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PG&E Residential AC Rebate Analysis

Prepared for:
PG&E

Preliminary Data
1990 Activity

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Creators of CheckMe!®



SUMMARY

This preliminary analysis provides an initial look at the customers who participated in the 1990 high efficiency air conditioner rebate program. This analysis is not normalized to standard weather conditions, or corrected for other end uses with summer seasonal use patterns. The summer seasonal use for these customers is shown in Table A.

| Table A. Average kWh use for Rebated Customers | | | | |
|---|-------------------------|--------------------------|--------------------------------|--------------------------------|
| | Number in Sample | Average for group | Average for top 50%-ile | Average for top 25%-ile |
| Zones 11 and 13 | 14 | 2181 | 2968 | 3712 |
| Zone 12 | 16 | 821 | 1193 | 1437 |
| All other zones | 84 | 460 | 829 | 1159 |
| All customers | 114 | 722 | 1288 | 1904 |

INTRODUCTION

This analysis is based on preliminary data from Electric and Gas Industries Association (EGIA) and should not be interpreted as a comprehensive analysis. With additional access to EGIA's computer files such a comprehensive analysis could be completed. This analysis would give useful information about rebated system sizing (which has a substantial effect on peak use) as well as a thorough use characterization of the participating households.

METHODOLOGY

This information is from a drawn from a complete listing of the 1,111 rebated high efficiency air conditioners from 1990. A random sample of 278 units was drawn. The most recent utility use data (May 1990 to June 1991) for this sample was captured from the PG&E database. The units that had no clearly defined base use or had less than 12 months of data were excluded. This reduced the sample to 114 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 September 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.

Time did not allow capture of complete data for the period preceding the installation of the new high efficiency air conditioner. For this reason the actual pre retrofit use is likely to exceed the calculated use.

This number is not normalized to standard weather conditions. The information is strictly accurate for the summer of 1990.

Figure 1 shows the percentage of units that have summer seasonal use equal to or higher than the kWh on the left hand scale. For example, fifty percent of the houses in the sample had summer seasonal use greater than 429 kWh.

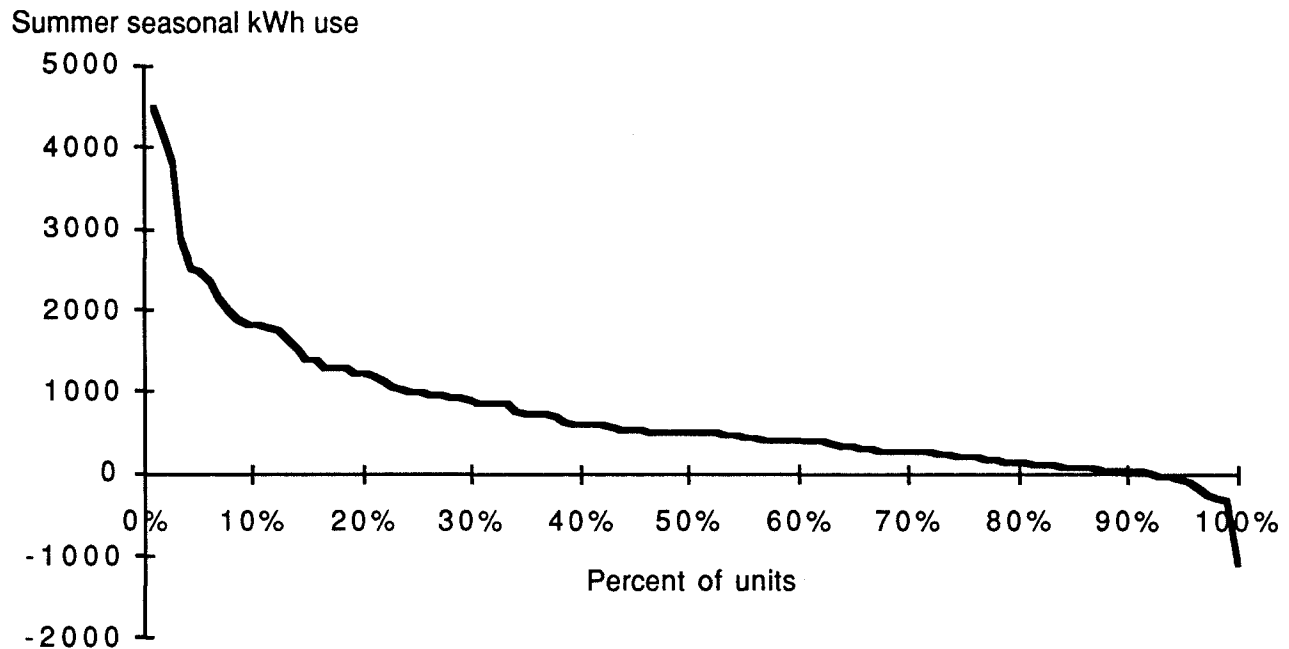


Figure 1. Summer seasonal use profile for sample of AC rebated customers

From the same data the average use for these customers is calculated. Figure 2 shows the average summer seasonal use for each percentile. For example, the average use of the top 50% of the sample was 1288 kWh.

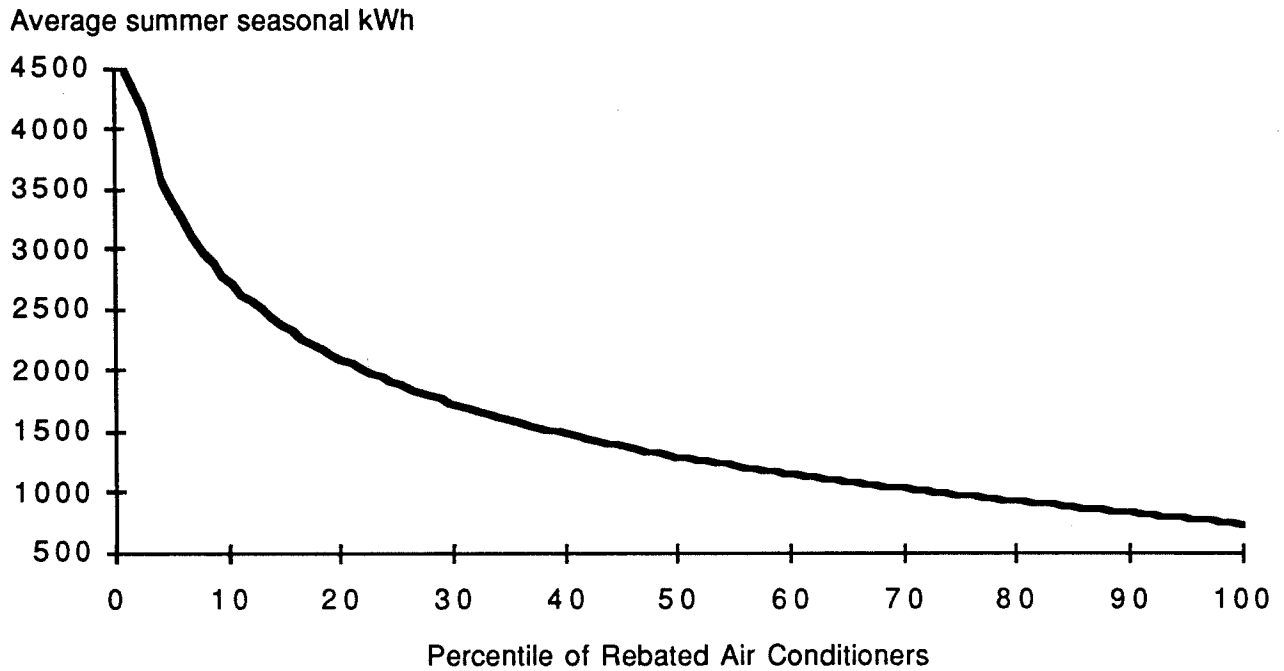


Figure 2. Average summer seasonal use for sample AC rebated customers

Groups of customers from CEC weather zones were analyzed. These groups were Zones 11 &13, 12, and all units outside those three zones. The average summer seasonal use for sample units in those zones is shown in Figure 3.

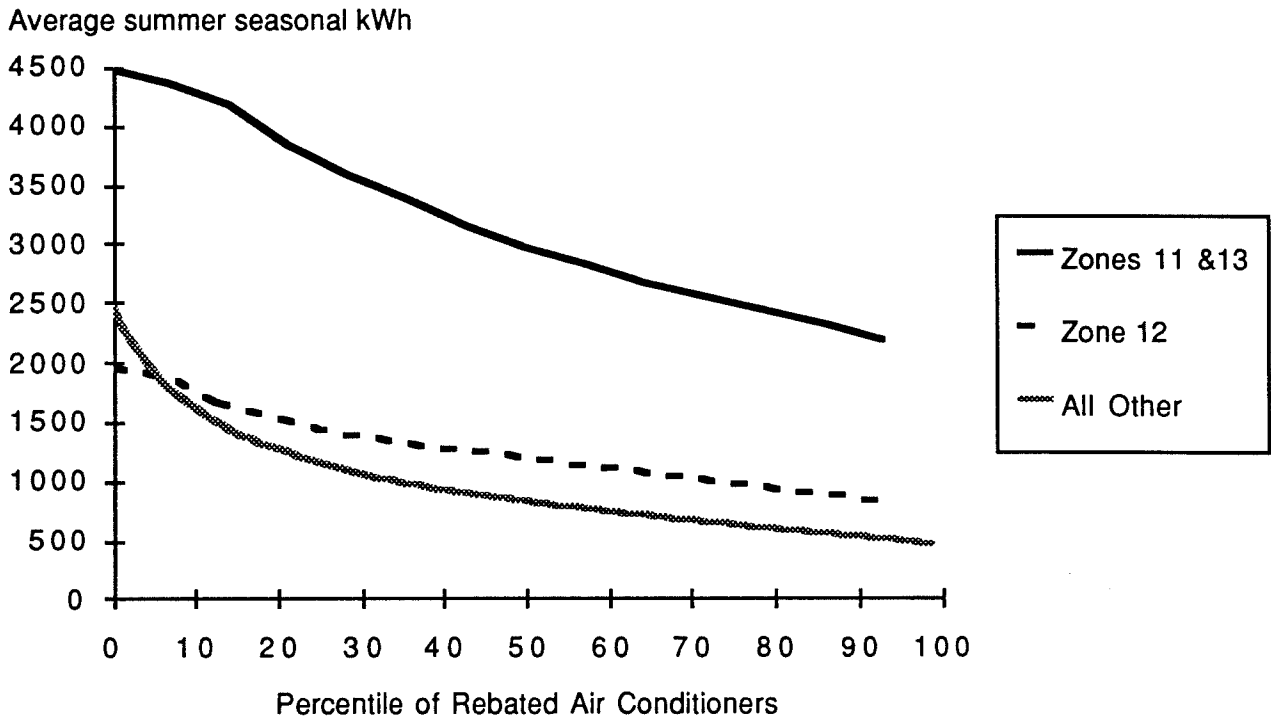


Figure 3. Average summer seasonal use for AC rebated customers by zone