandusky, of PNL, dated June 7, 1990.

VARIABLES

SITE

SITE
The unique key that is assigned to a site. By definition, site numbers do not change location.

ENDUSE

END USE (PNL character code)
The PNL-assigned three character mnemonic code for the end use. This will be either 'SM1' or 'SM2' for residential sites, or 'SP1', 'SP2', or 'SP3' for commerical sites.

DESC

DESCRIPTION OF LOAD
The text description of the appliance or end use provided by PNL.

BEGIN

BEGINNING DATE
The first date this description applies.

Format: DATE7.

ENDS

ENDING DATE
The last date this description applies. A missing value indicates the description is still applicable.

Format: DATE7.

+ Spec and Run w/ KWH

CONTENTS OF SAS MEMBER CHAR.SPEU_RES

DSNAME=RPEE.RLCAP.ELCAP.CHAR.SASDB NUMBER OF OBSERVATIONS: 94 NUMBER OF VARIABLES: 5
CREATED 12:46 SATURDAY, JUNE 9, 1990

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
4	BEGIN	NUM	3	35	DATE7.	
3	DESC	CHAR	25	10		
5	ENDS	NUM	3	38	DATE7.	
2	ENDUSE	CHAR	3	7		
1	SITE	NUM	3	4		

OBS	SITE	ENDUSE	DESC	BEGIN	ENDS
1	32	SM1	KILN	12JUN85	19DEC88
2	60	SM1	JACCUZZI	27NOV85	.
3	61	SM1	PUMP	18OCT85	.
4	71	SM1	PUMP, SAUNA	10JAN85	25FEB89
5	89	SM1	HOT TUB	11MAY88	.
6	90	SM1	HOT TUB	16OCT87	.
7	106	SM1	COMPRESSOR	21OCT88	.
8	121	SM1	SEWAGE PUMP	06FEB85	.
9	122	SM1	HOT TUB	05FEB86	.
10	125	SM1	WELL PUMP	06FEB85	.
11	126	SM1	PUMP	01OCT85	25JUL89
12	127	SM1	PUMP	03JUN86	.
13	135	SM1	STEAM BATH	11FEB85	.
14	136	SM1	WATER PUMP	10FEB85	13SEP87
15	146	SM1	WELL PUMP	19FEB85	.
16	150	SM1	HOT TUB	10SEP85	.
17	154	SM1	WATER PUMP	30NOV87	05JAN89
18	155	SM1	PUMP	22FEB85	02NOV88
19	161	SM1	WELL PUMP	28JUN85	.
20	165	SM1	WATER PUMP	25JUL85	.
21	169	SM1	WELDER	05MAR85	.
22	172	SM1	SPA	08MAR85	.
23	175	SM1	WELL PUMP	29AUG85	28FEB88
24	176	SM1	HUMIDIFIER	22JUL85	.
25	179	SM1	PUMP	19JUN85	.
26	186	SM1	HOT TUB	19MAR85	19JUL88
27	201	SM1	PUMP	28MAR85	22AUG89
28	202	SM1	SMOKE DETECTIORS	30MAR85	.
29	210	SM1	SHOP OUTLETS	16JUL85	.
30	213	SM1	PUMP	17DEC85	.
31	215	SM1	WELL & IRRIGATION PUMP	13APR85	30OCT89
32	220	SM1	PUMP	17JUN85	.
33	223	SM1	SPA	12OCT87	.
34	233	SM1	PUMP	17APR85	.
35	235	SM1	SPA	18APR85	30APR85
36	246	SM1	PUMP	29APR85	.
37	254	SM1	WELL PUMP	08MAY85	12APR87
38	271	SM1	BARN, POOL PUMP	15MAY85	.
39	276	SM1	WELL PUMP	09JUN85	.
40	309	SM1	PUMP	04JUN85	.
41	316	SM1	WELDER	22OCT85	.
42	318	SM1	WATER PUMP	18JUN85	.
43	321	SM1	IRRIGATION PUMP	13JUN85	25APR87
44	323	SM1	SEWER & WATER PUMP	18JUN85	.
45	325	SM1	PUMP	03SEP85	23MAR89
46	329	SM1	WELL PUMP	10JUN85	.
47	332	SM1	WELDER	11OCT85	27FEB89
48	336	SM1	WELDER	13JUN85	.
49	337	SM1	PUMP	24JUN85	.
50	345	SM1	WELL & IRRIGATION PUMPS	19JUN85	.

CONTENTS OF SAS MEMBER CHAR.SPEU_COM

DSNAME=RPEE.RLCAP.ELCAP.CHAR.SASDB NUMBER OF OBSERVATIONS: 195 NUMBER OF VARIABLES: 5
CREATED 12:46 SATURDAY, JUNE 9, 1990

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
4	BEGIN	NUM	3	35	DATE7.		
3	DESC	CHAR	25	10			
5	ENDS	NUM	3	38	DATE7.		
2	ENDUSE	CHAR	3	7			
1	SITE	NUM	3	4			

OBS	SITE	ENDUSE	DESC	BEGIN	ENDS
1	7	SP1	DOOR OPENER	21JAN89	.
2	7	SP1	ROTISSERIE	19OCT89	.
3	8	SP1	GAS PUMPS	15NOV84	02DEC84
4	8	SP1	COX HEATERS	20JAN85	12JUL88
5	8	SP1	PUMP CONTROLS	20JAN85	12JUL88
6	8	SP1	BELL	20JAN85	12JUL88
7	9	SP1	CAMERA	17FEB85	.
8	9	SP1	SOUND SYSTEM	17FEB85	.
9	9	SP1	CLOCK	17FEB85	.
10	11	SP1	INFRA RED FIRE ALARM	26APR86	.
11	11	SP1	TIME CLOCK	18MAY86	.
12	11	SP2	EMS INTERFACE	26APR86	.
13	11	SP2	EMS	18MAY86	.
14	12	SP1	FORK LIFT CHARGER	22JAN86	.
15	13	SP1	EXIT SIGNS	04MAR85	.
16	13	SP1	FIRE ALARM	04MAR85	.
17	14	SP1	HEAT RECLAIMER	02JUL86	.
18	14	SP1	AIR COMPRESSOR	02JUL86	.
19	18	SP1	2 COOKIE MACHINES	23AUG86	11JUL88
20	18	SP2	COOKIE CONVEYOR	23AUG86	11JUL88
21	36	SP1	TIME CLOCK	23OCT85	10JUL87
22	37	SP1	ALARM	19APR86	.
23	37	SP1	TIME CLOCK	19APR86	.
24	37	SP1	PHONE	19APR86	.
25	37	SP2	FRONT DOOR OPENER	19APR86	.
26	40	SP1	TELEPHONE	01FEB85	.
27	41	SP1	WASHER	01MAR85	12JAN89
28	41	SP1	DRYER	01MAR85	12JAN89
29	41	SP1	SUMP PUMP	01MAR85	12JAN89
30	41	SP2	FIRE ALARM	01MAR85	12JAN89
31	48	SP1	TELEPHONE	03DEC84	02MAY88
32	48	SP1	OUTLET FOR TRUCKS	03DEC84	02MAY88
33	48	SP2	OUTLET FOR TRUCKS	07MAR86	02MAY88
34	79	SP1	CIRC. PUMP	10FEB85	18FEB86
35	81	SP1	TELEPHONE	16FEB85	02MAY88
36	82	SP1	ICE MACHINE	24JAN85	16MAY88
37	82	SP1	TIME CLOCK	06MAY86	16MAY88
38	273	SP1	TELEPHONE	15MAY85	.
39	273	SP1	LIGHTS	15MAY85	.
40	274	SP1	BEAUTY SHOP MAINS	17MAY85	30NOV88
41	274	SP1	WATER SOFTNER	01JUN86	04DEC88
42	282	SP1	TIME CLOCK	10AUG85	.
43	282	SP1	COMPRESSOR	10AUG85	.
44	282	SP2	BATERY CHARGER	03JUN88	.
45	282	SP3	DOOR OPENER	03JUN88	.
46	283	SP1	TELEPHONE	29JUL85	.
47	285	SP1	DEFROSTERS	10MAR86	.
48	285	SP1	COMPRESSOR FANS	10MAR86	03JAN90
49	285	SP1	FEED TO COMPRESSOR RACK	10MAR86	03JAN90
50	285	SP1	COFFEE GRINDER	09APR86	06MAR90

RESIDENTIAL SPECIAL MAJOR APPLIANCES
SORTED BY ANNUAL KWH

& (PADS "TOT") (SP1/SP2)

KWH	SITE	ENDUSE	DESC	P_BEGIN	P_ENDS	MONTHS
12381.0	60	SM1	JACCUZZI	01NOV85	28FEB90	52
7020.0	758	SM1	COMPRESSOR	01MAR87	31JAN89	23
6010.0	351	SM2	HOT TUB	01AUG85	31JAN89	2
5356.0	758	SM2	WATER PUMP	01MAR87	31JAN89	23
5216.0	172	SM1	SPA	01MAR85	28FEB90	60
4888.0	147	SM1		01FEB85	28FEB90	24
4766.0	484	SM1	WELL PUMP	01SEP85	28FEB90	49
4478.0	89	SM1	HOT TUB	01AUG85	30APR89	12
4384.0	494	SM1	HOT TUB	01OCT85	28FEB90	50
4155.0	376	SM1	PUMP	01AUG85	28FEB90	54
3971.3	318	SM1	WATER PUMP	01JUN85	28FEB90	57
3940.9	398	SM1	WATER PUMP	01SEP85	30NOV87	27
3878.0	352	SM1	HOT TUB	01JUN85	28FEB90	57
3824.8	386	SM1	HOT TUB & PUMP	01JUL85	28FEB90	53
3785.8	370	SM1	WELL & IRRIGATION PUMPS	01JUL85	28FEB90	54
2807.6	90	SM1	HOT TUB	01JAN85	28FEB90	24
2663.8	64	SM1		01MAR85	31MAR90	36
2594.1	122	SM1	HOT TUB	01MAR85	31MAR90	40
2421.1	400	SM1		01AUG85	28FEB90	27
2283.7	363	SM1	WATER PUMP	01JUL85	31AUG89	47
2273.9	381	SM1	SAUNA & PUMP	01AUG85	28FEB90	54
2215.8	186	SM1	HOT TUB	01AUG85	30NOV89	26
1973.0	506	SM1	WELL PUMP	01FEB86	31JAN89	36
1902.8	176	SM1	HUMIDIFIER	01MAR85	28FEB90	57
52.1	434	SM1	HOT TUB	01SEP85	31MAY89	39
1542.6	246	SM1	PUMP	01APR85	28FEB90	59
1417.1	358	SM1	POOL PUMP	01JUN85	31AUG89	42
1394.8	519	SM1	WELL PUMP	01MAR87	28FEB90	26
1344.6	125	SM1	WELL PUMP	01FEB85	28FEB90	58
1327.8	154	SM1	WATER PUMP	01FEB85	31JUL88	9
1220.0	373	SM1	PUMP	01JUL85	31DEC88	35
1217.9	271	SM1	BARN, POOL PUMP	01MAY85	31AUG89	37
1165.4	213	SM1	PUMP	01DEC85	28FEB90	45
1041.8	516	SM1	PUMP	01MAR86	28FEB90	47
1032.0	201	SM1	PUMP	01MAR85	31AUG89	49
931.4	215	SM1	WELL & IRRIGATION PUMP	01APR85	31AUG89	48
926.8	150	SM1	HOT TUB	01SEP85	31OCT89	42
867.5	493	SM1	SHOP, SHED, WELL PUMP	01JAN86	28FEB90	48
803.5	316	SM1	WELDER	01OCT85	28FEB90	53
768.3	223	SM1	SPA	01JUL85	30NOV89	21
715.4	126	SM1	PUMP	01MAR88	31JUL89	17
706.5	382	SM1	PUMP & COMPRESSOR	01APR86	31MAR89	3
695.9	390	SM1	PUMP	01APR86	28FEB90	47
675.1	336	SM1	WELDER	01MAY86	28FEB90	43
634.9	350	SM1	PUMP	01JUL85	31DEC89	54
612.6	161	SM1	WELL PUMP	01FEB85	31OCT89	51
605.6	155	SM1	PUMP	01FEB85	31MAY88	10
575.2	378	SM1	PUMP	01MAY86	28FEB90	43
546.1	131	SM1		01FEB85	31JAN90	4
508.6	399	SM1	WELDER, PUMP, COMPRESSOR	01AUG85	28FEB90	55
32.3	504	SM1	PUMP	01MAY86	30SEP88	5
440.6	325	SM1	PUMP	01JAN86	31MAR89	37
420.4	4	SM1		01DEC85	31MAY87	18
413.9	71	SM1	PUMP, SAUNA	01JAN86	28FEB89	29

RESIDENTIAL SPECIAL MAJOR APPLIANCES
SORTED BY ANNUAL KWH

KWH	SITE	ENDUSE	DESC	P_BEGIN	P_ENDS	MONTHS
390.5	337	SM1	PUMP	01JUN85	28FEB90	47
349.6	348	SM1	WELL PUMP	01OCT85	31OCT88	26
348.6	323	SM1	SEWER & WATER PUMP	01JUN85	28FEB90	55
345.1	210	SM1	SHOP OUTLETS	01OCT86	28FEB90	41
341.6	127	SM1	PUMP	01JUN86	31AUG89	30
339.1	136	SM1	WATER PUMP	01FEB85	30SEP87	32
325.8	329	SM1	WELL PUMP	01JUN85	28FEB90	53
321.6	351	SM1	PUMP	01AUG85	31JAN89	35
307.8	366	SM1	PUMP	01AUG85	31JAN87	3
304.9	309	SM1	PUMP	01JUN85	28FEB90	54
270.4	165	SM1	WATER PUMP	01FEB85	30SEP88	39
256.1	233	SM1	PUMP	01APR85	28FEB90	52
242.4	425	SM1	PUMP	01SEP85	30JUN89	36
235.3	345	SM1	WELL & IRRIGATION PUMPS	01FEB86	28FEB90	49
231.9	517	SM1	PUMP	01DEC86	31JAN89	24
228.6	32	SM1	KILN	01JUN85	31DEC88	38
221.6	175	SM1	WELL PUMP	01AUG85	29FEB88	28
169.4	518	SM1	SAUNA	01JAN86	31MAR90	47
165.3	461	SM1	PUMP	01OCT85	28FEB90	53
164.3	508	SM1	WELL PUMP	01JAN87	30JUN87	4
153.8	179	SM1	PUMP	01JUN85	28FEB90	54
148.6	61	SM1	PUMP	01OCT85	28FEB90	49
143.2	121	SM1	SEWAGE PUMP	01MAY86	28FEB90	46
134.7	485	SM1	HOT WATER DISPENSER	01SEP85	31MAR88	31
1[illegible].2	202	SM1	SMOKE DETECTIORS	01SEP85	28FEB90	31
1[illegible].0	452	SM2	JACCUZZI	01APR86	31MAR90	48
103.0	481	SM1	PUMP	01JAN86	30SEP89	31
81.2	482	SM1	PUMP	01OCT85	30NOV89	50
74.0	356	SM1	GARAGE 240 OUTLET	01SEP85	28FEB90	43
26.9	500	SM1	WELDER	01OCT85	28FEB90	52
17.5	759	SM1	JACCUZZI	01JUL87	28FEB90	31
16.6	146	SM1	WELL PUMP	01JAN86	30NOV89	43
16.0	254	SM1	WELL PUMP	01MAY85	30APR87	24
9.1	106	SM1	COMPRESSOR	01FEB85	31MAY89	6
5.0	135	SM1	STEAM BATH	01NOV85	31MAR90	50
2.0	452	SM1		01APR86	31MAR90	48
1.5	169	SM1	WELDER	01MAR85	28FEB90	57
1.0	332	SM1	WELDER	01OCT85	28FEB89	41
0.1	513	SM1	JACCUZZI	01NOV85	30JUN89	44
0.0	276	SM1	WELL PUMP	01AUG85	30NOV89	46
0.0	410	SM1	RECOVERY ?	01FEB86	28FEB90	49
0.0	23	SM1		01SEP84	30JUN89	4
.	220	SM1	PUMP	.	.	.
.	235	SM1	SPA	.	.	.
.	321	SM1	IRRIGATION PUMP	.	.	.
.	427	SM1	SHOP OUTLETS	.	.	.
.	501	SM1	WELDER	.	.	.

RESIDENTIAL SPECIAL MAJOR APPLIANCES
SORTED BY ENDUSE DESCRIPTION

(PADS "JOT") (SM1/SM2)

DESC	KWH	SITE	ENDUSE	P_BEGIN	P_ENDS	MONTHS
(not on PNL List)	4888.0	147	SM1	01FEB85	28FEB90	24
	2663.8	64	SM1	01MAR85	31MAR90	36
	2421.1	400	SM1	01AUG85	28FEB90	27
	546.1	131	SM1	01FEB85	31JAN90	4
	420.4	4	SM1	01DEC85	31MAY87	18
	2.0	452	SM1	01APR86	31MAR90	48
	0.0	23	SM1	01SEP84	30JUN89	4
BARN, POOL PUMP	1217.9	271	SM1	01MAY85	31AUG89	37
COMPRESSOR	7020.0	758	SM1	01MAR87	31JAN89	23
	9.1	106	SM1	01FEB85	31MAY89	6
GARAGE 240 OUTLET	74.0	356	SM1	01SEP85	28FEB90	43
HOT TUB	6010.0	351	SM2	01AUG85	31JAN89	2
	4478.0	89	SM1	01AUG85	30APR89	12
	4384.0	494	SM1	01OCT85	28FEB90	50
	3878.0	352	SM1	01JUN85	28FEB90	57
	2807.6	90	SM1	01JAN85	28FEB90	24
	2594.1	122	SM1	01MAR85	31MAR90	40
	2215.8	186	SM1	01AUG85	30NOV89	26
	1552.1	434	SM1	01SEP85	31MAY89	39
	926.8	150	SM1	01SEP85	31OCT89	42
H TUB & PUMP	3824.8	386	SM1	01JUL85	28FEB90	53
HOT WATER DISPENSER	134.7	485	SM1	01SEP85	31MAR88	31
HUMIDIFIER	1902.8	176	SM1	01MAR85	28FEB90	57
IRRIGATION PUMP	.	321	SM1	.	.	.
JACCUZZI	12381.0	60	SM1	01NOV85	28FEB90	52
	111.0	452	SM2	01APR86	31MAR90	48
	17.5	759	SM1	01JUL87	28FEB90	31
	0.1	513	SM1	01NOV85	30JUN89	44
KILN	228.6	32	SM1	01JUN85	31DEC88	38
POOL PUMP	1417.1	358	SM1	01JUN85	31AUG89	42
PUMP	4155.0	376	SM1	01AUG85	28FEB90	54
	1542.6	246	SM1	01APR85	28FEB90	59
	1220.0	373	SM1	01JUL85	31DEC88	35
	1165.4	213	SM1	01DEC85	28FEB90	45
	1041.8	516	SM1	01MAR86	28FEB90	47
	1032.0	201	SM1	01MAR85	31AUG89	49
	715.4	126	SM1	01MAR88	31JUL89	17
	695.9	390	SM1	01APR86	28FEB90	47
	634.9	350	SM1	01JUL85	31DEC89	54
	605.6	155	SM1	01FEB85	31MAY88	10
	575.2	378	SM1	01MAY86	28FEB90	43

RESIDENTIAL SPECIAL MAJOR APPLIANCES
SORTED BY ENDUSE DESCRIPTION

DESC	KWH	SITE	ENDUSE	P_BEGIN	P_ENDS	MONTHS
PUMP	482.3	504	SM1	01MAY86	30SEP88	5
	440.6	325	SM1	01JAN86	31MAR89	37
	390.5	337	SM1	01JUN85	28FEB90	47
	341.6	127	SM1	01JUN86	31AUG89	30
	321.6	351	SM1	01AUG85	31JAN89	35
	307.8	366	SM1	01AUG85	31JAN87	3
	304.9	309	SM1	01JUN85	28FEB90	54
	256.1	233	SM1	01APR85	28FEB90	52
	242.4	425	SM1	01SEP85	30JUN89	36
	231.9	517	SM1	01DEC86	31JAN89	24
	165.3	461	SM1	01OCT85	28FEB90	53
	153.8	179	SM1	01JUN85	28FEB90	54
	148.6	61	SM1	01OCT85	28FEB90	49
	103.0	481	SM1	01JAN86	30SEP89	31
	81.2	482	SM1	01OCT85	30NOV89	50
	.	220	SM1	.	.	.
PUMP & COMPRESSOR	706.5	382	SM1	01APR86	31MAR89	3
PUMP, SAUNA	413.9	71	SM1	01JAN86	28FEB89	29
RECOVERY ?	0.0	410	SM1	01FEB86	28FEB90	49
SAUNA	169.4	518	SM1	01JAN86	31MAR90	47
SAUNA & PUMP	2273.9	381	SM1	01AUG85	28FEB90	54
SEWAGE PUMP	143.2	121	SM1	01MAY86	28FEB90	46
SEWER & WATER PUMP	348.6	323	SM1	01JUN85	28FEB90	55
SHOP OUTLETS	345.1	210	SM1	01OCT86	28FEB90	41
	.	427	SM1	.	.	.
SHOP, SHED, WELL PUMP	867.5	493	SM1	01JAN86	28FEB90	48
SMOKE DETECTIORS	111.2	202	SM1	01SEP85	28FEB90	31
SPA	5216.0	172	SM1	01MAR85	28FEB90	60
	768.3	223	SM1	01JUL85	30NOV89	21
	.	235	SM1	.	.	.
STEAM BATH	5.0	135	SM1	01NOV85	31MAR90	50

RESIDENTIAL SPECIAL MAJOR APPLIANCES
SORTED BY ENDUSE DESCRIPTION

DESC	KWH	SITE	ENDUSE	P_BEGIN	P_ENDS	MONTHS
WATER PUMP	5356.0	758	SM2	01MAR87	31JAN89	23
	3971.3	318	SM1	01JUN85	28FEB90	57
	3940.9	398	SM1	01SEP85	30NOV87	27
	2283.7	363	SM1	01JUL85	31AUG89	47
	1327.8	154	SM1	01FEB85	31JUL88	9
	339.1	136	SM1	01FEB85	30SEP87	32
	270.4	165	SM1	01FEB85	30SEP88	39
WELDER	803.5	316	SM1	01OCT85	28FEB90	53
	675.1	336	SM1	01MAY86	28FEB90	43
	26.9	500	SM1	01OCT85	28FEB90	52
	1.5	169	SM1	01MAR85	28FEB90	57
	1.0	332	SM1	01OCT85	28FEB89	41
	.	501	SM1	.	.	.
WELDER, PUMP, COMPRESSOR	508.6	399	SM1	01AUG85	28FEB90	55
WELL & IRRIGATION PUMP	931.4	215	SM1	01APR85	31AUG89	48
WELL & IRRIGATION PUMPS	3785.8	370	SM1	01JUL85	28FEB90	54
	235.3	345	SM1	01FEB86	28FEB90	49
WELL PUMP	4766.0	484	SM1	01SEP85	28FEB90	49
	1973.0	506	SM1	01FEB86	31JAN89	36
	1394.8	519	SM1	01MAR87	28FEB90	26
	1344.6	125	SM1	01FEB85	28FEB90	58
	612.6	161	SM1	01FEB85	31OCT89	51
	349.6	348	SM1	01OCT85	31OCT88	26
	325.8	329	SM1	01JUN85	28FEB90	53
	221.6	175	SM1	01AUG85	29FEB88	28
	164.3	508	SM1	01JAN87	30JUN87	4
	16.6	146	SM1	01JAN86	30NOV89	43
	16.0	254	SM1	01MAY85	30APR87	24
	0.0	276	SM1	01AUG85	30NOV89	46

HOURLY

Engineering Data ("HOURLY")

ACCESS

SAS Data Library: **RPEE.RLCAP.KGR.ELCAP.H.<xfer>.<#<xx>Y<yy>**
SAS Format Library: **RPEE.RLCAP.ELCAP.FORMATS**

SAS Data Set Name: **HOURLY**

CONTENTS

The HOURLY datasets are stored on tape.

The data is organized as one SAS observation per site-enduse-date, with separate datasets by year. The dataset is sorted by site enduse date.

VARIABLES: SITE-ENDUSE-DATE IDENTIFICATION

SITE

SITE
The unique key that is assigned to a site. By definition, site numbers do not change location.

DATE

DATE
The calendar date for this record, in SAS date format (number of days since January 1, 1960).

SAS Format: MONYY5.

DAY

DAY
Day of the month, derived from DATE.

DOW

DAY OF WEEK
The day of the week, in SAS coding convention. Additional codes are also assigned for typical day profiles, and to indicate peak days.

Format: DOW.

```
1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday
```

ENDUSE

END USE (PNL character code)
The PNL-assigned three character mnemonic code for the enduse. See ENDUSE DEFINITIONS for enduse definitions.

Format: $ENDUSE.

EU

END USE (PNL numeric code)
The PNL-assigned numeric end use code. This code has a one-to-one relationship with 'ENDUSE'.

Format: EU.

MEASURE **MEASUREMENT LEVEL**

An indicator of the level of measurement for the enduse.

Format: MEASURE.

```
 0 = Total for Site
 1 = Meta Enduse
 2 = End Use
 3 = Component of end use
11 = Wood stove sensor
12 = Temperature sensor
13 = Meteorological sensor
14 = Miscellaneous sensor
98 = Calculated value
99 = Data quality
```

MONTH **MONTH**

Month of the year, derived from DATE.

UNITS **MEASUREMENT UNITS**

Unit of measure for the enduse.

Formats: $UNITS.

WS1-4

```
'KW ' = Kilowatts / kilowatt hours.
'F  ' = Degrees Fahrenheit
'ST1' = Wood Stove units
'ST2' = Wood Stove units
'ST3' = Wood Stove units
'ST4' = Wood Stove units
'PCT' = Percent
'CMS' = Centimeters/second
'DEG' = Compass degrees (direction)
'WMS' = Watts/meter-sq.
'PHO' = Photometer units
'IHG' = Inches of mercury (pressure)
'MHG' = Millimeters of mercury (pressure)
'MIN' = Minutes
'HDH' = Heating degree hours
'CDH' = Cooling degree hours
'BTU' = BTU's
'CNT' = Count of events
'WDU' = Wood use indicator
'VAC' = Vacancy code
'DQL' = Data quality level code
'DQF' = Data quality flag code
```

YEAR **YEAR**

Year (4-digit), derived from DATE.

VARIABLES:	**HOURLY POWER (DEMAND)**

HR1-HR24 **HOURLY DATA VALUES**

Data values for the 24 hours of the day. Observations not meeting the data quality criteria (for creating the PADS) are set to missing (i.e., DQL greater than 5, and DQF greater than 5). The data is stored in the units indicated by the variable UNITS. Typically, energy is stored in KW, and temperatures in degrees fahrenheit. This is different than the PNL verion of pads, where the data is stored in watts and degrees Kelvin, respectively.

HR2 is missing for Spring DST

CONTENTS OF SAS MEMBER H.HOURLY

NUMBER OF OBSERVATIONS: (UNKNOWN) NUMBER OF VARIABLES: 34
TAPE FORMAT DATASET

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
2	DATE	NUM	4	8	DATE7.	DATE
32	DAY	NUM	2	121		DAY
29	DOW	NUM	2	114		DAY OF WEEK
3	ENDUSE	CHAR	3	12		END USE
28	EU	NUM	3	111		END USE (NUMERIC)
4	HR1	NUM	4	15	10.3	HOUR 1
5	HR2	NUM	4	19	10.3	HOUR 2
6	HR3	NUM	4	23	10.3	HOUR 3
7	HR4	NUM	4	27	10.3	HOUR 4
8	HR5	NUM	4	31	10.3	HOUR 5
9	HR6	NUM	4	35	10.3	HOUR 6
10	HR7	NUM	4	39	10.3	HOUR 7
11	HR8	NUM	4	43	10.3	HOUR 8
12	HR9	NUM	4	47	10.3	HOUR 9
13	HR10	NUM	4	51	10.3	HOUR 10
14	HR11	NUM	4	55	10.3	HOUR 11
15	HR12	NUM	4	59	10.3	HOUR 12
16	HR13	NUM	4	63	10.3	HOUR 13
17	HR14	NUM	4	67	10.3	HOUR 14
18	HR15	NUM	4	71	10.3	HOUR 15
19	HR16	NUM	4	75	10.3	HOUR 16
20	HR17	NUM	4	79	10.3	HOUR 17
21	HR18	NUM	4	83	10.3	HOUR 18
22	HR19	NUM	4	87	10.3	HOUR 19
23	HR20	NUM	4	91	10.3	HOUR 20
24	HR21	NUM	4	95	10.3	HOUR 21
25	HR22	NUM	4	99	10.3	HOUR 22
26	HR23	NUM	4	103	10.3	HOUR 23
27	HR24	NUM	4	107	10.3	HOUR 24
30	MEASURE	NUM	2	116		MEASURE LEVEL
33	MONTH	NUM	2	123		MONTH
1	SITE	NUM	4	4		SITE ID
31	UNITS	CHAR	3	118		MEASURE UNITS
34	YEAR	NUM	3	125		YEAR

CONTENTS OF SAS MEMBER H.HOURLY

OBS	SITE	DATE	ENDUSE	HR1	HR2	HR3	HR4	HR5	HR6	HR7	HR8	HR9	HR10	HR11	HR12
1	34	01JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	34	02JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	34	03JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	34	04JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	34	05JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	34	06JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.246	0.236
7	34	07JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	34	08JAN90	CWA	0.000	.	.	.	.	.	.	.	.	.	.	.
9	34	09JAN90	CWA	.	.	.	.	.	.	.	.	.	.	.	.
10	34	10JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	34	11JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.407
12	34	12JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	34	13JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.214	0.043	0.000	0.000
14	34	14JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	34	15JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16	34	16JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	34	17JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	34	18JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	34	19JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.257	0.000
20	34	20JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.096
21	34	21JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.236	0.000	0.225
22	34	22JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23	34	23JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.236	0.000	0.000	0.000
24	34	24JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25	34	25JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.021	0.225	0.000	0.000	0.000
26	34	26JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27	34	27JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
28	34	28JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.203	0.000	0.000
29	34	29JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	34	30JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.268	0.000	0.000	0.236	0.000
31	34	31JAN90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32	34	01FEB90	CWA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

OBS	HR13	HR14	HR15	HR16	HR17	HR18	HR19	HR20	HR21	HR22	HR23	HR24	EU	DOW	MEASURE	UNITS	DAY	MONTH	YEAR
1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	2	2	KW	1	1	1990
2	0.000	0.000	0.000	0.000	0.257	0.236	0.000	0.000	0.225	0.000	0.000	0.000	16	3	2	KW	2	1	1990
3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	4	2	KW	3	1	1990
4	0.000	0.000	0.000	0.000	0.289	0.203	0.000	0.000	0.000	0.000	0.000	0.000	16	5	2	KW	4	1	1990
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	6	2	KW	5	1	1990
6	0.000	0.236	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	7	2	KW	6	1	1990
7	0.246	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	1	2	KW	7	1	1990
8	.	.	.	.	.	.	.	.	.	.	.	.	16	2	2	KW	8	1	1990
9	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	3	2	KW	9	1	1990
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	.	0.000	16	4	2	KW	10	1	1990
11	0.043	0.000	0.000	0.000	0.236	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	5	2	KW	11	1	1990
12	0.000	0.000	0.000	0.000	0.000	0.236	0.000	0.000	0.000	0.000	0.000	0.000	16	6	2	KW	12	1	1990
13	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.129	0.000	0.000	0.000	16	7	2	KW	13	1	1990
14	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	1	2	KW	14	1	1990
15	0.225	0.193	0.054	0.000	0.096	0.139	0.000	0.000	0.000	0.000	0.000	0.000	16	2	2	KW	15	1	1990
16	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.246	0.225	0.000	0.000	0.000	16	3	2	KW	16	1	1990
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	4	2	KW	17	1	1990
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	5	2	KW	18	1	1990
19	0.171	0.096	0.182	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	6	2	KW	19	1	1990
20	0.150	0.000	0.000	0.032	0.193	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	7	2	KW	20	1	1990
21	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	1	2	KW	21	1	1990
22	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	2	2	KW	22	1	1990
23	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	3	2	KW	23	1	1990
24	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	4	2	KW	24	1	1990
25	0.000	0.246	0.000	0.214	0.043	0.150	0.000	0.000	0.000	0.000	0.000	0.000	16	5	2	KW	25	1	1990
26	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	6	2	KW	26	1	1990
27	0.000	0.000	0.000	0.000	0.214	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	7	2	KW	27	1	1990
28	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	1	2	KW	28	1	1990
29	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.246	0.000	0.000	0.000	0.000	16	2	2	KW	29	1	1990
30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	3	2	KW	30	1	1990
31	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	4	2	KW	31	1	1990
32	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16	5	2	KW	1	2	1990

MONTHLY PROFILE

Engineering Data ("MONTHLY PROFILE")

ACCESS

SAS Data Library: **RPEE.RLCAP.ELCAP.MP.<date>**
SAS Format Library: **RPEE.RLCAP.ELCAP.FORMATS**

SAS Data Set Names: **(refer to the current DATASETS document)**

CONTENTS

The MONTHLY PROFILE datasets are . . .

The data is organized as one SAS observation per site-enduse-month-dayofweek. Observations for which all hours are missing have been deleted from the dataset.

The MP_<study> datasets contain observations for DOW=0 ('All Days'). The MP2_<study> datasets contain observations for DOW=8 (Weekday days) and DOW=9 (Weekend days).

JUST VARS
site enduse date

VARIABLES: SITE-ENDUSE-DATE IDENTIFICATION

SITE

SITE
The unique key that is assigned to a site. By definition, site numbers do not change location.

DATE

DATE
The calendar date for this record, in SAS date format (number of days since January 1, 1960). DATE is coded as the first day of the month. ← confused 01SEP87

SAS Format: MONYY5.

DOW

DAY OF WEEK
The day of the week, an extension of the SAS day of week coding convention.

Format: DOW.

```
0 = All days
8 = Weekdays
9 = Weekends & Holidays
```

ENDUSE

END USE (PNL character code)
The PNL-assigned three character mnemonic code for the enduse. See ENDUSE DEFINITIONS for enduse definitions.

Format: $ENDUSE.

EU

END USE (PNL numeric code)
The PNL-assigned numeric end use code. This code has a one-to-one relationship with 'ENDUSE'.

Format: EU.

MEANS **PASSES PNL CRITERIA TEST**

Indicates if AVG1--AVG24 values pass the PNL 'with criteria' test. If MEANS=1, then AVG1--AVG24 pass the PADS2 criteria test, otherwise MEANS=0. The PADS2 criteria are:

```
a) no more than 10% of hours in month are missing
   -and-
b) no more than 10% of days for any particular hour are missing.
```

MEASURE **MEASUREMENT LEVEL**

An indicator of the level of measurement for the enduse.

Format: MEASURE.

```
 0 = Total for Site
 1 = Meta Enduse
 2 = End Use
 3 = Component of end use
11 = Wood stove sensor
12 = Temperature sensor
13 = Meteorological sensor
14 = Miscellaneous sensor
98 = Calculated value
99 = Data quality
```

MONTH **MONTH**

Month of the year, derived from DATE.

N_ZAP **NUMBER OF HOURS ZAPPED**

Number of hours during the period which failed the 'end use sumcheck' criteria test (i.e., SUM or CHK values are within tolerance limits). Note that N_ZAP + sum(OF N1-N24) will equal the number of hours of data in the hourly dataset.

UNITS **MEASUREMENT UNITS**

Unit of measure for the enduse.

Format: $UNITS.

```
'KW' = Kilowatts / kilowatt hours.
'F  ' = Degrees Fahrenheit
'ST1' = Wood Stove units
'ST2' = Wood Stove units
'ST3' = Wood Stove units
'ST4' = Wood Stove units
'PCT' = Percent
'CMS' = Centimeters/second
'DEG' = Compass degrees (direction)
'WMS' = Watts/meter-sq.
'PHO' = Photometer units
'IHG' = Inches of mercury (pressure)
'MHG' = Millimeters of mercury (pressure)
'MIN' = Minutes
'HDH' = Heating degree hours
'CDH' = Cooling degree hours
'BTU' = BTU's
'CNT' = Count of events
'WDU' = Wood use indicator
'VAC' = Vacancy code
'DQL' = Data quality level code
'DQF' = Data quality flag code
```

YEAR **YEAR**

Year (4-digit), derived from DATE.

VARIABLES:	**MONTHLY PROFILE AVERAGE HOURLY POWER**

AVG1--24 **HOURLY MEAN VALUES (All observations)**

Mean value for all non-missing hours in the time period passing the enduse sumcheck test. Variables are named AVG1, AVG2, . . . AVG24.

N1--24 **HOURLY COUNT OF OBSERVATIONS**

Count of non-missing end use values, corresponding to the hours of the day for the time period. Variables are named N1, N2, . . . N24.

CONTENTS OF SAS MEMBER MP.MP_RES

DSNAME=RPEE.RLCAP.ELCAP.MP.DEC90R NUMBER OF OBSERVATIONS: 195658 NUMBER OF VARIABLES: 59
CREATED 12:13 SUNDAY, JANUARY 13, 1991

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
10	AVG1	NUM	4	30	10.3	HR 1, MEAN ALL VALUES
11	AVG2	NUM	4	34	10.3	HR 2, MEAN ALL VALUES
12	AVG3	NUM	4	38	10.3	HR 3, MEAN ALL VALUES
13	AVG4	NUM	4	42	10.3	HR 4, MEAN ALL VALUES
14	AVG5	NUM	4	46	10.3	HR 5, MEAN ALL VALUES
15	AVG6	NUM	4	50	10.3	HR 6, MEAN ALL VALUES
16	AVG7	NUM	4	54	10.3	HR 7, MEAN ALL VALUES
17	AVG8	NUM	4	58	10.3	HR 8, MEAN ALL VALUES
18	AVG9	NUM	4	62	10.3	HR 9, MEAN ALL VALUES
19	AVG10	NUM	4	66	10.3	HR 10, MEAN ALL VALUES
20	AVG11	NUM	4	70	10.3	HR 11, MEAN ALL VALUES
21	AVG12	NUM	4	74	10.3	HR 12, MEAN ALL VALUES
22	AVG13	NUM	4	78	10.3	HR 13, MEAN ALL VALUES
23	AVG14	NUM	4	82	10.3	HR 14, MEAN ALL VALUES
24	AVG15	NUM	4	86	10.3	HR 15, MEAN ALL VALUES
25	AVG16	NUM	4	90	10.3	HR 16, MEAN ALL VALUES
26	AVG17	NUM	4	94	10.3	HR 17, MEAN ALL VALUES
27	AVG18	NUM	4	98	10.3	HR 18, MEAN ALL VALUES
28	AVG19	NUM	4	102	10.3	HR 19, MEAN ALL VALUES
29	AVG20	NUM	4	106	10.3	HR 20, MEAN ALL VALUES
30	AVG21	NUM	4	110	10.3	HR 21, MEAN ALL VALUES
31	AVG22	NUM	4	114	10.3	HR 22, MEAN ALL VALUES
32	AVG23	NUM	4	118	10.3	HR 23, MEAN ALL VALUES
33	AVG24	NUM	4	122	10.3	HR 24, MEAN ALL VALUES
8	DATE	NUM	3	24	MONYY5.	DATE
58	DOW	NUM	2	174		DAY OF WEEK
7	ENDUSE	CHAR	3	21		END USE
2	EU	NUM	3	8		END USE (NUMERIC)
59	MEANS	NUM	2	176		PASSES W/CRITERIA TEST
3	MEASURE	NUM	2	11		MEASURE LEVEL
6	MONTH	NUM	2	19		MONTH
9	N_ZAP	NUM	3	27		NUMBER OF HOURS ZAPPED
34	N1	NUM	2	126		HR 1, HOURS W/DATA
35	N2	NUM	2	128		HR 2, HOURS W/DATA
36	N3	NUM	2	130		HR 3, HOURS W/DATA
37	N4	NUM	2	132		HR 4, HOURS W/DATA
38	N5	NUM	2	134		HR 5, HOURS W/DATA
39	N6	NUM	2	136		HR 6, HOURS W/DATA
40	N7	NUM	2	138		HR 7, HOURS W/DATA
41	N8	NUM	2	140		HR 8, HOURS W/DATA
42	N9	NUM	2	142		HR 9, HOURS W/DATA
43	N10	NUM	2	144		HR 10, HOURS W/DATA
44	N11	NUM	2	146		HR 11, HOURS W/DATA
45	N12	NUM	2	148		HR 12, HOURS W/DATA
46	N13	NUM	2	150		HR 13, HOURS W/DATA
47	N14	NUM	2	152		HR 14, HOURS W/DATA
48	N15	NUM	2	154		HR 15, HOURS W/DATA
49	N16	NUM	2	156		HR 16, HOURS W/DATA
50	N17	NUM	2	158		HR 17, HOURS W/DATA
51	N18	NUM	2	160		HR 18, HOURS W/DATA
52	N19	NUM	2	162		HR 19, HOURS W/DATA
53	N20	NUM	2	164		HR 20, HOURS W/DATA
54	N21	NUM	2	166		HR 21, HOURS W/DATA
55	N22	NUM	2	168		HR 22, HOURS W/DATA
56	N23	NUM	2	170		HR 23, HOURS W/DATA
57	N24	NUM	2	172		HR 24, HOURS W/DATA
1	SITE	NUM	4	4		SITE ID
4	UNITS	CHAR	3	13		MEASURE UNITS
5	YEAR	NUM	3	16		YEAR

CONTENTS OF SAS MEMBER MP.MP_RES

OBS	SITE	EU	MEASURE	UNITS	YEAR	MONTH	ENDUSE	DATE	N_ZAP	AVG1	AVG2	AVG3	AVG4	AVG5	AVG6	AVG7	AVG8
1	3	17	2	KW	1986	5	DRY	MAY86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	3	17	2	KW	1986	6	DRY	JUN86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.002
3	3	17	2	KW	1986	7	DRY	JUL86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	3	17	2	KW	1986	8	DRY	AUG86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	3	17	2	KW	1986	9	DRY	SEP86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	3	17	2	KW	1986	10	DRY	OCT86	0	0.000	0.000	0.000	0.036	0.079	0.000	0.000	0.123
7	3	17	2	KW	1986	11	DRY	NOV86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.070	0.077
8	3	17	2	KW	1986	12	DRY	DEC86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.036
9	3	17	2	KW	1987	1	DRY	JAN87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.057
10	3	17	2	KW	1987	2	DRY	FEB87	0	0.000	0.000	0.000	0.034	0.099	0.092	0.149	0.096
11	3	17	2	KW	1987	3	DRY	MAR87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.043
12	3	17	2	KW	1987	4	DRY	APR87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	3	17	2	KW	1987	5	DRY	MAY87	0	0.109	0.081	0.045	0.000	0.000	0.000	0.000	0.071
14	3	17	2	KW	1987	6	DRY	JUN87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025
15	3	17	2	KW	1987	7	DRY	JUL87	0	0.085	0.021	0.000	0.000	0.000	0.000	0.000	0.175
16	3	17	2	KW	1987	8	DRY	AUG87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.023
17	3	17	2	KW	1987	9	DRY	SEP87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18	3	17	2	KW	1987	10	DRY	OCT87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.040	0.102
19	3	17	2	KW	1987	11	DRY	NOV87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.059
20	3	17	2	KW	1987	12	DRY	DEC87	0	0.023	0.002	0.000	0.000	0.000	0.000	0.000	0.000

OBS	AVG9	AVG10	AVG11	AVG12	AVG13	AVG14	AVG15	AVG16	AVG17	AVG18	AVG19	AVG20	AVG21	AVG22	AVG23	AVG24	N1
1	0.450	0.471	0.000	0.000	0.000	0.000	0.193	0.418	0.257	0.000	0.000	0.000	0.514	1.221	0.589	0.000	4
2	0.191	0.289	0.418	0.230	0.569	0.489	0.121	0.266	0.145	0.023	0.262	0.105	0.195	0.298	0.270	0.005	30
3	0.234	0.316	0.375	0.535	0.320	0.297	0.447	0.394	0.451	0.477	0.508	0.178	0.100	0.212	0.041	0.064	31
4	0.124	0.345	0.354	0.592	0.185	0.366	0.586	0.133	0.152	0.202	0.287	0.114	0.149	0.266	0.088	0.035	31
5	0.143	0.516	0.518	0.598	0.319	0.211	0.366	0.301	0.362	0.359	0.300	0.012	0.186	0.280	0.000	0.000	30
6	0.188	0.344	0.644	0.547	0.185	0.045	0.306	0.133	0.261	0.187	0.209	0.168	0.268	0.031	0.093	0.000	31
7	0.230	0.253	0.502	0.867	0.234	0.332	0.128	0.452	0.530	0.337	0.448	0.448	0.366	0.245	0.468	0.046	29
8	0.064	0.000	0.264	0.456	0.549	0.247	0.337	0.200	0.345	0.423	0.314	0.434	0.406	0.413	0.050	0.000	31
9	0.211	0.283	0.344	0.389	0.173	0.276	0.361	0.653	0.656	0.539	0.377	0.221	0.292	0.387	0.175	0.000	31
10	0.281	0.170	0.270	0.356	0.166	0.273	0.436	0.382	0.107	0.354	0.629	0.553	0.252	0.316	0.182	0.000	28
11	0.043	0.173	0.304	0.316	0.392	0.237	0.352	0.200	0.294	0.409	0.409	0.356	0.178	0.245	0.000	0.000	30
12	0.061	0.369	0.373	0.382	0.178	0.364	0.205	0.257	0.311	0.396	0.435	0.246	0.150	0.009	0.000	0.000	30
13	0.344	0.370	0.301	0.573	0.188	0.121	0.124	0.332	0.121	0.188	0.014	0.200	0.231	0.187	0.104	0.093	30
14	0.153	0.446	0.452	0.343	0.257	0.111	0.161	0.105	0.046	0.089	0.105	0.249	0.138	0.000	0.000	0.000	29
15	0.375	0.470	0.463	0.328	0.276	0.546	0.288	0.157	0.142	0.406	0.214	0.080	0.090	0.204	0.116	0.123	31
16	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29
17	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20
18	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29
19	0.125	0.325	0.170	0.137	0.075	0.000	0.016	0.177	0.064	0.064	0.121	0.055	0.057	0.093	0.000	0.000	29
20	0.000	0.116	0.121	0.275	0.157	0.185	0.269	0.181	0.185	0.093	0.017	0.000	0.000	0.178	0.002	0.000	30

OBS	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20	N21	N22	N23	N24	DOW	MEANS
1	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0
2	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	0	1
3	29	31	31	31	31	31	30	29	29	30	31	31	31	31	31	31	31	31	31	31	31	31	31	0	1
4	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	0	1
5	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	0	1
6	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	1
7	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	0	1
8	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	1
9	31	31	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	30	30	0	1
10	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	0	1
11	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	1
12	29	30	30	30	30	30	30	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	0	1
13	29	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	1
14	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	29	30	30	30	0	1
15	31	30	30	30	30	30	30	30	31	31	30	31	31	31	31	31	31	30	30	31	31	31	31	0	1
16	28	27	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	0	0
17	19	20	20	20	20	20	21	21	21	21	21	21	21	21	20	20	20	21	21	21	21	21	21	0	0
18	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	0	1
19	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	0	1
20	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	30	0	1

CONTENTS OF SAS MEMBER MP.MP2_RES

OBS	SITE	EU	MEASURE	UNITS	YEAR	MONTH	ENDUSE	DATE	N_ZAP	AVG1	AVG2	AVG3	AVG4	AVG5	AVG6	AVG7	AVG8
1	3	17	2	KW	1986	5	DRY	MAY86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	3	17	2	KW	1986	5	DRY	MAY86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	3	17	2	KW	1986	6	DRY	JUN86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.043	0.003
4	3	17	2	KW	1986	6	DRY	JUN86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	3	17	2	KW	1986	7	DRY	JUL86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6	3	17	2	KW	1986	7	DRY	JUL86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7	3	17	2	KW	1986	8	DRY	AUG86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	3	17	2	KW	1986	8	DRY	AUG86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	3	17	2	KW	1986	9	DRY	SEP86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	3	17	2	KW	1986	9	DRY	SEP86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11	3	17	2	KW	1986	10	DRY	OCT86	0	0.000	0.000	0.000	0.049	0.107	0.000	0.000	0.165
12	3	17	2	KW	1986	10	DRY	OCT86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13	3	17	2	KW	1986	11	DRY	NOV86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.130	0.144
14	3	17	2	KW	1986	11	DRY	NOV86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15	3	17	2	KW	1986	12	DRY	DEC86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.051
16	3	17	2	KW	1986	12	DRY	DEC86	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17	3	17	2	KW	1987	1	DRY	JAN87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010
18	3	17	2	KW	1987	1	DRY	JAN87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.155
19	3	17	2	KW	1987	2	DRY	FEB87	0	0.000	0.000	0.000	0.051	0.147	0.135	0.135	0.141
20	3	17	2	KW	1987	2	DRY	FEB87	0	0.000	0.000	0.000	0.000	0.000	0.000	0.178	0.000

OBS	AVG9	AVG10	AVG11	AVG12	AVG13	AVG14	AVG15	AVG16	AVG17	AVG18	AVG19	AVG20	AVG21	AVG22	AVG23	AVG24	N1
1	0.562	0.589	0.000	0.000	0.000	0.000	0.241	0.321	0.000	0.000	0.000	0.000	0.642	1.285	0.629	0.000	3
2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.803	1.285	0.000	0.000	0.000	0.000	0.964	0.428	0.000	1
3	0.273	0.413	0.446	0.316	0.433	0.446	0.015	0.217	0.102	0.020	0.375	0.150	0.204	0.377	0.385	0.008	21
4	0.000	0.000	0.351	0.030	0.886	0.589	0.369	0.381	0.244	0.030	0.000	0.000	0.173	0.113	0.000	0.000	9
5	0.324	0.385	0.453	0.460	0.294	0.221	0.441	0.367	0.543	0.538	0.715	0.165	0.068	0.185	0.007	0.090	22
6	0.000	0.134	0.161	0.720	0.381	0.482	0.464	0.458	0.226	0.327	0.000	0.208	0.178	0.280	0.125	0.000	9
7	0.184	0.510	0.523	0.648	0.199	0.540	0.864	0.196	0.224	0.302	0.431	0.168	0.219	0.229	0.117	0.051	21
8	0.000	0.000	0.000	0.476	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.343	0.027	0.000	10
9	0.156	0.558	0.441	0.770	0.291	0.224	0.405	0.292	0.442	0.418	0.428	0.018	0.110	0.150	0.000	0.000	21
10	0.113	0.416	0.696	0.196	0.387	0.178	0.274	0.321	0.184	0.220	0.000	0.000	0.363	0.583	0.000	0.000	9
11	0.161	0.447	0.836	0.729	0.249	0.049	0.317	0.179	0.254	0.168	0.212	0.093	0.156	0.042	0.126	0.000	23
12	0.268	0.047	0.094	0.027	0.000	0.033	0.274	0.000	0.281	0.241	0.201	0.381	0.589	0.000	0.000	0.000	8
13	0.298	0.412	0.639	0.974	0.214	0.194	0.084	0.512	0.589	0.375	0.194	0.084	0.201	0.000	0.499	0.007	15
14	0.153	0.073	0.344	0.746	0.256	0.489	0.180	0.382	0.463	0.294	0.738	0.864	0.554	0.524	0.432	0.088	14
15	0.090	0.000	0.338	0.472	0.492	0.314	0.475	0.282	0.312	0.382	0.414	0.611	0.572	0.582	0.071	0.000	22
16	0.000	0.000	0.083	0.416	0.690	0.083	0.000	0.000	0.428	0.524	0.071	0.000	0.000	0.000	0.000	0.000	9
17	0.242	0.418	0.474	0.326	0.000	0.247	0.260	0.500	0.622	0.599	0.204	0.000	0.150	0.360	0.241	0.000	21
18	0.145	0.000	0.086	0.519	0.535	0.337	0.573	0.974	0.728	0.412	0.739	0.685	0.589	0.444	0.043	0.000	10
19	0.293	0.163	0.276	0.341	0.242	0.403	0.366	0.471	0.158	0.285	0.874	0.814	0.296	0.192	0.268	0.000	19
20	0.256	0.184	0.256	0.387	0.006	0.000	0.583	0.196	0.000	0.500	0.113	0.000	0.161	0.577	0.000	0.000	9

OBS	N2	N3	N4	N5	N6	N7	N8	N9	N10	N11	N12	N13	N14	N15	N16	N17	N18	N19	N20	N21	N22	N23	N24	DOW	MEANS
1	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	8	0
2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	9	0
3	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	8	1
4	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	1
5	20	22	22	22	22	22	22	21	21	22	22	22	22	22	22	22	22	22	22	22	22	22	22	8	1
6	9	9	9	9	9	9	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	1
7	20	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	20	20	21	21	21	21	21	8	1
8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	1
9	21	21	21	21	21	21	21	21	21	21	21	21	21	21	20	20	21	21	21	21	21	21	21	8	1
10	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	1
11	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	8	1
12	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	1
13	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	15	8	1
14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	9	1
15	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	8	1
16	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	1
17	21	21	21	21	21	21	21	21	21	20	21	21	21	21	21	21	21	21	21	21	21	20	20	8	1
18	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	1
19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	8	1
20	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	1

MONTHLY

Engineering Data ("MONTHLY")

ACCESS

SAS Data Library: **RPEE.RLCAP.ELCAP.M.<date>**
SAS Format Library: **RPEE.RLCAP.ELCAP.FORMATS**

SAS Data Set Names: **(refer to current DATASETS document)**

CONTENTS

The MONTHLY datasets are . . .

The data is organized as one SAS observation per site-enduse-month.

VARIABLES: SITE-ENDUSE-DATE IDENTIFICATION

SITE

SITE
The unique key that is assigned to a site. By definition, site numbers do not change location.

DATE

DATE
The calendar date for this record, in SAS date format (number of days since January 1, 1960). DATE is coded as the first day of the month for monthly data.

SAS Format: MONYY5.

ENDUSE

END USE (PNL character code)
The PNL-assigned three character mnemonic code for the enduse. See ENDUSE DEFINITIONS for enduse definitions.

Format: $ENDUSE.

EU

END USE (PNL numeric code)
The PNL-assigned numeric end use code. This code has a one-to-one relationship with 'ENDUSE'.

Format: EU.

MEASURE

MEASUREMENT LEVEL
An indicator of the level of measurement for the enduse.

Format: MEASURE.

```
 0 = Total for Site
 1 = Meta Enduse
 2 = End Use
 3 = Component of end use
11 = Wood stove sensor
12 = Temperature sensor
13 = Meteorological sensor
14 = Miscellaneous sensor
98 = Calculated value
99 = Data quality
```

MONTH

MONTH
Month of the year, derived from DATE. Value is between 1 and 12.

UNITS — **MEASUREMENT UNITS**

Unit of measure for the enduse.

Format: $UNITS.

```
'KW ' = Kilowatts / kilowatt hours.
'F  ' = Degrees Fahrenheit
'ST1' = Wood Stove units
'ST2' = Wood Stove units
'ST3' = Wood Stove units
'ST4' = Wood Stove units
'PCT' = Percent
'CMS' = Centimeters/second
'DEG' = Compass degrees (direction)
'WMS' = Watts/meter-sq.
'PHO' = Photometer units
'IHG' = Inches of mercury (pressure)
'MHG' = Millimeters of mercury (pressure)
'MIN' = Minutes
'HDH' = Heating degree hours
'CDH' = Cooling degree hours
'BTU' = BTU's
'CNT' = Count of events
'WDU' = Wood use indicator
'VAC' = Vacancy code
'DQL' = Data quality level code
'DQF' = Data quality flag code
```

WS1-4

YEAR — **YEAR**

Year (4-digit), derived from DATE.

VARIABLES:	MONTHLY ENERGY (AVERAGE POWER)

AVG — **MEAN VALUE (All observations)**

Mean value for all non-missing hours in the time period. This is calculated after the end use sumcheck test is applied. This value is calculated as mean(OF AVG1--AVG24) as defined in the monthly profile data set.

AVG_RAW — **MEAN VALUE (before end use sumcheck)**

Mean value for all hourly values in the hourly PADS data set, prior to applying the end use sumcheck test.

MEAN — **MEAN VALUE (w/ missing values criteria)**

Mean value for all hours in the time period. The data value is set to missing when the following occurs (PADS2 criteria):

```
a) more than 10% of hours in month are missing
   -or-
b) more than 10% of days for any particular hour are missing.
```

N — **COUNT OF OBSERVATIONS**

Count of non-missing data points (hours) in the month.

N_RAW — **COUNT OF HOURS IN RAW HOURLY DATA**

Count of hours in the hourly PADS data set, including hours failing the end use sumcheck test. Note that N = N_RAW - N_ZAP.

N_ZAP — **COUNT OF HOURS FAILING END USE SUMCHECK TEST**

Count of hours failing the end use sumcheck criteria test (i.e., SUM or CHK values are within tolerance limits). Note that N = N_RAW - N_ZAP.

N_ZAP2

"TOT" based on AVG

ADD

SUM — **TOTAL VALUE (w/ missing values criteria)**
Sum of all values for all hours in the time period. Missing data is implicitly filled. The data value is set to missing when the following occurs (PADS2 criteria):

```
a) more than 10% of hours in month are missing
   -or-
b) more than 10% of days for any particular hour are missing.
```

VARIABLES:	MONTHLY PEAKS

BPACP — **HOURLY VALUE, BPA SYSTEM MONTHLY PEAK**
The enduse value for the hour which is coincident with the time of the monthly BPA system peak.

BPACPDT — **BPA SYSTEM MONTHLY PEAK DATE-TIME**
The time of the monthly BPA system peak, as a SAS datetime value.

SAS Format: DATETIME13.

MINIMUM — **MINIMUM VALUE**
Lowest value for the time period.

NPEAK — **NUMBER OF IDENTICAL PEAK VALUES**
Number of times which the value of PEAK occurred during the month.

PEAK — **MAXIMUM VALUE**
Highest value for the month. NPEAK will indicate if this value occurs more than once during the month.

PEAKDT — **DATE-TIME FOR PEAK**
Date and hour of the day when PEAK occurred, as a SAS datetime value. This is the first occurrence when NPEAK is greater than one.

SAS Format: DATETIME13.

SITECP — **HOURLY VALUE, SITE-LEVEL COINCIDENT PEAK**
The enduse value for the hour which is coincident with the building total peak (enduse 'BLT' or 'TOT').

SITECPDT — **SITE-LEVEL COINCIDENT PEAK DATE-TIME**
The time of the monthly building total peak (enduse 'BLT' or 'TOT'), as a SAS datetime value.

SAS Format: DATETIME13.

X PASS in sum-check

CONTENTS OF SAS MEMBER M.M_RES

DSNAME=RPEE.RLCAP.ELCAP.M.DEC90 NUMBER OF OBSERVATIONS: 224568 NUMBER OF VARIABLES: 23
CREATED 20:14 SATURDAY, JANUARY 12, 1991

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	LABEL
20	AVG	NUM	4	74	10.3	MONTHLY MEAN, ALL VALUES
18	AVG_RAW	NUM	4	66	10.3	MONTHLY MEAN, ALL VALUES, RAW DATA
14	BPACP	NUM	4	48	10.3	MONTHLY BPA-COIN PEAK
15	BPACPDT	NUM	5	52	DATETIME13.	BPA-COIN PEAK DATETIME
8	DATE	NUM	3	24	MONYY5.	DATE
7	ENDUSE	CHAR	3	21		END USE
2	EU	NUM	3	8		END USE (NUMERIC)
22	MEAN	NUM	4	82	10.3	MONTHLY MEAN, W/MISSING CRITERIA
3	MEASURE	NUM	2	11		MEASURE LEVEL
13	MINIMUM	NUM	4	44	10.3	MONTHLY MINIMUM
6	MONTH	NUM	2	19		MONTH
21	N	NUM	4	78		HOURS IN MONTH
19	N_RAW	NUM	4	70		HOURS IN MONTH, RAW DATA
9	N_ZAP	NUM	4	27		HOURS ZAPPED IN MONTH
11	NPEAK	NUM	4	35		HOURS WITH IDENTICAL PEAK VALUES
10	PEAK	NUM	4	31	10.3	MONTHLY PEAK
12	PEAKDT	NUM	5	39	DATETIME13.	MONTHLY PEAK DATETIME
1	SITE	NUM	4	4		SITE ID
16	SITECP	NUM	4	57	10.3	MONTHLY SITE-COIN PEAK
17	SITECPDT	NUM	5	61	DATETIME13.	SITE-COIN PEAK DATETIME
23	SUM	NUM	4	86	10.3	MONTHLY SUM, W/MISSING CRITERIA
4	UNITS	CHAR	3	13		MEASURE UNITS
5	YEAR	NUM	3	16		YEAR

OBS	SITE	EU	MEASURE	UNITS	YEAR	MONTH	ENDUSE	DATE	N_ZAP	PEAK	NPEAK	PEAKDT	MINIMUM
1	3	17	2	KW	1986	5	DRY	MAY86	0	2.945	1	27MAY86:22:00	0.000
2	3	17	2	KW	1986	6	DRY	JUN86	0	3.213	1	30JUN86:10:00	0.000
3	3	17	2	KW	1986	7	DRY	JUL86	0	3.802	2	12JUL86:12:00	0.000
4	3	17	2	KW	1986	8	DRY	AUG86	0	4.765	1	11AUG86:12:00	0.000
5	3	17	2	KW	1986	9	DRY	SEP86	0	3.855	1	19SEP86:15:00	0.000
6	3	17	2	KW	1986	10	DRY	OCT86	0	3.962	1	16OCT86:19:00	0.000
7	3	17	2	KW	1986	11	DRY	NOV86	0	4.498	1	13NOV86:12:00	0.000
8	3	17	2	KW	1986	12	DRY	DEC86	0	4.712	1	07DEC86:18:00	0.000
9	3	17	2	KW	1987	1	DRY	JAN87	0	4.123	1	10JAN87:18:00	0.000
10	3	17	2	KW	1987	2	DRY	FEB87	0	4.390	1	24FEB87:18:00	0.000
11	3	17	2	KW	1987	3	DRY	MAR87	0	4.498	1	16MAR87:22:00	0.000
12	3	17	2	KW	1987	4	DRY	APR87	0	4.444	1	06APR87:12:00	0.000
13	3	17	2	KW	1987	5	DRY	MAY87	0	3.802	1	06MAY87:10:00	0.000
14	3	17	2	KW	1987	6	DRY	JUN87	0	4.819	1	10JUN87:15:00	0.000
15	3	17	2	KW	1987	7	DRY	JUL87	0	3.962	1	15JUL87:09:00	0.000
16	3	17	2	KW	1987	8	DRY	AUG87	0	0.643	1	01AUG87:08:00	0.000
17	3	17	2	KW	1987	9	DRY	SEP87	0	0.000	493	.	0.000
18	3	17	2	KW	1987	10	DRY	OCT87	0	2.249	1	31OCT87:08:00	0.000
19	3	17	2	KW	1987	11	DRY	NOV87	0	3.105	1	16NOV87:16:00	0.000
20	3	17	2	KW	1987	12	DRY	DEC87	0	4.765	1	28DEC87:12:00	0.000

OBS	BPACP	BPACPDT	SITECP	SITECPDT	AVG_RAW	N_RAW	AVG	N	MEAN	SUM
1	.	.	2.945	27MAY86:22:00	0.171	113	0.171	113	.	.
2	0.000	02JUN86:10:00	2.302	28JUN86:11:00	0.163	720	0.163	720	0.163	117.256
3	0.000	16JUL86:10:00	3.802	25JUL86:11:00	0.206	736	0.206	736	0.206	153.426
4	0.000	19AUG86:11:00	4.765	11AUG86:12:00	0.166	741	0.166	741	0.166	123.315
5	0.000	25SEP86:08:00	3.159	26SEP86:10:00	0.186	718	0.186	718	0.186	134.093
6	0.000	15OCT86:08:00	2.249	26OCT86:17:00	0.160	744	0.160	744	0.160	119.241
7	0.000	10NOV86:08:00	3.266	04NOV86:16:00	0.251	718	0.251	718	0.251	180.963
8	0.000	10DEC86:08:00	0.000	29DEC86:22:00	0.189	744	0.189	744	0.189	140.712
9	0.000	16JAN87:08:00	3.159	28JAN87:10:00	0.225	741	0.225	741	0.225	167.200
10	0.000	25FEB87:08:00	4.283	26FEB87:09:00	0.217	672	0.217	672	0.217	145.527
11	0.000	27MAR87:08:00	3.534	12MAR87:10:00	0.165	742	0.165	742	0.165	122.505
12	0.000	20APR87:08:00	4.444	06APR87:12:00	0.156	717	0.156	717	0.156	112.123
13	0.000	19MAY87:08:00	3.802	06MAY87:10:00	0.158	741	0.158	741	0.158	117.689
14	0.000	01JUN87:08:00	4.819	10JUN87:15:00	0.112	716	0.112	716	0.112	80.436
15	3.213	14JUL87:14:00	3.534	28JUL87:09:00	0.190	734	0.190	734	0.190	141.289
16	.	31AUG87:11:00	0.000	06AUG87:13:00	0.002	671	0.002	671	.	.
17	0.000	17SEP87:08:00	0.000	28SEP87:09:00	0.000	493	0.000	493	.	.
18	0.000	21OCT87:08:00	0.000	31OCT87:20:00	0.006	741	0.006	741	0.006	4.390
19	0.000	17NOV87:08:00	2.516	30NOV87:11:00	0.064	718	0.064	718	0.064	46.155
20	0.000	17DEC87:08:00	4.765	28DEC87:12:00	0.075	741	0.075	741	0.075	55.924

MISCELLANY

DOWNLOAD USING SAS

INTRODUCTION

PC-SAS 6.04 can be used to upload/download data between the PC and IBM mainframe. This process uses the SAS "Micro-to-Mainframe Link". Both SAS datasets and "flat files" can be transferred.

This method requires an Attachmate board (coax connection to IBM), PC-SAS (Base software), and a PC with expanded memory. The expanded memory may be provided by a "386 memory manager" (such as QEMM). It is not necessary to load the Attachmate software ("EXTRA").

The following describes how to download a SAS dataset. Uploading to the mainframe is accomplished using the same steps, with PROC UPLOAD. Flat files are downloaded with INFILE= and OUTFILE= parameters.

Refer to the SAS PROCEDURES GUIDE (Release 6.03) for additional information on PROC UPLOAD and PROC DOWNLOAD.

PROCEDURE

1. (Optional) Reset the computer.

Press the reset button and the PC will reboot.

2. Start PC-SAS.

Enter the DOS commands:

```
C:> CD \SAS
C:\SAS> SAS -EMS ALL
```

Note: The Attachmate software ("EXTRA") does not need to be loaded. If it is, SAS may not have enough memory and will fail to load. EXTRA can be removed from memory by ...

3. Initiate remote connection to mainframe SAS.

Enter at the PC-SAS program editor command line:

```
COMMAND ===> SIGNON <return>
```

SAS will execute a TSO logon script file, and will ask for your *LOGONID* and *PASSWORD*. The script ends with:

```
Note: Remote signon complete.
```

4. Compose and submit a download program in the Program Editor Window.

It is necessary to write a SAS program for uploading and downloading. The following illustrates downloading a SAS dataset from the mainframe to the PC:

In the PC-SAS program editor window text area, enter the SAS statement:

```
LIBNAME C 'C:\';
```

Press **<F10>** to submit this statement to SAS.

In the PC-SAS program editor window text area, enter the SAS statements:

```
TSO ALLOCATE DD (X) DSN ('<your-mainframe-sas-library-name>') SHR;
PROC DOWNLOAD DATA=X.<sas-dataset-name> OUT=C.<sas-dataset-name>;
RUN;
< ... additional download statements ...>
```

Then enter at the PC-SAS progam editor command line:

COMMAND ===> **REMOTE SUBMIT**

SAS will commence to download the datasets to your PC.

5. End the mainframe SAS session.

Enter at the PC-SAS program editor command line:

COMMAND ===> **SIGNOFF**

SAS will logoff TSO, and respond with:

Note: Remote signoff complete.

6. End the PC SAS session.

Enter at the PC-SAS program editor command line:

COMMAND ===> **BYE**

NOTES

pc dataset name must be the same as mainframe name.

pc7879

DOWNLOAD USING RELAY GOLD

INTRODUCTION

Relay Gold can be used to upload/download data 'flat files' between the PC and IBM mainframe. Relay Gold uses the KERMIT file transfer protocol.

This method requires Relay Gold, and a Data Switch connection to the IBM mainframe. This procedure will run under Windows (as a "non-windows" application).

The following describes how to download a text file. Uploading to the mainframe (to an existing IBM mainframe dataset) is accomplished using the same steps, with the KERMIT "RECEIVE" command, and **<F3>** "send file" Relay Gold function.

PROCEDURE

1. (Optional) Reset the computer.

Press the reset button and the PC will reboot.

2. Logon to TSO using Relay Gold.

Start Relay Gold (on some systems this is BPA Menu option "R").

Access the IBM mainframe, typically by pressing **<F1>**. You should see the "BPA Tower Logon Screen".

Log on to TSO, and proceed to the READY prompt:

Enter **TSO <return>**
Enter **<your ID>**
Enter **<your Password>**
Press **<enter>** several times to get to the ISPF/PDF menu screen.
Enter **X** to exit from the menu.
TSO will respond with *READY*.

3. Start KERMIT-TSO.

Enter the TSO command:

```
KERMIT <return>
```

KERMIT will respond with:

```
KERMIT-TSO>
```

4. Download the mainframe dataset.

Enter the KERMIT command:

```
KERMIT-TSO> SEND '<your-mainframe-sas-library-name>' <return>
```

KERMIT will respond with:

```
waiting...
```

Press **<escape>** to return to Relay Gold, and then press **<F4>** ("Receive a File"). The display should say "KERMIT Protocol". (If some other protocol is in effect, such as XMODEM or RELAY, you have to logoff and start over. See notes below.) Fill in the PC file name (8 character name), and press **<return>**.

KERMIT will wait 20 seconds, and then commence to download the file. You can tell the download is in progress by noting the number of characters transferred in the lower right corner of the display.

6. Quit KERMIT, and Logoff TSO.

Enter the KERMIT command:

```
KERMIT-TSO> QUIT <return>
```

TSO will respond with

```
READY
```

Enter the TSO command:

```
LOGOFF
```

NOTES

Relay Gold must be configured for KERMIT protocol. This can be verified/changed by pressing **<F3>** ("Review Directory of Computers"), and then pressing **<F4>** ("Review Connect Options") for the name you are using. The File Protocol should be 'K'. Return to the main menu by pressing **<esc>** twice.

DOWNLOAD USING ATTACHMATE

INTRODUCTION

Attachmate can be used to upload/download data between the PC and IBM mainframe. "flat files" can be transferred.

This method requires an Attachmate board, and a coax connection to the IBM.

The following describes how to download and upload files from the mainframe.

Refer to ?? for additional information.

PROCEDURE

1. (Optional) Reset the computer.

Press the reset button and the PC will reboot.

2. Logon to TSO using Attachmate.

Load Attachmate (on some systems this is BPA Menu option "M"). The computer returns with *C:\ATTACH>*.

Press **<CTRL>-<ALT>-<SpaceBar>** keys to jump to the Attachmate screen. You should see the "BPA Tower Logon Screen". Note that the <right-ALT> key is the ENTER key in Attachmate.

Log on to TSO, and proceed to the READY prompt:

Enter **TSO <enter>**
Enter **<your ID>**
Enter **<your Password>**
Press **<enter>** several times to get to the TSO/ISPF menu screen.
Enter **X** to exit from the menu.
TSO will respond with *READY*.

Press **<CTRL>-<ALT>-<SpaceBar>** keys to jump back to DOS.

3a. Download a file, using the RECEIVE command.

Enter the DOS commands:

```
C:> RECEIVE ...
```

3b. Upload a file, using the SEND command.

Enter the DOS commands:

```
C:> SEND ...
```

4. Logoff TSO

Press **<CTRL>-<ALT>-<SpaceBar>** to jump to the TSO session.

Enter the TSO command:

```
LOGOFF
```

NOTES

DOWNLOAD USING SAS
(Micro-mainframe link)

PC-SAS 6.04 can be used to upload/download data between the PC and IBM mainframe. Both SAS datasets and 'flat files' can be transferred. This method requires Attachmate, PC-SAS (Base software), and a PC with expanded memory.

Windows must not be loaded (Windows does not provide expanded memory).

1. (Optional) Reset the computer.

Press the reset button and the PC will reboot.

2. Logon to TSO using Attachmate.

Load Attachmate (on some systems this is BPA Menu option "M"). The computer returns with *C:\ATTACH>*.

Press **<CTRL>-<ALT>-<SpaceBar>** keys to jump to the Attachmate screen. You should see the "BPA Tower Logon Screen". Note that the <right-ALT> key is the ENTER key in Attachmate.

Log on to TSO, and proceed to the READY prompt:

Enter **TSO <enter>**
Enter **<your ID>**
Enter **<your Password>**
Press **<enter>** several times to get to the TSO/ISPF menu screen.
Enter **X** to exit from the menu.
TSO will response with *READY*.

Press **<CTRL>-<ALT>-<SpaceBar>** keys to jump back to DOS.

3. Start PC-SAS.

Enter the DOS commands:

```
C:> CD \SAS
C:\SAS> SAS -EMS ALL
```

4. Initiate remote connection to mainframe SAS.

Enter at the PC-SAS program editor command line:

```
COMMAND ===> signon 'saslink\tso.scr' <return>
```

SAS will respond with:

```
Note: Remote signon complete.
```

5. Compose and submit a download program in the Program Editor Window.

It is necessary to write a SAS program for uploading and downloading. The following illustrates downloading a SAS dataset from the mainframe to the PC:

In the PC-SAS program editor window text area, enter the SAS statement:

```
LIBNAME C 'C:\';
```

Press **<F10>** to submit this statement to SAS.

In the PC-SAS program editor window text area, enter the SAS statements:

```
TSO ALLOCATE DD (X) DSN=('<your-mainframe-sas-library-name>') SHR;
PROC DOWNLOAD DATA=X.<sas-dataset-name> OUT=C.<sas-dataset-name>;
RUN;
< ... additional download statements ...>
```

Then enter at the PC-SAS progam editor command line:

```
COMMAND ===> remote submit
```

SAS will commence to download the datasets to your PC.

6. End the mainframe SAS session.

Enter at the PC-SAS program editor command line:

```
COMMAND ===> SIGNOFF
```

SAS will respond with:

```
Note: Remote signoff complete.
```

7. End the PC SAS session.

Enter at the PC-SAS program editor command line:

```
COMMAND ===> BYE
```

8. Logoff TSO (this may have already been done by the SIGNOFF)

Press **<CTRL>-<ALT>-<SpaceBar>** to jump to the TSO session.

Enter the TSO command:

```
LOGOFF
```

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.BLDGINFO

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 11:11 TUESDAY, AUGUST 8, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =958 BLKSIZE=23475 LRECL=49 GENERATED BY DATA
NUMBER OF OBSERVATIONS: 119 NUMBER OF VARIABLES: 14
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
3	BI002	NUM	4	12			NUMBER_STRUCTURES
4	BI003	NUM	4	16			GROSS_FLOOR
5	BI004	CHAR	1	20			PLANS_AVAIL
6	BI005	NUM	4	21			NUMBER_TENANTS
7	BI006	NUM	4	25			YEAR_BUILT
8	BI007	NUM	4	29			NUMBER_STORIES
9	BI008	CHAR	1	33			MOD_ADD_FLAG
10	BI009	CHAR	3	34			SITE_ID1
11	BI010	CHAR	3	37			SITE_ID2
12	BI011	CHAR	1	40			SECONDARY_SITE_FLAG
13	BI012	NUM	4	41	DATE7.		BEGIN_DATE
14	BI013	NUM	4	45	DATE7.		END_DATE
2	KEY	NUM	4	8			KEY
1	SITE	NUM	4	4			SITE

OBS	SITE	KEY	BI002	BI003	BI004	BI005	BI006	BI007	BI008	BI009	BI010	BI011	BI012	BI013
1	2	2404	1	15732	Y	5	1976	3		OFG	102		01JUL86	.
2	5	2403	1	24709	Y	1	1969	1		GRO	106		25SEP85	.
3	7	2391	1	22232	N	1	1981	1		GRO	401		04JUN86	.
4	8	2392	1	1434	N	1	1962	1		OTH	002		18SEP85	.
5	9	2396	1	2777	N	1	1981	1		RES	303		23SEP85	.
6	11	3551	1	8554	N	1	1978	1		RES	402		30JUN86	.
7	12	2394	1	4479	N	2	1983	2		DGR	305	X	30APR86	.
8	13	2395	1	7992	N	2	1948	2		OTH	103		24SEP85	.
9	14	2398	1	2468	N	1	1940	1	X	OTH	003		01JUL86	.
10	15	2399	1	18200	N	1	.	4		HTM	101		23JUL86	.
11	18	2428	1	5850	N	1	1957	1		WAR	004		24SEP85	.
12	36	2401	1	53602	N	1	1907	3		SCH	001		01JUN86	.
13	37	3563	1	22307	Y	1	1962	1	X	GRO	101		18DEC85	.
14	40	2400	1	10950	Y	1	1977	1		WAR	005		26SEP85	.
15	41	2402	1	8575	N	1	1960	3		HTM	001		01JUN86	.

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.TENANT

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 11:11 TUESDAY, AUGUST 8, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =722 BLKSIZE=23469 LRECL=65 GENERATED BY DATA
NUMBER OF OBSERVATIONS: 306 NUMBER OF VARIABLES: 12
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
3	KEY	NUM	4	11			KEY
10	P_SITE	NUM	4	55			PSEUDO-SITE ID
1	SITE	NUM	4	4			SITE
2	TENANT	CHAR	3	8			TENANT_CODE
4	TEN003	CHAR	20	15			TENANT_BUSINESS
5	TEN004	NUM	4	35			GROSS_FLOOR
6	TEN005	NUM	4	39			OCCUPANCY_YEAR
7	TEN006	CHAR	4	43			SIC_CODE
8	TEN007	NUM	4	47	DATE7.		BEGIN_DATE
9	TEN008	NUM	4	51	DATE7.		END_DATE
11	TEN009	CHAR	3	59			SECONDARY SITE_ID1
12	TEN010	CHAR	3	62			SECONDARY SITE_ID2

OBS	SITE	TENANT	KEY	TEN003	TEN004	TEN005	TEN006	TEN007	TEN008	P_SITE	TEN009	TEN010
1	2	ARM	2404	INSURANCE BROKERS	2012	1979	6411	01JUL86	.	.		
2	2	CMB	2404	ARCHITECTS	3572	1980	8911	01JUL86	.	.		
3	2	CM1	2404		3628	.	9999	01JUL86	.	.		
4	2	HRP	2404	SOCIAL SERVICES	1664	.	8321	01JUL86	.	.		
5	2	RGC	2404	STEEL BLDG SUPPLIES	1080	1976	5051	01JUL86	.	.		
6	2	WDA	2404	INDUSTRIAL DESIGNERS	3776	1979	8911	01JUL86	.	.		
7	5	LK5	2403	RETAIL GROCERY	24709	1969	5411	25SEP85	.	.		
8	7	QFC	2391	RETAIL FOOD	22232	1981	5411	04JUN86	.	.		
9	8	TRM	2392	GAS STATION	1434	1962	5541	18SEP85	.	.		
10	9	BGK	2396	RESTAURANT	2777	1981	5812	23SEP85	.	.		
11	11	SEG	3551	RESTAURANT	8554	1978	5812	30JUN86	.	.		
12	12	CDC	2394	REAL ESTATE OFFICE	144	1984	6531	30APR86	.	6028	DGR	306
13	12	CM1	2394		400	.	9999	30APR86	.	.		
14	12	VA1	2394		1914	.		30APR86	.	.		
15	12	VNW	2394	RETAIL	2021	1984	5712	30APR86	.	6027	DGR	307

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.ZONE

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 11:18 THURSDAY, JULY 27, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =852 BLKSIZE=23434 LRECL=55 GENERATED BY PROC SORT
NUMBER OF OBSERVATIONS: 1124 NUMBER OF VARIABLES: 17
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
4	KEY	NUM	4	13			KEY
1	SITE	NUM	4	4			SITE
2	TENANT	CHAR	3	8			TENANT_CODE
3	ZONE	CHAR	2	11			ZONE_NUMBER
5	ZON004	CHAR	2	17			CENTRAL_SYSTEM
6	ZON005	CHAR	3	19			USE_CODE
7	ZON006	NUM	4	22			GROSS_FLOOR
8	ZON007	NUM	4	26			AVG_CEILING
9	ZON008	NUM	4	30			AIR_TEMP_DEGF
10	ZON009	CHAR	4	34			AIR_TEMP_TIME
11	ZON010	NUM	4	38	DATE7.		AIR_TEMP_DATE
12	ZON011	CHAR	1	42			UNCOND_ZONE
13	ZON012	CHAR	2	43			MEAS_PLAN_ZONE
14	ZON013	CHAR	1	45			MULT_SYSTEMS
15	ZON014	NUM	4	46	DATE7.		BEGIN_DATE
16	ZON015	NUM	4	50	DATE7.		END_DATE
17	ZON016	CHAR	1	54			TEMP_FLAG

OBS	SITE	TENANT	ZONE	KEY	ZON004	ZON005	ZON006	ZON007	ZON008	ZON009	ZON010	ZON011	ZON012	ZON013	ZON014	ZON015	ZON016
1	2	ARM	A	2404	1	301	2012	8.5	70		.		1		01JUL86	.	
2	2	CMB	A	2404	1	301	3572	8.5	70		.		1		01JUL86	.	
3	2	CM1	B	2404		202	782	9.0	.		.		1		01JUL86	.	
4	2	CM1	C	2404	1	105	1590	8.5	.		.		1		01JUL86	.	
5	2	CM1	D	2404	1	110	680	8.5	70		.		1		01JUL86	.	
6	2	CM1	E	2404		604	576	8.5	.		.	X	1		01JUL86	.	
7	2	HRP	A	2404	1	301	1664	8.5	70		.		1		01JUL86	.	
8	2	RGC	A	2404	1	301	1080	8.5	70		.		1		01JUL86	.	
9	2	WDA	A	2404	1	301	3776	8.5	.		.		1		01JUL86	.	
10	5	LK5	A	2403	1	101	17560	18.0	65	1200	20SEP85		1	Y	25SEP85	.	
11	5	LK5	B	2403		202	3448	18.0	65	1200	20SEP85		1		25SEP85	.	
12	5	LK5	C	2403	2	201	2032	8.0	55	1200	20SEP85		1		25SEP85	.	
13	5	LK5	D	2403		505	964	8.0	75	1200	20SEP85	X	1		25SEP85	.	
14	5	LK5	E	2403		301	705	8.0	70	1200	20SEP85		1		25SEP85	.	
15	7	QFC	A	2391	1	101	15560	14.0	70	1100	28MAY86		1		04JUN86	.	

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.CONNLOAD

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 14:13 THURSDAY, JULY 27, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =690 BLKSIZE=23464 LRECL=68 GENERATED BY PROC SORT
NUMBER OF OBSERVATIONS: 13642 NUMBER OF VARIABLES: 24
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
7	CL004	CHAR	1	24			HVAC_FLAG
8	CL005	CHAR	1	25			CENTRAL_SYSTEM
9	CL006	CHAR	1	26			SYSTEM_TYPE
10	CL007	NUM	4	27			AUXILIARY_COUNT
11	CL008	NUM	4	31			CONSERVATION_COUNT
12	CL009	NUM	4	35			MEASURED_END_USE
13	CL010	CHAR	1	39			PRIMARY_FUEL
14	CL011	CHAR	1	40			SECONDARY_FUEL
15	CL014	CHAR	1	41			CONTROL_CODE
16	CL015	CHAR	1	42			FDAS_PHASE1
17	CL016	CHAR	1	43			FDAS_PHASE2
18	CL017	CHAR	1	44			FDAS_PHASE3
19	CL018	NUM	4	45			INPUT_CAPACITY
20	CL020	NUM	4	49			PROXY_LOAD_NUMBER
21	CL021	CHAR	6	53			EQUIPMENT_CODE
22	CL022	NUM	4	59	DATE7.		BEGIN_DATE
23	CL023	NUM	4	63	DATE7.		END_DATE
24	CL024	CHAR	1	67			ZONE_FLAG
5	KEY	NUM	4	16			KEY
4	LOADNBR	NUM	4	12			LOAD_NUMBER
6	PXNBR	NUM	4	20			PX_NUMBER
1	SITE	NUM	4	4			SITE
2	TENANT	CHAR	3	8			TENANT_CODE
3	ZONE	CHAR	1	11			ZONE_NUMBER

OBS	SITE	TENANT	ZONE	LOADNBR	KEY	PXNBR	CL004	CL005	CL006	CL007	CL008	CL009	CL010	CL011	CL014	CL015	CL016	CL017	CL018	CL020	CL021	CL022	CL023	CL024
1	.	EXT		75	.	.				.	.	.			1				1.30	.	VNT002		.	.	
2	.	GGG		.	.	.				.	.	.							.	.			.	.	
3	2	ARM	A	9	2404	2404				.	.	59	1		1	2	3	4	4.32	.	INL001	01JUL86	.	
4	2	ARM	A	10	2404	2404				.	.	56	1		1	2	3	4	.	.	DPT003	01JUL86	.	
5	2	ARM	A	11	2404	2404				.	.	56	1		1	2	3	4	.	.	FDP010	01JUL86	.	
6	2	ARM	A	12	2404	2404				.	.	56	1		1	2	3	4	.	.	DPT007	01JUL86	.	
7	2	ARM	A	13	2404	2404				.	.	56	1		1	2	3	4	.	.	FDP002	01JUL86	.	
8	2	CMB	A	14	2404	2404				.	.	59	1		1	3	3	4	7.36	.	INL001	01JUL86	.	
9	2	CMB	A	15	2404	2404				.	.	59	1		1	3	3	4	1.70	.	INL002	01JUL86	.	
10	2	CMB	A	16	2404	2404				.	.	56	1		1	2	3	4	1.38	.	DPT003	01JUL86	.	
11	2	CMB	A	17	2404	2404				.	.	56	1		1	2	3	4	0.92	.	DPT002	01JUL86	.	
12	2	CMB	A	18	2404	2404				.	.	56	1		1	2	3	4	1.79	.	FDP015	01JUL86	.	
13	2	CMB	A	19	2404	2404				.	.	56	1		1	2	3	4	1.20	.	DPT003	01JUL86	.	
14	2	CMB	A	20	2404	2404				.	.	56	1		1	2	3	4	2.65	.	REF010	01JUL86	.	
15	2	CMB	A	21	2404	2404				.	.	56	1		1	2	3	4	2.65	.	FDP013	01JUL86	.	

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.LOGGER

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 13:15 FRIDAY, OCTOBER 20, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =1020 BLKSIZE=23464 LRECL=46 GENERATED BY PROC SORT
NUMBER OF OBSERVATIONS: 11214 NUMBER OF VARIABLES: 10
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
2	LH002	NUM	4	8			PX_NUMBER
3	LH003	NUM	4	12			DI_NUMBER
4	LH004	NUM	4	16			STATUS
5	LH005	NUM	4	20			INTEGRATION_PERIOD
6	LH006	NUM	5	24	DATETIME16.		BEGIN_DATE
7	LH007	NUM	5	29	DATETIME16.		END_DATE
8	LH008	CHAR	4	34			VCODE
9	LH009	NUM	4	38			WEEKS
10	LH010	NUM	4	42	DATE7.		WEEKS_DATE
1	SITE	NUM	4	4			SITE

OBS	SITE	LH002	LH003	LH004	LH005	LH006	LH007	LH008	LH009	LH010
1	2	2404	2	3	60	12AUG84:01:00:00	26JUN86:23:00:00		.	.
2	2	.	2	9	0	26JUN86:23:59:59	19AUG86:03:00:00		.	.
3	2	.	2	3	15	19AUG86:03:15:00	23AUG86:07:00:00		.	.
4	2	.	2	3	60	24AUG86:08:00:00	15JUN88:23:00:00		185.57	17JUL88
5	3	.	3	7	5	13DEC85:13:15:00	18DEC85:00:40:00		.	.
6	3	.	3	9	0	18DEC85:01:00:00	22MAY86:06:40:00		.	.
7	3	.	3	1	5	22MAY86:06:50:00	26MAY86:23:55:00		.	.
8	3	.	3	2	60	27MAY86:06:00:00	20MAR87:23:59:59		.	.
9	3	.	3	1	60	21MAR87:01:00:00	28AUG87:23:59:59		98.79	07MAY88
10	3	.	3	9	0	29AUG87:01:00:00	10SEP87:05:00:00		.	.
11	3	.	3	1	60	10SEP87:06:00:00	31AUG88:13:00:00		110.70	09AUG88
12	3	.	3	9	0	31AUG88:14:00:00	01SEP88:08:00:00		.	.
13	3	.	3	1	60	01SEP88:09:00:00	27OCT88:08:00:00		122.89	12NOV88
14	4	.	4	9	0	29OCT85:00:00:00	21DEC85:00:00:00		.	.
15	4	.	4	3	5	21DEC85:11:30:00	27DEC85:07:10:00		.	.

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.VERIFY

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 11:02 FRIDAY, OCTOBER 27, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =808 BLKSIZE=23436 LRECL=58 GENERATED BY PROC SORT
NUMBER OF OBSERVATIONS: 4492 NUMBER OF VARIABLES: 11
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
1	SITE	NUM	4	4			SITE
2	VE002	NUM	4	8			PX_NUMBER
3	VE003	NUM	4	12			DI_NUMBER
4	VE004	CHAR	1	16			DATA_PROC
5	VE005	CHAR	1	17			SEQUENCE
6	VE006	NUM	4	18	DATE7.		BEGIN_DATE
7	VE007	NUM	4	22	DATE7.		END_DATE
8	VE008	CHAR	20	26			EQUATIONS
9	VE009	NUM	4	46			TOLERANCE
10	VE010	NUM	4	50			TOLERANCE_5MIN
11	VE011	CHAR	4	54			VCODE

OBS	SITE	VE002	VE003	VE004	VE005	VE006	VE007	VE008	VE009	VE010	VE011
1	0	.	0		E	11DEC85	.	1:23984:10	.	.	
2	0	.	0		D	11DEC85	.	1:23984:11	.	.	
3	1	.	1		B	01JAN81	.	1:23984:7	.	.	
4	1	.	1		A	01JAN81	.	1:23984:8	.	.	
5	1	.	1		B	11DEC85	.	1:23984:6	.	.	
6	1	.	1		3	11DEC85	.	1:23984:9	.	.	
7	2	.	2	Y	A	12AUG84	15JUN88	1:23700:11	.	.	PLL
8	3	.	3	Y	A	22MAY86	27OCT88	1:23639:12	107	161	PLL
9	4	.	4	Y	A	21DEC85	04MAY87	1:23984:4	.	.	MMG
10	5	.	5	Y	A	12AUG84	11DEC85	1:23983:12	.	.	GB
11	6	.	6	Y	C	26AUG84	01MAY85	1:23983:6	107	161	PL
12	6	.	6	N	B	26AUG84	01MAY85	1:23983:8	107	161	PL
13	6	.	6	N	A	26AUG84	01MAY85	1:23984:0	107	161	PL
14	6	.	6	N	C	01MAY85	.	1:23449:8	107	161	PL
15	6	.	6	Y	B	01MAY85	.	1:23983:7	107	161	PL

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB12.PARTICIP

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 12:18 MONDAY, NOVEMBER 20, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.KGR.ELCAP.SASDB.COMCHAR OBSERVATIONS PER TRACK =2234 BLKSIZE=23461 LRECL=21 GENERATED BY PROC SORT
NUMBER OF OBSERVATIONS: 510 NUMBER OF VARIABLES: 11
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
2	PA002	NUM	4	8			PX NUMBER
3	PA003	CHAR	1	12			ROSM85
4	PA004	CHAR	1	13			ROST85
5	PA005	CHAR	1	14			RI
6	PA006	CHAR	1	15			SSIS
7	PA007	CHAR	1	16			PNWRES83
8	PA008	CHAR	1	17			RNWRES_RESAMPLE
9	PA009	CHAR	1	18			ROS86
10	PA010	CHAR	1	19			ELCAP87
11	PA011	CHAR	1	20			ELCAP88
1	SITE	NUM	4	4			SITE

OBS	SITE	PA002	PA003	PA004	PA005	PA006	PA007	PA008	PA009	PA010	PA011
1	3	9003							X		X
2	4	3261			X				X	X	
3	6	2424	X	X	X	X	X		X	X	X
4	16	2411	X	X		X	X		X		X
5	17	2422	X	X	X	X	X	X	X	X	X
6	19	2992			X	X	X		X	X	X
7	20	2935			X	X			X	X	
8	21	2405	X	X	X	X	X		X	X	X
9	22	2407	X	X	X	X	X		X	X	X
10	23	2408	X	X	X	X	X	X	X	X	X
11	24	2409	X	X	X	X	X			X	X
12	25	2410	X	X		X	X		X	X	X
13	26	2413	X	X	X	X	X		X	X	
14	27	2423	X	X	X	X	X	X	X	X	X
15	28	2412	X	X	X	X	X		X	X	X

CONTENTS PROCEDURE
CONTENTS OF SAS MEMBER DB1.FRC

CREATED BY OS JOB RPEE652 ON CPUID 66-3084-021450 AT 10:25 THURSDAY, APRIL 20, 1989 BY SAS RELEASE 5.18
DSNAME=RPEE.RLCAP.ELCAP.CHAR.SASDB OBSERVATIONS PER TRACK =238 BLKSIZE=23328 LRECL=196 GENERATED BY PROC SORT
NUMBER OF OBSERVATIONS: 459 NUMBER OF VARIABLES: 64
MEMTYPE: DATA

----ALPHABETIC LIST OF VARIABLES AND ATTRIBUTES-----

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
3	FRC002	NUM	3	10			UTILITY_TYPE
4	FRC002_S	NUM	3	13			SOURCE_UTILITY_TYPE
5	FRC003	NUM	3	16			RESIDENCE_VINTAGE
6	FRC003_S	NUM	3	19			SOURCE_RESIDENCE_VINTAGE
7	FRC004	NUM	3	22			RESIDENCE_SIZE
8	FRC004_S	NUM	3	25			SOURCE_RESIDENCE_SIZE
28	FRC005	NUM	3	85			RESIDENCE_SIZE_COND
29	FRC005_S	NUM	3	88			SOURCE_RESIDENCE_SIZE_COND
9	FRC006	NUM	3	28			HEATING_SYS_USED_MOST
10	FRC006_S	NUM	3	31			SOURCE_HEATING_SYS_USED_MOST
11	FRC007	NUM	3	34			HEATING_SYS_ELEC_AVLBL
12	FRC007_S	NUM	3	37			SOURCE_HEATING_SYS_ELEC_AVLBL
13	FRC008	NUM	3	40			HEATING_WOOD_USE
14	FRC008_S	NUM	3	43			SOURCE_HEATING_WOOD_USE
15	FRC009	NUM	3	46			HEATING_SYS_WOOD_AVLBL
16	FRC009_S	NUM	3	49			SOURCE_HEATING_SYS_WOOD_AVLBL
17	FRC010	NUM	3	52			OCCUPANTS_NUMBER
18	FRC010_S	NUM	3	55			SOURCE_OCCUPANTS_NUMBER
19	FRC011	NUM	3	58			OCCUPANTS_INCOME
20	FRC011_S	NUM	3	61			SOURCE_OCCUPANTS_INCOME
21	FRC012	NUM	3	64			OCCUPANTS_EDUCATION
22	FRC012_S	NUM	3	67			SOURCE_OCCUPANTS_EDUCATION
23	FRC013	NUM	3	70			APPLNCE_BASIC_ELEC_INDX
24	FRC013_S	NUM	3	73			SOURCE_APPLNCE_BASIC_ELEC_INDX
25	FRC014	NUM	3	76			EQUIP_SPCL_ELEC_INDX
26	FRC014_S	NUM	3	79			SOURCE_EQUIP_SPCL_ELEC_INDX
30	FRC015	NUM	3	91			HOUSEHOLD_STRUCTURE
31	FRC015_S	NUM	3	94			SOURCE_HOUSEHOLD_STRUCTURE
32	FRC016	NUM	3	97			HEATING_SYS_FOSSFUEL_AVLBL
33	FRC016_S	NUM	3	100			SRCE_HEATING_SYS_FOSSFUEL_AVLBL
45	FRC017	NUM	3	136			WATER_HEATER_VOLUME
46	FRC017_S	NUM	3	139			SOURCE_WATER_HEATER_VOLUME
47	FRC018	NUM	3	142			WATER_HEATER_TAPTEMP
48	FRC018_S	NUM	3	145			SOURCE_WATER_HEATER_TAPTEMP
35	FRC019	NUM	3	106			PERCEIVED_ENERGY_EFF_RES
36	FRC019_S	NUM	3	109			SOURCE_PERCEIVED_ENERGY_EFF_RES
37	FRC020	NUM	3	112			AIR_COND_AREA
38	FRC020_S	NUM	3	115			SOURCE_AIR_COND_AREA
39	FRC021	NUM	3	118			AIR_COND_SYS_AVLBL
40	FRC021_S	NUM	3	121			SOURCE_AIR_COND_SYS_AVLBL
63	FRC022	NUM	3	190			REFRIGERATION_VOLUME
34	FRC022_S	NUM	3	103			SOURCE_REFRIGERATION_VOLUME
49	FRC023	NUM	3	148			REFRIGERATION_VOLUME_COND
50	FRC023_S	NUM	3	151			SRCE_REFRIGERATION_VOLUME_COND
64	FRC024	NUM	3	193			WATER_HEATER_AUX_FEATURES
43	FRC024_S	NUM	3	130			SRCE_WATER_HEATER_AUX_FEATURES

#	VARIABLE	TYPE	LENGTH	POSITION	FORMAT	INFORMAT	LABEL
41	FRC025	NUM	3	124			WATER_HEATER_SPCL_INDX
42	FRC025_S	NUM	3	127			SOURCE_WATER_HEATER_SPCL_INDX
59	FRC026	NUM	3	178			SOUTH_EXP_WALLS
60	FRC026_S	NUM	3	181			SOURCE_SOUTH_EXP_WALLS
61	FRC027	NUM	3	184			SOUTH_EXP_WINDOWS
62	FRC027_S	NUM	3	187			SOURCE_SOUTH_EXP_WINDOWS
51	FRC028	NUM	3	154			SOUTHWEST_EXP_WALLS
52	FRC028_S	NUM	3	157			SOURCE_SOUTHWEST_EXP_WALLS
53	FRC029	NUM	3	160			SOUTHWEST_EXP_WINDOWS
54	FRC029_S	NUM	3	163			SOURCE_SOUTHWEST_EXP_WINDOWS
55	FRC030	NUM	3	166			SOUTHEAST_EXP_WALLS
56	FRC030_S	NUM	3	169			SOURCE_SOUTHEAST_EXP_WALLS
57	FRC031	NUM	3	172			SOUTHEAST_EXP_WINDOWS
58	FRC031_S	NUM	3	175			SOURCE_SOUTHEAST_EXP_WINDOWS
27	FRC032	NUM	3	82	DATE7.	DATE.	RECORD_BEGIN_DATE
44	FRC033	NUM	3	133	DATE7.	DATE.	RECORD_END_DATE
2	PXNUMBER	NUM	3	7			PX_NUMBER
1	SITE	NUM	3	4			SITE

OBS	SITE	PXNUMBER	FRC002	FRC003	FRC004	FRC005	FRC006	FRC007	FRC008	FRC009	FRC010	FRC011	FRC012	FRC013	FRC014	FRC032	FRC005	FRC015	FRC016
1	3	3125	.	.	21	4	1440	4	.	.	2	4	.	.	2	4	.	.	.	.	.	.	5	4	0	4	18APR86	960	4	.	.	0
2	4	3261	.	.	32	4	2196	4	.	.	1	4	.	.	0	4	.	.	.	.	.	.	6	4	3	4	18APR86	1408	4	.	.	0
3	6	2424	3	9	23	4	2493	4	1	2	1	4	2	3	1	4	4	2	5	2	10	3	7	4	2	4	18APR86	2082	4	2	2	0
4	16	2411	3	9	31	4	1656	4	4	2	1	4	1	3	1	4	3	2	5	2	7	3	7	4	0	4	18APR86	1134	4	1	2	0
5	17	2422	3	9	21	4	1580	4	1	2	10	4	2	3	0	4	2	2	3	2	5	3	8	4	1	4	18APR86	1580	4	11	2	0
6	19	2992	0	9	32	4	3410	4	.	.	2	4	.	.	0	4	.	.	.	.	.	.	8	4	1	4	18APR86	2666	4	.	.	0
7	20	2935	.	.	32	4	2262	4	.	.	2	4	.	.	0	4	.	.	.	.	.	.	6	4	2	4	18APR86	2262	4	.	.	0
8	21	2405	3	9	23	4	1780	4	1	2	1	4	1	3	2	4	4	2	5	2	10	3	6	4	0	4	18APR86	1504	4	2	2	0
9	22	2407	2	9	13	4	1653	4	1	2	1	4	2	3	1	4	1	2	3	2	8	3	6	4	0	4	18APR86	1317	4	10	2	0
10	23	2408	2	9	13	4	1394	4	4	2	4	4	2	3	0	4	2	2	5	2	9	3	5	4	0	4	18APR86	1394	4	10	2	0
11	24	2409	2	9	21	4	1344	4	2	2	2	4	2	3	0	4	4	2	4	2	7	3	8	4	2	4	18APR86	1056	4	1	2	0
12	25	2410	2	9	21	4	1960	4	2	2	2	4	1	3	1	4	1	2	.	.	7	3	7	4	1	4	18APR86	1456	4	10	2	0
13	26	2413	1	9	21	4	2922	4	5	2	0	2	1	3	2	4	2	2	5	2	8	3	7	4	2	4	18APR86	2346	4	10	2	1
14	27	2423	3	9	23	4	1750	4	1	2	1	4	2	3	1	4	2	2	4	2	8	3	8	4	1	4	18APR86	1270	4	10	2	0
15	28	2412	3	9	31	4	2965	4	1	2	1	4	1	3	1	4	4	2	5	2	10	3	7	4	2	4	18APR86	2458	4	3	2	0

OBS	FRC016	FRC022	FRC019	FRC020	FRC021	FRC025	FRC024	FRC017	FRC018	FRC023	FRC028	FRC029	FRC030	FRC031	FRC026	FRC027	FRC032	FRC036	FRC033	FRC034	FRC035	FRC037	FRC022	FRC024
1	4	4	.	.	0	4	0	4	1	4	4	.	52	4	132	4	13	4	.	.	.	.	192	4	0	4	320	4	69	4	22	21
2	4	4	.	.	0	4	0	4	2	4	4	.	82	4	128	4	21	4	320	4	82	4	53	4	6	4	240	4	182	4	21	14
3	4	4	3	2	2082	4	1	4	0	4	4	.	52	4	140	4	21	4	572	4	159	4	432	4	84	4	362	4	38	4	41	10
4	4	4	3	2	1134	4	1	4	0	4	4	.	52	4	120	4	20	4	312	4	56	4	312	4	75	4	64	4	0	4	36	21
5	4	4	2	2	1580	4	1	4	0	4	4	.	.	4	140	4	48	4	344	4	79	4	400	4	60	4	.	.	.	.	48	14
6	4	4	.	.	0	4	0	4	1	4	4	.	52	4	140	4	51	4	248	4	25	4	279	4	53	4	516	4	86	4	51	11
7	4	4	.	.	0	4	0	4	0	4	4	.	52	4	140	4	22	4	261	4	17	4	261	4	34	4	468	4	81	4	22	14
8	4	4	1	2	1504	4	1	4	0	4	4	.	52	4	140	4	18	4	360	4	84	4	544	4	101	4	152	4	17	4	32	13
9	4	4	.	.	0	4	0	4	0	4	4	.	52	4	140	4	21	4	376	4	98	4	376	4	105	4	120	4	17	4	21	21
10	4	4	2	2	1394	4	3	4	0	4	4	.	52	4	135	4	17	4	284	4	40	4	284	4	34	4	343	4	26	4	17	11
11	4	4	2	2	0	4	0	4	1	4	4	.	82	4	130	4	18	4	16	4	0	4	208	4	0	4	336	4	72	4	47	21
12	4	4	4	2	0	4	0	4	0	4	.	.	52	4	110	4	32	4	400	4	0	4	472	4	81	4	.	.	.	.	32	.
13	4	4	3	2	0	4	0	4	0	4	.	.	.	.	.	.	17	4	120	4	0	4	488	4	0	4	768	4	139	4	36	.
14	4	4	4	2	1270	4	1	4	1	4	4	.	52	4	130	4	19	4	200	4	0	4	360	4	15	4	248	4	39	4	44	27
15	4	4	.	.	2458	4	6	4	0	4	4	.	52	4	136	4	17	4	572	4	116	4	568	4	72	4	800	4	198	4	34	24