1994 DEMAND SIDE MANAGEMENT BASE PLANNING STUDY

**** DRAFT ****

VOLUME V
MARKET SEGMENT CHARACTERIZATIONS

GAINESVILLE REGIONAL UTILITIES
DECEMBER 12, 1994

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PURPOSE AND SCOPE

The purpose of this report is to provide listings of the end use models used to characterize the market segments employed in Gainesville Regional Utilities' 1994 Demand Side Management Base Planning Study. This report is the fifth volume of the five volumes comprising GRU's 1994 Demand Side Management Base Planning Study. The five volumes include:

I. The Value of Conservation for Gainesville Regional Utilities
II. Patterns of Energy Use in Gainesville
III. Technical and Achievable Potential
IV. Energy Conservation Measures
V. Market Segment Characterizations

To these models were developed using the concepts, methodologies, data sources, and techniques described in Volume II of the series, and are current as of December 1, 1994. The two-character codes used to identify each market segment are listed in Table I. These codes are used to number the various pages and sections of this document. Each market segment listing contains seven major sections.

Global Parameters

The first section contains parameters as applicable to each of the individual end uses. These include:

a. Total electric energy and demand used;
b. The number of customers;
c. The building area, total and per customer;
d. Primary hours of operation (on and off GRU's system peaks);
e. The availability of natural gas and solar energy;
f. The percentage of customers receiving three phase power;
g. Average air conditioning and heating loads per thousand square feet; and
h. Window to floor ratios.

End Use Models

The remaining sections in each market segment file relate to end uses. The residential end uses are:

a. Space Conditioning;
b. Space Heating;
c. Building Envelope;

d. Water Heating;
e. Lighting;
f. Refrigeration;
g. Drying;
h. Washing; and
i. Pool Pumps.

For each end use additional duty cycle information is provided to allow coincident load factors to be developed for each type of appliance used for that end use, as well as the total energy and demand assigned to that end use. The various types of appliances and their relative efficiencies are itemized and the results of allocating energy and demand are presented. Table 2 lists the acronyms and definitions for the variables assigned to each end use and appliance.

The commercial market segments are structured in the same way as the residential market segment files but include the following end uses:

a. Space Conditioning;
b. Space Heating;
c. Building Envelope;
d. Ventilation;
e. Lighting;
f. Refrigeration;
g. Water Heating; and
h. Cooking.

w:\u1500\dsm94\v5text.er

TABLE I
MARKET SEGMENT CODING SYSTEM

RESIDENTIAL	SINGLE FAMILY	SF
	ATTACHED	AT
	MOBILE HOMES	MH
COMMERCIAL	OFFICE	OF
	RESTUARANT/BARS	RB
	RETAIL OUTLET	RO
	SUPERMKT/GROCERY	SG
	WAREHOUSE	WH
	SCHOOLS	SC
	COLLEGES	CO
	HOSPITALS	HS
	HOTEL/MOTEL	HM
	MISCELLANEOUS	MS

TABLE II
MARKET SEGMENT FILE PARAMETER DEFINITIONS

PARAMETER NAME	PARAMETER DEFINITION
AP ID	APPLIANCE IDENTIFICATION NUMBER
DESCRIPTION	APPLIANCE DESCRIPTION
MKT SAT	MARKET SATURATION PERCENTAGE
AVL FAC	AVAILABILITY FACTOR
AVG LIFE	NUMBER OF YEARS OF LIFE EXPECTANCY
REL EFF	APPLIANCE RELATIVE EFFICIENCY
E/CUST KWh	ENERGY PER CUSTOMER IN KWH
TOT_E GWH	TOTAL ENERGY IN GWH
1/RF	ONE OVER APPLIANCE RELATIVE EFFICIENCY
E. FRAC OF TOT.	TOTAL ENERGY FRACTION FOR THIS APPLIANCE
TOT_D MWD	TOTAL POWER USED BY APPLIANCE IN MW

W:\U1500\DCMCRR\MKTFILE.DEF

RESIDENTIAL MARKET SEGMENT "SINGLE FAMILY"

```
*          W:\U1500\DSM94\RMSOLDSF.WQ1        <= SOURCE SPREADSHEET
*  DATE:  12/07/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>          8         8         8         8         9         9         8         8         9
*  Column numbers                                                  1         1         1         1
*      1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345    15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*  B     B                                      B       B       B       B       B       B       B       B       B       B
*      E                                      E       E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
*
G      1 OLD=Existing, or NEW                    MSYTPE                          OLD
G      2 Market Segment                          MS                              SF
G      3 Number of Customers                     MSNCUS                          30320
G      4 Total Sq Foot                           MSFT2                           1
G      5 Sq Foot/Cust                            FT2PC                           1
G      6 Hrs open On-Pk Summer                   HOONSUM                         1694
G      7 Hrs open Off-Pk Summer                  HOOFSUM                         2002
G      8 Hrs open On-Pk Winter                   HOONWIN                         210          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                  HOOFWIN                         4860         0.91223
G     10 Total Gwh                               MSGWH                           398          363.068
G     11 Natural Gas Availability factor         NG_AF                           0.805
G     12 Solar Availability factor               SOL_AF                          0.44
G     13 Three Phase Power Avail. Factor         TPP_AF                          0.75
G     14 Tons per 1000 sq foot                   MSTTPFT2                        1.5          Cum Sat/Cum MW-D
G     15 Window to floor ratio                   WINFLOOR                        0.25         0.91223
G     16 System Coincident MWD                   MSMWD                           93.7         85.4761

*
*          First End Use = Space Conditioning
*
E      1 End Use Code                            EU                              SC
E      2 Duty Cycle-LF when Operating/Open       EUOPLF                          1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                        1
E      4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                         0.317     0.317 <==Cum Sat
E      5 Total GWh (G7*E4)                       EUGWH                           126.166   126.166 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                         4161.148
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                         0.317     0.317 <==Cum Sat
E      8 Total MW-D Used by This End Use         EUMWD                           29.7029   29.7029 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
A   1010 LOW EFFICIENCY CENTRAL AC               0.52971     1      15    1.25 4088.411 65.66263     0.8 0.52045 15.45876
A   1012 HIGH EFFICIENCY CENTRAL AC              0.02788     1      15    1.59  3214.16 2.716924 0.62893 0.02153 0.639638
A   1022 TWO SPEED CENTRAL AC                        0     1      15    1.79 2855.036       0 0.55866       0       0
A   1030 WHOLE HOUSE FAN STANDARD CAC            0.08823     1      10    1.07 4776.181 12.77626 0.93458 0.10127 3.007879
A   1032 WHOLE HOUSE FAN HEAT PUMP               0.08823     1      10    1.25 4088.411 10.93648     0.8 0.08668 2.574744
A   1040 STANDARD ROOM AC                        0.04411     1      10       1 5110.514  6.8353       1 0.05418 1.609215
A   1042 HIGH EFFICIENCY ROOM AC                      0     1      10    1.25 4088.411       0     0.8       0       0
A   1050 LOW EFFIC. HEAT PUMP                    0.18813     1      15    1.25 4088.411 23.32062     0.8 0.18484 5.490307
A   1052 HIGH EFFIC. HEAT PUMP                    0.0099     1      15    1.59  3214.16 0.964938 0.62893 0.00765 0.227173
A   1060 GROUND SOURCE HEAT PUMP                 0.02382     1      15    1.25 4088.411  2.95285     0.8  0.0234 0.695181
A   1070 TWO SPEED HEAT PUMP                          0     1      15    1.07 4776.181       0 0.93458       0       0
A   1080 GAS FIRED HEAT PUMP                          0     1      15    1.99 2568.097       0 0.50251       0       0
A   1090 GAS CENTRAL AC                               0     1      15     6.7 762.7633       0 0.14925       0       0
*        Summary Check                                1                                 126.166 0.81423       1 29.7029
*
A   1110 DUCTS IN CONDITIONED SPACES STRI            0     1      15       1       0       0       0       0       0
A   1112 DUCTS IN CONDITIONED SPACES HEA              0     1      15       1       0       0       0       0       0
A   1120 REDUCED DUCT LEAKEAGE STRIP HE             0.2     1      15       1       0       0       0       0       0
A   1122 REDUCED DUCT LEAKAGE HEAT PUMP             0.2     1      15       1       0       0       0       0       0
A   1130 REDUCED DUCT HEAT TRANSFER STR               0     1      15       1       0       0       0       0       0
A   1132 REDUCED DUCT HEAT TRANSFER HEA               0     1      15       1       0       0       0       0       0
A   1140 PROGRAMMABLE THERMOSTAT STRIP             0.04     1      10       1       0       0       0       0       0
A   1142 PROGRAMMABLE THERMOSTAT HEAT               0.04     1      15       1       0       0       0       0       0
A   1160 AC & HEAT PUMP MAINTENANCE STAN             0.2     1      15       1       0       0       0       0       0
```

A	1162	AC & HEAT PUMP MAINTENANCE HEAT	0.2	1	15	1	0	0	0	0	0
A	1170	LOAD CONTROL STAND. CAC	0	1	15	1	0	0	0	0	0
A	1172	LOAD CONTROL HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1180	LANDSCAPE SHADING STAND. CAC	0.2	1	30	1	0	0	0	0	0
A	1182	LANDSCAPE SHADING HEAT PUMP	0.2	1	30	1	0	0	0	0	0
A	1190	CEILING FANS STAND. CAC	0.15	1	9	1	0	0	0	0	0
A	1192	CEILING FANS HEAT PUMP	0.15	1	9	1	0	0	0	0	0
*											
#	End of End Use										
*											
*											
*		Next End Use = Space Heating									
*											
E	1	End Use Code	EU				SH				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				1				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.095	0.412	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				37.81	163.976	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				1247.032				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.095	0.412	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				8.9015	38.6044	<==Cum Mw-D		
*											
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	KWh	Gwh	1/Rf	OF TOT	MWD
*											
A	1510	ELEC RESIST HEAT	0.154	1	15	1	4271.68	19.94567	1	0.52752	4.695752
A	1530	STANDARD ROOM AC W/ ER HEAT	0.023	1	10	1	4271.68	2.978899	1	0.07879	0.701314
A	1540	LOW EFFIC. HEAT PUMP	0.2033	1	15	2	2135.84	13.16544	0.5	0.3482	3.099502
A	1542	HIGH EFFIC. HEAT PUMP	0.0107	1	15	2.5	1708.672	0.554334	0.4	0.01466	0.130505
A	1550	GROUND SOURCE HEAT PUMP	0.027	1	15	3	1423.893	1.165656	0.33333	0.03083	0.274427
A	1560	TWO SPEED HEAT PUMP	0	1	15	3.25	1314.363	0	0.30769	0	0
A	1570	GAS FIRED HEAT PUMP	0	1	15	6	711.9467	0	0.16667	0	0
A	1580	GAS FURNACE	0.478	1	15	1E+99	4.27E-96	6.19E-98	1E-99	1.6E-99	1.46E-98
A	1590	OTHER FURNACE (LPG,OIL,ETC)	0.104	1	15	1E+99	4.27E-96	1.35E-98	1E-99	4E-100	3.17E-99
*		Summary Check	1					37.81	0.29193	1	8.9015
*											
A	1610	DUCTS IN CONDITIONED SPACES STRI	0	1	15	1	0	0	0	0	0
A	1612	DUCTS IN CONDITIONED SPACES HEA	0	1	15	1	0	0	0	0	0
A	1620	REDUCED DUCT LEAKEAGE STRIP HE	0.2	1	15	1	0	0	0	0	0
A	1622	REDUCED DUCT LEAKAGE HEAT PUMP	0.2	1	15	1	0	0	0	0	0
A	1630	REDUCED DUCT HEAT TRANSFER STR	0	1	15	1	0	0	0	0	0
A	1632	REDUCED DUCT HEAT TRANSFER HEA	0	1	15	1	0	0	0	0	0
A	1640	PROGRAMMABLE THERMOSTAT STRIP	0.04	1	10	1	0	0	0	0	0
A	1642	PROGRAMMABLE THERMOSTAT HEAT	0.04	1	15	1	0	0	0	0	0
A	1650	LOAD CONTROL FOR ELECTRIC HEAT	0	1	15	1	0	0	0	0	0
A	1652	LOAD CONTROL FOR ELECTRIC HEAT	0	1	15	1	0	0	0	0	0
A	1660	AC & HEAT PUMP MAINTENANCE STAN	0.2	1	15	1	0	0	0	0	0
A	1662	AC & HEAT PUMP MAINTENANCE HEAT	0.2	1	15	1	0	0	0	0	0
A	1670	LOAD CONTROL STAND. CAC	0	1	15	1	0	0	0	0	0
A	1672	LOAD CONTROL HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1680	LANDSCAPE SHADING STAND. CAC	0.2	1	30	1	0	0	0	0	0
A	1682	LANDSCAPE SHADING HEAT PUMP	0.2	1	30	1	0	0	0	0	0
#	End of End Use										
*											
*		Next End Use = Building Envelope									
*											
E	1	End Use Code	EU				BE				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				1				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0	0.412	<==Cum Sat		
E	5	Total Kwh (G7*E4)	EUGWH				0	163.976	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				0				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0	0.412	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				0	38.6044	<==Cum Mw-D		
*											
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel		Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	E/Cust	Gwh	1/Rf	OF TOT	MWD
*											
A	2010	CEILING INSULATION R = 0	0.26667	1	30	1	0	0	0	0	0
A	2020	CEILING INSULATION R = 11	0.27333	1	30	1	0	0	0	0	0
A	2030	CEILING INSULATION R = 19	0.27333	1	30	1	0	0	0	0	0
A	2040	CEILING INSULATION R = 30	0.18667	1	30	1	0	0	0	0	0
A	2050	CEILING INSULATION R = 38	0	1	30	1	0	0	0	0	0
*		Summary Check	1								

```
*
*
A   2060 WALL  INSULATION R = 0          0.28    0    30    1    0    0    0    0    0
A   2070 WALL INSULATION R = 11          0.72    0    30    1    0    0    0    0    0
*        Summary Check                      1
*
A   2080 W/O WEATHER STRIPPING/CAULKING  0.44    1    15    1    0    0    0    0    0
A   2090 WEATHER STRIPPING/CAULKING      0.56    1    15    1    0    0    0    0    0
*        Summary Check                      1
*
A   2100 W/O WINDOW FILM/REFLECTIVE GLAS  0.8    0     9    1    0    0    0    0    0
A   2110 WINDOW FILM/REFLECTIVE GLASS      0.2    0     9    1    0    0    0    0    0
*        Summary Check                      1
*
A   2120 W/O LOW- E GLASS                  1    0    30    1    0    0    0    0    0
A   2130 LOW- E GLASS                      0    0    30    1    0    0    0    0    0
*        Summary Check                      1
*
A   2140 W/O SUN SCREENS                  0.9    0     9    1    0    0    0    0    0
A   2150 SUN SCREENS                      0.1    0     9    1    0    0    0    0    0
*        Summary Check                      1
*
A   2160 W/O REFLECTIVE ROOF COATING       1    0    10    1    0    0    0    0    0
A   2170 REFLECTIVE ROOF COATING           0    0    10    1    0    0    0    0    0
*        Summary Check                      1
*
A   2180 W/O RADIANT ROOF BARRIER          1    0    15    1    0    0    0    0    0
A   2190 RADIANT ROOF BARRIER               0    0    15    1    0    0    0    0    0
*        Summary Check                      1
*
#   End of End Use
*
*
*        Next End Use = Water Heating
*
E      1 End Use Code                    EU                          WH
E      2 Duty Cycle-LF when Operating/Open  EUOPLF                        1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                1
E      4 Frac of Mkt Seg Kwh used by this End Use  EUGWHFR            0.172     0.584 <==Cum Sat
E      5 Total GWh (G7*E4)               EUGWH                       68.456   232.432 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC              2257.784
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR             0.172     0.584 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     16.1164   54.7208 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id  DESCRIPTION                      Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf  OF TOT   MWD
*
A   3010 ELECTRIC RESISTANCE             0.40398    1    15    1  5020.809 61.49772    1  0.89835 14.47823
A   3020 INTEGRAL HEAT PUMP WATER HEATE       0    1    15 1.25  4016.647     0    0.8     0      0
A   3030 SOLAR WATER HEATER              0.01713    1    15    3  1673.603 0.869045 0.33333 0.01269 0.204597
A   3050 ADD-ON HEAT PUMP WATER HEATER      0.05    1    15 1.25  4016.647 6.089237    0.8 0.08895 1.433572
A   3060 NATURAL GAS WATER HEATER        0.46845    1    15 1E+99 5.02E-96 7.13E-98  1E-99   1E-99 1.68E-98
A   3065 OTHER WATER HEATER (LPG, OIL, ET 0.06045   1    15 1E+99 5.02E-96  9.2E-99  1E-99  1E-100 2.17E-99
*        Summary Check                      1                              68.456 0.44969      1 16.1164
*
A   3040 HEAT RECOVERY WATER HEATER       0.013    1    15    1    0    0    0    0    0
A   3070 DHW HEATER TANK INSULATION        0.09    1    10    1    0    0    0    0    0
A   3080 DHW PIPE INSULATION               0.09    1    30    1    0    0    0    0    0
A   3090 HEAT TRAP                         0.05    1    15    1    0    0    0    0    0
A   3100 LOW-FLOW SHOWERHEAD                0.2    1     7    1    0    0    0    0    0
A   3110 DLC ON ELECTRIC WATER HEATER         0    1    30    1    0    0    0    0    0
*
#   End of End Use
*
*        Next End Use = Lighting
*
E      1 End Use Code                    EU                          LT
E      2 Duty Cycle-LF when Operating/Open  EUOPLF                        1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                1
E      4 Frac of Mkt Seg Kwh used by this End Use  EUGWHFR            0.054     0.638 <==Cum Sat
E      5 Total GWh (G7*E4)               EUGWH                       21.492   253.924 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC               708.8391
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR             0.054     0.638 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                      5.0598   59.7806 <==Cum Mw-D
*        Below, use Av Life of System (not bulb)
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
```

RESIDENTIAL MARKET SEGMENT "SINGLE FAMILY"

```
*     Ap                                    Mkt     Avl     Avg     Rel  E/Cust   Tot_E          ENRG F   Tot_D
*      Id DESCRIPTION                       Sat     Fac    Life     Eff     kWh     gWh     1/Rf OF TOT     MWd
*
* GENERAL LIGHTING END USES
*
A    4010 STANDARD INCANDESCENT            0.585       1       7       1 625.8711 11.1012       1 0.51653 2.613524
A    4020 COMPACT FLOURESCENT                  0       1       7     4.3 145.5514       0 0.23256       0       0
A    4040 EFFICIENT INCANDESCENT           0.029       1       7    1.12 558.8135 0.491353 0.89286 0.02286 0.115678
A    4050 OUTDOOR FLOODLIGHT               0.362       1      16     0.7 894.1015 9.813515 1.42857 0.45661 2.310368
A    4060 HIGH PRESSURE SODIUM OUTDOOR     0.024       1      16     5.3 118.0889 0.085931 0.18868   0.004 0.02023
*         Summary Check                        1                  0.3806          21.492 1.13256       1  5.0598
*
* OTHER LIGHTING MEASURES
*
A    4080 MOTION DETECTORS FOR OUTDOOR L    0.1       1      10       1       0       0       0       0       0
*
*
#   End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                     EU                                RF
E       2 Duty Cycle-LF when Operating/Open EUOPLF                              1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.199     0.837 <==Cum Sat
E       5 Total GWh (G7*E4)                EUGWH                           79.202   333.126 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                   2612.203
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.199     0.837 <==Cum Sat
E       8 Total MW-D Used by This End Use  EUMWD                           18.6463   78.4269 <==Cum Mw-D
*  APID  APLAB                            APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR   APMWD
*     Ap                                    Mkt     Avl     Avg     Rel  E/Cust   Tot_E          ENRG F   Tot_D
*      Id DESCRIPTION                       Sat     Fac    Life     Eff     Kwh     Gwh     1/Rf OF TOT     MWD
*
A    5010 REFRIGERATOR FROST FREE          0.627       1      20       1  2738.6 52.06254       1 0.65734 12.25693
A    5020 BEST CURRENT REFRIGERATOR FROS  0.1615       1      20     1.3 2106.615 10.31542 0.76923 0.13024  2.42853
A    5030 REFRIGERATOR MANUAL              0.133       1      20       1  2738.6 11.04357       1 0.13944 2.599956
A    5040 BEST CURRENT REFRIGERATOR MAN   0.0285       1      20     1.3 2106.615 1.820369 0.76923 0.02298 0.428564
A    5070 FREEZER  FROST FREE              0.033       1      20       1  2738.6 2.740134       1  0.0346 0.645102
A    5080 BEST CURRENT FREEZER  FROST FRE 0.0085       1      20     1.3 2106.615 0.542917 0.76923 0.00685 0.127817
A    5090 FREEZER  MANUAL                  0.007       1      20       1  2738.6  0.58124       1 0.00734  0.13684
A    5110 BEST CURRENT FREEZER  MANUAL    0.0015       1      20     1.3 2106.615 0.095809 0.76923 0.00121 0.022556
*         Summary Check                        1                   1.06          79.202 0.95385       1 18.6463
*
A    5060 REMOVE SECOND REFRIGERATOR        0.19       1       0       0       0       0       0       0       0
A    5130 REMOVE SECOND FREEZER             0.01       1       0       0       0       0       0       0       0
*
*
#   End of End Use
*
*
*         Next End Use = Drying
*
E       1 End Use Code                     EU                                DR
E       2 Duty Cycle-LF when Operating/Open EUOPLF                              1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.036     0.873 <==Cum Sat
E       5 Total GWh (G7*E4)                EUGWH                           14.328   347.454 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                   472.5594
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.036     0.873 <==Cum Sat
E       8 Total MW-D Used by This End Use  EUMWD                            3.3732   81.8001 <==Cum Mw-D
*  APID  APLAB                            APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR   APMWD
*     Ap                                    Mkt     Avl     Avg     Rel  E/Cust   Tot_E          ENRG F   Tot_D
*      Id DESCRIPTION                       Sat     Fac    Life     Eff     Kwh     Gwh     1/Rf OF TOT     MWD
*
A    5140 CLOTHES DRYER                       1       1      10       1 472.5594  14.328       1       1  3.3732
A    5150 HIGH EFFICIENCY CLOTHES DRYER       0       1      10     1.3 363.5072       0 0.76923       0       0
*         Summary Check                        1                     1          14.328       1       1  3.3732
*
*
#   End of End Use
*
*
*         Next End Use = Washing
*
E       1 End Use Code                     EU                                WA
```

RESIDENTIAL MARKET SEGMENT "SINGLE FAMILY"

E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				1				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.009	0.882	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				3.582	351.036	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				118.1398				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.009	0.882	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				0.8433	82.6434	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
A	5160	CLOTHES WASHER	1	1	10	1	118.1398	3.582	1	1	0.8433
A	5170	HIGH EFFICIENCY CLOTHES WASHER	0	1	10	1.3	90.8768	0	0.76923	0	0
*		Summary Check	1			1		3.582	1	1	0.8433
*											
*											
#	End of End Use										
*											
*											
*		Next End Use = Pool Pump									
*											
E	1	End Use Code	EU				PP				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				1				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.030232	0.912232	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				12.03218	363.0682	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				396.8396				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.030232	0.912232	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				2.832701	85.4761	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
A	5180	STANDARD POOL PUMP	0.19731	1	15	1	1980.197	11.84621	1	0.98454	2.788919
A	5190	HIGH EFFICIENCY POOL PUMP	0.00403	1	15	1.3	1523.228	0.185969	0.76923	0.01546	0.043782
*		Summary Check	95.2374			0.20254		12.03218	0.2004	1	2.832701
*											
A	5210	DOWN SIZED POOL PUMP w/ OVERSIZ	0.1	1	15	0	0	0	0	0	0
A	5240	DIRECT LOAD CONTROL FOR POOL PU	0	1	30	0	0	0	0	0	0
*											
#	End of End Use										

RESIDENTIAL MARKET SEGMENT "ATTACHED DWELLINGS"

```
*          W:\U1500\DSM94\RMSOLDAT.WQ1        <= SOURCE SPREADSHEET
*  DATE:  12/07/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:        Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths     41    Col Widths ==>          8        8        8        8        9        9        8        8        9
*  Column numbers                                                    1        1        1        1
*       1       2       3       4       5       6       7       8       9       0       1       2       3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                    APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15  1E+77  12345.6 123.456 0.12345 0.12345 123.456
*  B     B                                        B       B       B       B       B       B       B       B       B
*      E                                       E       E       E       E       E       E       E       E       E       E
*  APID  APLAB                                    APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                            Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                               Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
*
G       1 OLD=Existing, or NEW                      MSYTPE                          OLD
G       2 Market Segment                            MS                              AT
G       3 Number of Customers                       MSNCUS                            24542
G       4 Total Sq Foot                             MSFT2                                 1
G       5 Sq Foot/Cust                              FT2PC                                 1
G       6 Hrs open On-Pk Summer                     HOONSUM                            1694
G       7 Hrs open Off-Pk Summer                    HOOFSUM                            2002
G       8 Hrs open On-Pk Winter                     HOONWIN                             210          Cum Sat/Cum GWh
G       9 Hrs open Off-Pk Winter                    HOOFWIN                            4860            0.881
G      10 Total Gwh                                 MSGWH                               207          182.367
G      11 Natural Gas Availability factor           NG_AF                             0.267
G      12 Solar Availability factor                 SOL_AF                             0.75
G      13 Three Phase Power Avail. Factor           TPP_AF                             0.75
G      14 Tons per 1000 sq foot                     MSTTPFT2                            1.5          Cum Sat/Cum MW-D
G      15 Window to floor ratio                     WINFLOOR                           0.25            0.881
G      16 System Coincident MWD                     MSMWD                              48.7          42.9047
*
*
*          First End Use = Space Conditioning
*
E       1 End Use Code                              EU                              SC
E       2 Duty Cycle-LF when Operating/Open         EUOPLF                                1
E       3 Duty Cycle-LF when Not Operating/Closed   EUNOOPLF                              1
E       4 Frac of Mkt Seg GWh used by this End Us   EUGWHFR                           0.287     0.287 <==Cum Sat
E       5 Total GWh (G7*E4)                         EUGWH                           59.409    59.409 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)      EUKWHPC                       2420.707
E       7 Frac of Mkt Seg MW-D used by this End U   EUMWDFR                          0.287     0.287 <==Cum Sat
E       8 Total MW-D Used by This End Use           EUMWD                         13.9769   13.9769 <==Cum Mw-D
*  APID  APLAB                                    APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                            Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                               Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
A    1010 LOW EFFICIENCY CENTRAL AC                0.548       1      15    1.25 2338.848 31.4552     0.8 0.52947 7.40033
A    1012 HIGH EFFICIENCY CENTRAL AC                   0       1      15    1.59 1838.717       0 0.62893       0       0
A    1022 TWO SPEED CENTRAL AC                         0       1      15    1.79 1633.274       0 0.55866       0       0
A    1030 WHOLE HOUSE FAN STANDARD CAC                 0       1      10    1.07 2732.299       0 0.93458       0       0
A    1032 WHOLE HOUSE FAN HEAT PUMP                    0       1      10    1.25 2338.848       0     0.8       0       0
A    1040 STANDARD ROOM AC                          0.14       1      10       1  2923.56  10.045       1 0.16908 2.363244
A    1042 HIGH EFFICIENCY ROOM AC                      0       1      10    1.25 2338.848       0     0.8       0       0
A    1050 LOW EFFIC. HEAT PUMP                     0.305       1      15    1.25 2338.848  17.507     0.8 0.29469 4.118797
A    1052 HIGH EFFIC. HEAT PUMP                        0       1      15    1.59 1838.717       0 0.62893       0       0
A    1060 GROUND SOURCE HEAT PUMP                  0.007       1      15    1.25 2338.848  0.4018     0.8 0.00676 0.09453
A    1070 TWO SPEED HEAT PUMP                          0       1      15    1.07 2732.299       0 0.93458       0       0
A    1080 GAS FIRED HEAT PUMP                          0       1      15    1.99 1469.125       0 0.50251       0       0
A    1090 GAS CENTRAL AC                               0       1      15     6.7 436.3522       0 0.14925       0       0
*         Summary Check                                1                                  59.409     0.828       1 13.9769
*
A    1110 DUCTS IN CONDITIONED SPACES STRI             0       1      15       1       0       0     0       0       0
A    1112 DUCTS IN CONDITIONED SPACES HEA              0       1      15       1       0       0     0       0       0
A    1120 REDUCED DUCT LEAKEAGE STRIP HE               0       1      15       1       0       0     0       0       0
A    1122 REDUCED DUCT LEAKAGE HEAT PUMP               0       1      15       1       0       0     0       0       0
A    1130 REDUCED DUCT HEAT TRANSFER STR               0       1      15       1       0       0     0       0       0
A    1132 REDUCED DUCT HEAT TRANSFER HEA               0       1      15       1       0       0     0       0       0
A    1140 PROGRAMMABLE THERMOSTAT STRIP             0.02       1      10       1       0       0     0       0       0
A    1142 PROGRAMMABLE THERMOSTAT HEAT              0.02       1      15       1       0       0     0       0       0
A    1160 AC & HEAT PUMP MAINTENANCE STAN            0.2       1      15       1       0       0     0       0       0
```

A	1162	AC & HEAT PUMP MAINTENANCE HEAT	0.2	1	15	1	0	0	0	0	0
A	1170	LOAD CONTROL STAND. CAC	0	1	15	1	0	0	0	0	0
A	1172	LOAD CONTROL HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1180	LANDSCAPE SHADING STAND. CAC	0	1	30	1	0	0	0	0	0
A	1182	LANDSCAPE SHADING HEAT PUMP	0	1	30	1	0	0	0	0	0
A	1190	CEILING FANS STAND. CAC	0.1	1	9	1	0	0	0	0	0
A	1192	CEILING FANS HEAT PUMP	0.1	1	9	1	0	0	0	0	0

*

\# End of End Use

*

*

* Next End Use = Space Heating

*

E	1	End Use Code	EU	SH	
E	2	Duty Cycle-LF when Operating/Open	EUOPLF	1	
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF	1	
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR	0.115	0.402 <==Cum Sat
E	5	Total GWh (G7*E4)	EUGWH	23.805	83.214 <==Cum Gwh
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC	969.9698	
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR	0.115	0.402 <==Cum Sat
E	8	Total MW-D Used by This End Use	EUMWD	5.6005	19.5774 <==Cum Mw-D

*

*	APID Ap Id	APLAB DESCRIPTION	APSAT Mkt Sat	APAVF Avl Fac	APLIFE Avg Life	APRE Rel Eff	APEPC E/Cust KWh	APGWH Tot_E Gwh	APOOR 1/Rf	APEFR ENRG F OF TOT	APMWD Tot_D MWD
A	1510	ELEC RESIST HEAT	0.44118	1	15	1	1442.597	15.61951	1	0.65614	3.674735
A	1530	STANDARD ROOM AC W/ ER HEAT	0.06618	1	10	1	1442.597	2.342926	1	0.09842	0.55121
A	1540	LOW EFFIC. HEAT PUMP	0.31201	1	15	2	721.2986	5.523232	0.5	0.23202	1.299427
A	1542	HIGH EFFIC. HEAT PUMP	0.01642	1	15	2.5	577.0389	0.232557	0.4	0.00977	0.054713
A	1550	GROUND SOURCE HEAT PUMP	0.00735	1	15	3	480.8657	0.086775	0.33333	0.00365	0.020415
A	1560	TWO SPEED HEAT PUMP	0	1	15	3.25	443.8761	0	0.30769	0	0
A	1570	GAS FIRED HEAT PUMP	0	1	15	6	240.4329	0	0.16667	0	0
A	1580	GAS FURNACE	0.14951	1	15	1E+99	1.44E-96	5.29E-99	1E-99	2E-100	1.25E-99
A	1590	OTHER FURNACE (LPG,OIL, ETC)	0.00735	1	15	1E+99	1.44E-96	2.6E-100	1E-99	1E-101	6.1E-101
*		Summary Check	1					23.805	0.67238	1	5.6005

*

A	1610	DUCTS IN CONDITIONED SPACES STRI	0	1	15	1	0	0	0	0	0
A	1612	DUCTS IN CONDITIONED SPACES HEA	0	1	15	1	0	0	0	0	0
A	1620	REDUCED DUCT LEAKEAGE STRIP HE	0	1	15	1	0	0	0	0	0
A	1622	REDUCED DUCT LEAKAGE HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1630	REDUCED DUCT HEAT TRANSFER STR	0	1	15	1	0	0	0	0	0
A	1632	REDUCED DUCT HEAT TRANSFER HEA	0	1	15	1	0	0	0	0	0
A	1640	PROGRAMMABLE THERMOSTAT STRIP	0.02	1	10	1	0	0	0	0	0
A	1642	PROGRAMMABLE THERMOSTAT HEAT	0.02	1	15	1	0	0	0	0	0
A	1650	LOAD CONTROL FOR ELECTRIC HEAT	0	1	15	1	0	0	0	0	0
A	1652	LOAD CONTROL FOR ELECTRIC HEAT	0	1	15	1	0	0	0	0	0
A	1660	AC & HEAT PUMP MAINTENANCE STAN	0.2	1	15	1	0	0	0	0	0
A	1662	AC & HEAT PUMP MAINTENANCE HEAT	0.2	1	15	1	0	0	0	0	0
A	1670	LOAD CONTROL STAND. CAC	0.02	1	15	1	0	0	0	0	0
A	1672	LOAD CONTROL HEAT PUMP	0.02	1	15	1	0	0	0	0	0
A	1680	LANDSCAPE SHADING STAND. CAC	0	1	30	1	0	0	0	0	0
A	1682	LANDSCAPE SHADING HEAT PUMP	0	1	30	1	0	0	0	0	0

\# End of End Use

*

* Next End Use = Building Envelope

*

E	1	End Use Code	EU	BE	
E	2	Duty Cycle-LF when Operating/Open	EUOPLF	1	
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF	1	
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR	0	0.402 <==Cum Sat
E	5	Total Kwh (G7*E4)	EUGWH	0	83.214 <==Cum Gwh
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC	0	
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR	0	0.402 <==Cum Sat
E	8	Total MW-D Used by This End Use	EUMWD	0	19.5774 <==Cum Mw-D

*

*	APID Ap Id	APLAB DESCRIPTION	APSAT Mkt Sat	APAVF Avl Fac	APLIFE Avg Life	APRE Rel Eff	APEPC E/Cust	APGWH Tot_E Gwh	APOOR 1/Rf	APEFR ENRG F OF TOT	APMWD Tot_D MWD
*	2010	CEILING INSULATION R = 0									
A	2020	CEILING INSULATION R = 11	0.19937	1	30	1	0	0	0	0	0
A	2030	CEILING INSULATION R = 19	0.3038	1	30	1	0	0	0	0	0
A	2040	CEILING INSULATION R = 30	0.19937	1	30	1	0	0	0	0	0
A	2050	CEILING INSULATION R = 38	0.29747	1	30	1	0	0	0	0	0
A		Summary Check	0	1	30	1	0	0	0	0	0
*			1								

```
*
*
A   2060 WALL  INSULATION R = 0              0.1     0    30    1    0    0    0    0    0
A   2070 WALL INSULATION R = 11              0.9     0    30    1    0    0    0    0    0
*        Summary Check                         1
*
A   2080 W/O WEATHER STRIPPING/CAULKING     0.42     1    15    1    0    0    0    0    0
A   2090 WEATHER STRIPPING/CAULKING         0.58     1    15    1    0    0    0    0    0
*        Summary Check                         1
*
A   2100 W/O WINDOW FILM/REFLECTIVE GLAS     0.8     0     9    1    0    0    0    0    0
A   2110 WINDOW FILM/REFLECTIVE GLASS         0.2     0     9    1    0    0    0    0    0
*        Summary Check                         1
*
A   2120 W/O LOW- E GLASS                      1     0    30    1    0    0    0    0    0
A   2130 LOW- E GLASS                          0     0    30    1    0    0    0    0    0
*        Summary Check                         1
*
A   2140 W/O SUN SCREENS                       1     0     9    1    0    0    0    0    0
A   2150 SUN SCREENS                           0     0     9    1    0    0    0    0    0
*        Summary Check                         1
*
A   2160 W/O REFLECTIVE ROOF COATING           1     0    10    1    0    0    0    0    0
A   2170 REFLECTIVE ROOF COATING               0     0    10    1    0    0    0    0    0
*        Summary Check                         1
*
A   2180 W/O RADIANT ROOF BARRIER              1     0    15    1    0    0    0    0    0
A   2190 RADIANT ROOF BARRIER                  0     0    15    1    0    0    0    0    0
*        Summary Check                         1
*
#  End of End Use
*
*
*        Next End Use = Water Heating
*
E      1 End Use Code                   EU                          WH
E      2 Duty Cycle-LF when Operating/Open  EUOPLF                     1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF             1
E      4 Frac of Mkt Seg Kwh used by this End Use  EUGWHFR          0.175     0.577 <==Cum Sat
E      5 Total GWh (G7*E4)              EUGWH                      36.225   119.439 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC            1476.041
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR           0.175     0.577 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     8.5225   28.0999 <==Cum Mw-D
*  APID  APLAB                      APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                               Mkt    Avl    Avg    Rel   E/Cust   Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                   Sat    Fac   Life    Eff    Kwh     Gwh   1/Rf OF TOT   MWD
*
A   3010 ELECTRIC RESISTANCE         0.85282    1    15    1   1730.78  36.225    1     1    8.5225
A   3020 INTEGRAL HEAT PUMP WATER HEATE   0     1    15  1.25  1384.624    0    0.8    0      0
A   3030 SOLAR WATER HEATER              0     1    15    3   576.9267    0  0.33333  0      0
A   3050 ADD-ON HEAT PUMP WATER HEATER    0     1    15  1.25  1384.624    0    0.8    0      0
A   3060 NATURAL GAS WATER HEATER   0.13987    1    15  1E+99  1.73E-96 5.94E-99  1E-99  2E-100  1.4E-99
A   3065 OTHER WATER HEATER (LPG, OIL, ET  0.00731  1    15  1E+99  1.73E-96 3.1E-100  1E-99  9E-102  7.3E-101
*        Summary Check                         1                          36.225  0.85282    1    8.5225
*
A   3040 HEAT RECOVERY WATER HEATER          0     1    15    1     0      0     0     0      0
A   3070 DHW HEATER TANK INSULATION         0.2    1    10    1     0      0     0     0      0
A   3080 DHW PIPE INSULATION                0.2    1    30    1     0      0     0     0      0
A   3090 HEAT TRAP                          0.05   1    15    1     0      0     0     0      0
A   3100 LOW-FLOW SHOWERHEAD                0.2    1     7    1     0      0     0     0      0
A   3110 DLC ON ELECTRIC WATER HEATER         0    1    30    1     0      0     0     0      0
*
#  End of End Use
*
*        Next End Use = Lighting
*
E      1 End Use Code                   EU                          LT
E      2 Duty Cycle-LF when Operating/Open  EUOPLF                     1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF             1
E      4 Frac of Mkt Seg Kwh used by this End Use  EUGWHFR          0.055     0.632 <==Cum Sat
E      5 Total GWh (G7*E4)              EUGWH                      11.385   130.824 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC             463.8986
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR           0.055     0.632 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     2.6785   30.7784 <==Cum Mw-D
*        Below, use Av Life of System (not bulb)
*  APID  APLAB                      APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
```

RESIDENTIAL MARKET SEGMENT "ATTACHED DWELLINGS"

```
*     Ap                                    Mkt     Avl     Avg     Rel   E/Cust   Tot_E          ENRG F   Tot_D
*     Id DESCRIPTION                        Sat     Fac    Life     Eff     kWh     gWh     1/Rf OF TOT    MWd
*
* GENERAL LIGHTING END USES
*
A   4010 STANDARD INCANDESCENT            0.585       1       7       1 409.6004 5.880661       1 0.51653 1.383518
A   4020 COMPACT FLOURESCENT                0       1       7     4.3  95.2559       0 0.23256       0       0
A   4040 EFFICIENT INCANDESCENT            0.029       1       7    1.12 365.7146 0.260286 0.89286 0.02286 0.061236
A   4050 OUTDOOR FLOODLIGHT                0.362       1      16     0.7 585.1434 5.198533 1.42857 0.45661 1.223037
A   4060 HIGH PRESSURE SODIUM OUTDOOR      0.024       1      16     5.3 77.28309 0.04552 0.18868   0.004 0.010709
*        Summary Check                      1                  0.3806          11.385 1.13256       1  2.6785
*
* OTHER LIGHTING MEASURES
*
A   4080 MOTION DETECTORS FOR OUTDOOR L     0.1       1      10       1       0       0       0       0       0
*
*
#  End of End Use
*
*
*        Next End Use = Refrigeration
*
E      1 End Use Code                     EU                          RF
E      2 Duty Cycle-LF when Operating/Open EUOPLF                        1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR            0.203    0.835 <==Cum Sat
E      5 Total GWh (G7*E4)                EUGWH                     42.021  172.845 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2) EUKWHPC              1712.208
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR             0.203    0.835 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     9.8861  40.6645 <==Cum Mw-D
*  APID  APLAB                           APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*     Ap                                    Mkt     Avl     Avg     Rel   E/Cust   Tot_E          ENRG F   Tot_D
*     Id DESCRIPTION                        Sat     Fac    Life     Eff     Kwh     Gwh     1/Rf OF TOT    MWD
*
A   5010 REFRIGERATOR FROST FREE           0.59       1      20       1 1795.491 25.99831       1  0.6187 6.116511
A   5020 BEST CURRENT REFRIGERATOR FROS    0.148       1      20     1.3 1381.147 5.016623 0.76923 0.11938 1.180239
A   5030 REFRIGERATOR MANUAL                0.17       1      20       1 1795.491 7.491039       1 0.17827 1.762385
A   5040 BEST CURRENT REFRIGERATOR MAN     0.043       1      20     1.3 1381.147 1.457532 0.76923 0.03469 0.342907
A   5070 FREEZER  FROST FREE                0.03       1      20       1 1795.491 1.321948       1 0.03146 0.311009
A   5080 BEST CURRENT FREEZER  FROST FRE   0.008       1      20     1.3 1381.147 0.271169 0.76923 0.00645 0.063797
A   5090 FREEZER  MANUAL                   0.009       1      20       1 1795.491 0.396584       1 0.00944 0.093303
A   5110 BEST CURRENT FREEZER  MANUAL      0.002       1      20     1.3 1381.147 0.067792 0.76923 0.00161 0.015949
*        Summary Check                      1                  1.0603          42.021 0.95362       1  9.8861
*
A   5060 REMOVE SECOND REFRIGERATOR        0.19       1       0       0       0       0       0       0       0
A   5130 REMOVE SECOND FREEZER             0.01       1       0       0       0       0       0       0       0
*
*
#  End of End Use
*
*
*        Next End Use = Drying
*
E      1 End Use Code                     EU                          DR
E      2 Duty Cycle-LF when Operating/Open EUOPLF                        1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR            0.037    0.872 <==Cum Sat
E      5 Total GWh (G7*E4)                EUGWH                      7.659  180.504 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2) EUKWHPC               312.0773
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR             0.037    0.872 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     1.8019  42.4664 <==Cum Mw-D
*  APID  APLAB                           APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*     Ap                                    Mkt     Avl     Avg     Rel   E/Cust   Tot_E          ENRG F   Tot_D
*     Id DESCRIPTION                        Sat     Fac    Life     Eff     Kwh     Gwh     1/Rf OF TOT    MWD
*
A   5140 CLOTHES DRYER                      1       1      10       1 312.0773   7.659       1       1  1.8019
A   5150 HIGH EFFICIENCY CLOTHES DRYER      0       1      10     1.3 240.0594       0 0.76923       0       0
*        Summary Check                      1                    1           7.659       1       1  1.8019
*
*
#  End of End Use
*
*
*        Next End Use = Washing
*
E      1 End Use Code                     EU                          WA
```

RESIDENTIAL MARKET SEGMENT "ATTACHED DWELLINGS"

```
E      2 Duty Cycle-LF when Operating/Open      EUOPLF                          1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                       1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0.009     0.881 <==Cum Sat
E      5 Total GWh (G7*E4)                      EUGWH                       1.863   182.367 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)   EUKWHPC                  75.91068
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.009     0.881 <==Cum Sat
E      8 Total MW-D Used by This End Use        EUMWD                       0.4383   42.9047 <==Cum Mw-D
*  APID  APLAB                                 APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*    Ap                                          Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                              Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf OF TOT    MWD
*
A  5160 CLOTHES WASHER                           1      1     10      1   75.91068  1.863     1      1   0.4383
A  5170 HIGH EFFICIENCY CLOTHES WASHER           0      1     10    1.3   58.39283    0   0.76923    0      0
*       Summary Check                            1                    1             1.863     1      1   0.4383
*
*
#  End of End Use
*
*
*       Next End Use = Pool Pump
*
E      1 End Use Code                           EU                            PP
E      2 Duty Cycle-LF when Operating/Open      EUOPLF                          1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                       1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                       0     0.881 <==Cum Sat
E      5 Total GWh (G7*E4)                      EUGWH                           0   182.367 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)   EUKWHPC                         0
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                        0     0.881 <==Cum Sat
E      8 Total MW-D Used by This End Use        EUMWD                           0   42.9047 <==Cum Mw-D
*  APID  APLAB                                 APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*    Ap                                          Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                              Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf OF TOT    MWD
*
A  5180 STANDARD POOL PUMP                       1E-99  0     15      1     0       0      1      0      0
A  5190 HIGH EFFICIENCY POOL PUMP                1E-99  0     15    1.3     0       0   0.76923    0      0
*       Summary Check                            2E-99                2.3E-99          0  1.8E-99    0      0
*
A  5210 DOWN SIZED POOL PUMP w/ OVERSIZ          0      0     15      0     0       0      0      0      0
A  5240 DIRECT LOAD CONTROL FOR POOL PU          0      0     30      0     0       0      0      0      0
*
#  End of End Use
*
```

RESIDENTIAL MARKET SEGMENT "MOBILE HOMES"

```
*          W:\U1500\DSM94\RMSOLDMH.WQ1        <= SOURCE SPREADSHEET
*  DATE: 12/07/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8       8       8       8       9       9       8       8       9
*  Column numbers                                   1       1       1       1
*      1       2       3       4       5       6       7       8       9       0       1       2       3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345      15  1E+77 12345.6 123.456 0.12345 0.12345 123.456
*  B     B                                      B       B       B       B       B       B       B       B       B
*      E                                      E       E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E           E. FRAC   Tot_D
*     Id DESCRIPTION                               Sat     Fac    Life     Eff     KWh     Gwh     1/Rf OF TOT.    MWD
*
G      1 OLD=Existing, or NEW                     MSYTPE                          OLD
G      2 Market Segment                           MS                              MH
G      3 Number of Customers                      MSNCUS                           2630
G      4 Total Sq Foot                            MSFT2                               1
G      5 Sq Foot/Cust                             FT2PC                               1
G      6 Hrs open On-Pk Summer                    HOONSUM                          1694
G      7 Hrs open Off-Pk Summer                   HOOFSUM                          2002
G      8 Hrs open On-Pk Winter                    HOONWIN                           210          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                   HOOFWIN                          4860            0.887
G     10 Total Gwh                                MSGWH                              23           20.401
G     11 Natural Gas Availability factor          NG_AF                           0.545
G     12 Solar Availability factor                SOL_AF                           0.36
G     13 Three Phase Power Avail. Factor          TPP_AF                           0.75
G     14 Tons per 1000 sq foot                    MSTTPFT2                          1.5          Cum Sat/Cum MW-D
G     15 Window to floor ratio                    WINFLOOR                         0.25            0.887
G     16 System Coincident MWD                    MSMWD                             5.4           4.7898
*
*
*          First End Use = Space Conditioning
*
E      1 End Use Code                             EU                              SC
E      2 Duty Cycle-LF when Operating/Open        EUOPLF                              1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                            1
E      4 Frac of Mkt Seg GWh used by this End Us  EUGWHFR                          0.328     0.328 <==Cum Sat
E      5 Total GWh (G7*E4)                        EUGWH                            7.544     7.544 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)     EUKWHPC                       2868.441
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR                          0.328     0.328 <==Cum Sat
E      8 Total MW-D Used by This End Use          EUMWD                           1.7712    1.7712 <==Cum Mw-D
*  APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E           E. FRAC   Tot_D
*     Id DESCRIPTION                               Sat     Fac    Life     Eff     KWh     Gwh     1/Rf OF TOT.    MWD
A   1010 LOW EFFICIENCY CENTRAL AC                 0.5       1      15    1.25 2677.415 3.520801     0.8  0.4667 0.826623
A   1012 HIGH EFFICIENCY CENTRAL AC                 0       1      15    1.59 2104.886       0 0.62893       0       0
A   1022 TWO SPEED CENTRAL AC                       0       1      15    1.79 1869.704       0 0.55866       0       0
A   1030 WHOLE HOUSE FAN STANDARD CAC               0       1      10    1.07 3127.822       0 0.93458       0       0
A   1032 WHOLE HOUSE FAN HEAT PUMP                  0       1      10    1.25 2677.415       0     0.8       0       0
A   1040 STANDARD ROOM AC                      0.28539       1      10       1 3346.769 2.511987       1 0.33298 0.589771
A   1042 HIGH EFFICIENCY ROOM AC                     0       1      10    1.25 2677.415       0     0.8       0       0
A   1050 LOW EFFIC. HEAT PUMP                  0.21461       1      15    1.25 2677.415 1.511212     0.8 0.20032 0.354806
A   1052 HIGH EFFIC. HEAT PUMP                       0       1      15    1.59 2104.886       0 0.62893       0       0
A   1060 GROUND SOURCE HEAT PUMP                     0       1      15    1.25 2677.415       0     0.8       0       0
A   1070 TWO SPEED HEAT PUMP                         0       1      15    1.07 3127.822       0 0.93458       0       0
A   1080 GAS FIRED HEAT PUMP                         0       1      15    1.99 1681.794       0 0.50251       0       0
A   1090 GAS CENTRAL AC                              0       1      15     6.7 499.5178       0 0.14925       0       0
*        Summary Check                               1                                    7.544 0.85708       1  1.7712
*
A   1110 DUCTS IN CONDITIONED SPACES STRI            0       1      15       1       0       0       0       0       0
A   1112 DUCTS IN CONDITIONED SPACES HEA              0       1      15       1       0       0       0       0       0
A   1120 REDUCED DUCT LEAKEAGE STRIP HE               0       1      15       1       0       0       0       0       0
A   1122 REDUCED DUCT LEAKAGE HEAT PUMP               0       1      15       1       0       0       0       0       0
A   1130 REDUCED DUCT HEAT TRANSFER STR               0       1      15       1       0       0       0       0       0
A   1132 REDUCED DUCT HEAT TRANSFER HEA               0       1      15       1       0       0       0       0       0
A   1140 PROGRAMMABLE THERMOSTAT STRIP                0       1      10       1       0       0       0       0       0
A   1142 PROGRAMMABLE THERMOSTAT HEAT                 0       1      15       1       0       0       0       0       0
A   1160 AC & HEAT PUMP MAINTENANCE STAN            0.2       1      15       1       0       0       0       0       0
```

A	1162	AC & HEAT PUMP MAINTENANCE HEAT	0.2	1	15	1	0	0	0	0	0
A	1170	LOAD CONTROL STAND. CAC	0	1	15	1	0	0	0	0	0
A	1172	LOAD CONTROL HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1180	LANDSCAPE SHADING STAND. CAC	0	1	30	1	0	0	0	0	0
A	1182	LANDSCAPE SHADING HEAT PUMP	0	1	30	1	0	0	0	0	0
A	1190	CEILING FANS STAND. CAC	0	1	9	1	0	0	0	0	0
A	1192	CEILING FANS HEAT PUMP	0	1	9	1	0	0	0	0	0

*

\# End of End Use

*

*

* Next End Use = Space Heating

*

E	1	End Use Code	EU	SH	
E	2	Duty Cycle-LF when Operating/Open	EUOPLF	1	
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF	1	
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR	0.105	0.433 <==Cum Sat
E	5	Total GWh (G7*E4)	EUGWH	2.415	9.959 <==Cum Gwh
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC	918.251	
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR	0.105	0.433 <==Cum Sat
E	8	Total MW-D Used by This End Use	EUMWD	0.567	2.3382 <==Cum Mw-D

*

*	APID Ap Id	APLAB DESCRIPTION	APSAT Mkt Sat	APAVF Avl Fac	APLIFE Avg Life	APRE Rel Eff	APEPC E/Cust KWh	APGWH Tot_E Gwh	APOOR 1/Rf	APEFR ENRG F OF TOT	APMWD Tot_D MWD
A	1510	ELEC RESIST HEAT	0.188	1	15	1	2667.861	1.319097	1	0.54621	0.309701
A	1530	STANDARD ROOM AC W/ER HEAT	0.125	1	10	1	2667.861	0.877059	1	0.36317	0.205918
A	1540	LOW EFFIC. HEAT PUMP	0.0599	1	15	2	1333.93	0.210143	0.5	0.08702	0.049338
A	1542	HIGH EFFIC. HEAT PUMP	0.0031	1	15	2.5	1067.144	0.0087	0.4	0.0036	0.002043
A	1550	GROUND SOURCE HEAT PUMP	0	1	15	3	889.2869	0	0.33333	0	0
A	1560	TWO SPEED HEAT PUMP	0	1	15	3.25	820.8802	0	0.30769	0	0
A	1570	GAS FIRED HEAT PUMP	0	1	15	6	444.6434	0	0.16667	0	0
A	1580	NATURAL GAS FURNACE	0.234	1	15	1E+99	2.67E-96	1.64E-99	1E-99	7E-100	3.9E-100
A	1590	OTHER FURNACE (LPG, OIL, ETC)	0.39	1	15	1E+99	2.67E-96	2.74E-99	1E-99	1.1E-99	6.4E-100
*		Summary Check	1					2.415	0.34419	1	0.567

*

A	1610	DUCTS IN CONDITIONED SPACES STRI	0	1	15	1	0	0	0	0	0
A	1612	DUCTS IN CONDITIONED SPACES HEA	0	1	15	1	0	0	0	0	0
A	1620	REDUCED DUCT LEAKEAGE STRIP HE	0	1	15	1	0	0	0	0	0
A	1622	REDUCED DUCT LEAKAGE HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1630	REDUCED DUCT HEAT TRANSFER STR	0	1	15	1	0	0	0	0	0
A	1632	REDUCED DUCT HEAT TRANSFER HEA	0	1	15	1	0	0	0	0	0
A	1640	PROGRAMMABLE THERMOSTAT STRIP	0	1	10	1	0	0	0	0	0
A	1642	PROGRAMMABLE THERMOSTAT HEAT	0	1	15	1	0	0	0	0	0
A	1650	LOAD CONTROL FOR ELECTRIC HEAT	0	1	15	1	0	0	0	0	0
A	1652	LOAD CONTROL FOR ELECTRIC HEAT	0	1	15	1	0	0	0	0	0
A	1660	AC & HEAT PUMP MAINTENANCE STAN	0.2	1	15	1	0	0	0	0	0
A	1662	AC & HEAT PUMP MAINTENANCE HEAT	0.2	1	15	1	0	0	0	0	0
A	1670	LOAD CONTROL STAND. CAC	0	1	15	1	0	0	0	0	0
A	1672	LOAD CONTROL HEAT PUMP	0	1	15	1	0	0	0	0	0
A	1680	LANDSCAPE SHADING STAND. CAC	0	1	30	1	0	0	0	0	0
A	1682	LANDSCAPE SHADING HEAT PUMP	0	1	30	1	0	0	0	0	0

\# End of End Use

*

* Next End Use = Building Envelope

*

E	1	End Use Code	EU	BE	
E	2	Duty Cycle-LF when Operating/Open	EUOPLF	1	
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF	1	
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR	0	0.433 <==Cum Sat
E	5	Total Kwh (G7*E4)	EUGWH	0	9.959 <==Cum Gwh
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC	0	
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR	0	0.433 <==Cum Sat
E	8	Total MW-D Used by This End Use	EUMWD	0	2.3382 <==Cum Mw-D

*

*	APID Ap Id	APLAB DESCRIPTION	APSAT Mkt Sat	APAVF Avl Fac	APLIFE Avg Life	APRE Rel Eff	APEPC E/Cust	APGWH Tot_E Gwh	APOOR 1/Rf	APEFR ENRG F OF TOT	APMWD Tot_D MWD
A	2010	CEILING INSULATION R = 0	0.20526	1	30	1	0	0	0	0	0
A	2020	CEILING INSULATION R = 11	0.11053	1	30	1	0	0	0	0	0
A	2030	CEILING INSULATION R = 19	0.21053	1	30	1	0	0	0	0	0
A	2040	CEILING INSULATION R = 30	0.21053	1	30	1	0	0	0	0	0
A	2050	CEILING INSULATION R = 38	0.26316	1	30	1	0	0	0	0	0
*		Summary Check	1								

```
*
*
A   2060 WALL  INSULATION R = 0          0.72    0    30    1    0    0    0    0    0
A   2070 WALL INSULATION R = 11          0.28    0    30    1    0    0    0    0    0
*        Summary Check                      1
*
A   2080 W/O WEATHER STRIPPING/CAULKING  0.61    1    15    1    0    0    0    0    0
A   2090 WEATHER STRIPPING/CAULKING      0.39    1    15    1    0    0    0    0    0
*        Summary Check                      1
*
A   2100 W/O WINDOW FILM/REFLECTIVE GLAS   0.8    0     9    1    0    0    0    0    0
A   2110 WINDOW FILM/REFLECTIVE GLASS        0.2    0     9    1    0    0    0    0    0
*        Summary Check                      1
*
A   2120 W/O LOW- E GLASS                    1    0    30    1    0    0    0    0    0
A   2130 LOW- E GLASS                        0    0    30    1    0    0    0    0    0
*        Summary Check                      1
*
A   2140 W/O SUN SCREENS                     1    0     9    1    0    0    0    0    0
A   2150 SUN SCREENS                         0    0     9    1    0    0    0    0    0
*        Summary Check                      1
*
A   2160 W/O REFLECTIVE ROOF COATING      0.75    0    10    1    0    0    0    0    0
A   2170 REFLECTIVE ROOF COATING            0    0    10    1    0    0    0    0    0
*        Summary Check                   0.75
*
A   2180 W/O RADIANT ROOF BARRIER            1    0    15    1    0    0    0    0    0
A   2190 RADIANT ROOF BARRIER                 0    0    15    1    0    0    0    0    0
*        Summary Check                      1
*
#  End of End Use
*
*
*        Next End Use = Water Heating
*
E      1 End Use Code                    EU                          WH
E      2 Duty Cycle-LF when Operating/Open  EUOPLF                        1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                1
E      4 Frac of Mkt Seg Kwh used by this End Use  EUGWHFR            0.166     0.599 <==Cum Sat
E      5 Total GWh (G7*E4)               EUGWH                        3.818    13.777 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC             1451.711
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR             0.166     0.599 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     0.8964    3.2346 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg     Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life     Eff    Kwh    Gwh   1/Rf  OF TOT   MWD
*
A   3010 ELECTRIC RESISTANCE            0.813    1    15    1  1785.622  3.818    1     1    0.8964
A   3020 INTEGRAL HEAT PUMP WATER HEATE     0    1    15  1.25 1428.498    0    0.8     0      0
A   3030 SOLAR WATER HEATER                 0    1    15    3 595.2075    0 0.33333     0      0
A   3050 ADD-ON HEAT PUMP WATER HEATER     0    1    15  1.25 1428.498    0    0.8     0      0
A   3060 NATURAL GAS WATER HEATER       0.063    1    15 1E+99 1.79E-96 3E-100 1E-99 8E-101 6.9E-101
A   3065 OTHER WATER HEATER (LPG, OIL, ET 0.124  1    15 1E+99 1.79E-96 5.8E-100 1E-99 2E-100 1.4E-100
*        Summary Check                      1                          3.818   0.813    1    0.8964
*
A   3040 HEAT RECOVERY WATER HEATER         0    1    15    1    0    0    0    0    0
A   3070 DHW HEATER TANK INSULATION     0.09    1    10    1    0    0    0    0    0
A   3080 DHW PIPE INSULATION             0.09    1    30    1    0    0    0    0    0
A   3090 HEAT TRAP                       0.05    1    15    1    0    0    0    0    0
A   3100 LOW-FLOW SHOWERHEAD              0.2    1     7    1    0    0    0    0    0
A   3110 DLC ON ELECTRIC WATER HEATER       0    1    30    1    0    0    0    0    0
*
#  End of End Use
*
*        Next End Use = Lighting
*
E      1 End Use Code                    EU                          LT
E      2 Duty Cycle-LF when Operating/Open  EUOPLF                        1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                1
E      4 Frac of Mkt Seg Kwh used by this End Use  EUGWHFR            0.052     0.651 <==Cum Sat
E      5 Total GWh (G7*E4)               EUGWH                        1.196    14.973 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC             454.7529
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR             0.052     0.651 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                     0.2808    3.5154 <==Cum Mw-D
*        Below, use Av Life of System (not bulb)
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
```

RESIDENTIAL MARKET SEGMENT "MOBILE HOMES"

```
*     Ap                                    Mkt     Avl     Avg     Rel  E/Cust   Tot_E          ENRG F   Tot_D
*     Id DESCRIPTION                        Sat     Fac    Life     Eff     kWh     gWh     1/Rf OF TOT     MWd
*
* GENERAL LIGHTING END USES
*
A   4010 STANDARD INCANDESCENT            0.585       1       7       1 401.5251 0.617766       1 0.51653 0.145041
A   4020 COMPACT FLOURESCENT                0       1       7     4.3 93.37792       0 0.23256       0       0
A   4040 EFFICIENT INCANDESCENT            0.029       1       7    1.12 358.5045 0.027343 0.89286 0.02286 0.00642
A   4050 OUTDOOR FLOODLIGHT                0.362       1      16     0.7 573.6073 0.546109 1.42857 0.45661 0.128217
A   4060 HIGH PRESSURE SODIUM OUTDOOR      0.024       1      16     5.3 75.75945 0.004782 0.18868   0.004 0.001123
*        Summary Check                      1                   0.3806          1.196 1.13256       1  0.2808
*
* OTHER LIGHTING MEASURES
*
A   4080 MOTION DETECTORS FOR OUTDOOR L     0.1       1      10       1       0       0       0       0       0
*
*
#  End of End Use
*
*
*        Next End Use = Refrigeration
*
E      1 End Use Code                     EU                                RF
E      2 Duty Cycle-LF when Operating/Open EUOPLF                                1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                        1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.192     0.843 <==Cum Sat
E      5 Total GWh (G7*E4)                EUGWH                             4.416    19.389 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                     1679.087
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.192     0.843 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                            1.0368    4.5522 <==Cum Mw-D
*  APID  APLAB                           APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR   APMWD
*     Ap                                    Mkt     Avl     Avg     Rel  E/Cust   Tot_E          ENRG F   Tot_D
*     Id DESCRIPTION                        Sat     Fac    Life     Eff     Kwh     Gwh     1/Rf OF TOT     MWD
*
A   5010 REFRIGERATOR FROST FREE          0.532       1      20       1 1763.32 2.467167       1 0.55869 0.579248
A   5020 BEST CURRENT REFRIGERATOR FROS    0.145       1      20     1.3  1356.4 0.517263 0.76923 0.11713 0.121444
A   5030 REFRIGERATOR MANUAL               0.215       1      20       1 1763.32 0.997069       1 0.22579 0.234095
A   5040 BEST CURRENT REFRIGERATOR MAN      0.05       1      20     1.3  1356.4 0.178367 0.76923 0.04039 0.041877
A   5070 FREEZER  FROST FREE               0.035       1      20       1 1763.32 0.162314       1 0.03676 0.038108
A   5080 BEST CURRENT FREEZER  FROST FRE   0.009       1      20     1.3  1356.4 0.032106 0.76923 0.00727 0.007538
A   5090 FREEZER  MANUAL                   0.011       1      20       1 1763.32 0.051013       1 0.01155 0.011977
A   5110 BEST CURRENT FREEZER  MANUAL      0.003       1      20     1.3  1356.4 0.010702 0.76923 0.00242 0.002513
*        Summary Check                      1                   1.0621          4.416 0.95223       1  1.0368
*
A   5060 REMOVE SECOND REFRIGERATOR        0.19       1       0       0       0       0       0       0       0
A   5130 REMOVE SECOND FREEZER              0.01       1       0       0       0       0       0       0       0
*
*
#  End of End Use
*
*
*        Next End Use = Drying
*
E      1 End Use Code                     EU                                DR
E      2 Duty Cycle-LF when Operating/Open EUOPLF                                1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                        1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.035     0.878 <==Cum Sat
E      5 Total GWh (G7*E4)                EUGWH                             0.805    20.194 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                     306.0837
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.035     0.878 <==Cum Sat
E      8 Total MW-D Used by This End Use  EUMWD                            0.189    4.7412 <==Cum Mw-D
*  APID  APLAB                           APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR   APMWD
*     Ap                                    Mkt     Avl     Avg     Rel  E/Cust   Tot_E          ENRG F   Tot_D
*     Id DESCRIPTION                        Sat     Fac    Life     Eff     Kwh     Gwh     1/Rf OF TOT     MWD
*
A   5140 CLOTHES DRYER                      1       1      10       1 306.0837   0.805       1       1   0.189
A   5150 HIGH EFFICIENCY CLOTHES DRYER      0       1      10     1.3 235.449       0 0.76923       0       0
*        Summary Check                      1                     1           0.805       1       1   0.189
*
*
#  End of End Use
*
*
*        Next End Use = Washing
*
E      1 End Use Code                     EU                                WA
```

RESIDENTIAL MARKET SEGMENT "MOBILE HOMES"

```
E      2 Duty Cycle-LF when Operating/Open        EUOPLF                          1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                        1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                     0.009     0.887 <==Cum Sat
E      5 Total GWh (G7*E4)                        EUGWH                       0.207    20.401 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)     EUKWHPC                  78.70722
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR                     0.009     0.887 <==Cum Sat
E      8 Total MW-D Used by This End Use          EUMWD                      0.0486    4.7898 <==Cum Mw-D
*  APID  APLAB                                   APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*    Ap                                            Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                                Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
A  5160 CLOTHES WASHER                             1      1     10      1  78.70722  0.207      1      1  0.0486
A  5170 HIGH EFFICIENCY CLOTHES WASHER             0      1     10    1.3  60.54402      0  0.76923      0       0
*       Summary Check                              1                    1            0.207      1      1  0.0486
*
*
#  End of End Use
*
*
*       Next End Use = Pool Pump
*
E      1 End Use Code                             EU                            PP
E      2 Duty Cycle-LF when Operating/Open        EUOPLF                          1
E      3 Duty Cycle-LF when Not Operating/Closed  EUNOOPLF                        1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                       0     0.887 <==Cum Sat
E      5 Total GWh (G7*E4)                        EUGWH                         0    20.401 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)     EUKWHPC                       0
E      7 Frac of Mkt Seg MW-D used by this End U  EUMWDFR                       0     0.887 <==Cum Sat
E      8 Total MW-D Used by This End Use          EUMWD                         0    4.7898 <==Cum Mw-D
*  APID  APLAB                                   APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR   APEFR  APMWD
*    Ap                                            Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                                Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
A  5180 STANDARD POOL PUMP                      1E-99      1     15      1      0      0      1      0       0
A  5190 HIGH EFFICIENCY POOL PUMP                   0      1     15    1.3      0      0  0.76923      0       0
*       Summary Check                           19.7641                1E-99            0   1E-99      0       0
*
A  5210 DOWN SIZED POOL PUMP w/ OVERSIZ           0.1      1     15      0      0      0      0      0       0
A  5240 DIRECT LOAD CONTROL FOR POOL PU             0      1     30      0      0      0      0      0       0
*
#  End of End Use
*
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COMMERCIAL MARKET SEGMENT "OFFICE"

```
*          W:\U1500\DSM94\CMSOLDOF.WQ1        <= SOURCE SPREADSHEET
*  DATE:  11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             ----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             ----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                                  1        1        1        1
*      1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*  B     B                                      B       B       B       B       B       B       B       B       B
*      E                                    E       E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
*
G      1 OLD=Existing, or NEW                    MSYTPE                          OLD
G      2 Market Segment                          MS                              OF
G      3 Number of Customers                     MSNCUS                            2169
G      4 Total Sq Foot                           MSFT2                          6019431
G      5 Sq Foot/Cust                            FT2PC                          2775.21
G      6 Hrs open On-Pk Summer                   HOONSUM                         988.54
G      7 Hrs open Off-Pk Summer                  HOOFSUM                         532.29
G      8 Hrs open On-Pk Winter                   HOONWIN                            120          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                  HOOFWIN                           4860            0.955
G     10 Total Gwh                               MSGWH                          125.352          119.711
G     11 Natural Gas Availability factor         NG_AF                              0.5
G     12 Solar Availability factor               SOL_AF                             0.6
G     13 Three Phase Power Avail. Factor         TPP_AF                            0.75
G     14 Tons per 1000 sq foot                   MSTTPFT2                           1.5          Cum Sat/Cum MW-D
G     15 Window to floor ratio                   WINFLOOR                          0.25            0.955
G     16 System Coincident MWD                   MSMWD                            27.15          25.9283
*
*          First End Use = Space Conditioning
*
E      1 End Use Code                            EU                              SC
E      2 Duty Cycle-LF when Operating/Open       EUOPLF                            0.75
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                           0.1
E      4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                           0.29       0.29 <==Cum Sat
E      5 Total GWh (G7*E4)                       EUGWH                           36.35208  36.35208 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                         16759.83
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.29       0.29 <==Cum Sat
E      8 Total MW-D Used by This End Use         EUMWD                            7.8735     7.8735 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
*
A   1010 LE RECIP CHILLER                        0.27       1      20    1.57  12007.33  7.03185 0.63694 0.19344 1.523029
A   1012 HE SCREW CHILLER                        0.03       1      20    1.86  10135.22 0.659498 0.53763 0.01814 0.142841
A   1015 LE CENT CHILLER                          0       1      20    1.96  9618.112       0  0.5102       0       0
A   1020 HE CENT CHILLER                          0       1      20    2.26  8341.372       0 0.44248       0       0
A   1040 HE CENT CHILLER W/ASD                    0       1      20    2.74   6880.11       0 0.36496       0       0
A   1050 LE DX AC                             0.5225       1      15       1   18851.5 21.36445       1 0.58771 4.627329
A   1060 HE DX AC                             0.0275       1      15    1.13  16682.74 0.995084 0.88496 0.02737 0.215525
A   1065 LE ROOM AC                            0.135       1      10    0.95  19843.68 5.810528 1.05263 0.15984 1.258503
A   1070 HE ROOM AC                            0.015       1      10    1.25   15081.2 0.490667     0.8  0.0135 0.106274
A   1075 INTERNAL COMBUSTION AC                    0       1      15      20   942.575       0    0.05       0       0
A   1080 OTHER FUEL OR NONE                        0       1       0  1E+77  1.89E-73       0   1E-77       0       0
*        Summary Check                           1                  1.18028           36.35208 0.88905       1  7.8735

A   1090 THERMAL STORAGE                       0.05       1      15       1       0       0       0       0       0
A   1100 HEAT PIPE ENHANCED DX                     0       1      15       1       0       0       0       0       0
A   1110 HOTEL OCCUPANCY SENSORS                   0       1      10       1       0       0       0       0       0
A   1120 2-SPEED MOTOR - COOLING TOWER          0.2       1      10       1       0       0       0       0       0
A   1130 SPEED CONTROL - COOLING TOWER          0.2       1      10       1       0       0       0       0       0
A   1140 AC MAINTENANCE - CHILLER               0.4       1      20       1       0       0       0       0       0
A   1150 AC MAINTENANCE - DX                    0.1       1      15       1       0       0       0       0       0
A   1160 DUCT/PIPE INSULATION - CHILLER       0.05       1      20       1       0       0       0       0       0
A   1170 DUCT/PIPE INSULATION - DX             0.05       1      20       1       0       0       0       0       0
A   1180 ENRG MGT SYSTEM - CHILLER               0.2       1      15       1       0       0       0       0       0
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A   1190 ENRG MGT SYSTEM - DX                  0.1    1    15    1    0    0    0    0    0
A   1200 TEMP SETUP/SETBACK - CHILLER          0.3    1    15    1    0    0    0    0    0
A   1210 TEMP SETUP/SETBACK - DX               0.1    1    15    1    0    0    0    0    0
A   1220 GAS-FIRED CHILLER                     0      1    20    1    0    0    0    0    0
A   1230 GAS-FIRED DX AC                       0      1    20    1    0    0    0    0    0
#   End of End Use

*
*        Next End Use = Space Heating
*
E      1 End Use Code                          EU                          SH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.4
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.04      0.33 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                       5.01408  41.36616 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                    2311.701
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.04      0.33 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                         1.086    8.9595 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    KWh    Gwh   1/Rf OF TOT    MWD
*
A   1510 RESISTANCE                       0.4     1     30      1  4555.076 3.951984    1  0.78818 0.855961
A   1520 HEAT PUMP                       0.25     1     15    2.5  1822.031 0.987996  0.4  0.19704  0.21399
A   1530 NATURAL GAS                      0.15     1     20     20  227.7538  0.0741 0.05  0.01478 0.016049
A   1540 OTHER OR NONE                      0.2     1     15  1E+77 4.56E-74 1.98E-77 1E-77 3.9E-78 4.28E-78
*        Summary Check                      1                2E+76          5.01408 0.5075     1    1.086
*
#   End of End Use

*
*        Next End Use = Building Envelope
*
E      1 End Use Code                          EU                          BE
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                          1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                      0      0.33 <==Cum Sat
E      5 Total Kwh (G7*E4)                     EUGWH                           0  41.36616 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                        0
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                       0      0.33 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                           0    8.9595 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel          Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff   E/Cust   Gwh   1/Rf OF TOT    MWD
*
A   2010 ROOF  INSULATION   R < 10.53      0.9     1     20      1      0      0    0     0      0
A   2020 ROOF INSULATION R >= 10.53        0.1     1     20      1      0      0    0     0      0
*        Summary Check                      1
*
* Wall Insulation in New Construction Only.
*
A   2030 WALL  INSULATION R=5.26            1     0     20      1      0      0    0     0      0
A   2040 WALL INSULATION R=11.76            0     0     20      1      0      0    0     0      0
*        Summary Check                      1
*
A   2050 WINDOWS W/OUT FILM                0.6     1     10      1      0      0    0     0      0
A   2060 WINDOWS W/FILM                    0.4     1     10      1      0      0    0     0      0
*        Summary Check                      1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A   2070 WINDOWS W/O SPECTRALLY SELEC G     1     0     20      1      0      0    0     0      0
A   2080 WINDOWS W/ SPECTRALLY SELEC GL      0     0     20      1      0      0    0     0      0
*        Summary Check                      1
*
A   2090 DARK ROOFS                        0.9     1     20      1      0      0    0     0      0
A   2100 LIGHT ROOFS                        0.1     1     20      1      0      0    0     0      0
*        Summary Check                      1
*
#   End of End Use

*
*        Next End Use = Ventilation
*
```

COMMERCIAL MARKET SEGMENT "OFFICE"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.15	0.48	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				18.8028	60.16896	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				8668.88				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.15	0.48	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				4.0725	13.032	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.9	1	20	1	5253.866	10.25607	1	0.54545	2.221364
A	3020	VENTS IN DX UNITS	0.75	1	15	1	5253.866	8.546727	1	0.45455	1.851136
*		Summary Check						18.8028	1.65	1	4.0725
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	8668.88	17.86266	1	0.95	3.868875
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	8668.88	0.94014	1	0.05	0.203625
*		Summary Check	1			1		18.8028	1	1	4.0725
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0.8	1	20	1	4334.44	7.52112	1	0.4	1.629
A	3060	CHILLER W/ VAV	0.2	1	20	1	4334.44	1.88028	1	0.1	0.40725
A	3070	DX AC W/OUT VAV	0.9	1	15	1	4334.44	8.46126	1	0.45	1.832625
A	3080	DX AC W/ VAV	0.1	1	15	1	4334.44	0.94014	1	0.05	0.203625
*		Summary Check						18.8028	2	1	4.0725
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0.95	1	15	1	4334.44	8.93133	1	0.475	1.934438
A	3100	CHILLER VAV SYSTEMS W/ ASD	0.05	1	15	1	4334.44	0.47007	1	0.025	0.101813
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	4334.44	8.93133	1	0.475	1.934438
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	4334.44	0.47007	1	0.025	0.101813
*		Summary Check						18.8028	2	1	4.0725
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0.6	1	10	1	4334.44	5.64084	1	0.3	1.22175
A	3140	CHILLER VENT W/ TIMER	0.4	1	10	1	4334.44	3.76056	1	0.2	0.8145
A	3150	DX VENT W/OUT TIMER	0.6	1	20	1	4334.44	5.64084	1	0.3	1.22175
A	3160	DX VENT W/ TIMER	0.4	1	20	1	4334.44	3.76056	1	0.2	0.8145
*		Summary Check						18.8028	2	1	4.0725
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0.95	1	20	1	4334.44	8.93133	1	0.475	1.934438
A	3180	CHILLER W/HI EFF MOTORS	0.05	1	20	1	4334.44	0.47007	1	0.025	0.101813
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	4334.44	8.93133	1	0.475	1.934438
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	4334.44	0.47007	1	0.025	0.101813
*		Summary Check						18.8028	2	1	4.0725
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0	0	10	1	8.7E+102	0	1	0	0
A	3220	EXH HD W/ MAKEUP - CHILLER	0	0	10	1	8.7E+102	0	1	0	0
A	3230	NO EXH HOOD - CHILLER	1E-99	0	10	1	8.7E+102	18.8028	1	1	4.0725
A	3240	EXH HD W/O MAKEUP - DX	0	0	10	1	8.7E+102	0	1	0	0
A	3250	EXH HD W/ MAKEUP - DX	0	0	10	1	8.7E+102	0	1	0	0
A	3260	NO EXH HOOD - DX	0	0	10	1	8.7E+102	0	1	0	0
*		Summary Check	0			0		18.8028	1E-99	0	0
*											
# End of End Use											
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT	.			
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.41	0.89	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				51.39432	111.5633	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				23694.94				

COMMERCIAL MARKET SEGMENT "OFFICE"

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR					0.41	0.89	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD					11.1315	24.1635	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)										
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR		APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E			ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf		OF TOT	MWd
*												
* GENERAL LIGHTING												
*												
A	4010	QUARTZ	0	1	15	0.28	78644.28	0	3.57143		0	0
A	4020	INCANDESCENT	0.023	1	15	0.24	91751.66	4.577215	4.16667		0.08906	0.991379
A	4030	FLUORESCENT	0.969	1	15	1	22020.4	46.28162	1		0.90052	10.02414
A	4040	MERCURY VAPOR	0.007	1	15	0.68	32382.94	0.49167	1.47059		0.00957	0.106491
A	4050	METAL HALIDE	0	1	15	1.03	21379.03	0	0.97087		0	0
A	4060	HIGH PRESSURE SODIUM	0.001	1	15	1.09	20202.2	0.043819	0.91743		0.00085	0.009491
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	14115.64	0	0.64103		0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	25023.18	0	1.13636		0	0
*		Summary Check	1			0.98037		51.39432	1.07604		1	11.1315
*												
A	4085	MERCURY VAPOR & HPS	0.008	1	15	0.73125	30113.37	0.522527	1.36752		0.01017	0.113174
*												
* SPECIFIC LIGHTING END USES												
*												
* FOUR FOOT FLUORESCENT LAMPS												
*												
A	4090	4'-40 W STANDARD LAMPS	0.529	1	14	1	26504.4	27.1876	1		0.59172	5.888564
A	4100	4'-34 W EE LAMPS	0.365	1	14	1	26504.4	18.75893	1		0.40828	4.062998
*		Summary Check	0.894			0.894		45.94652	0.894		1	9.951561
*												
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
* EIGHT FOOT FLUORESCENT LAMPS												
*												
A	4130	8' - 75W STANDARD LAMPS	0.081	1	14	1	282082.6	4.16294	1		0.96429	0.901652
A	4140	8' - 60W EE LAMPS	0.003	1	14	1	282082.6	0.154183	1		0.03571	0.033395
*		Summary Check	0.084			0.084		4.317123	0.084		1	0.935046
*												
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	15	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
* T8 FOUR FOOT FLUORESCENT LAMPS												
*												
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS												
*												
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	14	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	14	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS												
*												
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	14	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	14	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS												
*												
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	2.4E+103	5.14E-98	1		1	1.11E-98
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	2.4E+103	0	1		0	0
*		Summary Check	1E-99			1E-99		5.14E-98	1E-99		1	1.11E-98
*												
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS												

```
*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    15     1 2.4E+103 5.14E-98    1    1 1.11E-98
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    15     1 2.4E+103        0    1    0        0
*         Summary Check                         1E-99                1E-99          5.14E-98 1E-99    1 1.11E-98
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    15     1 2.4E+103 5.14E-98    1    1 1.11E-98
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    15     1 2.4E+103        0    1    0        0
*         Summary Check                         1E-99                1E-99          5.14E-98 1E-99    1 1.11E-98
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)       0.005    1    15     1  4738988 0.256972    1    1 0.055658
A    4320 HPS (70/100/150/250W)                     0    1    15     1  4738988        0    1    0        0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    15     1  4738988        0    1    0        0
*         Summary Check                         0.005                0.005          0.256972 0.005    1 0.055658
*
A    4340 INCANDESCENT (150W)                  0.0022    1    11     1 1.08E+07 0.113068    1    1 0.024489
A    4350 HPS (35W)                                 0    1    11     1 1.08E+07        0    1    0        0
A    4360 METAL HALIDE (32W)                        0    1    11     1 1.08E+07        0    1    0        0
*         Summary Check                        0.0022                0.0022          0.113068 0.0022    1 0.024489
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.0094    1     8     1  2520738 0.483107    1    1 0.104636
A    4380 COMPACT FL (15/18/27W)                    0    1     8     1  2520738        0    1    0        0
*         Summary Check                        0.0094                0.0094          0.483107 0.0094    1 0.104636
*
A    4390 INCANDESCENT (150W)                  0.0022    1     8     1 1.08E+07 0.113068    1    1 0.024489
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     8     1 1.08E+07        0    1    0        0
*         Summary Check                        0.0022                0.0022          0.113068 0.0022    1 0.024489
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM              0.02    1    15     1 23694.94 1.027886    1 1.02789 11.44192
A    4420 OCCUPANCY SENSORS                         0    1    15     1 23694.94        0    1    0        0
A    4430 DAYLIGHTING DESIGN                        0    1    15     1 23694.94        0    1    0        0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1    15     1 23694.94 17.98801    1 17.988 200.2336
A    4450 LPS SECURITY LIGHTS                       0    1    15     1 23694.94        0    1    0        0
*
#   End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                         EU                          RF
E       2 Duty Cycle-LF when Operating/Open    EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.025     0.915 <==Cum Sat
E       5 Total GWh (G7*E4)                    EUGWH                       3.1338  114.6971 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    1444.813
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.025     0.915 <==Cum Sat
E       8 Total MW-D Used by This End Use      EUMWD                      0.67875  24.84225 <==Cum Mw-D
*   APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*     Ap                                       Mkt    Avl    Avg    Rel    E/Cust  Tot_E        ENRG F  Tot_D
*     Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT   MWD
*
A    5010 CONVENTIONAL REFRIGERATION            0.8    1    10     1 1514.724 2.628348    1 0.83871 0.569274
A    5020 HE REFRIGERATION                      0.2    1    10   1.3 1165.172 0.505452 0.76923 0.16129 0.109476
*         Summary Check                          1                1.06          3.1338 0.95385    1 0.67875
*
A    5030 MULTIPLEX:  AIR COOL                    0    1    10     1      0        0    0    0      0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC          0    1    10     1      0        0    0    0      0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC         0    1    10     1      0        0    0    0      0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S         0    1    10     1      0        0    0    0      0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT       0    1    10     1      0        0    0    0      0
A    5080 OPEN DRIVE REFRIG (ASD)                 0    1    10     1      0        0    0    0      0
A    5090 ANTI-CONDENS HEAT CONTROL               0    1    10     1      0        0    0    0      0
A    5100 HI R-VALUE GLASS DOORS                  0    1    10     1      0        0    0    0      0
A    5110 ENERGY MANAGEMENT SYSTEM                0    1    10     1      0        0    0    0      0
A    5120 DUAL PATH SUPERMARKET AC                0    1    10     1      0        0    0    0      0
*
#   End of End Use
*
```

COMMERCIAL MARKET SEGMENT "OFFICE"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                          WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                   0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.025      0.94 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                      3.1338  117.8309 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                  1444.813
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.025      0.94 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                     0.67875     25.521 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  6010 RESISTANCE                        0.95      1     15      1 1520.856 3.1338      1      1 0.67875
A  6020 HEAT RECOVERY                        0      1     15    100 15.20856      0   0.01      0      0
A  6030 SOLAR                                0      1     20      3  506.952      0 0.33333      0      0
A  6040 NATURAL GAS                       0.05      1     10  1E+77 1.52E-74 1.65E-78  1E-77 5.3E-79 3.57E-79
*          Summary Check                     1                5E+75          3.1338   0.95      1 0.67875
*
A  6050 HIGH INSULATION LEVEL              0.2      1     10      1      0      0      0      0      0
A  6060 HEAT TRAP                         0.15      1     10      1      0      0      0      0      0
A  6070 LOW-FLOW SHOWERHEAD                0.1      1     10      1      0      0      0      0      0
A  6080 TIMER ON RECIRCULATION PUMP        0.6      1     10      1      0      0      0      0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                          CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                     0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                 0.015      0.955 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                    1.88028  119.7112 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                  866.888
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                 0.015      0.955 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                    0.40725   25.92825 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %     Adj
*                                            eff   Use      RE
*          Conventional electric               1   0.1      10
*          Convection Oven                 1.154     0   1E+77
*          Conventional Gas                1E+77     0   1E+77
*          Microwave                           4   0.9 4.44444
*          Standard Efficiency Fryers          1     0   1E+77
*          High Efficiency Fryers            1.1     0   1E+77
*          Natural Gas Fryers              1E+77     0   1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC             0.45      1     15     10 527.7857 0.515145    0.1 0.27397 0.111575
A  7020 CONVECTION OVEN                   0.01      1     15  1E+77 5.28E-74 1.14E-78  1E-77 6.1E-79 2.48E-79
A  7030 CONVENTIONAL GAS                     0      1     15  1E+77 5.28E-74      0  1E-77      0      0
A  7040 MICROWAVE                         0.53      1     15 4.44444 1187.518 1.365135  0.225 0.72603 0.295675
A  7050 STD EFFICIENCY FRYERS             0.01      1     15  1E+77 5.28E-74 1.14E-78  1E-77 6.1E-79 2.48E-79
A  7060 HE FRYERS                            0      1     20  1E+77 5.28E-74      0  1E-77      0      0
A  7070 NATURAL GAS FRYERS                   0      1     10  1E+77 5.28E-74      0  1E-77      0      0
*          Summary Check                     1                2E+75          1.88028 0.16425      1 0.40725
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "RESTAURANT/BAR"

```
*          W:\U1500\DSM94\CMSOLDRB.WQ1        <= SOURCE SPREADSHEET
*  DATE: 11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                                  1     1     1     1
*      1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15   1E+77  12345.6  123.456 0.12345 0.12345  123.456
*  B     B                                      B      B      B      B      B      B      B      B      B
*      E                                    E      E      E      E      E      E      E      E      E      E
*  APID  APLAB                                  APSAT  APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat    Fac   Life     Eff    KWh    Gwh    1/Rf  OF TOT.    MWD
*
G      1 OLD=Existing, or NEW                    MSYTPE                          OLD
G      2 Market Segment                          MS                              RB
G      3 Number of Customers                     MSNCUS                            345
G      4 Total Sq Foot                           MSFT2                          450405
G      5 Sq Foot/Cust                            FT2PC                         1305.522
G      6 Hrs open On-Pk Summer                   HOONSUM                           760
G      7 Hrs open Off-Pk Summer                  HOOFSUM                           456
G      8 Hrs open On-Pk Winter                   HOONWIN                           150          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                  HOOFWIN                          1423            0.988
G     10 Total Gwh                               MSGWH                           47.718          47.1454
G     11 Natural Gas Availability factor         NG_AF                             0.5
G     12 Solar Availability factor               SOL_AF                            0.6
G     13 Three Phase Power Avail. Factor         TPP_AF                           0.75
G     14 Tons per 1000 sq foot                   MSTTPFT2                          2           Cum Sat/Cum MW-D
G     15 Window to floor ratio                   WINFLOOR                         0.15            0.988
G     16 System Coincident MWD                   MSMWD                            13.1          12.9428
*
*          First End Use = Space Conditioning
*
E      1 End Use Code                            EU                              SC
E      2 Duty Cycle-LF when Operating/Open       EUOPLF                           0.85
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                         0.25
E      4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                          0.238     0.238 <==Cum Sat
E      5 Total GWh (G7*E4)                       EUGWH                          11.35688  11.35688 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                        32918.5
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                          0.238     0.238 <==Cum Sat
E      8 Total MW-D Used by This End Use         EUMWD                           3.1178    3.1178 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat    Fac   Life     Eff    KWh    Gwh    1/Rf  OF TOT.    MWD
*
A   1010 LE RECIP CHILLER                        0.045      1     20    1.57  21162.1 0.328542 0.63694 0.02893 0.090194
A   1012 HE SCREW CHILLER                        0.005      1     20    1.86 17862.63 0.030813 0.53763 0.00271 0.008459
A   1015 LE CENT CHILLER                          0      1     20    1.96 16951.27      0  0.5102      0      0
A   1020 HE CENT CHILLER                          0      1     20    2.26  14701.1      0 0.44248      0      0
A   1040 HE CENT CHILLER W/ASD                    0      1     20    2.74 12125.73      0 0.36496      0      0
A   1050 LE DX AC                               0.475      1     15       1 33224.49 5.444664      1 0.47942 1 494721
A   1060 HE DX AC                               0.025      1     15    1.13 29402.21 0.253594 0.88496 0.02233 0 069619
A   1065 LE ROOM AC                             0.405      1     10    0.95 34973.15 4.886623 1.05263 0.43028 1 341522
A   1070 HE ROOM AC                             0.045      1     10    1.25 26579.59 0.412648    0.8 0.03633 0 113284
A   1075 INTERNAL COMBUSTION AC                    0      1     15   1E+77 3.32E-73      0   1E-77      0      0
A   1080 OTHER FUEL OR NONE                        0      1      0   1E+77 3.32E-73      0   1E-77      0      0
*        Summary Check                            1                  1.0242          11.35688 0.99079      1   3 1178

A   1090 THERMAL STORAGE                       0.05      1     15       1      0      0      0      0      0
A   1100 HEAT PIPE ENHANCED DX                    0      1     15       1      0      0      0      0      0
A   1110 HOTEL OCCUPANCY SENSORS                  0      0     10       1      0      0      0      0      0
A   1120 2-SPEED MOTOR - COOLING TOWER          0.2      1     10       1      0      0      0      0      0
A   1130 SPEED CONTROL - COOLING TOWER          0.2      1     10       1      0      0      0      0      0
A   1140 AC MAINTENANCE - CHILLER               0.4      1     20       1      0      0      0      0      0
A   1150 AC MAINTENANCE - DX                    0.1      1     15       1      0      0      0      0      0
A   1160 DUCT/PIPE INSULATION - CHILLER        0.05      1     20       1      0      0      0      0      0
A   1170 DUCT/PIPE INSULATION - DX              0.05      1     20       1      0      0      0      0      0
A   1180 ENRG MGT SYSTEM - CHILLER                 0      1     15       1      0      0      0      0      0
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A    1190 ENRG MGT SYSTEM - DX                    0    1   15    1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0    1   15    1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0    1   15    1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0    1   20    1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0    1   20    1    0    0    0    0    0
#   End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                      EU                          SH
E       2 Duty Cycle-LF when Operating/Open EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                0.011     0.249 <==Cum Sat
E       5 Total GWh (G7*E4)                 EUGWH                         0.524898 11.88178 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    1521.443
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                 0.011     0.249 <==Cum Sat
E       8 Total MW-D Used by This End Use   EUMWD                         0.1441    3.2619 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel    E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    KWh    Gwh    1/Rf OF TOT   MWD
*
A    1510 RESISTANCE                      0.35    1     30      1  3418.974 0.412841   1  0.78652 0.113337
A    1520 HEAT PUMP                       0.2     1     15    2.5   1367.59 0.094364  0.4 0.17978 0.025906
A    1530 NATURAL GAS                     0.3     1     20     20 170.9487 0.017693 0.05 0.03371 0.004857
A    1540 OTHER OR NONE                   0.15    1     15  1E+77 3.42E-74 1.77E-78 1E-77 3.4E-78 4.86E-79
*         Summary Check                   1                 1.5E+76        0.524898 0.445    1   0.1441
*
#   End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                      EU                          BE
E       2 Duty Cycle-LF when Operating/Open EUOPLF                        1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                0     0.249 <==Cum Sat
E       5 Total Kwh (G7*E4)                 EUGWH                         0 11.88178 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                 0     0.249 <==Cum Sat
E       8 Total MW-D Used by This End Use   EUMWD                         0    3.2619 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel            Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    E/Cust  Gwh    1/Rf OF TOT   MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9    1     20      1      0      0      0      0      0
A    2020 ROOF INSULATION R >= 10.53       0.1    1     20      1      0      0      0      0      0
*         Summary Check                   1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26          1      0     20      1      0      0      0      0      0
A    2040 WALL INSULATION R=11.76          0      0     20      1      0      0      0      0      0
*         Summary Check                   1
*
A    2050 WINDOWS W/OUT FILM               0.6    1     10      1      0      0      0      0      0
A    2060 WINDOWS W/FILM                   0.4    1     10      1      0      0      0      0      0
*         Summary Check                   1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G   1      0     20      1      0      0      0      0      0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL   0      0     20      1      0      0      0      0      0
*         Summary Check                   1
*
A    2090 DARK ROOFS                       0.9    1     20      1      0      0      0      0      0
A    2100 LIGHT ROOFS                      0.1    1     20      1      0      0      0      0      0
*         Summary Check                   1
*
#   End of End Use

*
*          Next End Use = Ventilation
*
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COMMERCIAL MARKET SEGMENT "RESTAURANT/BAR"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.15	0.399	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				7.1577	19.03948	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				20746.96				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.15	0.399	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				1.965	5.2269	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.9	1	20	1	11855.4	3.681103	1	0.51429	1.010571
A	3020	VENTS IN DX UNITS	0.85	1	15	1	11855.4	3.476597	1	0.48571	0.954429
*		Summary Check						7.1577	1.75	1	1.965
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	20746.96	6.799815	1	0.95	1.86675
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	20746.96	0.357885	1	0.05	0.09825
*		Summary Check	1			1		7.1577	1	1	1.965
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0.8	1	20	1	10373.48	2.86308	1	0.4	0.786
A	3060	CHILLER W/ VAV	0.2	1	20	1	10373.48	0.71577	1	0.1	0.1965
A	3070	DX AC W/OUT VAV	0.9	1	15	1	10373.48	3.220965	1	0.45	0.88425
A	3080	DX AC W/ VAV	0.1	1	15	1	10373.48	0.357885	1	0.05	0.09825
*		Summary Check						7.1577	2	1	1.965
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0.95	1	20	1	10373.48	3.399908	1	0.475	0.933375
A	3100	CHILLER VAV SYSTEMS W/ ASD	0.05	1	15	1	10373.48	0.178943	1	0.025	0.049125
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	10373.48	3.399908	1	0.475	0.933375
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	10373.48	0.178943	1	0.025	0.049125
*		Summary Check	2			2		7.1577	2	1	1.965
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0.6	1	20	1	10373.48	2.14731	1	0.3	0.5895
A	3140	CHILLER VENT W/ TIMER	0.4	1	10	1	10373.48	1.43154	1	0.2	0.393
A	3150	DX VENT W/OUT TIMER	0.6	1	15	1	10373.48	2.14731	1	0.3	0.5895
A	3160	DX VENT W/ TIMER	0.4	1	20	1	10373.48	1.43154	1	0.2	0.393
*		Summary Check	2			2		7.1577	2	1	1.965
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0.95	1	20	1	10373.48	3.399908	1	0.475	0.933375
A	3180	CHILLER W/HI EFF MOTORS	0.05	1	20	1	10373.48	0.178943	1	0.025	0.049125
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	10373.48	3.399908	1	0.475	0.933375
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	10373.48	0.178943	1	0.025	0.049125
*		Summary Check	2			2		7.1577	2	1	1.965
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0.035	0	20	1	10373.48	0.12526	1	0.0175	0.034388
A	3220	EXH HD W/ MAKEUP - CHILLER	0.015	0	10	1	10373.48	0.053683	1	0.0075	0.014738
A	3230	NO EXH HOOD - CHILLER	0.95	0	10	1	10373.48	3.399908	1	0.475	0.933375
A	3240	EXH HD W/O MAKEUP - DX	0.35	0	15	1	10373.48	1.252598	1	0.175	0.343875
A	3250	EXH HD W/ MAKEUP - DX	0.15	0	10	1	10373.48	0.536828	1	0.075	0.147375
A	3260	NO EXH HOOD - DX	0.5	0	10	1	10373.48	1.789425	1	0.25	0.49125
*		Summary Check	2			0.65		7.1577	2	0	0
*											
#	End of End Use										
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.182	0.581	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				8.684676	27.72416	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				25172.97				

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.182	0.581	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				2.3842	7.6111	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0.002	1	15	0.28	60037.52	0.041467	3.57143	0.00477	0.011384
A	4020	INCANDESCENT	0.15415	1	15	0.24	70043.77	3.725151	4.16667	0.42893	1.022664
A	4030	FLUORESCENT	0.83183	1	15	1	16810.51	4.824312	1	0.5555	1.324416
A	4040	MERCURY VAPOR	0.00901	1	15	0.68	24721.33	0.076837	1.47059	0.00885	0.021094
A	4050	METAL HALIDE	0.003	1	15	1.03	16320.88	0.016909	0.97087	0.00195	0.004642
A	4060	HIGH PRESSURE SODIUM	0	1	15	1.09	15422.48	0	0.91743	0	0
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	10775.97	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	19102.85	0	1.13636	0	0
*		Summary Check	1			0.878609		8.684676	1.49745	1	2.3842
*											
A	4085	MERCURY VAPOR & HPS	0.00901	1	15	0.68	24721.33	0.076837	1.47059	0.00885	0.021094
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.753	1	11	1	31039.43	6.539561	1	0.92848	1.795303
A	4100	4'-34 W EE LAMPS	0.058	1	14	1	31039.43	0.503711	1	0.07152	0.138284
*		Summary Check	0.811			0.811		7.043272	0.811	1	1.933586
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	11	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	14	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	11	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	14	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.048	1	11	1	303288.8	0.416864	1	0.57831	0.114442
A	4140	8' - 60W EE LAMPS	0.035	1	14	1	303288.8	0.303964	1	0.42169	0.083447
*		Summary Check	0.083			0.083		0.720828	0.083	1	0.197889
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	11	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	14	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	11	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	14	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	11	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	11	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	11	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	11	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	14	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	14	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	14	1	2.5E+103	8.68E-99	1	1	2.38E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	14	1	2.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		8.68E-99	1E-99	1	2.38E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

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*
A   4270 REF/DE-L FL: 8'-60W, ELEC BAL #1     1E-99   1   14    1 2.5E+103 8.68E-99   1   1 2.38E-99
A   4280 REF/DE-L FL: 8'-60W, ELEC BAL #2         0   1   14    1 2.5E+103        0   1   0         0
*        Summary Check                        1E-99              1E-99        8.68E-99 1E-99   1 2.38E-99
*
* DIMMING BALLASTS
*
A   4290 4' - 34W FL/DIMMING BALLASTS #1      1E-99   1   14    1 2.5E+103 8.68E-99   1   1 2.38E-99
A   4300 4' - 34W FL/DIMMING BALLASTS #2          0   1   14    1 2.5E+103        0   1   0         0
*        Summary Check                        1E-99              1E-99        8.68E-99 1E-99   1 2.38E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A   4310 MERCURY VAPOR (100/175/250/400)     0.0085   1   13    1  2961526 0.07382   1   1 0.020266
A   4320 HPS (70/100/150/250W)                    0   1   13    1  2961526       0   1   0         0
A   4330 HPS (70/100/150/250W), ELEC BAL          0   1   13    1  2961526       0   1   0         0
*        Summary Check                      0.0085              0.0085        0.07382 0.0085   1 0.020266
*
A   4340 INCANDESCENT (150W)                  0.005   1    9    1  5034595 0.043423   1   1 0.011921
A   4350 HPS (35W)                                0   1    9    1  5034595       0   1   0         0
A   4360 METAL HALIDE (32W)                       0   1    9    1  5034595       0   1   0         0
*        Summary Check                       0.005               0.005        0.043423  0.005   1 0.011921
*
* COMPACT FLUORESCENT LAMPS
*
A   4370 INCANDESCENT (60/75/100W)           0.063   1    6    1   399571 0.547135   1   1 0.150205
A   4380 COMPACT FL (15/18/27W)                  0   1    6    1   399571       0   1   0         0
*        Summary Check                       0.063               0.063        0.547135  0.063   1 0.150205
*
A   4390 INCANDESCENT (150W)                 0.0144   1    6    1  1748123 0.125059   1   1 0.034332
A   4400 TWO COMPACT FL LAMPS (18W)               0   1    6    1  1748123       0   1   0         0
*        Summary Check                      0.0144               0.0144        0.125059 0.0144   1 0.034332
*
* OTHER LIGHTING MEASURES
*
A   4410 ENERGY MANAGEMENT SYSTEM             0.02   1   15    1 25172.97 0.173694   1 0.17369   0.41412
A   4420 OCCUPANCY SENSORS                       0   1   15    1 25172.97       0   1       0         0
A   4430 DAYLIGHTING DESIGN                       0   1   14    1 25172.97       0   1       0         0
A   4440 PHOTOELECTRIC CONTROL                 0.35   1   15    1 25172.97 3.039637   1 3.03964 7.247102
A   4450 LPS SECURITY LIGHTS                      0   1   15    1 25172.97       0   1       0         0

#   End of End Use

*
*        Next End Use = Refrigeration
*
E       1 End Use Code                       EU                          RF
E       2 Duty Cycle-LF when Operating/Open  EUOPLF                    0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF              0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR             0.184     0.765 <==Cum Sat
E       5 Total GWh (G7*E4)                  EUGWH                   8.780112  36.50427 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC               25449.6
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR              0.184     0.765 <==Cum Sat
E       8 Total MW-D Used by This End Use    EUMWD                   2.4104   10.0215 <==Cum Mw-D
*  APID APLAB                              APSAT APAVF APLIFE  APRE  APEPC APGWH APOOR  APEFR  APMWD
*    Ap                                      Mkt   Avl   Avg   Rel  E/Cust Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                          Sat   Fac  Life   Eff    Kwh   Gwh  1/Rf OF TOT    MWD
*
A   5010 CONVENTIONAL REFRIGERATION            1     1    10     1  25449.6 8.780112   1     1  2.4104
A   5020 HE REFRIGERATION                       0     1    10   1.3 19576.62     0 0.76923     0       0
*        Summary Check                         1                 1          8.780112   1     1  2.4104
*
A   5030 MULTIPLEX:  AIR COOL                  0     1    10     1     0       0   0     0       0
A   5040 MULTIPLEX:  AIR COOL/ AMB SUBC        0     1    10     1     0       0   0     0       0
A   5050 MULTIPLEX:  AIR COOL/ MECH SUBC       0     1    10     1     0       0   0     0       0
A   5060 MULTIPLEX:  AIR COOL/AMB&MECH S       0     1    10     1     0       0   0     0       0
A   5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT     0     1    10     1     0       0   0     0       0
A   5080 OPEN DRIVE REFRIG (ASD)               0     1    10     1     0       0   0     0       0
A   5090 ANTI-CONDENS HEAT CONTROL            0.3     1    10     1     0       0   0     0       0
A   5100 HI R-VALUE GLASS DOORS                0.7     1    10     1     0       0   0     0       0
A   5110 ENERGY MANAGEMENT SYSTEM               0     1    10     1     0       0   0     0       0
A   5120 DUAL PATH SUPERMARKET AC               0     1    10     1     0       0   0     0       0
*
#   End of End Use

*
```

COMMERCIAL MARKET SEGMENT "RESTAURANT/BAR"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                          WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0.084     0.849 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                     4.008312  40.51258 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   11618.3
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.084     0.849 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                       1.1004   11.1219 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE    APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg     Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life     Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  6010 RESISTANCE                       0.25      1     10       1 46473.18 4.008312     1      1 1.1004
A  6020 HEAT RECOVERY                       0      1     10     100 464.7318       0  0.01      0      0
A  6030 SOLAR                               0      1     20       3 15491.06       0 0.33333      0      0
A  6040 NATURAL GAS                      0.75      1     10   1E+77 4.65E-73  1.2E-76  1E-77  3E-77 3.3E-77
*          Summary Check                    1                7.5E+76          4.008312  0.25      1 1.1004
*
A  6050 HIGH INSULATION LEVEL            0.2       1     10       1       0       0     0      0      0
A  6060 HEAT TRAP                       0.15       1     10       1       0       0     0      0      0
A  6070 LOW-FLOW SHOWERHEAD              0.1       1     10       1       0       0     0      0      0
A  6080 TIMER ON RECIRCULATION PUMP      0.6       1     10       1       0       0     0      0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                          CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0.139     0.988 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                     6.632802  47.14538 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   19225.51
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.139     0.988 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                       1.8209   12.9428 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %     Adj
*                                            eff   Use      RE
*          Conventional electric               1     0.1     10
*          Convection Oven                 1.154       0   1E+77
*          Conventional Gas                1E+77       0   1E+77
*          Microwave                           4     0.9 4.444444
*          Standard Efficiency Fryers          1       0   1E+77
*          High Efficiency Fryers            1.1       0   1E+77
*          Natural Gas Fryers              1E+77       0   1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE    APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg     Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life     Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC            0.175      1     10      10 48063.78 2.901851   0.1 0.4375 0.796644
A  7020 CONVECTION OVEN                  0.025      1     10   1E+77 4.81E-72 4.15E-77  1E-77 6.3E-78 1.14E-77
A  7030 CONVENTIONAL GAS                   0.8      1     15   1E+77 4.81E-72 1.33E-75  1E-77  2E-76 3.64E-76
A  7040 MICROWAVE                          0.1      1     15 4.444444 108143.5 3.730951 0.225 0.5625 1.024256
A  7050 STD EFFICIENCY FRYERS             0.15      1     15   1E+77 4.81E-72 2.49E-76  1E-77 3.8E-77 6.83E-77
A  7060 HE FRYERS                         0.05      1     20   1E+77 4.81E-72 8.29E-77  1E-77 1.3E-77 2.28E-77
A  7070 NATURAL GAS FRYERS                 0.7      1     10   1E+77 4.81E-72 1.16E-75  1E-77 1.8E-76 3.19E-76
*          Summary Check                    2                1.73E+77          6.632802  0.04      1 1.8209
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "RETAIL OUTLET"

```
*          W:\U1500\DSM94\CMSOLDRO.WQ1        <= SOURCE SPREADSHEET
*   DATE:  11/30/94
*   MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*    TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*   1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*   Column numbers                                                  1        1        1        1
*       1     2     3     4     5     6     7     8     9     0     1     2     3
*   345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*   SAS variable names
*   APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15  1E+77  12345.6 123.456 0.12345 0.12345 123.456
*   B     B                                      B       B       B       B       B       B       B       B       B
*       E                                    E       E       E       E       E       E       E       E       E       E
*   APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*      Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E           E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
*
G       1 OLD=Existing, or NEW                    MSYTPE                          OLD
G       2 Market Segment                          MS                              RO
G       3 Number of Customers                     MSNCUS                            1089
G       4 Total Sq Foot                           MSFT2                           6139862
G       5 Sq Foot/Cust                            FT2PC                           5638.073
G       6 Hrs open On-Pk Summer                   HOONSUM                            750
G       7 Hrs open Off-Pk Summer                  HOOFSUM                           2002
G       8 Hrs open On-Pk Winter                   HOONWIN                            210          Cum Sat/Cum GWh
G       9 Hrs open Off-Pk Winter                  HOOFWIN                            147             0.96
G      10 Total Gwh                               MSGWH                           92.708          88.9997
G      11 Natural Gas Availability factor         NG_AF                             0.5
G      12 Solar Availability factor               SOL_AF                            0.6
G      13 Three Phase Power Avail. Factor         TPP_AF                            0.3
G      14 Tons per 1000 sq foot                   MSTTPFT2                          1.1          Cum Sat/Cum MW-D
G      15 Window to floor ratio                   WINFLOOR                         0.25             0.96
G      16 System Coincident MWD                   MSMWD                           29.62          28.4352
*
*          First End Use = Space Conditioning
*
E       1 End Use Code                            EU                              SC
E       2 Duty Cycle-LF when Operating/Open       EUOPLF                            0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.5
E       4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                          0.26      0.26 <==Cum Sat
E       5 Total GWh (G7*E4)                       EUGWH                          24.10408  24.10408 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                        22134.14
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                          0.26      0.26 <==Cum Sat
E       8 Total MW-D Used by This End Use         EUMWD                           7.7012    7.7012 <==Cum Mw-D
*   APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*      Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E           E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf OF TOT.     MWD
*
A    1010 LE RECIP CHILLER                        0.09       1      20    1.57  14647.58 1.435609 0.63694 0.05956 0.458674
A    1012 HE SCREW CHILLER                        0.01       1      20    1.86  12363.81 0.134642 0.53763 0.00559 0.043018
A    1015 LE CENT CHILLER                            0       1      20    1.96  11733.01       0  0.5102       0       0
A    1020 HE CENT CHILLER                            0       1      20    2.26  10175.53       0 0.44248       0       0
A    1040 HE CENT CHILLER W/ASD                      0       1      20    2.74  8392.954       0 0.36496       0       0
A    1050 LE DX AC                              0.7125       1      15       1  22996.69 17.84342       1 0.74027 5.700934
A    1060 HE DX AC                              0.0375       1      15    1.13  20351.06 0.831086 0.88496 0.03448 0.26553
A    1065 LE ROOM AC                             0.135       1      10    0.95  24207.05 3.558799 1.05263 0.14764 1.137028
A    1070 HE ROOM AC                             0.015       1      10    1.25  18397.36 0.300521     0.8 0.01247 0.096016
A    1075 INTERNAL COMBUSTION AC                     0       1      15  1E+77   2.3E-73       0   1E-77       0       0
A    1080 OTHER FUEL OR NONE                         0       1       0  1E+77   2.3E-73       0   1E-77       0       0
*         Summary Check                              1                1.06178           24.10408 0.96249       1  7.7012

A    1090 THERMAL STORAGE                        0.05       1      15       1       0       0       0       0       0
A    1100 HEAT PIPE ENHANCED DX                     0       1      15       1       0       0       0       0       0
A    1110 HOTEL OCCUPANCY SENSORS                   0       1      10       1       0       0       0       0       0
A    1120 2-SPEED MOTOR - COOLING TOWER           0.2       1      10       1       0       0       0       0       0
A    1130 SPEED CONTROL - COOLING TOWER           0.2       1      10       1       0       0       0       0       0
A    1140 AC MAINTENANCE - CHILLER                0.4       1      20       1       0       0       0       0       0
A    1150 AC MAINTENANCE - DX                     0.1       1      15       1       0       0       0       0       0
A    1160 DUCT/PIPE INSULATION - CHILLER         0.05       1      20       1       0       0       0       0       0
A    1170 DUCT/PIPE INSULATION - DX              0.05       1      20       1       0       0       0       0       0
A    1180 ENRG MGT SYSTEM - CHILLER               0.2       1      15       1       0       0       0       0       0
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A    1190 ENRG MGT SYSTEM - DX                0.1    1    15    1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER        0.3    1    15    1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX             0.1    1    15    1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                   0      1    20    1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                     0      1    20    1    0    0    0    0    0
#   End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                        EU                          SH
E       2 Duty Cycle-LF when Operating/Open   EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                   0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.01      0.27 <==Cum Sat
E       5 Total GWh (G7*E4)                   EUGWH                       0.92708  25.03116 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    851.3131
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.01      0.27 <==Cum Sat
E       8 Total MW-D Used by This End Use     EUMWD                       0.2962    7.9974 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC   APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel   E/Cust   Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff    KWh     Gwh    1/Rf  OF TOT   MWD
*
A    1510 RESISTANCE                      0.7    1     30     1    1060.826 0.808668  1     0.87227 0.258368
A    1520 HEAT PUMP                       0.25   1     15     2.5  424.3305 0.115524  0.4   0.12461 0.03691
A    1530 NATURAL GAS                     0.05   1     20     20   53.04132 0.002888  0.05  0.00312 0.000923
A    1540 OTHER OR NONE                   0      1     15     1E+77 1.06E-74 0       1E-77 0       0
*         Summary Check                   1.00                 2.325          0.92708  0.8025  1     0.2962
*
#   End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                        EU                          BE
E       2 Duty Cycle-LF when Operating/Open   EUOPLF                        1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                   1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0      0.27 <==Cum Sat
E       5 Total Kwh (G7*E4)                   EUGWH                        0  25.03116 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                       0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0      0.27 <==Cum Sat
E       8 Total MW-D Used by This End Use     EUMWD                        0    7.9974 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC   APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel           Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff   E/Cust   Gwh    1/Rf  OF TOT   MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9    1     20     1    0       0      0     0       0
A    2020 ROOF INSULATION R >= 10.53       0.1    1     20     1    0       0      0     0       0
*         Summary Check                   1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26          1      0     20     1    0       0      0     0       0
A    2040 WALL INSULATION R=11.76          0      0     20     1    0       0      0     0       0
*         Summary Check                   1
*
A    2050 WINDOWS W/OUT FILM               0.6    1     10     1    0       0      0     0       0
A    2060 WINDOWS W/FILM                   0.4    1     10     1    0       0      0     0       0
*         Summary Check                   1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G   1      0     20     1    0       0      0     0       0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL   0      0     20     1    0       0      0     0       0
*         Summary Check                   1
*
A    2090 DARK ROOFS                       0.9    1     20     1    0       0      0     0       0
A    2100 LIGHT ROOFS                      0.1    1     20     1    0       0      0     0       0
*         Summary Check                   1
*
#   End of End Use

*
*          Next End Use = Ventilation
*
```

COMMERCIAL MARKET SEGMENT "RETAIL OUTLET"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.15	0.42	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				13.9062	38.93736	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				12769.7				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.15	0.42	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				4.443	12.4404	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.75	1	20	1	9459.035	7.725667	1	0.55556	2.468333
A	3020	VENTS IN DX UNITS	0.6	1	15	1	9459.035	6.180533	1	0.44444	1.974667
*		Summary Check						13.9062	1.35	1	4.443
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	12769.7	13.21089	1	0.95	4.22085
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	12769.7	0.69531	1	0.05	0.22215
*		Summary Check	1			1		13.9062	1	1	4.443
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0.8	1	20	1	6384.848	5.56248	1	0.4	1.7772
A	3060	CHILLER W/ VAV	0.2	1	20	1	6384.848	1.39062	1	0.1	0.4443
A	3070	DX AC W/OUT VAV	0.9	1	15	1	6384.848	6.25779	1	0.45	1.99935
A	3080	DX AC W/ VAV	0.1	1	15	1	6384.848	0.69531	1	0.05	0.22215
*		Summary Check	2			2		13.9062	2	1	4.443
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0.95	1	20	1	6384.848	6.605445	1	0.475	2.110425
A	3100	CHILLER VAV SYSTEMS W/ ASD	0.05	1	15	1	6384.848	0.347655	1	0.025	0.111075
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	6384.848	6.605445	1	0.475	2.110425
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	6384.848	0.347655	1	0.025	0.111075
*		Summary Check	2			2		13.9062	2	1	4.443
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0.6	1	20	1	6384.848	4.17186	1	0.3	1.3329
A	3140	CHILLER VENT W/ TIMER	0.4	1	10	1	6384.848	2.78124	1	0.2	0.8886
A	3150	DX VENT W/OUT TIMER	0.6	1	15	1	6384.848	4.17186	1	0.3	1.3329
A	3160	DX VENT W/ TIMER	0.4	1	20	1	6384.848	2.78124	1	0.2	0.8886
*		Summary Check	2			2		13.9062	2	1	4.443
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0.95	1	20	1	6384.848	6.605445	1	0.475	2.110425
A	3180	CHILLER W/HI EFF MOTORS	0.05	1	20	1	6384.848	0.347655	1	0.025	0.111075
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	6384.848	6.605445	1	0.475	2.110425
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	6384.848	0.347655	1	0.025	0.111075
*		Summary Check	2			2		13.9062	2	1	4.443
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0	0	10	1	1.3E+103	0	1	0	0
A	3220	EXH HD W/ MAKEUP - CHILLER	0	0	10	1	1.3E+103	0	1	0	0
A	3230	NO EXH HOOD - CHILLER	1E-99	0	10	1	1.3E+103	13.9062	1	1	4.443
A	3240	EXH HD W/O MAKEUP - DX	0	0	10	1	1.3E+103	0	1	0	0
A	3250	EXH HD W/ MAKEUP - DX	0	0	10	1	1.3E+103	0	1	0	0
A	3260	NO EXH HOOD - DX	0	0	10	1	1.3E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		13.9062	1E-99	0	0
*											
# End of End Use											
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.47	0.89	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				43.57276	82.51012	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				40011.72				

COMMERCIAL MARKET SEGMENT "RETAIL OUTLET"

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.47	0.89	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				13.9214	26.3618	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0.003	1	15	0.28	119591.3	0.390705	3.57143	0.00897	0.124829
A	4020	INCANDESCENT	0.056	1	15	0.24	139523.1	8.508679	4.16667	0.19528	2.718504
A	4030	FLUORESCENT	0.908	1	15	1	33485.55	33.11092	1	0.7599	10.57886
A	4040	MERCURY VAPOR	0.024	1	15	0.68	49243.46	1.287027	1.47059	0.02954	0.411202
A	4050	METAL HALIDE	0.004	1	15	1.03	32510.24	0.141615	0.97087	0.00325	0.045246
A	4060	HIGH PRESSURE SODIUM	0.004	1	15	1.09	30720.69	0.133819	0.91743	0.00307	0.042755
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	21465.1	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	38051.76	0	1.13636	0	0
*		Summary Check	0.999			0.94708		43.57276	1.19489	1	13.9214
*											
A	4085	MERCURY VAPOR & HPS	0.028	1	15	0.73857	45338.27	1.382455	1.35397	0.03173	0.441691
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.35	1	14	1	70817.2	15.25047	1	0.61947	4.87249
A	4100	4'-34 W EE LAMPS	0.215	1	14	1	70817.2	9.368143	1	0.38053	2.993101
*		Summary Check	0.565			0.565		24.61861	0.565	1	7.865591
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	4E+103	4.36E-98	1	1	1.39E-98
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	4E+103	4.36E-98	1	1	1.39E-98
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.272	1	13	1	105851.1	11.85179	1	0.71958	3.786621
A	4140	8' - 60W EE LAMPS	0.106	1	15	1	105851.1	4.618713	1	0.28042	1.475668
*		Summary Check	0.378			0.378		16.4705	0.378	1	5.262289
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	13	1	4E+103	4.36E-98	1	1	1.39E-98
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	4E+103	4.36E-98	1	1	1.39E-98
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	13	1	4E+103	4.36E-98	1	1	1.39E-98
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	13	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	13	1	4E+103	4.36E-98	1	1	1.39E-98
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	13	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	4E+103	4.36E-98	1	1	1.39E-98
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	4E+103	4.36E-98	1	1	1.39E-98
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	4E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		4.36E-98	1E-99	1	1.39E-98
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

```
*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1     1E-99    1    15    1   4E+103  4.36E-98    1    1  1.39E-98
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2         0    1    15    1   4E+103         0    1    0         0
*         Summary Check                        1E-99              1E-99          4.36E-98  1E-99    1  1.39E-98
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1      1E-99    1    15    1   4E+103  4.36E-98    1    1  1.39E-98
A    4300 4' - 34W FL/DIMMING BALLASTS #2          0    1    15    1   4E+103         0    1    0         0
*         Summary Check                        1E-99              1E-99          4.36E-98  1E-99    1  1.39E-98
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)     0.0238    1    15    1  1681165  1.037032    1    1  0.331329
A    4320 HPS (70/100/150/250W)                    0    1    15    1  1681165         0    1    0         0
A    4330 HPS (70/100/150/250W), ELEC BAL          0    1    15    1  1681165         0    1    0         0
*         Summary Check                       0.0238             0.0238          1.037032 0.0238    1  0.331329
*
A    4340 INCANDESCENT (150W)                 0.0024    1    10    1 1.67E+07  0.104575    1    1  0.033411
A    4350 HPS (35W)                                0    1    10    1 1.67E+07         0    1    0         0
A    4360 METAL HALIDE (32W)                       0    1    10    1 1.67E+07         0    1    0         0
*         Summary Check                       0.0024             0.0024          0.104575 0.0024    1  0.033411
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)           0.0228    1     7    1  1754900  0.993459    1    1  0.317408
A    4380 COMPACT FL (15/18/27W)                   0    1     7    1  1754900         0    1    0         0
*         Summary Check                       0.0228             0.0228          0.993459 0.0228    1  0.317408
*
A    4390 INCANDESCENT (150W)                 0.0052    1     7    1  7694561  0.226578    1    1  0.072391
A    4400 TWO COMPACT FL LAMPS (18W)               0    1     7    1  7694561         0    1    0         0
*         Summary Check                       0.0052             0.0052          0.226578 0.0052    1  0.072391
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM             0.02    1    15    1 40011.72  0.871455    1  0.87146  12.13188
A    4420 OCCUPANCY SENSORS                        0    1    15    1 40011.72         0    1        0         0
A    4430 DAYLIGHTING DESIGN                       0    1    15    1 40011.72         0    1        0         0
A    4440 PHOTOELECTRIC CONTROL                0.35    1    15    1 40011.72  15.25047    1  15.2505  212.3078
A    4450 LPS SECURITY LIGHTS                      0    1    15    1 40011.72         0    1        0         0
*
#   End of End Use

*
*         Next End Use = Refrigeration
*
E       1 End Use Code                       EU                          RF
E       2 Duty Cycle-LF when Operating/Open  EUOPLF                    0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF              0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR             0.015     0.905 <==Cum Sat
E       5 Total GWh (G7*E4)                  EUGWH                   1.39062  83.90074 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC               1276.97
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR              0.015     0.905 <==Cum Sat
E       8 Total MW-D Used by This End Use    EUMWD                   0.4443   26.8061 <==Cum Mw-D
*  APID  APLAB                            APSAT  APAVF  APLIFE  APRE  APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                     Mkt    Avl    Avg   Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                         Sat    Fac   Life   Eff    Kwh    Gwh   1/Rf OF TOT   MWD
*
A    5010 CONVENTIONAL REFRIGERATION         0.8    1    10    1  1338.759 1.166326    1 0.83871 0.372639
A    5020 HE REFRIGERATION                   0.2    1    10  1.3  1029.814 0.224294 0.76923 0.16129 0.071661
*         Summary Check                        1              1.06          1.39062 0.95385    1  0 4443
*
A    5030 MULTIPLEX:  AIR COOL                0    1    10    1        0        0    0    0        0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC      0    1    10    1        0        0    0    0        0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC     0    1    10    1        0        0    0    0        0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S     0    1    10    1        0        0    0    0        0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT   0    1    10    1        0        0    0    0        0
A    5080 OPEN DRIVE REFRIG (ASD)             0    1    10    1        0        0    0    0        0
A    5090 ANTI-CONDENS HEAT CONTROL         0.3    1    10    1        0        0    0    0        0
A    5100 HI R-VALUE GLASS DOORS            0.7    1    10    1        0        0    0    0        0
A    5110 ENERGY MANAGEMENT SYSTEM            0    1    10    1        0        0    0    0        0
A    5120 DUAL PATH SUPERMARKET AC            0    1    10    1        0        0    0    0        0
*
#   End of End Use

*
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COMMERCIAL MARKET SEGMENT "RETAIL OUTLET"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                                WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.04     0.945 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                            3.70832  87.60906 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                         3405.253
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.04     0.945 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                            1.1848  27.9909 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                       Mkt   Avl    Avg     Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                           Sat   Fac   Life     Eff    Kwh    Gwh    1/Rf  OF TOT   MWD
*
A  6010 RESISTANCE                           0.95     1     10      1 3584.476 3.70832      1       1  1.1848
A  6020 HEAT RECOVERY                           0     1     10    100 35.84476      0   0.01       0       0
A  6030 SOLAR                                   0     1     10      3 1194.825      0 0.33333       0       0
A  6040 NATURAL GAS                          0.05     1     10   1E+77 3.58E-74 1.95E-78   1E-77 5.3E-79 6.24E-79
*          Summary Check                        1                5E+75          3.70832   0.95       1  1.1848
*
A  6050 HIGH INSULATION LEVEL                 0.2     1     10      1      0      0      0       0       0
A  6060 HEAT TRAP                            0.15     1     10      1      0      0      0       0       0
A  6070 LOW-FLOW SHOWERHEAD                   0.1     1     10      1      0      0      0       0       0
A  6080 TIMER ON RECIRCULATION PUMP           0.6     1     10      1      0      0      0       0       0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                                CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                            0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.015     0.96 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                            1.39062  88.99968 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                         1276.97
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.015     0.96 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                            0.4443  28.4352 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                                 Rel     %     Adj
*                                                 eff   Use      RE
*          Conventional electric                    1   0.1      10
*          Convection Oven                      1.154     0   1E+77
*          Conventional Gas                     1E+77     0   1E+77
*          Microwave                                4   0.9 4.44444
*          Standard Efficiency Fryers               1     0   1E+77
*          High Efficiency Fryers                 1.1     0   1E+77
*          Natural Gas Fryers                   1E+77     0   1E+77
*
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                       Mkt   Avl    Avg     Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                           Sat   Fac   Life     Eff    Kwh    Gwh    1/Rf  OF TOT   MWD
*
A  7010 CONVENTIONAL ELECTRIC                0.25     1     15     10 659.0811 0.179435     0.1 0.12903 0.057329
A  7020 CONVECTION OVEN                         0     1     15   1E+77 6.59E-74      0   1E-77       0       0
A  7030 CONVENTIONAL GAS                        0     1     15   1E+77 6.59E-74      0   1E-77       0       0
A  7040 MICROWAVE                            0.75     1     15 4.44444 1482.933 1.211185   0.225 0.87097 0.386971
A  7050 STD EFFICIENCY FRYERS                   0     1     15   1E+77 6.59E-74      0   1E-77       0       0
A  7060 HE FRYERS                               0     1     20   1E+77 6.59E-74      0   1E-77       0       0
A  7070 NATURAL GAS FRYERS                      0     1     10   1E+77 6.59E-74      0   1E-77       0       0
*          Summary Check                        1                5.83333          1.39062 0.19375       1  0.4443
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "SUPERMARKET/GROCERY"

```
*          W:\U1500\DSM94\CMSOLDSG.WQ1        <= SOURCE SPREADSHEET
*   DATE:  11/30/94
*   MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                              -----
*    TO Save, print, print to file, or look, type:   Alt-D
*                                              -----
*
*
*   1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*   Column numbers                                                  1        1        1        1
*       1 .   2     3     4     5     6     7     8     9     0     1     2     3
*   345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*   SAS variable names
*   APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*   B     B                                      B       B       B       B       B       B       B       B       B
*       E                                    E       E       E       E       E       E       E       E       E       E
*   APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*      Ap                                          Mkt    Avl    Avg    Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat    Fac   Life    Eff    KWh    Gwh    1/Rf  OF TOT.    MWD
*
G       1 OLD=Existing, or NEW                    MSYTPE                        OLD
G       2 Market Segment                          MS                            SG
G       3 Number of Customers                     MSNCUS                          103
G       4 Total Sq Foot                           MSFT2                        850933
G       5 Sq Foot/Cust                            FT2PC                       8261.485
G       6 Hrs open On-Pk Summer                   HOONSUM      MAX = 1694        1694
G       7 Hrs open Off-Pk Summer                  HOOFSUM      MAX = 2002        2002
G       8 Hrs open On-Pk Winter                   HOONWIN      MAX = 210          210          Cum Sat/Cum GWh
G       9 Hrs open Off-Pk Winter                  HOOFWIN      MAX = 4860        4860            0.9275
G      10 Total Gwh                               MSGWH                        54.404           50.4597
G      11 Natural Gas Availability factor         NG_AF                         0.75
G      12 Solar Availability factor               SOL_AF                         0.9
G      13 Three Phase Power Avail. Factor         TPP_AF                           1
G      14 Tons per 1000 sq foot                   MSTTPFT2                         2          Cum Sat/Cum MW-D
G      15 Window to floor ratio                   WINFLOOR                      0.05            0.9275
G      16 System Coincident MWD                   MSMWD                         7.98           7.40145
*
*          First End Use = Space Conditioning
*
E       1 End Use Code                            EU                            SC
E       2 Duty Cycle-LF when Operating/Open       EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                       0.1
E       4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                       0.15      0.15 <==Cum Sat
E       5 Total GWh (G7*E4)                       EUGWH                       8.1606    8.1606 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                    79229.13
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                       0.15      0.15 <==Cum Sat
E       8 Total MW-D Used by This End Use         EUMWD                       1.197     1.197 <==Cum Mw-D
*   APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*      Ap                                          Mkt    Avl    Avg    Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat    Fac   Life    Eff    KWh    Gwh    1/Rf  OF TOT.    MWD
*
A    1010 LE RECIP CHILLER                        0.045      1     20   1.57  51536.47 0.238872 0.63694 0.02927 0.035038
A    1012 HE SCREW CHILLER                        0.005      1     20   1.86  43501.21 0.022403 0.53763 0.00275 0.003286
A    1015 LE CENT CHILLER                             0      1     20   1.96  41281.76      0  0.5102      0       0
A    1020 HE CENT CHILLER                             0      1     20   2.26  35801.88      0 0.44248      0       0
A    1040 HE CENT CHILLER W/ASD                       0      1     20   2.74  29530.02      0 0.36496      0       0
A    1050 LE DX AC                               0.8075      1     15      1  80912.26 6.729675      1 0.82465 0.987111
A    1060 HE DX AC                               0.0425      1     15   1.13  71603.77 0.313445 0.88496 0.03841 0.045976
A    1065 LE ROOM AC                               0.09      1     10   0.95   85170.8 0.789533 1.05263 0.09675 0.115809
A    1070 HE ROOM AC                               0.01      1     10   1.25  64729.81 0.066672    0.8 0.00817 0.009779
A    1075 INTERNAL COMBUSTION AC                      0      1     15  1E+77  8.09E-73      0   1E-77      0       0
A    1080 OTHER FUEL OR NONE                          0      1      0  1E+77  8.09E-73      0   1E-77      0       0
*         Summary Check                               1                1.03348            8.1606  0.9792      1   1.197

A    1090 THERMAL STORAGE                         0.05      1     15      1       0      0      0      0       0
A    1100 HEAT PIPE ENHANCED DX                       0      1     15      1       0      0      0      0       0
A    1110 HOTEL OCCUPANCY SENSORS                     0      0      0      1       0      0      0      0       0
A    1120 2-SPEED MOTOR - COOLING TOWER            0.2      1     10      1       0      0      0      0       0
A    1130 SPEED CONTROL - COOLING TOWER            0.2      1     10      1       0      0      0      0       0
A    1140 AC MAINTENANCE - CHILLER                 0.4      1     20      1       0      0      0      0       0
A    1150 AC MAINTENANCE - DX                      0.1      1     15      1       0      0      0      0       0
A    1160 DUCT/PIPE INSULATION - CHILLER          0.05      1     20      1       0      0      0      0       0
A    1170 DUCT/PIPE INSULATION - DX               0.05      1     20      1       0      0      0      0       0
A    1180 ENRG MGT SYSTEM - CHILLER                   0      0      0      1       0      0      0      0       0
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A    1190 ENRG MGT SYSTEM - DX                    0    0    0    1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0    0    0    1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0    0    0    1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0    1   20    1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0    1   20    1    0    0    0    0    0
#  End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                          EU                          SH
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0      0.15 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                         0    8.1606 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                       0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0      0.15 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                         0     1.197 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE  APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff   KWh     Gwh    1/Rf  OF TOT   MWD
*
A    1510 RESISTANCE                      0.45    0     30     1     0      0      1      0      0
A    1520 HEAT PUMP                       0.25    0     15   2.5     0      0    0.4      0      0
A    1530 NATURAL GAS                      0.1    0     20    20     0      0   0.05      0      0
A    1540 OTHER OR NONE                    0.2    0     15 1E+77     0      0  1E-77      0      0
*         Summary Check                     1                2E+76          1E-99  0.555      0      0
*
#  End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                          EU                          BE
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0      0.15 <==Cum Sat
E       5 Total Kwh (G7*E4)                     EUGWH                         0    8.1606 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                       0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0      0.15 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                         0     1.197 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE  APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel          Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff   E/Cust  Gwh    1/Rf  OF TOT   MWD
*
A    2010 ROOF  INSULATION   R < 10.53      0.9    1     20     1     0      0      0      0      0
A    2020 ROOF INSULATION R >= 10.53       0.1    1     20     1     0      0      0      0      0
*         Summary Check                     1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26           1    0     20     1     0      0      0      0      0
A    2040 WALL INSULATION R=11.76           0    0     20     1     0      0      0      0      0
*         Summary Check                     1
*
A    2050 WINDOWS W/OUT FILM               0.6    1     20     1     0      0      0      0      0
A    2060 WINDOWS W/FILM                   0.4    1     10     1     0      0      0      0      0
*         Summary Check                     1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G    1    0     20     1     0      0      0      0      0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL    0    0     20     1     0      0      0      0      0
*         Summary Check                     1
*
A    2090 DARK ROOFS                       0.9    1     20     1     0      0      0      0      0
A    2100 LIGHT ROOFS                      0.1    1     20     1     0      0      0      0      0
*         Summary Check                     1
*
#  End of End Use

*
*          Next End Use = Ventilation
*
```

COMMERCIAL MARKET SEGMENT "SUPERMARKET/GROCERY"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.15	0.3	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				8.1606	16.3212	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				79229.13				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.15	0.3	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				1.197	2.394	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.8	1	20	1	52819.42	4.35232	1	0.53333	0.6384
A	3020	VENTS IN DX UNITS	0.7	1	15	1	52819.42	3.80828	1	0.46667	0.5586
*		Summary Check						8.1606	1.5	1	1.197
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	79229.13	7.75257	1	0.95	1.13715
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	79229.13	0.40803	1	0.05	0.05985
*		Summary Check	1			1		8.1606	1	1	1.197
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0.8	1	20	1	39614.56	3.26424	1	0.4	0.4788
A	3060	CHILLER W/ VAV	0.2	1	20	1	39614.56	0.81606	1	0.1	0.1197
A	3070	DX AC W/OUT VAV	0.9	1	15	1	39614.56	3.67227	1	0.45	0.53865
A	3080	DX AC W/ VAV	0.1	1	15	1	39614.56	0.40803	1	0.05	0.05985
*		Summary Check	2			2		8.1606	2	1	1.197
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0.95	1	15	1	39614.56	3.876285	1	0.475	0.568575
A	3100	CHILLER VAV SYSTEMS W/ ASD	0.05	1	15	1	39614.56	0.204015	1	0.025	0.029925
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	39614.56	3.876285	1	0.475	0.568575
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	39614.56	0.204015	1	0.025	0.029925
*		Summary Check	2			2		8.1606	2	1	1.197
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0.6	1	10	1	39614.56	2.44818	1	0.3	0.3591
A	3140	CHILLER VENT W/ TIMER	0.4	1	10	1	39614.56	1.63212	1	0.2	0.2394
A	3150	DX VENT W/OUT TIMER	0.6	1	20	1	39614.56	2.44818	1	0.3	0.3591
A	3160	DX VENT W/ TIMER	0.4	1	20	1	39614.56	1.63212	1	0.2	0.2394
*		Summary Check	2			2		8.1606	2	1	1.197
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0.95	1	20	1	39614.56	3.876285	1	0.475	0.568575
A	3180	CHILLER W/HI EFF MOTORS	0.05	1	20	1	39614.56	0.204015	1	0.025	0.029925
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	39614.56	3.876285	1	0.475	0.568575
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	39614.56	0.204015	1	0.025	0.029925
*		Summary Check	2			2		8.1606	2	1	1.197
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0	0	10	1	7.9E+103	0	1	0	0
A	3220	EXH HD W/ MAKEUP - CHILLER	0	0	10	1	7.9E+103	0	1	0	0
A	3230	NO EXH HOOD - CHILLER	1E-99	0	10	1	7.9E+103	8.1606	1	1	1.197
A	3240	EXH HD W/O MAKEUP - DX	0	0	10	1	7.9E+103	0	1	0	0
A	3250	EXH HD W/ MAKEUP - DX	0	0	10	1	7.9E+103	0	1	0	0
A	3260	NO EXH HOOD - DX	0	0	10	1	7.9E+103	0	1	0	0
*		Summary Check	0			0		8.1606	1E-99	0	0
*											
#	End of End Use										
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.17	0.47	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				9.24868	25.56988	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				89793.01				

COMMERCIAL MARKET SEGMENT "SUPERMARKET/GROCERY"

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.17	0.47	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				1.3566	3.7506	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0.002	1	15	0.28	306713.1	0.063183	3.57143	0.00683	0.009268
A	4020	INCANDESCENT	0.011	1	15	0.24	357832	0.405424	4.16667	0.04384	0.059468
A	4030	FLUORESCENT	0.917	1	15	1	85879.68	8.111422	1	0.87704	1.189736
A	4040	MERCURY VAPOR	0.016	1	15	0.68	126293.6	0.208132	1.47059	0.0225	0.030529
A	4050	METAL HALIDE	0.03	1	15	1.03	83378.33	0.257639	0.97087	0.02786	0.037791
A	4060	HIGH PRESSURE SODIUM	0.025	1	15	1.09	78788.7	0.202881	0.91743	0.02194	0.029759
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	55051.08	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	97590.54	0	1.13636	0	0
*		Summary Check	1.001			0.98923		9.24868	1.04557	1	1.3566
*											
A	4085	MERCURY VAPOR & HPS	0.041	1	15	0.93	92343.74	0.389968	1.07527	0.04216	0.057201
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.306	1	14	1	286878.6	2.830096	1	0.97764	0.41512
A	4100	4'-34 W EE LAMPS	0.007	1	14	1	286878.6	0.064741	1	0.02236	0.009496
*		Summary Check	0.313			0.313		2.894837	0.313	1	0.424616
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	9	1	9E+103	9.25E-99	1	1	1.36E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	9	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	9	1	9E+103	9.25E-99	1	1	1.36E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	9	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.4528	1	7	1	198306.1	4.187802	1	1	0.614268
A	4140	8' - 60W EE LAMPS	0	1	9	1	198306.1	0	1	0	0
*		Summary Check	0.4528			0.4528		4.187802	0.4528	1	0.614268
*											
A	4150	8' - 60W FL W/ELEC BAL #1	0.1505	1	7	1	596631.3	1.391926	1	1	0.204168
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	9	1	596631.3	0	1	0	0
*		Summary Check	0.1505			0.1505		1.391926	0.1505	1	0.204168
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	9	1	9E+103	9.25E-99	1	1	1.36E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	9	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	7	1	9E+103	9.25E-99	1	1	1.36E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	7	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	7	1	9E+103	9.25E-99	1	1	1.36E-99
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	7	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	9	1	9E+103	9.25E-99	1	1	1.36E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	9	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	9	1	9E+103	9.25E-99	1	1	1.36E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	9	1	9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		9.25E-99	1E-99	1	1.36E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

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*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    9    1   9E+103  9.25E-99    1    1  1.36E-99
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    9    1   9E+103         0    1    0         0
*         Summary Check                          1E-99              1E-99        9.25E-99  1E-99    1  1.36E-99
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    9    1   9E+103  9.25E-99    1    1  1.36E-99
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    9    1   9E+103         0    1    0         0
*         Summary Check                          1E-99              1E-99        9.25E-99  1E-99    1  1.36E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)      0.0118    1    8    1  7609577  0.109134    1    1  0.016008
A    4320 HPS (70/100/150/250W)                     0    1    8    1  7609577         0    1    0         0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    8    1  7609577         0    1    0         0
*         Summary Check                         0.0118             0.0118        0.109134 0.0118    1  0.016008
*
A    4340 INCANDESCENT (150W)                  0.0016    1    5    1 5.61E+07  0.014798    1    1  0.002171
A    4350 HPS (35W)                                 0    1    5    1 5.61E+07         0    1    0         0
A    4360 METAL HALIDE (32W)                        0    1    5    1 5.61E+07         0    1    0         0
*         Summary Check                         0.0016             0.0016        0.014798 0.0016    1  0.002171
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.0044    1    4    1 2.04E+07  0.040694    1    1  0.005969
A    4380 COMPACT FL (15/18/27W)                    0    1    4    1 2.04E+07         0    1    0         0
*         Summary Check                         0.0044             0.0044        0.040694 0.0044    1  0.005969
*
A    4390 INCANDESCENT (150W)                   0.001    1    4    1 8.98E+07  0.009249    1    1  0.001357
A    4400 TWO COMPACT FL LAMPS (18W)                0    1    4    1 8.98E+07         0    1    0         0
*         Summary Check                          0.001              0.001        0.009249  0.001    1  0.001357
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM              0.02    1   15    1 89793.01  0.184974    1  0.18497  0.250935
A    4420 OCCUPANCY SENSORS                         0    1   15    1 89793.01         0    1        0         0
A    4430 DAYLIGHTING DESIGN                        0    1    9    1 89793.01         0    1        0         0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1   15    1 89793.01  3.237038    1  3.23704  4.391366
A    4450 LPS SECURITY LIGHTS                       0    1   15    1 89793.01         0    1        0         0
*
#   End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                          EU                          RF
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.4      0.87 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                      21.7616  47.33148 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   211277.7
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.4      0.87 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                       3.192    6.9426 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
A    5010 CONVENTIONAL REFRIGERATION       0.9      1     10      1 216268.5 20.04809     1 0.92126 2.940661
A    5020 HE REFRIGERATION                 0.1      1     10    1.3 166360.4 1.713512 0.76923 0.07874 0.251339
*         Summary Check                      1                 1.03          21.7616 0.97692     1    3.192
*
A    5030 MULTIPLEX:  AIR COOL               0      1     10      1      0       0     0     0     0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC     0      1     10      1      0       0     0     0     0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC    0      1     10      1      0       0     0     0     0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S    0      1     10      1      0       0     0     0     0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT  0      1     10      1      0       0     0     0     0
A    5080 OPEN DRIVE REFRIG (ASD)            0      1     10      1      0       0     0     0     0
A    5090 ANTI-CONDENS HEAT CONTROL        0.3      1     10      1      0       0     0     0     0
A    5100 HI R-VALUE GLASS DOORS           0.7      1     10      1      0       0     0     0     0
A    5110 ENERGY MANAGEMENT SYSTEM        0.25      1     10      1      0       0     0     0     0
A    5120 DUAL PATH SUPERMARKET AC           0      1     10      1      0       0     0     0     0
*
#   End of End Use
*
```

COMMERCIAL MARKET SEGMENT "SUPERMARKET/GROCERY"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                          WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.05      0.92 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                        2.7202  50.05168 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     26409.71
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.05      0.92 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                        0.399    7.3416 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  6010 RESISTANCE                        0.7      1     10      1  37728.16  2.7202      1      1  0.399
A  6020 HEAT RECOVERY                       0      1     10    100  377.2816      0   0.01      0      0
A  6030 SOLAR                               0      1     10      3  12576.05      0 0.33333      0      0
A  6040 NATURAL GAS                       0.3      1     10  1E+77  3.77E-73 1.17E-77  1E-77 4.3E-78 1.71E-78
*          Summary Check                    1                3E+76           2.7202    0.7      1  0.399
*
A  6050 HIGH INSULATION LEVEL             0.2      1     10      1         0      0      0      0      0
A  6060 HEAT TRAP                        0.15      1     10      1         0      0      0      0      0
A  6070 LOW-FLOW SHOWERHEAD               0.1      1     10      1         0      0      0      0      0
A  6080 TIMER ON RECIRCULATION PUMP       0.6      1     10      1         0      0      0      0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                          CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.0075    0.9275 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                      0.40803  50.45971 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     3961.456
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.0075    0.9275 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                      0.05985   7.40145 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %     Adj
*                                            eff   Use      RE
*          Conventional electric              1     0.1     10
*          Convection Oven                 1.154     0  1E+77
*          Conventional Gas                1E+77     0  1E+77
*          Microwave                          4     0.9 4.44444
*          Standard Efficiency Fryers         1     0  1E+77
*          High Efficiency Fryers           1.1     0  1E+77
*          Natural Gas Fryers              1E+77     0  1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC             0.75      1     10     10  1993.186 0.153974    0.1 0.37736 0.022585
A  7020 CONVECTION OVEN                   0.15      1     10  1E+77  1.99E-73 3.08E-78  1E-77 7.5E-78 4.52E-79
A  7030 CONVENTIONAL GAS                   0.1      1     10  1E+77  1.99E-73 2.05E-78  1E-77   5E-78 3.01E-79
A  7040 MICROWAVE                         0.55      1     10 4.44444 4484.668 0.254056  0.225 0.62264 0.037265
A  7050 STD EFFICIENCY FRYERS             0.25      1     10  1E+77  1.99E-73 5.13E-78  1E-77 1.3E-77 7.53E-79
A  7060 HE FRYERS                          0.1      1     10  1E+77  1.99E-73 2.05E-78  1E-77   5E-78 3.01E-79
A  7070 NATURAL GAS FRYERS                 0.1      1     10  1E+77  1.99E-73 2.05E-78  1E-77   5E-78 3.01E-79
*          Summary Check                    2                7E+76           0.40803 0.19875      1 0.05985
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "WAREHOUSE"

```
*          W:\U1500\DSM94\CMSOLDWH.WQ1      <= SOURCE SPREADSHEET
*  DATE: 11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                           -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                           -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                                  1        1        1        1
*       1       2       3       4       5       6       7       8       9       0       1       2       3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345      15  1E+77  12345.6 123.456 0.12345 0.12345 123.456
*  B     B                                      B       B       B       B       B       B       B       B       B
*      E                                     E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E           E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat     Fac    Life     Eff    KWh     Gwh     1/Rf OF TOT.    MWD
*
G       1 OLD=Existing, or NEW                  MSYTPE                          OLD
G       2 Market Segment                        MS                              WH
G       3 Number of Customers                   MSNCUS                             184
G       4 Total Sq Foot                         MSFT2                          5704668
G       5 Sq Foot/Cust                          FT2PC                          31003.63
G       6 Hrs open On-Pk Summer                 HOONSUM        MAX = 1694         1078
G       7 Hrs open Off-Pk Summer                HOOFSUM        MAX = 2002         1001
G       8 Hrs open On-Pk Winter                 HOONWIN        MAX = 210           168          Cum Sat/Cum GWh
G       9 Hrs open Off-Pk Winter                HOOFWIN        MAX = 4860         3645            0.975
G      10 Total Gwh                             MSGWH                             5.441          5.30498
G      11 Natural Gas Availability factor       NG_AF                               0.5
G      12 Solar Availability factor             SOL_AF                             0.75
G      13 Three Phase Power Avail. Factor       TPP_AF                             0.85
G      14 Tons per 1000 sq foot                 MSTTPFT2                           0.25          Cum Sat/Cum MW-D
G      15 Window to floor ratio                 WINFLOOR                          0.025            0.975
G      16 System Coincident MWD                 MSMWD                              1.33          1.29675
*
*          First End Use = Space Conditioning
*
E       1 End Use Code                          EU                              SC
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                             0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                         0.1
E       4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                         0.11       0.11 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                           0.59851    0.59851 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                        3252.772
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                         0.11       0.11 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                           0.1463     0.1463 <==Cum Mw-D
*  APID  APLAB                                  APSAT   APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E           E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat     Fac    Life     Eff    KWh     Gwh     1/Rf OF TOT.    MWD
*
A    1010 LE RECIP CHILLER                         0       1      20    1.57  2053.04       0  0.63694       0       0
A    1012 HE SCREW CHILLER                         0       1      20    1.86 1732.942       0  0.53763       0       0
A    1015 LE CENT CHILLER                          0       1      20    1.96 1644.527       0   0.5102       0       0
A    1020 HE CENT CHILLER                          0       1      20    2.26 1426.227       0  0.44248       0       0
A    1040 HE CENT CHILLER W/ASD                    0       1      20    2.74 1176.377       0  0.36496       0       0
A    1050 LE DX AC                            0.5225       1      15       1 3223.272 0.309885       1 0.51776 0.075748
A    1060 HE DX AC                            0.0275       1      15    1.13 2852.453 0.014433 0.88496 0.02412 0.003528
A    1065 LE ROOM AC                           0.405       1      10    0.95 3392.918 0.25284 1.05263 0.42245 0.061804
A    1070 HE ROOM AC                           0.045       1      10    1.25 2578.618 0.021351     0.8 0.03567 0.005219
A    1075 INTERNAL COMBUSTION AC                   0       1      15  1E+77 3.22E-74       0   1E-77       0       0
A    1080 OTHER FUEL OR NONE                       0       1       0  1E+77 3.22E-74       0   1E-77       0       0
*         Summary Check                            1                 0.99458            0.59851 1.00915       1  0.1463

A    1090 THERMAL STORAGE                          0       1      15       1       0       0       0       0       0
A    1100 HEAT PIPE ENHANCED DX                    0       1      15       1       0       0       0       0       0
A    1110 HOTEL OCCUPANCY SENSORS                  0       1      10       1       0       0       0       0       0
A    1120 2-SPEED MOTOR - COOLING TOWER            0       1      10       1       0       0       0       0       0
A    1130 SPEED CONTROL - COOLING TOWER            0       1      10       1       0       0       0       0       0
A    1140 AC MAINTENANCE - CHILLER                 0       1      20       1       0       0       0       0       0
A    1150 AC MAINTENANCE - DX                    0.1       1      15       1       0       0       0       0       0
A    1160 DUCT/PIPE INSULATION - CHILLER           0       1      20       1       0       0       0       0       0
A    1170 DUCT/PIPE INSULATION - DX             0.05       1      20       1       0       0       0       0       0
A    1180 ENRG MGT SYSTEM - CHILLER                0       1      15       1       0       0       0       0       0
```

```
A   1190 ENRG MGT SYSTEM - DX                  0.1    1    15    1    0    0    0    0    0
A   1200 TEMP SETUP/SETBACK - CHILLER            0    1    15    1    0    0    0    0    0
A   1210 TEMP SETUP/SETBACK - DX               0.1    1    15    1    0    0    0    0    0
A   1220 GAS-FIRED CHILLER                      0    1    20    1    0    0    0    0    0
A   1230 GAS-FIRED DX AC                        0    1    20    1    0    0    0    0    0
#  End of End Use

*
*        Next End Use = Space Heating
*
E      1 End Use Code                      EU                          SH
E      2 Duty Cycle-LF when Operating/Open EUOPLF                        0.75
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                0.4
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR               0.06      0.17 <==Cum Sat
E      5 Total GWh (G7*E4)                 EUGWH                      0.32646   0.92497 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                1774.239
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                0.06      0.17 <==Cum Sat
E      8 Total MW-D Used by This End Use   EUMWD                     0.0798    0.2261 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel    E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    KWh    Gwh   1/Rf OF TOT   MWD
*
A   1510 RESISTANCE                      0.35      1     30      1 4301.186 0.276996     1 0.84848 0.067709
A   1520 HEAT PUMP                       0.15      1     15    2.5 1720.474 0.047485   0.4 0.14545 0.011607
A   1530 NATURAL GAS                     0.05      1     20     20 215.0593 0.001979  0.05 0.00606 0.000484
A   1540 OTHER OR NONE                    0.45      1     15  1E+77  4.3E-74 3.56E-78 1E-77 1.1E-77 8.71E-79
*        Summary Check                      1                4.5E+76          0.32646 0.4125     1  0.0798
*
#  End of End Use

*
*        Next End Use = Building Envelope
*
E      1 End Use Code                      EU                          BE
E      2 Duty Cycle-LF when Operating/Open EUOPLF                         1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                 1
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                 0      0.17 <==Cum Sat
E      5 Total Kwh (G7*E4)                 EUGWH                          0   0.92497 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    0
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                 0      0.17 <==Cum Sat
E      8 Total MW-D Used by This End Use   EUMWD                         0    0.2261 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel            Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff   E/Cust   Gwh   1/Rf OF TOT   MWD
*
A   2010 ROOF  INSULATION   R < 10.53      0.9      1     20      1      0      0      0      0      0
A   2020 ROOF INSULATION R >= 10.53        0.1      1     20      1      0      0      0      0      0
*        Summary Check                      1
*
* Wall Insulation in New Construction Only.
*
A   2030 WALL  INSULATION R=5.26            1      0     20      1      0      0      0      0      0
A   2040 WALL INSULATION R=11.76             0      0     20      1      0      0      0      0      0
*        Summary Check                      1
*
A   2050 WINDOWS W/OUT FILM               0.6      1     10      1      0      0      0      0      0
A   2060 WINDOWS W/FILM                   0.4      1     10      1      0      0      0      0      0
*        Summary Check                      1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A   2070 WINDOWS W/O SPECTRALLY SELEC G     1      0     20      1      0      0      0      0      0
A   2080 WINDOWS W/ SPECTRALLY SELEC GL      0      0     20      1      0      0      0      0      0
*        Summary Check                      1
*
A   2090 DARK ROOFS                       0.9      1     20      1      0      0      0      0      0
A   2100 LIGHT ROOFS                      0.1      1     20      1      0      0      0      0      0
*        Summary Check                      1
*
#  End of End Use

*
*        Next End Use = Ventilation
*
```

COMMERCIAL MARKET SEGMENT "WAREHOUSE"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.2325	0.4025	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				1.265033	2.190003	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				6875.177				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.2325	0.4025	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				0.309225	0.535325	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.15	1	20	1	22917.26	0.632516	1	0.5	0.154613
A	3020	VENTS IN DX UNITS	0.15	1	15	1	22917.26	0.632516	1	0.5	0.154613
*		Summary Check						1.265033	0.3	1	0.309225
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	6875.177	1.201781	1	0.95	0.293764
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	6875.177	0.063252	1	0.05	0.015461
*		Summary Check	1			1		1.265033	1	1	0.309225
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0	1	20	1	6875.177	0	1	0	0
A	3060	CHILLER W/ VAV	0	1	20	1	6875.177	0	1	0	0
A	3070	DX AC W/OUT VAV	0.9	1	15	1	6875.177	1.138529	1	0.9	0.278303
A	3080	DX AC W/ VAV	0.1	1	15	1	6875.177	0.126503	1	0.1	0.030923
*		Summary Check	1			1		1.265033	1	1	0.309225
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0	1	15	1	6875.177	0	1	0	0
A	3100	CHILLER VAV SYSTEMS W/ ASD	0	1	15	1	6875.177	0	1	0	0
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	6875.177	1.201781	1	0.95	0.293764
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	6875.177	0.063252	1	0.05	0.015461
*		Summary Check	1			1		1.265033	1	1	0.309225
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0	1	10	1	6875.177	0	1	0	0
A	3140	CHILLER VENT W/ TIMER	0	1	10	1	6875.177	0	1	0	0
A	3150	DX VENT W/OUT TIMER	0.6	1	20	1	6875.177	0.75902	1	0.6	0.185535
A	3160	DX VENT W/ TIMER	0.4	1	20	1	6875.177	0.506013	1	0.4	0.12369
*		Summary Check	1			1		1.265033	1	1	0.309225
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0	1	20	1	6875.177	0	1	0	0
A	3180	CHILLER W/HI EFF MOTORS	0	1	20	1	6875.177	0	1	0	0
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	6875.177	1.201781	1	0.95	0.293764
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	6875.177	0.063252	1	0.05	0.015461
*		Summary Check	1			1		1.265033	1	1	0.309225
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0	0	10	1	6.9E+102	0	1	0	0
A	3220	EXH HD W/ MAKEUP - CHILLER	0	0	10	1	6.9E+102	0	1	0	0
A	3230	NO EXH HOOD - CHILLER	1E-99	0	10	1	6.9E+102	1.265033	1	1	0 309225
A	3240	EXH HD W/O MAKEUP - DX	0	0	10	1	6.9E+102	0	1	0	0
A	3250	EXH HD W/ MAKEUP - DX	0	0	10	1	6.9E+102	0	1	0	0
A	3260	NO EXH HOOD - DX	0	0	10	1	6.9E+102	0	1	0	0
*		Summary Check	0			0		1.265033	1E-99	0	0
*											
# End of End Use											
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.55	0.9525	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				2.99255	5.182553	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				16263.86				

COMMERCIAL MARKET SEGMENT "WAREHOUSE"

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR					0.55	0.9525	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD					0.7315	1.266825	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)										
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD	
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D	
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd	
*												
* GENERAL LIGHTING												
*												
A	4010	QUARTZ	0.002	1	15	0.28	53360.93	0.019637	3.57143	0.00656	0.0048	
A	4020	INCANDESCENT	0.021	1	15	0.24	62254.42	0.240551	4.16667	0.08038	0.0588	
A	4030	FLUORESCENT	0.927	1	15	1	14941.06	2.548467	1	0.8516	0.622948	
A	4040	MERCURY VAPOR	0.038	1	15	0.68	21972.15	0.153629	1.47059	0.05134	0.037553	
A	4050	METAL HALIDE	0	1	15	1.03	14505.88	0	0.97087	0	0	
A	4060	HIGH PRESSURE SODIUM	0.012	1	15	1.09	13707.4	0.030266	0.91743	0.01011	0.007398	
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	9577.603	0	0.64103	0	0	
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	16978.48	0	1.13636	0	0	
*		Summary Check	1			0.97152		2.99255	1.08853	1	0.7315	
*												
A	4085	MERCURY VAPOR & HPS	0.05	1	15	0.7784	19194.58	0.17659	1.28469	0.05901	0.043166	
*												
* SPECIFIC LIGHTING END USES												
*												
* FOUR FOOT FLUORESCENT LAMPS												
*												
A	4090	4'-40 W STANDARD LAMPS	0.604	1	14	1	25491.94	1.8075	1	0.94671	0.441826	
A	4100	4'-34 W EE LAMPS	0.034	1	14	1	25491.94	0.101747	1	0.05329	0.024871	
*		Summary Check	0.638			0.638		1.909247	0.638	1	0.466697	
*												
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
* EIGHT FOOT FLUORESCENT LAMPS												
*												
A	4130	8' - 75W STANDARD LAMPS	0.228	1	11	1	59793.6	0.682301	1	0.83824	0.166782	
A	4140	8' - 60W EE LAMPS	0.044	1	15	1	59793.6	0.131672	1	0.16176	0.032186	
*		Summary Check	0.272			0.272		0.813974	0.272	1	0.198968	
*												
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	15	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
* T8 FOUR FOOT FLUORESCENT LAMPS												
*												
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS												
*												
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	11	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	11	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS												
*												
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	11	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	11	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS												
*												
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	1.6E+103	2.99E-99	1	1	7.3E-100	
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	1.6E+103	0	1	0	0	
*		Summary Check	1E-99			1E-99		2.99E-99	1E-99	1	7.3E-100	
*												
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS												

```
*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    15    1 1.6E+103 2.99E-99    1    1 7.3E-100
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    15    1 1.6E+103        0    1    0        0
*         Summary Check                         1E-99                1E-99         2.99E-99 1E-99    1 7.3E-100
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    15    1 1.6E+103 2.99E-99    1    1 7.3E-100
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    15    1 1.6E+103        0    1    0        0
*         Summary Check                         1E-99                1E-99         2.99E-99 1E-99    1 7.3E-100
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)    0.00224    1    13    1  7260651 0.006703    1    1 0.001639
A    4320 HPS (70/100/150/250W)                     0    1    13    1  7260651        0    1    0        0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    13    1  7260651        0    1    0        0
*         Summary Check                      0.00224                0.00224         0.006703 0.00224    1 0.001639
*
A    4340 INCANDESCENT (150W)                   1E-99    1     9    1 1.6E+103 2.99E-99    1    1 7.3E-100
A    4350 HPS (35W)                                 0    1     9    1 1.6E+103        0    1    0        0
A    4360 METAL HALIDE (32W)                        0    1     9    1 1.6E+103        0    1    0        0
*         Summary Check                         1E-99                1E-99         2.99E-99 1E-99    1 7.3E-100
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.0085    1     6    1  1913395 0.025437    1    1 0.006218
A    4380 COMPACT FL (15/18/27W)                    0    1     6    1  1913395        0    1    0        0
*         Summary Check                       0.0085                0.0085         0.025437 0.0085    1 0.006218
*
A    4390 INCANDESCENT (150W)                  0.0019    1     6    1  8559926 0.005686    1    1  0.00139
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     6    1  8559926        0    1    0        0
*         Summary Check                       0.0019                0.0019         0.005686 0.0019    1  0.00139
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM              0.02    1    15    1 16263.86 0.059851    1 0.05985 0.043781
A    4420 OCCUPANCY SENSORS                         0    1    15    1 16263.86        0    1    0        0
A    4430 DAYLIGHTING DESIGN                        0    1    15    1 16263.86        0    1    0        0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1    15    1 16263.86 1.047393    1 1.04739 0.766168
A    4450 LPS SECURITY LIGHTS                       0    1    15    1 16263.86        0    1    0        0
*
#   End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                          EU                          RF
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                     0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.01    0.9625 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                      0.05441  5.236963 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   295.7065
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.01    0.9625 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                      0.0133  1.280125 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A    5010 CONVENTIONAL REFRIGERATION           0.9    1    10    1 302.6917 0.050126    1 0.92126 0.012253
A    5020 HE REFRIGERATION                     0.1    1    10  1.3 232.8398 0.004284 0.76923 0.07874 0.001047
*         Summary Check                          1                1.03         0.05441 0.97692    1  0.0133
*
A    5030 MULTIPLEX:  AIR COOL                    0    1    10    1       0       0    0    0       0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC          0    1    10    1       0       0    0    0       0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC         0    1    10    1       0       0    0    0       0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S         0    1    10    1       0       0    0    0       0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT       0    1    10    1       0       0    0    0       0
A    5080 OPEN DRIVE REFRIG (ASD)                 0    1    10    1       0       0    0    0       0
A    5090 ANTI-CONDENS HEAT CONTROL               0    1    10    1       0       0    0    0       0
A    5100 HI R-VALUE GLASS DOORS                  0    1    10    1       0       0    0    0       0
A    5110 ENERGY MANAGEMENT SYSTEM                0    1    10    1       0       0    0    0       0
A    5120 DUAL PATH SUPERMARKET AC                0    1    10    1       0       0    0    0       0
*
#   End of End Use
*
```

COMMERCIAL MARKET SEGMENT "WAREHOUSE"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                                WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                        0.0075      0.97 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                            0.040808   5.27777 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                          221.7799
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                         0.0075      0.97 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                           0.009975    1.2901 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
A  6010 RESISTANCE                            1      1     15      1   221.7799 0.040808  1      1   0.009975
A  6020 HEAT RECOVERY                         0      1     15    100   2.217799 0       0.01   0   0
A  6030 SOLAR                                 0      1     20      3   73.92663 0       0.33333 0   0
A  6040 NATURAL GAS                           0      1     10   1E+77  2.22E-75 0       1E-77  0   0
*          Summary Check                      1                   1            0.040808  1      1   0.009975
*
A  6050 HIGH INSULATION LEVEL                 0      1     10      1     0      0       0      0   0
A  6060 HEAT TRAP                             0      1     10      1     0      0       0      0   0
A  6070 LOW-FLOW SHOWERHEAD                   0      1     10      1     0      0       0      0   0
A  6080 TIMER ON RECIRCULATION PUMP           0      1     10      1     0      0       0      0   0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                                CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                            0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                         0.005      0.975 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                           0.027205  5.304975 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                          147.8533
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                          0.005      0.975 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                            0.00665   1.29675 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                                Rel     %     Adj
*                                               eff    Use     RE
*          Conventional electric                 1     0.1     10
*          Convection Oven                     1.154    0     1E+77
*          Conventional Gas                    1E+77    0     1E+77
*          Microwave                             4     0.9   4.44444
*          Standard Efficiency Fryers            1      0     1E+77
*          High Efficiency Fryers              1.1      0     1E+77
*          Natural Gas Fryers                  1E+77    0     1E+77
*
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC                 0.25   1     15     10   76.31136 0.00351   0.1    0.12903 0.000858
A  7020 CONVECTION OVEN                       0      1     15   1E+77  7.63E-75 0       1E-77  0   0
A  7030 CONVENTIONAL GAS                      0      1     15   1E+77  7.63E-75 0       1E-77  0   0
A  7040 MICROWAVE                             0.75   1     15   4.44444 171.7006 0.023695  0.225 0.87097 0.005792
A  7050 STD EFFICIENCY FRYERS                 0      1     15   1E+77  7.63E-75 0       1E-77  0   0
A  7060 HE FRYERS                             0      1     20   1E+77  7.63E-75 0       1E-77  0   0
A  7070 NATURAL GAS FRYERS                    0      1     10   1E+77  7.63E-75 0       1E-77  0   0
*          Summary Check                      1                5.83333          0.027205 0.19375  1   0.00665
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "SCHOOLS"

```
*          W:\U1500\DSM94\CMSOLDSC.WQ1        <= SOURCE SPREADSHEET
*  DATE: 11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                        1        1        1        1
*      1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*  B     B                                      B      B      B      B      B      B      B      B      B
*      E                                     E      E      E      E      E      E      E      E      E      E
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg    Rel   E/Cust    Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat    Fac   Life    Eff    KWh     Gwh    1/Rf  OF TOT.    MWD
*
G       1 OLD=Existing, or NEW                  MSYTPE                          OLD
G       2 Market Segment                        MS                              SC
G       3 Number of Customers                   MSNCUS                            136
G       4 Total Sq Foot                         MSFT2                          581655
G       5 Sq Foot/Cust                          FT2PC                         4276.875
G       6 Hrs open On-Pk Summer                 HOONSUM      MAX = 1694          1078
G       7 Hrs open Off-Pk Summer                HOOFSUM      MAX = 2002           770
G       8 Hrs open On-Pk Winter                 HOONWIN      MAX = 210             84          Cum Sat/Cum GWh
G       9 Hrs open Off-Pk Winter                HOOFWIN      MAX = 4860          2430           0.9925
G      10 Total Gwh                             MSGWH                          26.011          25.8159
G      11 Natural Gas Availability factor       NG_AF                            0.5
G      12 Solar Availability factor             SOL_AF                          0.75
G      13 Three Phase Power Avail. Factor       TPP_AF                           0.9
G      14 Tons per 1000 sq foot                 MSTTPFT2                           2          Cum Sat/Cum MW-D
G      15 Window to floor ratio                 WINFLOOR                         0.2           0.9925
G      16 System Coincident MWD                 MSMWD                           9.74          9.66695
*
*          First End Use = Space Conditioning
*
E       1 End Use Code                          EU                              SC
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                          0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                       0.1
E       4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                       0.31       0.31 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                         8.06341    8.06341 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                      59289.78
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                       0.31       0.31 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                        3.0194     3.0194 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg    Rel   E/Cust    Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat    Fac   Life    Eff    KWh     Gwh    1/Rf  OF TOT.    MWD
*
A    1010 LE RECIP CHILLER                      0.225      1     20   1.57  41541.89 1.271182 0.63694 0.15765 0.476003
A    1012 HE SCREW CHILLER                      0.025      1     20   1.86  35064.93 0.119221 0.53763 0.01479 0.044643
A    1015 LE CENT CHILLER                           0      1     20   1.96   33275.9      0 0.5102      0      0
A    1020 HE CENT CHILLER                           0      1     20   2.26  28858.75      0 0.44248      0      0
A    1040 HE CENT CHILLER W/ASD                     0      1     20   2.74   23803.2      0 0.36496      0      0
A    1050 LE DX AC                             0.5225      1     15      1  65220.76 4.634588      1 0.57477 1.735454
A    1060 HE DX AC                             0.0275      1     15   1.13  57717.49 0.215863 0.88496 0.02677 0.080832
A    1065 LE ROOM AC                             0.18      1     10   0.95  68653.44 1.680636 1.05263 0.20843 0.629326
A    1070 HE ROOM AC                             0.02      1     10   1.25  52176.61  0.14192    0.8 0.0176 0.053143
A    1075 INTERNAL COMBUSTION AC                    0      1     15  1E+77  6.52E-73      0  1E-77      0      0
A    1080 OTHER FUEL OR NONE                        0      1      0  1E+77  6.52E-73      0  1E-77      0      0
*         Summary Check                             1                1.14933          8.06341 0.90906      1 3.0194

A    1090 THERMAL STORAGE                       0.05      1     15      1      0      0      0      0      0
A    1100 HEAT PIPE ENHANCED DX                    0      1     15      1      0      0      0      0      0
A    1110 HOTEL OCCUPANCY SENSORS                  0      1     10      1      0      0      0      0      0
A    1120 2-SPEED MOTOR - COOLING TOWER          0.2      1     10      1      0      0      0      0      0
A    1130 SPEED CONTROL - COOLING TOWER          0.2      1     10      1      0      0      0      0      0
A    1140 AC MAINTENANCE - CHILLER               0.4      1     20      1      0      0      0      0      0
A    1150 AC MAINTENANCE - DX                    0.1      1     15      1      0      0      0      0      0
A    1160 DUCT/PIPE INSULATION - CHILLER        0.05      1     20      1      0      0      0      0      0
A    1170 DUCT/PIPE INSULATION - DX             0.05      1     20      1      0      0      0      0      0
A    1180 ENRG MGT SYSTEM - CHILLER              0.2      1     15      1      0      0      0      0      0
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A    1190 ENRG MGT SYSTEM - DX                    0.1    1    15    1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0.3    1    15    1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0.1    1    15    1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0    1    20    1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0    1    20    1    0    0    0    0    0
#   End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                          EU                          SH
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.04      0.35 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                       1.04044   9.10385 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     7650.294
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.04      0.35 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                       0.3896     3.409 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC   APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel   E/Cust   Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff    KWh     Gwh    1/Rf  OF TOT    MWD
*
A    1510 RESISTANCE                      0.45    1     30     1   13540.34 0.828669    1   0.79646 0.310301
A    1520 HEAT PUMP                       0.25    1     15   2.5   5416.137 0.184149  0.4  0.17699 0.068956
A    1530 NATURAL GAS                     0.3     1     20    20   677.0172 0.027622 0.05  0.02655 0.010343
A    1540 OTHER OR NONE                   0       1     15  1E+77  1.35E-73 0       1E-77  0       0
*         Summary Check                   1                 7.075           1.04044  0.565  1       0.3896
*
#   End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                          EU                          BE
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0      0.35 <==Cum Sat
E       5 Total Kwh (G7*E4)                     EUGWH                         0   9.10385 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                       0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0      0.35 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                         0     3.409 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC   APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel           Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff   E/Cust   Gwh    1/Rf  OF TOT    MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9    1     20     1     0       0      0     0       0
A    2020 ROOF INSULATION R >= 10.53       0.1    1     20     1     0       0      0     0       0
*         Summary Check                   1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26          1      0     20     1     0       0      0     0       0
A    2040 WALL INSULATION R=11.76          0      0     20     1     0       0      0     0       0
*         Summary Check                   1
*
A    2050 WINDOWS W/OUT FILM               0.6    1     10     1     0       0      0     0       0
A    2060 WINDOWS W/FILM                   0.4    1     10     1     0       0      0     0       0
*         Summary Check                   1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G   1      0     20     1     0       0      0     0       0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL   0      0     20     1     0       0      0     0       0
*         Summary Check                   1
*
A    2090 DARK ROOFS                       0.9    1     20     1     0       0      0     0       0
A    2100 LIGHT ROOFS                      0.1    1     20     1     0       0      0     0       0
*         Summary Check                   1
*
#   End of End Use

*
*          Next End Use = Ventilation
*
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COMMERCIAL MARKET SEGMENT "SCHOOLS"

```
E      1 End Use Code                          EU                                VN
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                                 1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                            0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                        0.075     0.425 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                           1.950825  11.05468 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                         14344.3
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                         0.075     0.425 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                            0.7305    4.1395 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE    APEPC  APGWH APOOR   APEFR   APMWD
*    Ap                                       Mkt    Avl    Avg    Rel    E/Cust  Tot_E          ENRG F   Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff      Kwh    Gwh   1/Rf OF TOT     MWD
*
* VENTILATION SYSTEMS
*
A   3010 VENTS IN CHILLERS                   0.85      1     20      1 8693.516  1.00497     1 0.51515 0.376318
A   3020 VENTS IN DX UNITS                    0.8      1     15      1 8693.516 0.945855     1 0.48485 0.354182
*        Summary Check                                                 1.950825   1.65     1  0.7305
*
* DUCT LEAKAGE
*
A   3030 STANDARD DUCT SYSTEM - DX           0.95      1     15      1  14344.3 1.853284     1    0.95 0.693975
A   3040 LEAK FREE DUCT SYSTEM - DX           0.05      1     15      1  14344.3 0.097541     1    0.05 0.036525
*        Summary Check                          1                    1          1.950825     1       1  0.7305
*
*VARIABLE AIR VOLUME CONTROL
*
A   3050 CHILLER W/OUT VAV                    0.8      1     20      1 7172.151  0.78033     1     0.4  0.2922
A   3060 CHILLER W/ VAV                        0.2      1     20      1 7172.151 0.195083     1     0.1 0.07305
A   3070 DX AC W/OUT VAV                       0.9      1     15      1 7172.151 0.877871     1    0.45 0.328725
A   3080 DX AC W/ VAV                          0.1      1     15      1 7172.151 0.097541     1    0.05 0.036525
*        Summary Check                          2                    2          1.950825     2       1  0.7305
*
* ADJUSTABLE SPEED DRIVES
*
A   3090 CHILLER VAV SYSTEMS W/OUT ASD       0.95      1     15      1 7172.151 0.926642     1   0.475 0.346988
A   3100 CHILLER VAV SYSTEMS W/ ASD           0.05      1     15      1 7172.151 0.048771     1   0.025 0.018263
A   3110 DX VAV SYSTEMS W/OUT ASD               0.95      1     15      1 7172.151 0.926642     1   0.475 0.346988
A   3120 DX VAV SYSTEMS W/ ASD                  0.05      1     15      1 7172.151 0.048771     1   0.025 0.018263
*        Summary Check                          2                    2          1.950825     2       1  0.7305
*
* TIMED VENTILATION
*
A   3130 CHILLER VENT W/OUT TIMER             0.6      1     10      1 7172.151 0.585248     1     0.3 0.21915
A   3140 CHILLER VENT W/ TIMER                 0.4      1     10      1 7172.151 0.390165     1     0.2  0.1461
A   3150 DX VENT W/OUT TIMER                   0.6      1     20      1 7172.151 0.585248     1     0.3 0.21915
A   3160 DX VENT W/ TIMER                      0.4      1     20      1 7172.151 0.390165     1     0.2  0.1461
*        Summary Check                          2                    2          1.950825     2       1  0.7305
*
* MOTOR EFFICIENCY
*
A   3170 CHILLER W/LO EFF MOTORS             0.95      1     20      1 7172.151 0.926642     1   0.475 0.346988
A   3180 CHILLER W/HI EFF MOTORS              0.05      1     20      1 7172.151 0.048771     1   0.025 0.018263
A   3190 DX UNIT W/LO EFF MOTORS               0.95      1     15      1 7172.151 0.926642     1   0.475 0.346988
A   3200 DX UNIT W/HI EFF MOTORS               0.05      1     15      1 7172.151 0.048771     1   0.025 0.018263
*        Summary Check                          2                    2          1.950825     2       1  0.7305
*
* MAKE-UP AIR FOR EXHAUST HOODS
*
A   3210 EXH HD W/O MAKEUP - CHILLER         0.175      0     10      1 7172.151 0.170697     1  0.0875 0.063919
A   3220 EXH HD W/ MAKEUP - CHILLER           0.075      0     10      1 7172.151 0.073156     1  0.0375 0.027394
A   3230 NO EXH HOOD  - CHILLER                0.75      0     10      1 7172.151 0.731559     1   0.375 0.273938
A   3240 EXH HD W/O MAKEUP - DX                0.385      0     10      1 7172.151 0.375534     1  0.1925 0.140621
A   3250 EXH HD W/ MAKEUP - DX                 0.165      0     10      1 7172.151 0.160943     1  0.0825 0.060266
A   3260 NO EXH HOOD  - DX                     0.45      0     10      1 7172.151 0.438936     1   0.225 0.164363
*        Summary Check                        0.615                  0.615          1.950825     2       0       0
*
#   End of End Use

*        Next End Use = Lighting
*
E      1 End Use Code                          EU                                LT
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                                 0.9
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                         0.25
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                         0.53     0.955 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                          13.78583  24.84051 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                        101366.4
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E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.53	0.955	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				5.1622	9.3017	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0	1	15	0.28	342712.2	0	3.57143	0	0
A	4020	INCANDESCENT	0.016	1	15	0.24	399830.9	0.870032	4.16667	0.06311	0.32579
A	4030	FLUORESCENT	0.959	1	15	1	95959.41	12.51541	1	0.90785	4.686482
A	4040	MERCURY VAPOR	0.014	1	15	0.68	141116.8	0.268686	1.47059	0.01949	0.100611
A	4050	METAL HALIDE	0	1	15	1.03	93164.47	0	0.97087	0	0
A	4060	HIGH PRESSURE SODIUM	0.011	1	15	1.09	88036.15	0.131702	0.91743	0.00955	0.049317
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	61512.44	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	109044.8	0	1.13636	0	0
*		Summary Check	1			0.98435		13.78583	1.05635	1	5.1622
*											
A	4085	MERCURY VAPOR & HPS	0.025	1	15	0.8604	111528.8	0.379198	1.16225	0.02751	0.141993
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.628	1	14	1	120818.1	8.657501	1	0.74851	3.241862
A	4100	4'-34 W EE LAMPS	0.211	1	14	1	120818.1	2.90881	1	0.25149	1.089224
*		Summary Check	0.839			0.839		11.56631	0.839	1	4.331086
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	1E+104	1.38E-98	1	1	5.16E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	1E+104	1.38E-98	1	1	5.16E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.01	1	14	1	5068320	0.137858	1	0.5	0.051622
A	4140	8' - 60W EE LAMPS	0.01	1	14	1	5068320	0.137858	1	0.5	0.051622
*		Summary Check	0.02			0.02		0.275717	0.02	1	0.103244
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	15	1	1E+104	1.38E-98	1	1	5.16E-99
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	1E+104	1.38E-98	1	1	5.16E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	14	1	1E+104	1.38E-98	1	1	5.16E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	14	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	14	1	1E+104	1.38E-98	1	1	5.16E-99
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	14	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	1E+104	1.38E-98	1	1	5.16E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	1E+104	1.38E-98	1	1	5.16E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	1E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		1.38E-98	1E-99	1	5.16E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

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*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    15    1   1E+104  1.38E-98    1    1  5.16E-99
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    15    1   1E+104         0    1    0         0
*         Summary Check                          1E-99              1E-99         1.38E-98  1E-99    1  5.16E-99
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    15    1   1E+104  1.38E-98    1    1  5.16E-99
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    15    1   1E+104         0    1    0         0
*         Summary Check                          1E-99              1E-99         1.38E-98  1E-99    1  5.16E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)      0.0095    1    15    1  1.07E+07 0.130965    1    1  0.049041
A    4320 HPS (70/100/150/250W)                     0    1    15    1  1.07E+07        0    1    0         0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    15    1  1.07E+07        0    1    0         0
*         Summary Check                       0.0095              0.0095         0.130965 0.0095    1  0.049041
*
A    4340 INCANDESCENT (150W)                  0.0004    1    11    1  2.53E+08 0.005514    1    1  0.002065
A    4350 HPS (35W)                                 0    1    11    1  2.53E+08        0    1    0         0
A    4360 METAL HALIDE (32W)                        0    1    11    1  2.53E+08        0    1    0         0
*         Summary Check                       0.0004              0.0004         0.005514 0.0004    1  0.002065
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.0066    1     8    1  1.54E+07 0.090986    1    1  0.034071
A    4380 COMPACT FL (15/18/27W)                    0    1     8    1  1.54E+07        0    1    0         0
*         Summary Check                       0.0066              0.0066         0.090986 0.0066    1  0.034071
*
A    4390 INCANDESCENT (150W)                  0.0015    1     8    1  6.76E+07 0.020679    1    1  0.007743
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     8    1  6.76E+07        0    1    0         0
*         Summary Check                       0.0015              0.0015         0.020679 0.0015    1  0.007743
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM               0.02    1    15    1  101366.4 0.275717    1  0.27572 1.423304
A    4420 OCCUPANCY SENSORS                         0    1    15    1  101366.4        0    1        0         0
A    4430 DAYLIGHTING DESIGN                        0    1    15    1  101366.4        0    1        0         0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1    15    1  101366.4 4.825041    1  4.82504  24.90782
A    4450 LPS SECURITY LIGHTS                       0    1    15    1  101366.4        0    1        0         0
*
#   End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                          EU                          RF
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0.015      0.97 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                      0.390165  25.23067 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     2868.86
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.015      0.97 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                       0.1461    9.4478 <==Cum Mw-D
*   APID  APLAB                              APSAT  APAVF  APLIFE  APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*     Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf  OF TOT   MWD
*
A    5010 CONVENTIONAL REFRIGERATION            0.9    1    10    1   2936.629 0.359443    1  0.92126 0.134596
A    5020 HE REFRIGERATION                      0.1    1    10   1.3  2258.945 0.030722 0.76923 0.07874 0.011504
*         Summary Check                          1                1.03          0.390165 0.97692    1   0.1461
*
A    5030 MULTIPLEX:  AIR COOL                    0    1    10    1       0       0      0      0      0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC          0    1    10    1       0       0      0      0      0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC         0    1    10    1       0       0      0      0      0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S         0    1    10    1       0       0      0      0      0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT       0    1    10    1       0       0      0      0      0
A    5080 OPEN DRIVE REFRIG (ASD)                 0    1    10    1       0       0      0      0      0
A    5090 ANTI-CONDENS HEAT CONTROL             0.3    1    10    1       0       0      0      0      0
A    5100 HI R-VALUE GLASS DOORS                0.7    1    10    1       0       0      0      0      0
A    5110 ENERGY MANAGEMENT SYSTEM                0    1    10    1       0       0      0      0      0
A    5120 DUAL PATH SUPERMARKET AC                0    1    10    1       0       0      0      0      0
*
#   End of End Use
*
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COMMERCIAL MARKET SEGMENT "SCHOOLS"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                                WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.015     0.985 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                             0.390165  25.62084 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                           2868.86
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.015     0.985 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                             0.1461    9.5939 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf  OF TOT    MWD
*
A  6010 RESISTANCE                           0.7      1     15      1 4098.372 0.390165      1       1 0.1461
A  6020 HEAT RECOVERY                          0      1     15    100 40.98372      0   0.01       0      0
A  6030 SOLAR                                  0      1     20      3 1366.124      0 0.33333       0      0
A  6040 NATURAL GAS                          0.3      1     10  1E+77  4.1E-74 1.67E-78  1E-77  4.3E-78 6.26E-79
*          Summary Check                       1                3E+76          0.390165    0.7       1 0.1461
*
A  6050 HIGH INSULATION LEVEL                0.2      1     10      1      0      0      0       0      0
A  6060 HEAT TRAP                           0.15      1     10      1      0      0      0       0      0
A  6070 LOW-FLOW SHOWERHEAD                  0.1      1     10      1      0      0      0       0      0
A  6080 TIMER ON RECIRCULATION PUMP          0.6      1     10      1      0      0      0       0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                                CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                            0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                         0.0075    0.9925 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                            0.195083  25.81592 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                           1434.43
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                          0.0075    0.9925 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                            0.07305   9.66695 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                              Rel     %     Adj
*                                              eff   Use      RE
*          Conventional electric                 1     0.1    10
*          Convection Oven                     1.154   0     1E+77
*          Conventional Gas                    1E+77   0     1E+77
*          Microwave                             4     0.9   4.44444
*          Standard Efficiency Fryers            1     0     1E+77
*          High Efficiency Fryers              1.1     0     1E+77
*          Natural Gas Fryers                  1E+77   0     1E+77
*
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf  OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC                0.1      1     15     10  14344.3 0.195082    0.1       1 0.07305
A  7020 CONVECTION OVEN                      0.1      1     15  1E+77 1.43E-72 1.95E-77  1E-77  1E-76 7.31E-78
A  7030 CONVENTIONAL GAS                     0.9      1     15  1E+77 1.43E-72 1.76E-76  1E-77  9E-76 6.57E-77
A  7040 MICROWAVE                              0      1     15 4.44444 32274.68      0  0.225       0      0
A  7050 STD EFFICIENCY FRYERS                0.1      1     15  1E+77 1.43E-72 1.95E-77  1E-77  1E-76 7.31E-78
A  7060 HE FRYERS                           0.05      1     20  1E+77 1.43E-72 9.75E-78  1E-77  5E-77 3.65E-78
A  7070 NATURAL GAS FRYERS                  0.75      1     10  1E+77 1.43E-72 1.46E-76  1E-77 7.5E-76 5.48E-77
*          Summary Check                       2                1.9E+77          0.195082   0.01       1 0.07305
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "COLLEGES/UNIVERSITIES"

```
*          W:\U1500\DSM94\CMSOLDCO.WQ1        <= SOURCE SPREADSHEET
*   DATE:  12/07/94
*   MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                              ----
*    TO Save, print, print to file, or look, type:   Alt-D
*                                              ----
*
*
*   1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*   Column numbers                                                  1     1     1     1
*       1     2     3     4     5     6     7     8     9     0     1     2     3
*   345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*   SAS variable names
*   APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*    1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345    15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*   B     B                                      B       B       B       B       B       B       B       B       B
*       E                                      E       E       E       E       E       E       E       E       E
*   APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*      Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat     Fac    Life     Eff    KWh     Gwh    1/Rf  OF TOT.    MWD
*
G       1 OLD=Existing, or NEW                    MSYTPE                          OLD
G       2 Market Segment                          MS                              CO
G       3 Number of Customers                     MSNCUS                            3
G       4 Total Sq Foot                           MSFT2                          530971
G       5 Sq Foot/Cust                            FT2PC                          176990.3
G       6 Hrs open On-Pk Summer                   HOONSUM        MAX = 1694       1694
G       7 Hrs open Off-Pk Summer                  HOOFSUM        MAX = 2002       2002
G       8 Hrs open On-Pk Winter                   HOONWIN        MAX = 210         126          Cum Sat/Cum GWh
G       9 Hrs open Off-Pk Winter                  HOOFWIN        MAX = 4860       3645            0.98
G      10 Total Gwh                               MSGWH                          11.156         10.9329
G      11 Natural Gas Availability factor         NG_AF                            0.5
G      12 Solar Availability factor               SOL_AF                          0.75
G      13 Three Phase Power Avail. Factor         TPP_AF                          0.75
G      14 Tons per 1000 sq foot                   MSTTPFT2                         1.5          Cum Sat/Cum MW-D
G      15 Window to floor ratio                   WINFLOOR                        0.15            0.98
G      16 System Coincident MWD                   MSMWD                           2.67          2.6166
*
*
*          First End Use = Space Conditioning
*
E       1 End Use Code                            EU                              SC
E       2 Duty Cycle-LF when Operating/Open       EUOPLF                          0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                        0.1
E       4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                         0.31      0.31 <==Cum Sat
E       5 Total GWh (G7*E4)                       EUGWH                         3.45836   3.45836 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                       1152787
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                         0.31      0.31 <==Cum Sat
E       8 Total MW-D Used by This End Use         EUMWD                         0.8277    0.8277 <==Cum Mw-D
*   APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*      Ap                                          Mkt     Avl     Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*      Id DESCRIPTION                              Sat     Fac    Life     Eff    KWh     Gwh    1/Rf  OF TOT.    MWD
*
A    1010 LE RECIP CHILLER                        0.225       1      20    1.57  807709.8 0.545204 0.63694 0.15765 0.130485
A    1012 HE SCREW CHILLER                        0.025       1      20    1.86  681776.5 0.051133 0.53763 0.01479 0.012238
A    1015 LE CENT CHILLER                             0       1      20    1.96    646992       0  0.5102       0       0
A    1020 HE CENT CHILLER                             0       1      20    2.26  561108.1       0 0.44248       0       0
A    1040 HE CENT CHILLER W/ASD                       0       1      20    2.74  462811.8       0 0.36496       0       0
A    1050 LE DX AC                               0.5225       1      15       1   1268104 1.987754       1 0.57477 0.475735
A    1060 HE DX AC                               0.0275       1      15    1.13   1122216 0.092583 0.88496 0.02677 0.022158
A    1065 LE ROOM AC                               0.18       1      10    0.95   1334847 0.720817 1.05263 0.20843 0.172515
A    1070 HE ROOM AC                               0.02       1      10    1.25   1014483 0.060869     0.8  0.0176 0.014568
A    1075 INTERNAL COMBUSTION AC                      0       1      15  1E+77  1.27E-71       0   1E-77       0       0
A    1080 OTHER FUEL OR NONE                          0       1       0  1E+77  1.27E-71       0   1E-77       0       0
*         Summary Check                               1                 1.14933          3.45836 0.90906       1  0.8277
*
A    1090 THERMAL STORAGE                         0.05       1      15       1       0       0       0       0       0
A    1100 HEAT PIPE ENHANCED DX                      0       1      15       1       0       0       0       0       0
A    1110 HOTEL OCCUPANCY SENSORS                    0       1      10       1       0       0       0       0       0
A    1120 2-SPEED MOTOR - COOLING TOWER            0.2       1      10       1       0       0       0       0       0
A    1130 SPEED CONTROL - COOLING TOWER            0.2       1      10       1       0       0       0       0       0
A    1140 AC MAINTENANCE - CHILLER                 0.4       1      20       1       0       0       0       0       0
A    1150 AC MAINTENANCE - DX                      0.1       1      15       1       0       0       0       0       0
A    1160 DUCT/PIPE INSULATION - CHILLER          0.05       1      20       1       0       0       0       0       0
A    1170 DUCT/PIPE INSULATION - DX               0.05       1      20       1       0       0       0       0       0
A    1180 ENRG MGT SYSTEM - CHILLER                0.2       1      15       1       0       0       0       0       0
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A    1190 ENRG MGT SYSTEM - DX                    0.1    1    15    1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0.3    1    15    1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0.1    1    15    1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0      1    20    1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0      1    20    1    0    0    0    0    0
#   End of End Use
*
*
*          Next End Use = Space Heating
*
E       1 End Use Code                          EU                          SH
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.04      0.35 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                       0.44624    3.9046 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                    148746.7
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.04      0.35 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                       0.1068    0.9345 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC   APGWH  APOOR   APEFR   APMWD
*    Ap                                  Mkt    Avl    Avg    Rel    E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    KWh     Gwh    1/Rf  OF TOT   MWD
*
A    1510 RESISTANCE                      0.3    1     30      1    367275.7 0.330548    1   0.74074 0.079111
A    1520 HEAT PUMP                       0.2    1     15      2.5  146910.3 0.088146  0.4   0.19753 0.021096
A    1530 NATURAL GAS                     0.5    1     20      20   18363.79 0.027546 0.05   0.06173 0.006593
A    1540 OTHER OR NONE                   0      1     15      1E+77 3.67E-72   0     1E-77   0       0
*         Summary Check                   1                    10.8           0.44624 0.405    1     0.1068
*
#   End of End Use
*
*
*          Next End Use = Building Envelope
*
E       1 End Use Code                          EU                          BE
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0      0.35 <==Cum Sat
E       5 Total Kwh (G7*E4)                     EUGWH                         0    3.9046 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                       0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0      0.35 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                         0    0.9345 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC   APGWH  APOOR   APEFR   APMWD
*    Ap                                  Mkt    Avl    Avg    Rel            Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    E/Cust  Gwh    1/Rf  OF TOT   MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9    1     20      1    0       0      0     0       0
A    2020 ROOF INSULATION R >= 10.53      0.1    1     20      1    0       0      0     0       0
*         Summary Check                   1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26         1      0     20      1    0       0      0     0       0
A    2040 WALL INSULATION R=11.76         0      0     20      1    0       0      0     0       0
*         Summary Check                   1
*
A    2050 WINDOWS W/OUT FILM              0.6    1     10      1    0       0      0     0       0
A    2060 WINDOWS W/FILM                  0.4    1     10      1    0       0      0     0       0
*         Summary Check                   1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G  1      0     20      1    0       0      0     0       0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL  0      0     20      1    0       0      0     0       0
*         Summary Check                   1
*
A    2090 DARK ROOFS                      0.9    1     20      1    0       0      0     0       0
A    2100 LIGHT ROOFS                     0.1    1     20      1    0       0      0     0       0
*         Summary Check                   1
*
#   End of End Use
*
*
*          Next End Use = Ventilation
*
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COMMERCIAL MARKET SEGMENT "COLLEGES/UNIVERSITIES"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.05	0.4	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				0.5578	4.4624	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				185933.3				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.05	0.4	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				0.1335	1.068	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.85	1	20	1	116208.3	0.296331	1	0.53125	0.070922
A	3020	VENTS IN DX UNITS	0.75	1	15	1	116208.3	0.261469	1	0.46875	0.062578
*		Summary Check						0.5578	1.6	1	0.1335
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	185933.3	0.52991	1	0.95	0.126825
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	185933.3	0.02789	1	0.05	0.006675
*		Summary Check	1			1		0.5578	1	1	0.1335
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0.8	1	20	1	92966.67	0.22312	1	0.4	0.0534
A	3060	CHILLER W/ VAV	0.2	1	20	1	92966.67	0.05578	1	0.1	0.01335
A	3070	DX AC W/OUT VAV	0.9	1	15	1	92966.67	0.25101	1	0.45	0.060075
A	3080	DX AC W/ VAV	0.1	1	15	1	92966.67	0.02789	1	0.05	0.006675
*		Summary Check	2			2		0.5578	2	1	0.1335
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0.95	1	15	1	92966.67	0.264955	1	0.475	0.063413
A	3100	CHILLER VAV SYSTEMS W/ ASD	0.05	1	15	1	92966.67	0.013945	1	0.025	0.003338
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	92966.67	0.264955	1	0.475	0.063413
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	92966.67	0.013945	1	0.025	0.003338
*		Summary Check	2			2		0.5578	2	1	0.1335
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0.6	1	10	1	92966.67	0.16734	1	0.3	0.04005
A	3140	CHILLER VENT W/ TIMER	0.4	1	10	1	92966.67	0.11156	1	0.2	0.0267
A	3150	DX VENT W/OUT TIMER	0.6	1	20	1	92966.67	0.16734	1	0.3	0.04005
A	3160	DX VENT W/ TIMER	0.4	1	20	1	92966.67	0.11156	1	0.2	0.0267
*		Summary Check	2			2		0.5578	2	1	0.1335
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0.95	1	20	1	92966.67	0.264955	1	0.475	0.063413
A	3180	CHILLER W/HI EFF MOTORS	0.05	1	20	1	92966.67	0.013945	1	0.025	0.003338
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	92966.67	0.264955	1	0.475	0.063413
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	92966.67	0.013945	1	0.025	0.003338
*		Summary Check	2			2		0.5578	2	1	0.1335
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0.175	0	10	1	92966.67	0.048808	1	0.0875	0.011681
A	3220	EXH HD W/ MAKEUP - CHILLER	0.075	0	10	1	92966.67	0.020918	1	0.0375	0.005006
A	3230	NO EXH HOOD - CHILLER	0.75	0	10	1	92966.67	0.209175	1	0.375	0.050063
A	3240	EXH HD W/O MAKEUP - DX	0.385	0	10	1	92966.67	0.107377	1	0.1925	0.025699
A	3250	EXH HD W/ MAKEUP - DX	0.165	0	10	1	92966.67	0.046019	1	0.0825	0.011014
A	3260	NO EXH HOOD - DX	0.45	0	10	1	92966.67	0.125505	1	0.225	0.030038
*		Summary Check	0.615			0.615		0.5578	2	0	0
*											
#	End of End Use										
*											
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.53	0.93	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				5.91268	10.37508	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				1970893				

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.53	0.93	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				1.4151	2.4831	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0	1	15	0.28	6396949	0	3.57143	0	0
A	4020	INCANDESCENT	0.031	1	15	0.24	7463107	0.694069	4.16667	0.11739	0.166114
A	4030	FLUORESCENT	0.953	1	15	1	1791146	5.120886	1	0.86609	1.225597
A	4040	MERCURY VAPOR	0.008	1	15	0.68	2634038	0.063217	1.47059	0.01069	0.01513
A	4050	METAL HALIDE	0	1	15	1.03	1738976	0	0.97087	0	0
A	4060	HIGH PRESSURE SODIUM	0.007	1	15	1.09	1643253	0.034508	0.91743	0.00584	0.008259
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	1148170	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	2035393	0	1.13636	0	0
*		Summary Check	0.999			0.97351		5.91268	1.10035	1	1.4151
*											
A	4085	MERCURY VAPOR & HPS	0.015	1	15	0.87133	2055638	0.092504	1.14767	0.01564	0.022139
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.817	1	14	1	2065926	4.83066	1	0.85639	1.156137
A	4100	4'-34 W EE LAMPS	0.137	1	14	1	2065926	0.810037	1	0.14361	0.193869
*		Summary Check	0.954			0.954		5.640697	0.954	1	1.350005
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	2E+105	5.91E-99	1	1	1.42E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	2E+105	5.91E-99	1	1	1.42E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.024	1	15	1	5.47E+07	0.141904	1	0.66667	0.033962
A	4140	8' - 60W EE LAMPS	0.012	1	15	1	5.47E+07	0.070952	1	0.33333	0.016981
*		Summary Check	0.036			0.036		0.212856	0.036	1	0.050944
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	15	1	2E+105	5.91E-99	1	1	1.42E-99
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	2E+105	5.91E-99	1	1	1.42E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	12	1	2E+105	5.91E-99	1	1	1.42E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	12	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	12	1	2E+105	5.91E-99	1	1	1.42E-99
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	12	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	2E+105	5.91E-99	1	1	1.42E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	2E+105	5.91E-99	1	1	1.42E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	2E+105	0	1	0	0
*		Summary Check	1E-99			1E-99		5.91E-99	1E-99	1	1.42E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

```
*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    15    1   2E+105  5.91E-99    1    1  1.42E-99
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    15    1   2E+105         0    1    0         0
*         Summary Check                         1E-99              1E-99          5.91E-99  1E-99    1  1.42E-99
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    15    1   2E+105  5.91E-99    1    1  1.42E-99
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    15    1   2E+105         0    1    0         0
*         Summary Check                         1E-99              1E-99          5.91E-99  1E-99    1  1.42E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)       0.008    1    15    1 2.46E+08  0.047301    1    1  0.011321
A    4320 HPS (70/100/150/250W)                     0    1    14    1 2.46E+08         0    1    0         0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    14    1 2.46E+08         0    1    0         0
*         Summary Check                         0.008               0.008          0.047301  0.008    1  0.011321
*
A    4340 INCANDESCENT (150W)                  0.0032    1    10    1 6.16E+08  0.018921    1    1  0.004528
A    4350 HPS (35W)                                 0    1    10    1 6.16E+08         0    1    0         0
A    4360 METAL HALIDE (32W)                        0    1    10    1 6.16E+08         0    1    0         0
*         Summary Check                        0.0032              0.0032          0.018921  0.0032    1  0.004528
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.0129    1     6    1 1.53E+08  0.076274    1    1  0.018255
A    4380 COMPACT FL (15/18/27W)                    0    1     6    1 1.53E+08         0    1    0         0
*         Summary Check                        0.0129              0.0129          0.076274  0.0129    1  0.018255
*
A    4390 INCANDESCENT (150W)                  0.0029    1     6    1  6.8E+08  0.017147    1    1  0.004104
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     6    1  6.8E+08         0    1    0         0
*         Summary Check                        0.0029              0.0029          0.017147  0.0029    1  0.004104
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM               0.02    1    15    1  1970893  0.118254    1  0.11825  0.167341
A    4420 OCCUPANCY SENSORS                         0    1    15    1  1970893         0    1        0         0
A    4430 DAYLIGHTING DESIGN                        0    1    15    1  1970893         0    1        0         0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1    15    1  1970893  2.069438    1  2.06944  2.928462
A    4450 LPS SECURITY LIGHTS                       0    1    15    1  1970893         0    1        0         0
*
#   End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                          EU                          RF
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.02       0.95 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                      0.22312    10.5982 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   74373.33
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.02       0.95 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                       0.0534     2.5365 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR   APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F   Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf  OF TOT    MWD
*
A    5010 CONVENTIONAL REFRIGERATION           0.99    1    10    1  74545.36  0.2214    1  0.99229  0.052988
A    5020 HE REFRIGERATION                     0.01    1    10  1.3  57342.59 0.00172 0.76923  0.00771 0.000412
*         Summary Check                           1               1.003          0.22312 0.99769        1   0.0534
*
A    5030 MULTIPLEX:  AIR COOL                    0    1    10    1        0       0    0    0        0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC          0    1    10    1        0       0    0    0        0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC         0    1    10    1        0       0    0    0        0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S         0    1    10    1        0       0    0    0        0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT       0    1    10    1        0       0    0    0        0
A    5080 OPEN DRIVE REFRIG (ASD)                 0    1    10    1        0       0    0    0        0
A    5090 ANTI-CONDENS HEAT CONTROL             0.3    1    10    1        0       0    0    0        0
A    5100 HI R-VALUE GLASS DOORS                0.7    1    10    1        0       0    0    0        0
A    5110 ENERGY MANAGEMENT SYSTEM                0    1    10    1        0       0    0    0        0
A    5120 DUAL PATH SUPERMARKET AC                0    1    10    1        0       0    0    0        0
*
#   End of End Use
*
*
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COMMERCIAL MARKET SEGMENT "COLLEGES/UNIVERSITIES"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                          WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.015     0.965 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                       0.16734  10.76554 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     55780
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.015     0.965 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                       0.04005   2.57655 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf  OF TOT   MWD
*
A  6010 RESISTANCE                        0.5      1     10      1  111560 0.16734      1       1 0.04005
A  6020 HEAT RECOVERY                       0      1     10    100  1115.6      0   0.01       0       0
A  6030 SOLAR                               0      1     10      3 37186.67      0 0.33333       0       0
A  6040 NATURAL GAS                       0.5      1     10  1E+77 1.12E-72 1.67E-78  1E-77   1E-77   4E-79
*          Summary Check                    1               5E+76          0.16734    0.5       1 0.04005
*
A  6050 HIGH INSULATION LEVEL             0.2      1     10      1      0      0      0       0       0
A  6060 HEAT TRAP                        0.15      1     10      1      0      0      0       0       0
A  6070 LOW-FLOW SHOWERHEAD               0.1      1     10      1      0      0      0       0.      0
A  6080 TIMER ON RECIRCULATION PUMP       0.6      1     10      1      0      0      0       0       0
*
#  End of End Use
*
*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                          CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.015      0.98 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                       0.16734  10.93288 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     55780
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.015      0.98 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                       0.04005    2.6166 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %     Adj
*                                            eff   Use      RE
*          Conventional electric              1     0.1     10
*          Convection Oven                 1.154       0  1E+77
*          Conventional Gas                1E+77       0  1E+77
*          Microwave                           4     0.9 4.44444
*          Standard Efficiency Fryers          1       0  1E+77
*          High Efficiency Fryers            1.1       0  1E+77
*          Natural Gas Fryers              1E+77       0  1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf  OF TOT   MWD
*
A  7010 CONVENTIONAL ELECTRIC             0.35      1     15     10 81134.55 0.085191     0.1 0.50909 0.020389
A  7020 CONVECTION OVEN                   0.05      1     15  1E+77 8.11E-72 1.22E-78   1E-77 7.3E-78 2.91E-79
A  7030 CONVENTIONAL GAS                   0.6      1     15  1E+77 8.11E-72 1.46E-77   1E-77 8.7E-77 3 5E-78
A  7040 MICROWAVE                         0.15      1     15 4.44444 182552.7 0.082149   0.225 0.49091 0.019661
A  7050 STD EFFICIENCY FRYERS              0.2      1     15  1E+77 8.11E-72 4.87E-78   1E-77 2.9E-77 1 17E-78
A  7060 HE FRYERS                         0.15      1     20  1E+77 8.11E-72 3.65E-78   1E-77 2.2E-77 8 74E-79
A  7070 NATURAL GAS FRYERS                 0.5      1     10  1E+77 8.11E-72 1.22E-77   1E-77 7.3E-77 2 91E-78
*          Summary Check                    2               1.5E+77          0.16734 0.06875       1 0 04005
*
#  End of End Use
*
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COMMERCIAL MARKET SEGMENT "HOSPITALS"

```
*          W:\U1500\DSM94\CMSOLDHS.WQ1        <= SOURCE SPREADSHEET
*  DATE:  11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                                  1     1     1     1
*      1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345    15  1E+77  12345.6  123.456 0.12345 0.12345 123.456
*  B     B                                      B       B       B       B       B       B       B       B       B
*      E                                    E       E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel    E/Cust    Tot_E          E. FRAC    Tot_D
*     Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf  OF TOT.    MWD
*
G      1 OLD=Existing, or NEW                    MSYTPE                          OLD
G      2 Market Segment                          MS                              HS
G      3 Number of Customers                     MSNCUS                            60
G      4 Total Sq Foot                           MSFT2                           932535
G      5 Sq Foot/Cust                            FT2PC                           15542.25
G      6 Hrs open On-Pk Summer                   HOONSUM      MAX = 1694          1694
G      7 Hrs open Off-Pk Summer                  HOOFSUM      MAX = 2002          2002
G      8 Hrs open On-Pk Winter                   HOONWIN      MAX = 210            210          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                  HOOFWIN      MAX = 4860          4860            0.98
G     10 Total Gwh                               MSGWH                           61.468          60.2386
G     11 Natural Gas Availability factor         NG_AF                             0.9
G     12 Solar Availability factor               SOL_AF                            0.9
G     13 Three Phase Power Avail. Factor         TPP_AF                              1
G     14 Tons per 1000 sq foot                   MSTTPFT2                            1          Cum Sat/Cum MW-D
G     15 Window to floor ratio                   WINFLOOR                          0.1            0.98
G     16 System Coincident MWD                   MSMWD                            9.45           9.261

*
*          First End Use = Space Conditioning
*
E      1 End Use Code                            EU                              SC
E      2 Duty Cycle-LF when Operating/Open       EUOPLF                            0.75
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.1
E      4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                          0.35       0.35 <==Cum Sat
E      5 Total GWh (G7*E4)                       EUGWH                          21.5138    21.5138 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                        358563.3
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                          0.35       0.35 <==Cum Sat
E      8 Total MW-D Used by This End Use         EUMWD                          3.3075     3.3075 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*     Ap                                          Mkt     Avl     Avg     Rel    E/Cust    Tot_E          E. FRAC    Tot_D
*     Id DESCRIPTION                              Sat     Fac    Life     Eff     KWh     Gwh    1/Rf  OF TOT.    MWD
*
A   1010 LE RECIP CHILLER                         0       1      20    1.57   315615       0  0.63694       0       0
A   1012 HE SCREW CHILLER                         0       1      20    1.86  266406.2       0  0.53763       0       0
A   1015 LE CENT CHILLER                       0.4675    1      20    1.96   252814  7.091434   0.5102 0.32962 1.090227
A   1020 HE CENT CHILLER                        0.055    1      20    2.26 219254.7  0.72354 0.44248 0.03363 0.111236
A   1040 HE CENT CHILLER W/ASD                 0.0275    1      20    2.74 180845.1 0.298394 0.36496 0.01387 0.045875
A   1050 LE DX AC                              0.3325    1      15       1 495515.5 9.885535      1  0.4595 1.519788
A   1060 HE DX AC                              0.0175    1      15    1.13 438509.3 0.460435 0.88496  0.0214 0.070787
A   1065 LE ROOM AC                               0.09    1      10    0.95 521595.3 2.816615 1.05263 0.13092 0.433022
A   1070 HE ROOM AC                               0.01    1      10    1.25 396412.4 0.237847    0.8 0.01106 0.036566
A   1075 INTERNAL COMBUSTION AC                      0    1      15  1E+77 4.96E-72       0   1E-77       0       0
A   1080 OTHER FUEL OR NONE                         0    1       0  1E+77 4.96E-72       0   1E-77       0       0
*        Summary Check                             1                1.56623          21.5138 0.72362       1  3.3075

A   1090 THERMAL STORAGE                        0.05    1      15       1       0       0       0       0       0
A   1100 HEAT PIPE ENHANCED DX                      0    1      15       1       0       0       0       0       0
A   1110 HOTEL OCCUPANCY SENSORS                     1    1      10       1       0       0       0       0       0
A   1120 2-SPEED MOTOR - COOLING TOWER            0.2    1      10       1       0       0       0       0       0
A   1130 SPEED CONTROL - COOLING TOWER            0.2    1      10       1       0       0       0       0       0
A   1140 AC MAINTENANCE - CHILLER                 0.4    1      20       1       0       0       0       0       0
A   1150 AC MAINTENANCE - DX                      0.1    1      15       1       0       0       0       0       0
A   1160 DUCT/PIPE INSULATION - CHILLER          0.05    1      20       1       0       0       0       0       0
A   1170 DUCT/PIPE INSULATION - DX               0.05    1      20       1       0       0       0       0       0
A   1180 ENRG MGT SYSTEM - CHILLER                   0    1      15       1       0       0       0       0       0
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A    1190 ENRG MGT SYSTEM - DX                    0    1   15   1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0    1   15   1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0    1   15   1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0    1   20   1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0    1   20   1    0    0    0    0    0
#  End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                          EU                          SH
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.14      0.49 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                       8.60552  30.11932 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                     143425.3
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.14      0.49 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                        1.323    4.6305 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff    KWh    Gwh    1/Rf  OF TOT   MWD
*
A    1510 RESISTANCE                      0.15      1     30     1  630441 5.673969      1 0.65934 0.872308
A    1520 HEAT PUMP                        0.1      1     15   2.5 252176.4 1.513058    0.4 0.17582 0.232615
A    1530 NATURAL GAS                     0.75      1     20    20 31522.05 1.418492   0.05 0.16484 0.218077
A    1540 OTHER OR NONE                      0      1     15 1E+77 6.3E-72      0  1E-77      0      0
*         Summary Check                      1                15.4          8.60552 0.2275      1  1.323
*
#  End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                          EU                          BE
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                          1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                      1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                      0      0.49 <==Cum Sat
E       5 Total Kwh (G7*E4)                     EUGWH                           0  30.11932 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                         0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                       0      0.49 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                           0    4.6305 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel          Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff   E/Cust   Gwh    1/Rf  OF TOT   MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9      1     20     1       0      0      0      0      0
A    2020 ROOF INSULATION R >= 10.53       0.1      1     20     1       0      0      0      0      0
*         Summary Check                      1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26           1      0     20     1       0      0      0      0      0
A    2040 WALL INSULATION R=11.76           0      0     20     1       0      0      0      0      0
*         Summary Check                      1
*
A    2050 WINDOWS W/OUT FILM               0.6      1     10     1       0      0      0      0      0
A    2060 WINDOWS W/FILM                   0.4      1     10     1       0      0      0      0      0
*         Summary Check                      1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G    1      0     20     1       0      0      0      0      0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL    0      0     20     1       0      0      0      0      0
*         Summary Check                      1
*
A    2090 DARK ROOFS                       0.9      1     20     1       0      0      0      0      0
A    2100 LIGHT ROOFS                      0.1      1     20     1       0      0      0      0      0
*         Summary Check                      1
*
#  End of End Use

*
*          Next End Use = Ventilation
*
```

COMMERCIAL MARKET SEGMENT "HOSPITALS"

E	1	End Use Code	EU				VN				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				1				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.2	0.69	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				12.2936	42.41292	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				204893.3				
E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.2	0.69	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				1.89	6.5205	<==Cum Mw-D		
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	Kwh	Gwh	1/Rf	OF TOT	MWD
*											
* VENTILATION SYSTEMS											
*											
A	3010	VENTS IN CHILLERS	0.6111	1	20	1	204893.3	7.512619	1	0.6111	1.154979
A	3020	VENTS IN DX UNITS	0.3889	1	15	1	204893.3	4.780981	1	0.3889	0.735021
*		Summary Check						12.2936	1	1	1.89
*											
* DUCT LEAKAGE											
*											
A	3030	STANDARD DUCT SYSTEM - DX	0.95	1	15	1	204893.3	11.67892	1	0.95	1.7955
A	3040	LEAK FREE DUCT SYSTEM - DX	0.05	1	15	1	204893.3	0.61468	1	0.05	0.0945
*		Summary Check	1			1		12.2936	1	1	1.89
*											
*VARIABLE AIR VOLUME CONTROL											
*											
A	3050	CHILLER W/OUT VAV	0.8	1	20	1	102446.7	4.91744	1	0.4	0.756
A	3060	CHILLER W/ VAV	0.2	1	20	1	102446.7	1.22936	1	0.1	0.189
A	3070	DX AC W/OUT VAV	0.9	1	15	1	102446.7	5.53212	1	0.45	0.8505
A	3080	DX AC W/ VAV	0.1	1	15	1	102446.7	0.61468	1	0.05	0.0945
*		Summary Check	2			2		12.2936	2	1	1.89
*											
* ADJUSTABLE SPEED DRIVES											
*											
A	3090	CHILLER VAV SYSTEMS W/OUT ASD	0.95	1	15	1	102446.7	5.83946	1	0.475	0.89775
A	3100	CHILLER VAV SYSTEMS W/ ASD	0.05	1	15	1	102446.7	0.30734	1	0.025	0.04725
A	3110	DX VAV SYSTEMS W/OUT ASD	0.95	1	15	1	102446.7	5.83946	1	0.475	0.89775
A	3120	DX VAV SYSTEMS W/ ASD	0.05	1	15	1	102446.7	0.30734	1	0.025	0.04725
*		Summary Check	2			2		12.2936	2	1	1.89
*											
* TIMED VENTILATION											
*											
A	3130	CHILLER VENT W/OUT TIMER	0.6	1	10	1	102446.7	3.68808	1	0.3	0.567
A	3140	CHILLER VENT W/ TIMER	0.4	1	10	1	102446.7	2.45872	1	0.2	0.378
A	3150	DX VENT W/OUT TIMER	0.6	1	20	1	102446.7	3.68808	1	0.3	0.567
A	3160	DX VENT W/ TIMER	0.4	1	20	1	102446.7	2.45872	1	0.2	0.378
*		Summary Check	2			2		12.2936	2	1	1.89
*											
* MOTOR EFFICIENCY											
*											
A	3170	CHILLER W/LO EFF MOTORS	0.95	1	20	1	102446.7	5.83946	1	0.475	0.89775
A	3180	CHILLER W/HI EFF MOTORS	0.05	1	20	1	102446.7	0.30734	1	0.025	0.04725
A	3190	DX UNIT W/LO EFF MOTORS	0.95	1	15	1	102446.7	5.83946	1	0.475	0.89775
A	3200	DX UNIT W/HI EFF MOTORS	0.05	1	15	1	102446.7	0.30734	1	0.025	0.04725
*		Summary Check	2			2		12.2936	2	1	1.89
*											
* MAKE-UP AIR FOR EXHAUST HOODS											
*											
A	3210	EXH HD W/O MAKEUP - CHILLER	0.385	0	10	1	102446.7	2.366518	1	0.1925	0.363825
A	3220	EXH HD W/ MAKEUP - CHILLER	0.165	0	10	1	102446.7	1.014222	1	0.0825	0.155925
A	3230	NO EXH HOOD - CHILLER	0.45	0	10	1	102446.7	2.76606	1	0.225	0.42525
A	3240	EXH HD W/O MAKEUP - DX	0.245	0	10	1	102446.7	1.505966	1	0.1225	0.231525
A	3250	EXH HD W/ MAKEUP - DX	0.105	0	10	1	102446.7	0.645414	1	0.0525	0.099225
A	3260	NO EXH HOOD - DX	0.65	0	10	1	102446.7	3.99542	1	0.325	0.61425
*		Summary Check	0.755			0.755		12.2936	2	0	0
*											
# End of End Use											
*		Next End Use = Lighting									
*											
E	1	End Use Code	EU				LT				
E	2	Duty Cycle-LF when Operating/Open	EUOPLF				0.9				
E	3	Duty Cycle-LF when Not Operating/Closed	EUNOOPLF				0.25				
E	4	Frac of Mkt Seg Kwh used by this End Use	EUGWHFR				0.16	0.85	<==Cum Sat		
E	5	Total GWh (G7*E4)	EUGWH				9.83488	52.2478	<==Cum Gwh		
E	6	Average Kwh Use Per Customer (E5/G2)	EUKWHPC				163914.7				

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.16	0.85	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				1.512	8.0325	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0.009	1	15	0.28	521447.5	0.281582	3.57143	0.02863	0.04329
A	4020	INCANDESCENT	0.031	1	15	0.24	608355.4	1.131541	4.16667	0.11505	0.173961
A	4030	FLUORESCENT	0.954	1	15	1	146005.3	8.357343	1	0.84977	1.284846
A	4040	MERCURY VAPOR	0.005	1	15	0.68	214713.7	0.064414	1.47059	0.00655	0.009903
A	4050	METAL HALIDE	0	1	15	1.03	141752.7	0	0.97087	0	0
A	4060	HIGH PRESSURE SODIUM	0	1	15	1.09	133949.8	0	0.91743	0	0
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	93593.14	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	165915.1	0	1.13636	0	0
*		Summary Check	0.999			0.96736		9.83488	1.12266	1	1.512
*											
A	4085	MERCURY VAPOR & HPS	0.005	1	15	0.68	214713.7	0.064414	1.47059	0.00655	0.009903
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.572	1	14	1	168984.2	5.625551	1	0.58969	0.864864
A	4100	4'-34 W EE LAMPS	0.398	1	14	1	168984.2	3.914282	1	0.41031	0.601776
*		Summary Check	0.97			0.97		9.539834	0.97	1	1.46664
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	10	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	10	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	10	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	10	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.005	1	8	1	3.28E+07	0.049174	1	1	0.00756
A	4140	8' - 60W EE LAMPS	0	1	10	1	3.28E+07	0	1	0	0
*		Summary Check	0.005			0.005		0.049174	0.005	1	0.00756
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	10	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	10	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	10	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	10	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	8	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	8	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	0.005	1	8	1	3.28E+07	0.049174	1	1	0.00756
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	8	1	3.28E+07	0	1	0	0
*		Summary Check	0.005			0.005		0.049174	0.005	1	0.00756
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	10	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	10	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	10	1	1.6E+104	9.83E-99	1	1	1.51E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	10	1	1.6E+104	0	1	0	0
*		Summary Check	1E-99			1E-99		9.83E-99	1E-99	1	1.51E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

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*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    10     1 1.6E+104 9.83E-99    1    1 1.51E-99
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    10     1 1.6E+104        0    1    0        0
*         Summary Check                         1E-99                1E-99          9.83E-99 1E-99    1 1.51E-99
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    10     1 1.6E+104 9.83E-99    1    1 1.51E-99
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    10     1 1.6E+104        0    1    0        0
*         Summary Check                         1E-99                1E-99          9.83E-99 1E-99    1 1.51E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)       0.003    1    10     1 5.46E+07 0.029505    1    1 0.004536
A    4320 HPS (70/100/150/250W)                     0    1    10     1 5.46E+07        0    1    0        0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    10     1 5.46E+07        0    1    0        0
*         Summary Check                         0.003                0.003          0.029505 0.003    1 0.004536
*
A    4340 INCANDESCENT (150W)                  0.0003    1     6     1 5.46E+08  0.00295    1    1 0.000454
A    4350 HPS (35W)                                 0    1     6     1 5.46E+08        0    1    0        0
A    4360 METAL HALIDE (32W)                        0    1     6     1 5.46E+08        0    1    0        0
*         Summary Check                        0.0003                0.0003          0.00295 0.0003    1 0.000454
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.0129    1     4     1 1.27E+07 0.12687    1    1 0.019505
A    4380 COMPACT FL (15/18/27W)                    0    1     4     1 1.27E+07        0    1    0        0
*         Summary Check                        0.0129                0.0129          0.12687 0.0129    1 0.019505
*
A    4390 INCANDESCENT (150W)                  0.0029    1     4     1 5.65E+07 0.028521    1    1 0.004385
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     4     1 5.65E+07        0    1    0        0
*         Summary Check                        0.0029                0.0029          0.028521 0.0029    1 0.004385
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM              0.02    1    15     1 163914.7 0.196698    1 0.1967 0.297407
A    4420 OCCUPANCY SENSORS                         0    1    15     1 163914.7        0    1    0        0
A    4430 DAYLIGHTING DESIGN                        0    1    10     1 163914.7        0    1    0        0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1    15     1 163914.7 3.442208    1 3.44221 5.204618
A    4450 LPS SECURITY LIGHTS                       0    1    15     1 163914.7        0    1    0        0
*
#    End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                         EU                          RF
E       2 Duty Cycle-LF when Operating/Open    EUOPLF                         0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                     0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0.035     0.885 <==Cum Sat
E       5 Total GWh (G7*E4)                    EUGWH                       2.15138  54.39918 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    35856.33
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.035     0.885 <==Cum Sat
E       8 Total MW-D Used by This End Use      EUMWD                      0.33075   8.36325 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id  DESCRIPTION                      Sat    Fac   Life   Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A    5010 CONVENTIONAL REFRIGERATION        0.9    1    10     1 39840.37 2.15138    1    1 0.33075
A    5020 HE REFRIGERATION                    0    1    10   1.3 30646.44      0 0.76923    0        0
*         Summary Check                      0.9                0.9          2.15138  0.9    1 0.33075
*
A    5030 MULTIPLEX:  AIR COOL                0    1    10     1       0      0    0    0        0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC      0    1    10     1       0      0    0    0        0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC     0    1    10     1       0      0    0    0        0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S     0    1    10     1       0      0    0    0        0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT   0    1    10     1       0      0    0    0        0
A    5080 OPEN DRIVE REFRIG (ASD)             0    1    10     1       0      0    0    0        0
A    5090 ANTI-CONDENS HEAT CONTROL         0.3    1    10     1       0      0    0    0        0
A    5100 HI R-VALUE GLASS DOORS            0.7    1    10     1       0      0    0    0        0
A    5110 ENERGY MANAGEMENT SYSTEM            0    1    10     1       0      0    0    0        0
A    5120 DUAL PATH SUPERMARKET AC            0    1    10     1       0      0    0    0        0
*
#    End of End Use
*
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```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                          WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                   0.065      0.95 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                      3.99542   58.3946 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   66590.33
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.065      0.95 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                      0.61425    8.9775 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf  OF TOT    MWD
*
A  6010 RESISTANCE                        0.25      1     10      1 266361.3 3.99542      1       1 0.61425
A  6020 HEAT RECOVERY                        0      1     10    100 2663.613      0   0.01       0      0
A  6030 SOLAR                                0      1     10      3 88787.11      0 0.33333       0      0
A  6040 NATURAL GAS                       0.75      1     10  1E+77 2.66E-72 1.2E-76   1E-77   3E-77 1.84E-77
*          Summary Check                     1                7.5E+76          3.99542   0.25       1 0.61425
*
A  6050 HIGH INSULATION LEVEL             0.2      1     10      1      0      0      0       0      0
A  6060 HEAT TRAP                        0.15      1     10      1      0      0      0       0      0
A  6070 LOW-FLOW SHOWERHEAD               0.1      1     10      1      0      0      0       0      0
A  6080 TIMER ON RECIRCULATION PUMP       0.6      1     10      1      0      0      0       0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                          CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                       0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.03      0.98 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                      1.84404  60.23864 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                      30734
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                    0.03      0.98 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                      0.2835     9.261 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %    Adj
*                                            eff   Use     RE
*          Conventional electric               1   0.1     10
*          Convection Oven                 1.154     0  1E+77
*          Conventional Gas                1E+77     0  1E+77
*          Microwave                           4   0.9 4.44444
*          Standard Efficiency Fryers          1     0  1E+77
*          High Efficiency Fryers            1.1     0  1E+77
*          Natural Gas Fryers              1E+77     0  1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf  OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC             0.15      1     10     10 37253.33 0.33528     0.1 0.18182 0.051545
A  7020 CONVECTION OVEN                    0.1      1     10  1E+77 3.73E-72 2.24E-77   1E-77  1.2E-77 3.44E-78
A  7030 CONVENTIONAL GAS                  0.75      1     10  1E+77 3.73E-72 1.68E-76   1E-77  9.1E-77 2.58E-77
A  7040 MICROWAVE                          0.3      1     10 4.44444   83820 1.50876   0.225 0.81818 0.231955
A  7050 STD EFFICIENCY FRYERS             0.15      1     10  1E+77 3.73E-72 3.35E-77   1E-77  1.8E-77 5.15E-78
A  7060 HE FRYERS                         0.05      1     10  1E+77 3.73E-72 1.12E-77   1E-77  6.1E-78 1.72E-78
A  7070 NATURAL GAS FRYERS                 0.5      1     10  1E+77 3.73E-72 1.12E-76   1E-77  6.1E-77 1.72E-77
*          Summary Check                     2                1.6E+77          1.84404  0.0825       1  0.2835
*
#  End of End Use
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COMMERCIAL MARKET SEGMENT "HOTEL/MOTELS"

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*          W:\U1500\DSM94\CMSOLDHM.WQ1        <= SOURCE SPREADSHEET
*  DATE: 11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                                  1        1        1        1
*     1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345     15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*  B     B                                      B       B       B       B       B       B       B       B       B
*     E                                      E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT  APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat    Fac   Life     Eff    KWh     Gwh    1/Rf OF TOT.    MWD
*
G      1 OLD=Existing, or NEW                    MSYTPE                          OLD
G      2 Market Segment                          MS                              HM
G      3 Number of Customers                     MSNCUS                          290
G      4 Total Sq Foot                           MSFT2                           2343154
G      5 Sq Foot/Cust                            FT2PC                           8079.841
G      6 Hrs open On-Pk Summer                   HOONSUM        MAX = 1694       1694
G      7 Hrs open Off-Pk Summer                  HOOFSUM        MAX = 2002       2002
G      8 Hrs open On-Pk Winter                   HOONWIN        MAX = 210        210          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                  HOOFWIN        MAX = 4860       4860            0.99
G     10 Total Gwh                               MSGWH                           53.921          53.3818
G     11 Natural Gas Availability factor         NG_AF                           0.5
G     12 Solar Availability factor               SOL_AF                          0.9
G     13 Three Phase Power Avail. Factor         TPP_AF                          0.85
G     14 Tons per 1000 sq foot                   MSTTPFT2                        1.5          Cum Sat/Cum MW-D
G     15 Window to floor ratio                   WINFLOOR                        0.25            0.99
G     16 System Coincident MWD                   MSMWD                           10.32           10.2168
*
*          First End Use = Space Conditioning
*
E      1 End Use Code                            EU                              SC
E      2 Duty Cycle-LF when Operating/Open       EUOPLF                          0.75
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                        0.1
E      4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                         0.31      0.31 <==Cum Sat
E      5 Total GWh (G7*E4)                       EUGWH                           16.71551  16.71551 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                         57639.69
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                         0.31      0.31 <==Cum Sat
E      8 Total MW-D Used by This End Use         EUMWD                           3.1992    3.1992 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE    APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg     Rel   E/Cust   Tot_E          E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat    Fac   Life     Eff    KWh     Gwh    1/Rf OF TOT.    MWD
*
A   1010 LE RECIP CHILLER                        0.09      1     20    1.57  37754.12 0.985382 0.63694 0.05895 0.188593
A   1012 HE SCREW CHILLER                        0.01      1     20    1.86  31867.72 0.092416 0.53763 0.00553 0.017688
A   1015 LE CENT CHILLER                          0      1     20    1.96  30241.82       0  0.5102       0       0
A   1020 HE CENT CHILLER                          0      1     20    2.26  26227.42       0 0.44248       0       0
A   1040 HE CENT CHILLER W/ASD                    0      1     20    2.74  21632.83       0 0.36496       0       0
A   1050 LE DX AC                             0.4275      1     15       1  59273.96 7.34849       1 0.43962 1.406436
A   1060 HE DX AC                             0.0225      1     15    1.13  52454.83 0.342268 0.88496 0.02048 0.065507
A   1065 LE ROOM AC                            0.405      1     10    0.95  62393.65 7.328134 1.05263  0.4384  1.40254
A   1070 HE ROOM AC                            0.045      1     10    1.25  47419.17  0.61882     0.8 0.03702 0.118437
A   1075 INTERNAL COMBUSTION AC                   0      1     15  1E+77  5.93E-73       0  1E-77       0       0
A   1080 OTHER FUEL OR NONE                       0      1      0  1E+77  5.93E-73       0  1E-77       0       0
*          Summary Check                         1                1.05383          16.71551 0.97243       1  3.1992

A   1090 THERMAL STORAGE                       0.05      1     15       1       0       0       0       0       0
A   1100 HEAT PIPE ENHANCED DX                    0      1     15       1       0       0       0       0       0
A   1110 HOTEL OCCUPANCY SENSORS                  0      1     10       1       0       0       0       0       0
A   1120 2-SPEED MOTOR - COOLING TOWER          0.2      1     10       1       0       0       0       0       0
A   1130 SPEED CONTROL - COOLING TOWER          0.2      1     10       1       0       0       0       0       0
A   1140 AC MAINTENANCE - CHILLER               0.4      1     20       1       0       0       0       0       0
A   1150 AC MAINTENANCE - DX                    0.1      1     15       1       0       0       0       0       0
A   1160 DUCT/PIPE INSULATION - CHILLER        0.05      1     20       1       0       0       0       0       0
A   1170 DUCT/PIPE INSULATION - DX              0.05      1     20       1       0       0       0       0       0
A   1180 ENRG MGT SYSTEM - CHILLER                 0      1     15       1       0       0       0       0       0
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A    1190 ENRG MGT SYSTEM - DX                    0    1   15   1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0    1   15   1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0    1   15   1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0    1   20   1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0    1   20   1    0    0    0    0    0
#   End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                          EU                          SH
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.4
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.06      0.37 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                       3.23526  19.95077 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                    11156.07
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.06      0.37 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                       0.6192    3.8184 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel    E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff    KWh    Gwh    1/Rf  OF TOT   MWD
*
A    1510 RESISTANCE                      0.45    1     30     1  19152.05 2.499342    1  0.77253 0.478352
A    1520 HEAT PUMP                       0.3     1     15   2.5   7660.82 0.666491  0.4  0.20601 0.127561
A    1530 NATURAL GAS                     0.25    1     20    20  957.6025 0.069426 0.05  0.02146 0.013288
A    1540 OTHER OR NONE                   0       1     15  1E+77 1.92E-73 0       1E-77  0       0
*         Summary Check                   1                 6.2            3.23526 0.5825  1     0.6192
*
#   End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                          EU                          BE
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0         0.37 <==Cum Sat
E       5 Total Kwh (G7*E4)                     EUGWH                         0     19.95077 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                       0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0         0.37 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                         0       3.8184 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel           Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff    E/Cust  Gwh    1/Rf  OF TOT   MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9     1     20     1      0      0      0      0      0
A    2020 ROOF INSULATION R >= 10.53       0.1     1     20     1      0      0      0      0      0
*         Summary Check                   1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26          1       0     20     1      0      0      0      0      0
A    2040 WALL INSULATION R=11.76          0       0     20     1      0      0      0      0      0
*         Summary Check                   1
*
A    2050 WINDOWS W/OUT FILM               0.6     1     10     1      0      0      0      0      0
A    2060 WINDOWS W/FILM                   0.4     1     10     1      0      0      0      0      0
*         Summary Check                   1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G   1       0     20     1      0      0      0      0      0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL   0       0     20     1      0      0      0      0      0
*         Summary Check                   1
*
A    2090 DARK ROOFS                       0.9     1     20     1      0      0      0      0      0
A    2100 LIGHT ROOFS                      0.1     1     20     1      0      0      0      0      0
*         Summary Check                   1
*
#   End of End Use

*
*          Next End Use = Ventilation
*
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COMMERCIAL MARKET SEGMENT "HOTEL/MOTELS"

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E      1 End Use Code                          EU                                VN
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                                 1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                             0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.15      0.52 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                            8.08815  28.03892 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                         27890.17
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.15      0.52 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                             1.548    5.3664 <==Cum Mw-D
*  APID  APLAB                              APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                       Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                           Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
* VENTILATION SYSTEMS
*
A   3010 VENTS IN CHILLERS                    0.5      1     20      1 27890.17 4.044075     1    0.5  0.774
A   3020 VENTS IN DX UNITS                    0.5      1     15      1 27890.17 4.044075     1    0.5  0.774
*        Summary Check                                                          8.08815     1      1  1.548
*
* DUCT LEAKAGE
*
A   3030 STANDARD DUCT SYSTEM - DX            0.95      1     15      1 27890.17 7.683742     1   0.95 1.4706
A   3040 LEAK FREE DUCT SYSTEM - DX            0.05      1     15      1 27890.17 0.404407     1   0.05 0.0774
*        Summary Check                           1                    1          8.08815     1      1  1.548
*
*VARIABLE AIR VOLUME CONTROL
*
A   3050 CHILLER W/OUT VAV                     0.8      1     20      1 13945.09 3.23526     1    0.4 0.6192
A   3060 CHILLER W/ VAV                        0.2      1     20      1 13945.09 0.808815    1    0.1 0.1548
A   3070 DX AC W/OUT VAV                       0.9      1     15      1 13945.09 3.639667    1   0.45 0.6966
A   3080 DX AC W/ VAV                          0.1      1     15      1 13945.09 0.404407    1   0.05 0.0774
*        Summary Check                           2                    2          8.08815     2      1  1.548
*
* ADJUSTABLE SPEED DRIVES
*
A   3090 CHILLER VAV SYSTEMS W/OUT ASD        0.95      1     15      1 13945.09 3.841871    1  0.475 0.7353
A   3100 CHILLER VAV SYSTEMS W/ ASD            0.05      1     15      1 13945.09 0.202204    1  0.025 0.0387
A   3110 DX VAV SYSTEMS W/OUT ASD              0.95      1     15      1 13945.09 3.841871    1  0.475 0.7353
A   3120 DX VAV SYSTEMS W/ ASD                 0.05      1     15      1 13945.09 0.202204    1  0.025 0.0387
*        Summary Check                           2                    2          8.08815     2      1  1.548
*
* TIMED VENTILATION
*
A   3130 CHILLER VENT W/OUT TIMER              0.6      1     10      1 13945.09 2.426445    1    0.3 0.4644
A   3140 CHILLER VENT W/ TIMER                  0.4      1     10      1 13945.09 1.61763     1    0.2 0.3096
A   3150 DX VENT W/OUT TIMER                    0.6      1     20      1 13945.09 2.426445    1    0.3 0.4644
A   3160 DX VENT W/ TIMER                       0.4      1     20      1 13945.09 1.61763     1    0.2 0.3096
*        Summary Check                           2                    2          8.08815     2      1  1.548
*
* MOTOR EFFICIENCY
*
A   3170 CHILLER W/LO EFF MOTORS               0.95      1     20      1 13945.09 3.841871    1  0.475 0.7353
A   3180 CHILLER W/HI EFF MOTORS                0.05      1     20      1 13945.09 0.202204    1  0.025 0.0387
A   3190 DX UNIT W/LO EFF MOTORS                0.95      1     15      1 13945.09 3.841871    1  0.475 0.7353
A   3200 DX UNIT W/HI EFF MOTORS                0.05      1     15      1 13945.09 0.202204    1  0.025 0.0387
*        Summary Check                           2                    2          8.08815     2      1  1.548
*
* MAKE-UP AIR FOR EXHAUST HOODS
*
A   3210 EXH HD W/O MAKEUP - CHILLER            0      0     10      1 2.8E+103     0     1      0      0
A   3220 EXH HD W/ MAKEUP - CHILLER              0      0     10      1 2.8E+103     0     1      0      0
A   3230 NO EXH HOOD  - CHILLER              1E-99      0     10      1 2.8E+103 8.08815     1      1  1.548
A   3240 EXH HD W/O MAKEUP - DX                  0      0     10      1 2.8E+103     0     1      0      0
A   3250 EXH HD W/ MAKEUP - DX                   0      0     10      1 2.8E+103     0     1      0      0
A   3260 NO EXH HOOD  - DX                       0      0     10      1 2.8E+103     0     1      0      0
*        Summary Check                           0                    0          8.08815  1E-99      0      0
*
#   End of End Use

*        Next End Use = Lighting
*
E      1 End Use Code                          EU                                LT
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                               0.9
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.25
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.21      0.73 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                           11.32341  39.36233 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                         39046.24
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COMMERCIAL MARKET SEGMENT "HOTEL/MOTELS"

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.21	0.73	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				2.1672	7.5336	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0.007	1	15	0.28	62088.07	0.126039	3.57143	0.01113	0.024123
A	4020	INCANDESCENT	0.387	1	15	0.24	72436.08	8.129502	4.16667	0.71794	1.555914
A	4030	FLUORESCENT	0.594	1	15	1	17384.66	2.994681	1	0.26447	0.573155
A	4040	MERCURY VAPOR	0.008	1	15	0.68	25565.68	0.059312	1.47059	0.00524	0.011352
A	4050	METAL HALIDE	0	1	15	1.03	16878.31	0	0.97087	0	0
A	4060	HIGH PRESSURE SODIUM	0.003	1	15	1.09	15949.23	0.013876	0.91743	0.00123	0.002656
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	11144.01	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	19755.3	0	1.13636	0	0
*		Summary Check	0.999			0.69755		11.32341	2.24602	1	2.1672
*											
A	4085	MERCURY VAPOR & HPS	0.011	1	15	0.79182	21955.37	0.070038	1.26292	0.00619	0.013405
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.79	1	14	1	43627.09	8.945494	1	0.88268	1.712088
A	4100	4'-34 W EE LAMPS	0.105	1	14	1	43627.09	1.188958	1	0.11732	0.227556
*		Summary Check	0.895			0.895		10.13445	0.895	1	1.939644
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.019	1	15	1	565887.6	0.215145	1	0.27536	0.041177
A	4140	8' - 60W EE LAMPS	0.05	1	15	1	565887.6	0.566171	1	0.72464	0.10836
*		Summary Check	0.069			0.069		0.781315	0.069	1	0.149537
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	3.9E+103	1.13E-98	1	1	2.17E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	3.9E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		1.13E-98	1E-99	1	2.17E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

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*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    15    1 3.9E+103 1.13E-98    1    1 2.17E-99
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    15    1 3.9E+103        0    1    0        0
*         Summary Check                         1E-99              1E-99          1.13E-98 1E-99    1 2.17E-99
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    15    1 3.9E+103 1.13E-98    1    1 2.17E-99
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    15    1 3.9E+103        0    1    0        0
*         Summary Check                         1E-99              1E-99          1.13E-98 1E-99    1 2.17E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)      0.0077    1    15    1  5070940 0.08719    1    1 0.016687
A    4320 HPS (70/100/150/250W)                     0    1    15    1  5070940       0    1    0        0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    15    1  5070940       0    1    0        0
*         Summary Check                       0.0077              0.0077          0.08719 0.0077    1 0.016687
*
A    4340 INCANDESCENT (150W)                  0.0245    1    12    1  1593724 0.277424    1    1 0.053096
A    4350 HPS (35W)                                 0    1    12    1  1593724       0    1    0        0
A    4360 METAL HALIDE (32W)                        0    1    12    1  1593724       0    1    0        0
*         Summary Check                       0.0245              0.0245          0.277424 0.0245    1 0.053096
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)            0.1586    1     8    1 246193.2 1.795893    1    1 0.343718
A    4380 COMPACT FL (15/18/27W)                    0    1     8    1 246193.2       0    1    0        0
*         Summary Check                       0.1586              0.1586          1.795893 0.1586    1 0.343718
*
A    4390 INCANDESCENT (150W)                  0.0362    1     8    1  1078625 0.409907    1    1 0.078453
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     8    1  1078625       0    1    0        0
*         Summary Check                       0.0362              0.0362          0.409907 0.0362    1 0.078453
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM              0.02    1    15    1 39046.24 0.226468    1  0.22647 0.490802
A    4420 OCCUPANCY SENSORS                         0    1    15    1 39046.24       0    1        0        0
A    4430 DAYLIGHTING DESIGN                        0    1    15    1 39046.24       0    1        0        0
A    4440 PHOTOELECTRIC CONTROL                 0.35    1    15    1 39046.24 3.963193    1  3.96319 8.589033
A    4450 LPS SECURITY LIGHTS                       0    1    15    1 39046.24       0    1        0        0
*
#    End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                         EU                          RF
E       2 Duty Cycle-LF when Operating/Open    EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.035     0.765 <==Cum Sat
E       5 Total GWh (G7*E4)                    EUGWH                      1.887235  41.24957 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                    6507.707
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.035     0.765 <==Cum Sat
E       8 Total MW-D Used by This End Use      EUMWD                      0.3612    7.8948 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg   Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life   Eff    Kwh    Gwh   1/Rf OF TOT   MWD
*
A    5010 CONVENTIONAL REFRIGERATION       0.9    1    10    1  6661.432 1.738634    1 0.92126 0.332759
A    5020 HE REFRIGERATION                 0.1    1    10  1.3  5124.179 0.148601 0.76923 0.07874 0.028441
*         Summary Check                      1              1.03          1.887235 0.97692    1   0.3612
*
A    5030 MULTIPLEX:  AIR COOL                0    1    10    1        0       0    0    0    0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC      0    1    10    1        0       0    0    0    0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC     0    1    10    1        0       0    0    0    0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S     0    1    10    1        0       0    0    0    0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT   0    1    10    1        0       0    0    0    0
A    5080 OPEN DRIVE REFRIG (ASD)             0    1    10    1        0       0    0    0    0
A    5090 ANTI-CONDENS HEAT CONTROL         0.3    1    10    1        0       0    0    0    0
A    5100 HI R-VALUE GLASS DOORS            0.7    1    10    1        0       0    0    0    0
A    5110 ENERGY MANAGEMENT SYSTEM            0    1    10    1        0       0    0    0    0
A    5120 DUAL PATH SUPERMARKET AC            0    1    10    1        0       0    0    0    0
*
#    End of End Use
*
```

COMMERCIAL MARKET SEGMENT "HOTEL/MOTELS"

```
*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                          WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                     0.2     0.965 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                      10.7842  52.03377 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                    37186.9
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                      0.2     0.965 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                      2.064    9.9588 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  6010 RESISTANCE                        0.25      1     15      1 148747.6 10.7842      1      1  2.064
A  6020 HEAT RECOVERY                        0      1     15    100 1487.476      0   0.01      0      0
A  6030 SOLAR                                0      1     20      3 49582.53      0 0.33333      0      0
A  6040 NATURAL GAS                       0.75      1     10   1E+77 1.49E-72 3.24E-76  1E-77  3E-77 6.19E-77
*          Summary Check                     1                7.5E+76          10.7842   0.25      1  2.064
*
A  6050 HIGH INSULATION LEVEL             0.2      1     10      1      0      0      0      0      0
A  6060 HEAT TRAP                        0.15      1     10      1      0      0      0      0      0
A  6070 LOW-FLOW SHOWERHEAD               0.1      1     10      1      0      0      0      0      0
A  6080 TIMER ON RECIRCULATION PUMP       0.6      1     10      1      0      0      0      0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                          CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                         0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                       0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                     0.025      0.99 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                     1.348025  53.38179 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                   4648.362
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.025      0.99 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                      0.258  10.2168 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %     Adj
*                                            eff   Use      RE
*          Conventional electric               1   0.1      10
*          Convection Oven                 1.154     0   1E+77
*          Conventional Gas                1E+77     0   1E+77
*          Microwave                           4   0.9 4.44444
*          Standard Efficiency Fryers          1     0   1E+77
*          High Efficiency Fryers            1.1     0   1E+77
*          Natural Gas Fryers              1E+77     0   1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff     Kwh    Gwh   1/Rf OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC             0.85      1     15     10 1831.867 0.451555    0.1 0.33498 0.086424
A  7020 CONVECTION OVEN                    0.1      1     15   1E+77 1.83E-73 5.31E-78  1E-77 3.9E-78 1.02E-78
A  7030 CONVENTIONAL GAS                  0.05      1     15   1E+77 1.83E-73 2.66E-78  1E-77   2E-78 5.08E-79
A  7040 MICROWAVE                         0.75      1     15 4.44444   4121.7  0.89647  0.225 0.66502 0.171576
A  7050 STD EFFICIENCY FRYERS             0.15      1     15   1E+77 1.83E-73 7.97E-78  1E-77 5.9E-78 1.53E-78
A  7060 HE FRYERS                         0.05      1     20   1E+77 1.83E-73 2.66E-78  1E-77   2E-78 5.08E-79
A  7070 NATURAL GAS FRYERS                0.05      1     10   1E+77 1.83E-73 2.66E-78  1E-77   2E-78 5.08E-79
*          Summary Check                     2                4E+76          1.348025 0.25375      1  0.258
*
#  End of End Use
```

COMMERCIAL MARKET SEGMENT "MISCELLANEOUS"

```
*          W:\U1500\DSM94\CMSOLDMS.WQ1        <= SOURCE SPREADSHEET
*  DATE: 11/30/94
*  MARKET SEGMENT DATABASE - GLOBAL, APPLIANCE, AND END USE DATA
*                                             -----
*   TO Save, print, print to file, or look, type:   Alt-D
*                                             -----
*
*
*  1 6    <== Col Widths    41    Col Widths ==>        8        8        8        8        9        9        8        8        9
*  Column numbers                                     1     1     1     1
*      1     2     3     4     5     6     7     8     9     0     1     2     3
*  345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567
*  SAS variable names
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*   1010 LabelLabelLabelLabelLabelLabelLabelLabel 0.12345 0.12345    15  1E+77  12345.6  123.456 0.12345 0.12345  123.456
*  B     B                                      B       B       B       B       B       B       B       B       B
*      E                                      E       E       E       E       E       E       E       E       E
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg    Rel   E/Cust   Tot_E         E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat    Fac   Life    Eff    KWh    Gwh    1/Rf OF TOT.    MWD
*
G      1 OLD=Existing, or NEW                    MSYTPE                        OLD
G      2 Market Segment                          MS                            MS
G      3 Number of Customers                     MSNCUS                          2512
G      4 Total Sq Foot                           MSFT2                        3685443
G      5 Sq Foot/Cust                            FT2PC                        1467.135
G      6 Hrs open On-Pk Summer                   HOONSUM      MAX = 1694         1271
G      7 Hrs open Off-Pk Summer                  HOOFSUM      MAX = 2002          577
G      8 Hrs open On-Pk Winter                   HOONWIN      MAX = 210           105          Cum Sat/Cum GWh
G      9 Hrs open Off-Pk Winter                  HOOFWIN      MAX = 4860         3645            0.609
G     10 Total Gwh                               MSGWH                         168.13          102.391
G     11 Natural Gas Availability factor         NG_AF                          0.75
G     12 Solar Availability factor               SOL_AF                          0.8
G     13 Three Phase Power Avail. Factor         TPP_AF                         0.75
G     14 Tons per 1000 sq foot                   MSTTPFT2                          2          Cum Sat/Cum MW-D
G     15 Window to floor ratio                   WINFLOOR                       0.25            0.609
G     16 System Coincident MWD                   MSMWD                          38.87          23.6718
*
*          First End Use = Space Conditioning
*
E      1 End Use Code                            EU                            SC
E      2 Duty Cycle-LF when Operating/Open       EUOPLF                         0.75
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                        0.1
E      4 Frac of Mkt Seg GWh used by this End Us EUGWHFR                       0.221     0.221 <==Cum Sat
E      5 Total GWh (G7*E4)                       EUGWH                       37.15673  37.15673 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)    EUKWHPC                     14791.69
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                       0.221     0.221 <==Cum Sat
E      8 Total MW-D Used by This End Use         EUMWD                        8.59027   8.59027 <==Cum Mw-D
*  APID  APLAB                                  APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*     Ap                                          Mkt    Avl    Avg    Rel   E/Cust   Tot_E         E. FRAC   Tot_D
*     Id DESCRIPTION                              Sat    Fac   Life    Eff    KWh    Gwh    1/Rf OF TOT.    MWD
*
A   1010 LE RECIP CHILLER                        0.225      1     20   1.57 10363.92  5.85769 0.63694 0.15765 1.35424
A   1012 HE SCREW CHILLER                        0.025      1     20   1.86 8748.044 0.549377 0.53763 0.01479 0.127011
A   1015 LE CENT CHILLER                            0      1     20   1.96 8301.715      0  0.5102      0      0
A   1020 HE CENT CHILLER                            0      1     20   2.26 7199.718      0 0.44248      0      0
A   1040 HE CENT CHILLER W/ASD                      0      1     20   2.74 5938.453      0 0.36496      0      0
A   1050 LE DX AC                               0.5225      1     15      1 16271.36 21.35649      1 0.57477 4.93741
A   1060 HE DX AC                               0.0275      1     15   1.13 14399.44 0.994713 0.88496 0.02677 0.229968
A   1065 LE ROOM AC                               0.18      1     10   0.95 17127.75 7.744483 1.05263 0.20843 1.790448
A   1070 HE ROOM AC                               0.02      1     10   1.25 13017.09 0.653979    0.8  0.0176 0.151193
A   1075 INTERNAL COMBUSTION AC                     0      1     15  1E+77 1.63E-73      0  1E-77      0      0
A   1080 OTHER FUEL OR NONE                         0      1      0  1E+77 1.63E-73      0  1E-77      0      0
*        Summary Check                             1                1.14933          37.15673 0.90906      1 8.59027

A   1090 THERMAL STORAGE                        0.05      1     15      1      0      0      0      0      0
A   1100 HEAT PIPE ENHANCED DX                      0      1     15      1      0      0      0      0      0
A   1110 HOTEL OCCUPANCY SENSORS                    0      1     10      1      0      0      0      0      0
A   1120 2-SPEED MOTOR - COOLING TOWER            0.2      1     10      1      0      0      0      0      0
A   1130 SPEED CONTROL - COOLING TOWER            0.2      1     10      1      0      0      0      0      0
A   1140 AC MAINTENANCE - CHILLER                  0.4      1     20      1      0      0      0      0      0
A   1150 AC MAINTENANCE - DX                       0.1      1     15      1      0      0      0      0      0
A   1160 DUCT/PIPE INSULATION - CHILLER          0.05      1     20      1      0      0      0      0      0
A   1170 DUCT/PIPE INSULATION - DX                0.05      1     20      1      0      0      0      0      0
A   1180 ENRG MGT SYSTEM - CHILLER                 0.2      1     15      1      0      0      0      0      0
```

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A    1190 ENRG MGT SYSTEM - DX                    0.1    1    15    1    0    0    0    0    0
A    1200 TEMP SETUP/SETBACK - CHILLER            0.3    1    15    1    0    0    0    0    0
A    1210 TEMP SETUP/SETBACK - DX                 0.1    1    15    1    0    0    0    0    0
A    1220 GAS-FIRED CHILLER                       0      1    20    1    0    0    0    0    0
A    1230 GAS-FIRED DX AC                         0      1    20    1    0    0    0    0    0
#   End of End Use

*
*          Next End Use = Space Heating
*
E       1 End Use Code                          EU                          SH
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.046
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                    0.04     0.261 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                         6.7252  43.88193 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                    2677.229
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                     0.04     0.261 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                         1.5548  10.14507 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    KWh    Gwh   1/Rf OF TOT    MWD
*
A    1510 RESISTANCE                      0.25    1     30      1  8301.486 5.213333   1  0.77519 1.205271
A    1520 HEAT PUMP                       0.15    1     15    2.5  3320.594  1.2512  0.4 0.18605 0.289265
A    1530 NATURAL GAS                     0.25    1     20     20  415.0743 0.260667 0.05 0.03876 0.060264
A    1540 OTHER OR NONE                   0.35    1     15  1E+77   8.3E-74  7.3E-77 1E-77 1.1E-77 1.69E-77
*         Summary Check                    1                3.5E+76          6.7252 0.3225    1   1.5548
*
#   End of End Use

*
*          Next End Use = Building Envelope
*
E       1 End Use Code                          EU                          BE
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                         1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                     1
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                     0     0.261 <==Cum Sat
E       5 Total Kwh (G7*E4)                     EUGWH                          0  43.88193 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                        0
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                      0     0.261 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                          0  10.14507 <==Cum Mw-D
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel          Tot_E        ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff   E/Cust   Gwh   1/Rf OF TOT    MWD
*
A    2010 ROOF  INSULATION   R < 10.53     0.9    1     20      1     0      0     0     0     0
A    2020 ROOF INSULATION R >= 10.53       0.1    1     20      1     0      0     0     0     0
*         Summary Check                    1
*
* Wall Insulation in New Construction Only.
*
A    2030 WALL  INSULATION R=5.26          1      0     20      1     0      0     0     0     0
A    2040 WALL INSULATION R=11.76          0      0     20      1     0      0     0     0     0
*         Summary Check                    1
*
A    2050 WINDOWS W/OUT FILM               0.6    1     10      1     0      0     0     0     0
A    2060 WINDOWS W/FILM                   0.4    1     10      1     0      0     0     0     0
*         Summary Check                    1
*
* Spectrally Selective Glazing
* Set Avl Frac to 0 so no savings on existing structures
A    2070 WINDOWS W/O SPECTRALLY SELEC G   1      0     20      1     0      0     0     0     0
A    2080 WINDOWS W/ SPECTRALLY SELEC GL   0      0     20      1     0      0     0     0     0
*         Summary Check                    1
*
A    2090 DARK ROOFS                       0.9    1     20      1     0      0     0     0     0
A    2100 LIGHT ROOFS                      0.1    1     20      1     0      0     0     0     0
*         Summary Check                    1
*
#   End of End Use

*
*          Next End Use = Ventilation
*
```

COMMERCIAL MARKET SEGMENT "MISCELLANEOUS"

```
E       1 End Use Code                          EU                          VN
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                       1
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                   0
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                 0.074     0.335 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                    12.44162  56.32355 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                  4952.874
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                  0.074     0.335 <==Cum Sat
E       8 Total MW-D Used by This End Use       EUMWD                    2.87638  13.02145 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE  APRE   APEPC  APGWH  APOOR  APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
* VENTILATION SYSTEMS
*
A   3010 VENTS IN CHILLERS                0.35      1     20      1 4952.874 4.354567      1   0.35 1.006733
A   3020 VENTS IN DX UNITS                0.65      1     15      1 4952.874 8.087053      1   0.65 1.869647
*        Summary Check                                              12.44162      1      1  2.87638
*
* DUCT LEAKAGE
*
A   3030 STANDARD DUCT SYSTEM - DX        0.95      1     15      1 4952.874 11.81954      1   0.95 2.732561
A   3040 LEAK FREE DUCT SYSTEM - DX        0.05      1     15      1 4952.874 0.622081      1   0.05 0.143819
*        Summary Check                       1                    1          12.44162      1      1  2.87638
*
*VARIABLE AIR VOLUME CONTROL
*
A   3050 CHILLER W/OUT VAV                 0.8      1     20      1 2476.437 4.976648      1    0.4 1.150552
A   3060 CHILLER W/ VAV                    0.2      1     20      1 2476.437 1.244162      1    0.1 0.287638
A   3070 DX AC W/OUT VAV                   0.9      1     15      1 2476.437 5.598729      1   0.45 1.294371
A   3080 DX AC W/ VAV                      0.1      1     15      1 2476.437 0.622081      1   0.05 0.143819
*        Summary Check                       2                    2          12.44162      2      1  2.87638
*
* ADJUSTABLE SPEED DRIVES
*
A   3090 CHILLER VAV SYSTEMS W/OUT ASD    0.95      1     15      1 2476.437 5.909769      1  0.475 1.366281
A   3100 CHILLER VAV SYSTEMS W/ ASD        0.05      1     15      1 2476.437  0.31104      1  0.025  0.07191
A   3110 DX VAV SYSTEMS W/OUT ASD          0.95      1     15      1 2476.437 5.909769      1  0.475 1.366281
A   3120 DX VAV SYSTEMS W/ ASD             0.05      1     15      1 2476.437  0.31104      1  0.025  0.07191
*        Summary Check                       2                    2          12.44162      2      1  2.87638
*
* TIMED VENTILATION
*
A   3130 CHILLER VENT W/OUT TIMER          0.6      1     10      1 2476.437 3.732486      1    0.3 0.862914
A   3140 CHILLER VENT W/ TIMER              0.4      1     10      1 2476.437 2.488324      1    0.2 0.575276
A   3150 DX VENT W/OUT TIMER                0.6      1     20      1 2476.437 3.732486      1    0.3 0.862914
A   3160 DX VENT W/ TIMER                   0.4      1     20      1 2476.437 2.488324      1    0.2 0.575276
*        Summary Check                       2                    2          12.44162      2      1  2.87638
*
* MOTOR EFFICIENCY
*
A   3170 CHILLER W/LO EFF MOTORS           0.95      1     20      1 2476.437 5.909769      1  0.475 1.366281
A   3180 CHILLER W/HI EFF MOTORS           0.05      1     20      1 2476.437  0.31104      1  0.025  0.07191
A   3190 DX UNIT W/LO EFF MOTORS           0.95      1     15      1 2476.437 5.909769      1  0.475 1.366281
A   3200 DX UNIT W/HI EFF MOTORS           0.05      1     15      1 2476.437  0.31104      1  0.025  0.07191
*        Summary Check                       2                    2          12.44162      2      1  2.87638
*
* MAKE-UP AIR FOR EXHAUST HOODS
*
A   3210 EXH HD W/O MAKEUP - CHILLER      1E-99      0     10      1  5E+102 12.44162      1      1 2.87638
A   3220 EXH HD W/ MAKEUP - CHILLER          0      0     10      1  5E+102       0      1      0       0
A   3230 NO EXH HOOD  - CHILLER              0      0     10      1  5E+102       0      1      0       0
A   3240 EXH HD W/O MAKEUP - DX              0      0     10      1  5E+102       0      1      0       0
A   3250 EXH HD W/ MAKEUP - DX               0      0     10      1  5E+102       0      1      0       0
A   3260 NO EXH HOOD  - DX                   0      0     10      1  5E+102       0      1      0       0
*        Summary Check                       0                    0          12.44162  1E-99      0       0
*
#   End of End Use

*        Next End Use = Lighting
*
E       1 End Use Code                          EU                          LT
E       2 Duty Cycle-LF when Operating/Open     EUOPLF                       0.9
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                  0.25
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                 0.218     0.553 <==Cum Sat
E       5 Total GWh (G7*E4)                     EUGWH                    36.65234  92.97589 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                  14590.9
```

COMMERCIAL MARKET SEGMENT "MISCELLANEOUS"

E	7	Frac of Mkt Seg MW-D used by this End U	EUMWDFR				0.218	0.553	<==Cum Sat		
E	8	Total MW-D Used by This End Use	EUMWD				8.47366	21.49511	<==Cum Mw-D		
*		Below, use Av Life of System (not bulb)									
*	APID	APLAB	APSAT	APAVF	APLIFE	APRE	APEPC	APGWH	APOOR	APEFR	APMWD
*	Ap		Mkt	Avl	Avg	Rel	E/Cust	Tot_E		ENRG F	Tot_D
*	Id	DESCRIPTION	Sat	Fac	Life	Eff	kWh	gWh	1/Rf	OF TOT	MWd
*											
* GENERAL LIGHTING											
*											
A	4010	QUARTZ	0.002	1	15	0.28	44085.33	0.221485	3.57143	0.00604	0.051205
A	4020	INCANDESCENT	0.044	1	15	0.24	51432.89	5.684774	4.16667	0.1551	1.314264
A	4030	FLUORESCENT	0.839	1	15	1	12343.89	26.01559	1	0.70979	6.014549
A	4040	MERCURY VAPOR	0.084	1	15	0.68	18152.78	3.830383	1.47059	0.10451	0.885547
A	4050	METAL HALIDE	0.011	1	15	1.03	11984.36	0.331152	0.97087	0.00903	0.076559
A	4060	HIGH PRESSURE SODIUM	0.02	1	15	1.09	11324.67	0.568952	0.91743	0.01552	0.131536
A	4070	LOW PRESSURE SODIUM	0	1	15	1.56	7912.752	0	0.64103	0	0
A	4080	COMPACT FLUORESCENT	0	1	15	0.88	14027.15	0	1.13636	0	0
*		Summary Check	1			0.94037		36.65234	1.18203	1	8.47366
*											
A	4085	MERCURY VAPOR & HPS	0.104	1	15	0.75885	16266.66	4.249633	1.31779	0.11594	0.982473
*											
* SPECIFIC LIGHTING END USES											
*											
* FOUR FOOT FLUORESCENT LAMPS											
*											
A	4090	4'-40 W STANDARD LAMPS	0.659	1	15	1	18998.57	24.15389	1	0.85807	5.584142
A	4100	4'-34 W EE LAMPS	0.109	1	15	1	18998.57	3.995105	1	0.14193	0.923629
*		Summary Check	0.768			0.768		28.149	0.768	1	6.507771
*											
A	4110	4'-34 W/ HYBRID BAL #1	1E-99	1	15	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4115	4'-34 W/ HYBRID BAL #2	0	1	15	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
A	4110	4'-34 W/ ELECTRONIC BAL #1	1E-99	1	15	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4125	4'-34 W/ ELECTRONIC BAL #2	0	1	15	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
* EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4130	8' - 75W STANDARD LAMPS	0.104	1	13	1	116727.2	3.811843	1	0.832	0.881261
A	4140	8' - 60W EE LAMPS	0.021	1	14	1	116727.2	0.769699	1	0.168	0.177947
*		Summary Check	0.125			0.125		4.581543	0.125	1	1.059208
*											
A	4150	8' - 60W FL W/ELEC BAL #1	1E-99	1	15	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4160	8' - 60W FL W/ELEC BAL #2	0	1	15	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
* T8 FOUR FOOT FLUORESCENT LAMPS											
*											
A	4170	T8 LAMPS/ELEC BALLAST #1	1E-99	1	15	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4180	T8 LAMPS/ELEC BALLAST #2	0	1	15	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4190	REF/DE-L FL: 4'-40W, ELEC B	1E-99	1	13	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4200	REF/DE-L FL: 4'-34&40W, ELEC B	0	1	13	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											
*											
A	4210	REF/DE-L FL: 8'-75W, ELEC B	1E-99	1	13	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4220	REF/DE-L FL: 8'-60W, ELEC B	0	1	13	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
* REFLECTORS AND DELAMPING -- FOUR FOOT FLUORESCENT LAMPS											
*											
A	4230	REF/DE-L FL: 4'-34&40W, HYBRID B #1	1E-99	1	15	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4240	REF/DE-L FL: 4'-34&40W, HYBRID B #2	0	1	15	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
A	4250	REF/DE-L FL: 4'-34&40W, ELEC B #1	1E-99	1	15	1	1.5E+103	3.67E-98	1	1	8.47E-99
A	4260	REF/DE-L FL: 4'-34&40W, ELEC B #2	0	1	15	1	1.5E+103	0	1	0	0
*		Summary Check	1E-99			1E-99		3.67E-98	1E-99	1	8.47E-99
*											
* REFLECTORS AND DELAMPING -- EIGHT FOOT FLUORESCENT LAMPS											

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*
A    4270 REF/DE-L FL: 8'-60W, ELEC BAL #1      1E-99    1    15     1 1.5E+103 3.67E-98     1     1 8.47E-99
A    4280 REF/DE-L FL: 8'-60W, ELEC BAL #2          0    1    15     1 1.5E+103        0     1     0        0
*         Summary Check                         1E-99               1E-99          3.67E-98 1E-99     1 8.47E-99
*
* DIMMING BALLASTS
*
A    4290 4' - 34W FL/DIMMING BALLASTS #1       1E-99    1    15     1 1.5E+103 3.67E-98     1     1 8.47E-99
A    4300 4' - 34W FL/DIMMING BALLASTS #2           0    1    15     1 1.5E+103        0     1     0        0
*         Summary Check                         1E-99               1E-99          3.67E-98 1E-99     1 8.47E-99
*
* HIGH INTENSITY DISCHARGE LAMPS
*
A    4310 MERCURY VAPOR (100/175/250/400)       0.037    1    15     1 394348.6 1.356137     1     1 0.313525
A    4320 HPS (70/100/150/250W)                     0    1    15     1 394348.6        0     1     0        0
A    4330 HPS (70/100/150/250W), ELEC BAL           0    1    15     1 394348.6        0     1     0        0
*         Summary Check                         0.037               0.037          1.356137 0.037     1 0.313525
*
A    4340 INCANDESCENT (150W)                  0.0054    1    10     1 2702018 0.197923     1     1 0.045758
A    4350 HPS (35W)                                 0    1    10     1 2702018        0     1     0        0
A    4360 METAL HALIDE (32W)                        0    1    10     1 2702018        0     1     0        0
*         Summary Check                        0.0054               0.0054         0.197923 0.0054    1 0.045758
*
* COMPACT FLUORESCENT LAMPS
*
A    4370 INCANDESCENT (60/75/100W)             0.018    1     7     1 810605.5 0.659742     1     1 0.152526
A    4380 COMPACT FL (15/18/27W)                    0    1     7     1 810605.5        0     1     0        0
*         Summary Check                         0.018               0.018          0.659742 0.018     1 0.152526
*
A    4390 INCANDESCENT (150W)                  0.0041    1     7     1 3558756 0.150275     1     1 0.034742
A    4400 TWO COMPACT FL LAMPS (18W)                0    1     7     1 3558756        0     1     0        0
*         Summary Check                        0.0041               0.0041         0.150275 0.0041    1 0.034742
*
* OTHER LIGHTING MEASURES
*
A    4410 ENERGY MANAGEMENT SYSTEM              0.02    1    15     1 14590.9 0.733047     1 0.73305 6.211589
A    4420 OCCUPANCY SENSORS                         0    1    15     1 14590.9        0     1     0        0
A    4430 DAYLIGHTING DESIGN                        0    1    15     1 14590.9        0     1     0        0
A    4440 PHOTOELECTRIC CONTROL                  0.35    1    15     1 14590.9 12.82832     1 12.8283 108.7028
A    4450 LPS SECURITY LIGHTS                       0    1    15     1 14590.9        0     1     0        0
*
#    End of End Use
*
*
*         Next End Use = Refrigeration
*
E       1 End Use Code                         EU                          RF
E       2 Duty Cycle-LF when Operating/Open    EUOPLF                        0.75
E       3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                    0.7
E       4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                  0.019     0.572 <==Cum Sat
E       5 Total GWh (G7*E4)                    EUGWH                      3.19447  96.17036 <==Cum Gwh
E       6 Average Kwh Use Per Customer (E5/G2) EUKWHPC                   1271.684
E       7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                   0.019     0.572 <==Cum Sat
E       8 Total MW-D Used by This End Use      EUMWD                     0.73853  22.23364 <==Cum Mw-D
*  APID  APLAB                            APSAT  APAVF  APLIFE   APRE   APEPC  APGWH APOOR  APEFR  APMWD
*    Ap                                     Mkt    Avl    Avg    Rel   E/Cust  Tot_E         ENRG F  Tot_D
*    Id DESCRIPTION                         Sat    Fac   Life    Eff    Kwh    Gwh   1/Rf OF TOT    MWD
*
A    5010 CONVENTIONAL REFRIGERATION          0.9    1    10     1 1301.724 2.942937     1 0.92126 0.680378
A    5020 HE REFRIGERATION                    0.1    1    10   1.3 1001.326 0.251533 0.76923 0.07874 0.058152
*         Summary Check                         1               1.03          3.19447 0.97692     1 0.73853
*
A    5030 MULTIPLEX:  AIR COOL                  0    1    10     1       0       0     0     0     0
A    5040 MULTIPLEX:  AIR COOL/ AMB SUBC        0    1    10     1       0       0     0     0     0
A    5050 MULTIPLEX:  AIR COOL/ MECH SUBC       0    1    10     1       0       0     0     0     0
A    5060 MULTIPLEX:  AIR COOL/AMB&MECH S       0    1    10     1       0       0     0     0     0
A    5070 MULTIPLEX:  AIR COOL/EXT LIQ SUCT     0    1    10     1       0       0     0     0     0
A    5080 OPEN DRIVE REFRIG (ASD)               0    1    10     1       0       0     0     0     0
A    5090 ANTI-CONDENS HEAT CONTROL             0    1    10     1       0       0     0     0     0
A    5100 HI R-VALUE GLASS DOORS                0    1    10     1       0       0     0     0     0
A    5110 ENERGY MANAGEMENT SYSTEM              0    1    10     1       0       0     0     0     0
A    5120 DUAL PATH SUPERMARKET AC              0    1    10     1       0       0     0     0     0
*
#    End of End Use
*
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COMMERCIAL MARKET SEGMENT "MISCELLANEOUS"

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*          Next End Use = Water Heating
*
E      1 End Use Code                          EU                                WH
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                          0.01
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.022     0.594 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                             3.69886  99.86922 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                          1472.476
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.022     0.594 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                             0.85514  23.08878 <==Cum Mw-D
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf  OF TOT    MWD
*
A  6010 RESISTANCE                        0.6      1     15      1 2454.127 3.69886      1       1  0.85514
A  6020 HEAT RECOVERY                       0      1     15    100 24.54127      0   0.01       0      0
A  6030 SOLAR                               0      1     20      3 818.0423      0 0.33333       0      0
A  6040 NATURAL GAS                       0.4      1     10  1E+77 2.45E-74 2.47E-77  1E-77 6.7E-78 5.7E-78
*          Summary Check                    1                 4E+76          3.69886    0.6       1  0.85514
*
A  6050 HIGH INSULATION LEVEL             0.2      1     10      1      0      0      0       0      0
A  6060 HEAT TRAP                        0.15      1     10      1      0      0      0       0      0
A  6070 LOW-FLOW SHOWERHEAD               0.1      1     10      1      0      0      0       0      0
A  6080 TIMER ON RECIRCULATION PUMP       0.6      1     10      1      0      0      0       0      0
*
#  End of End Use

*
*          Next End Use = Cooking
*
E      1 End Use Code                          EU                                CK
E      2 Duty Cycle-LF when Operating/Open     EUOPLF                              0.1
E      3 Duty Cycle-LF when Not Operating/Closed EUNOOPLF                            0
E      4 Frac of Mkt Seg Kwh used by this End Use EUGWHFR                          0.015     0.609 <==Cum Sat
E      5 Total GWh (G7*E4)                     EUGWH                             2.52195 102.3912 <==Cum Gwh
E      6 Average Kwh Use Per Customer (E5/G2)  EUKWHPC                          1003.961
E      7 Frac of Mkt Seg MW-D used by this End U EUMWDFR                           0.015     0.609 <==Cum Sat
E      8 Total MW-D Used by This End Use       EUMWD                             0.58305 23.67183 <==Cum Mw-D
*
* Relative eff of cooking is adjusted for relative usage per below table
*                                            Rel     %     Adj
*                                            eff   Use      RE
*          Conventional electric               1     0.1     10
*          Convection Oven                 1.154       0  1E+77
*          Conventional Gas                1E+77       0  1E+77
*          Microwave                           4     0.9 4.44444
*          Standard Efficiency Fryers          1       0  1E+77
*          High Efficiency Fryers            1.1       0  1E+77
*          Natural Gas Fryers              1E+77       0  1E+77
*
*  APID  APLAB                          APSAT  APAVF  APLIFE   APRE   APEPC  APGWH  APOOR   APEFR  APMWD
*    Ap                                   Mkt    Avl    Avg    Rel   E/Cust  Tot_E          ENRG F  Tot_D
*    Id DESCRIPTION                       Sat    Fac   Life    Eff    Kwh    Gwh    1/Rf  OF TOT    MWD
*
A  7010 CONVENTIONAL ELECTRIC             0.7      1     15     10 1434.23 2.52195    0.1       1  0.58305
A  7020 CONVECTION OVEN                     0      1     15  1E+77 1.43E-73      0  1E-77       0      0
A  7030 CONVENTIONAL GAS                  0.3      1     15  1E+77 1.43E-73 1.08E-76  1E-77 4.3E-77 2.5E-77
A  7040 MICROWAVE                           0      1     15 4.44444 3227.017      0  0.225       0      0
A  7050 STD EFFICIENCY FRYERS               0      1     15  1E+77 1.43E-73      0  1E-77       0      0
A  7060 HE FRYERS                           0      1     20  1E+77 1.43E-73      0  1E-77       0      0
A  7070 NATURAL GAS FRYERS                  0      1     10  1E+77 1.43E-73      0  1E-77       0      0
*          Summary Check                    1                 3E+76          2.52195   0.07       1  0.58305
*
#  End of End Use
```