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PG&E Residential Summer Use Analysis

Prepared for: PG&E

Final Report Summer 1990

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SUMMARY

This analysis provides a profile of PG&E customers that are potential participants in various rebate programs. This analysis is not normalized to standard weather conditions. It does not estimate the effects of seasonal variations in non-AC end uses.

The summer seasonal use profile for PG&E's residential customers is shown in Table A.

Table A. Potential PG&E Markets by Average Summer Seasonal kWh Use				
Summer Seasonal Use (kWh)	Total Service Area	Zone 11	Zone 12	Zone 13
2000	377,276	78,391	86,906	142,396
2500	251,027	56,665	54,903	96,594
3000	163,242	40,517	34,058	61 , 36 2
3500	105,990	29,066	20,846	38,462
4000	70,170	21,433	13,621	23,488
5000	32,296	11,620	6,624	9,385

METHODOLOGY

This information is from a drawn from a sample of all of PG&E's residential accounts. Five percent of all residential accounts with over 850 kWh in either July, August, or September were randomly selected. This resulted in a data base of 34,485 units. The analysis then excluded units with any single month that had less than 100 kWh or that had over 20% difference between their Fall and Spring base use. This reduced the sample to 23,499 units.

The base use was calculated as an average daily use from the minimum Spring and Fall months. The total summer use was calculated as the sum of May through October meter readings. The 1990 summer seasonal use was computed as the total summer use minus the base use for those months. This number contains all the seasonal electrical use for these households including air conditioning, any change in swimming pool electrical use, and any change in refrigerator use. The AC use is the largest portion of this figure. This number is not normalized to standard weather conditions. The information is strictly accurate for the summer of 1990.

Figure 1 shows the estimated total number of system households that have summer seasonal use equal to or higher than the kWh on the left hand scale. For example, 141,809 houses have summer seasonal use greater than 2000 kWh.





From the same data the average use for groups of customers is calculated. Accounts with use in excess of 20,000 kwh summer seasonal use were excluded since the are unlikely to represent "normal" residences. Figure 2 shows total market for any targeted average summer seasonal use. For example, the market size for targeted residences that would produce an average summer seasonal use of 2,500 kWh is 251,027.

Figure 2 - PG&E MARKET POTENTIAL FOR TARGETED AVERAGE SUMMER SEASONAL USE



Group average summer kWh above base

Figure 2. Average summer seasonal use for sample AC rebated customers

Groups of customers from CEC weather zones were analyzed. These groups were Zones 11, 12, and 13.